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**Folder ID:** 30159511

**Project ID:** P000812

**Date:** 5/1/1985 – 7/10/1986

**Fonds:** Records of the Africa Regional Vice Presidency

**ISAD Reference Code:** WB IBRD/IDA AFR

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National Health Project - The Gambia - Credit 1760 - P000812 - Reports

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PROJECT OUTLINE

4/8/85

MINISTRY OF HEALTH, LABOUR AND SOCIAL WELFARE  
HOSPITAL DEVELOPMENT PROGRAMME

S U M M A R Y

This document sets out the rationale for the modest programme of developments to the two Government general hospitals in The Gambia. While the overall strategy gives priority to the extension of Primary Health Care services, because the complementary relationship between primary and referral care is recognised, it is considered essential to improve the present inadequate hospital facilities. The specific schemes now proposed represent in each case the initial phase of Master Plans for the development of each hospital, which are in turn consonant with overall policies for the role of hospitals in the context of health sector development. The principal component of the scheme at the Royal Victoria Hospital, Banjul, is the reprovision of mains engineering services and the consequential refurbishment of existing wards. At Bansang, the main item is additional accommodation to relieve the present dire shortage of space for maternity and paediatric patients. It has been ascertained that the incremental staffing needs can be met within the period.

Background to the Hospital Master Plans

The present proposals for the development of the Royal Victoria Hospital, Banjul, and Bansang Hospital, stem from the work of a planning group established in May 1983. From the outset, the group intended to produce a master plan for each site, foreshadowing developments up to the year 2000, reasoning that, since for financial and other reasons, development would inevitably take place by

instalments, it was important to have an overall structure into which each individual scheme could fit consistently with the ultimate design. What distinguishes the present proposals from earlier schemes derived from a long-term sketch outline plan is that the physical planning has been placed firmly in the context of the overall sectoral development plan.

The planning group approached its work in stages, the first culminating in the publication of a "Statement of Hospital Development Policies". The second stage involved the refinement of the medical service planning for each hospital, within the framework of the statement of policies. The third stage entailed determining the schedule of accommodation required to sustain the planned medical services, and comparing this with the schedule of available accommodation to identify deficiencies. The fourth stage was to have consisted of sketch designs embodying alternative layouts of the existing and incremental accommodation, together with estimates of the costs of works required. In point of fact, owing to the limited availability of architectural resources, the fourth stage has been abbreviated, and the cost estimates are derived from the schedules of accommodation (as is common practice at the preliminary planning stage).

In deciding the scale of ultimate development, and in its selection of early priorities, the planning group adopted as the criterion not the need of the population for services (which was assumed to be vast), but rather the much more modest determinant of what the publicly-financed health sector could afford to staff and run, in the light of overall sectoral priorities and prospective resources.

between general and specialist units and between the two general hospitals, it was determined that there would be the capacity to operate around 150 additional general hospital beds by the year 2000.

The initial allocation of this additional capacity gave a further 70-80 beds to Bansang Hospital, on the grounds that:-

- ( i ) there was a manifest imbalance between the eastern and western parts of the country;
- ✓ (ii) there was gross overcrowding at Bansang Hospital (particularly in the female ward); and

(iii) that with an existing complement of only 72 beds there was a severe imbalance between the medical service departments (and the ancillary services), and the number of beds. By expanding bed numbers to a total of 150-160, it was intended to create a better balanced hospital unit, able to provide referral services in all but the most specialised cases to the eastern half of the country.

The remaining beds were eventually allocated to the Royal Victoria Hospital, although alternative allocations to a third hospital, or to a series of "mini-hospitals" were also considered. All the figures quoted above reflect capacity by the year 2000; it was understood that because of staffing and budgetary constraints the target level could only be approached by stages.

The keynote of the policy statement is its emphasis on the need to restrain the growth of hospitals in order to permit a relatively faster rate of growth of primary care services. At the same time, it is hoped and intended that, by a combination of judicious investment and improved management, the productivity of hospitals can be raised so that the growth of service outputs will outstrip the modest increase of resource inputs,

#### Royal Victoria Hospital, Banjul

From this point on, it is appropriate to treat the two hospitals separately. The detailed planning of medical services at R V H culminated in a "Statement of Need" summarising the prospective growth of medical services and support departments up to the year 2000. The statement begins by recalling the role of the R V H:- The Royal Victoria Hospital, Banjul, will continue to function as the national referral hospital. It will represent the major concentration of specialist facilities in the country, and will take referred patients not only from the western half but in appropriate cases from Bansang Hospital and the eastern part of the country.

However, it is not envisaged that there will be a great addition to capacity beyond the present 283 beds at R V H; the planning target for the year 2000 is 360 beds (excluding those at satellite units).

In order to permit R V H to concentrate on its role as a specialist referral centre, it has been decided that, once alternative first-line services are available in the form of urban health centres, general outpatient services will be discontinued at R V H, and consultant clinics will be held for referred patients only.

In addition to its key role at the apex of the referral pyramid, R V H will continue to provide other critical services to the health care system as a whole. It will continue to be the main centre for the pre-registration training of medical and dental officers, the practical training of registered nurses and midwives, the basic training of all types of technicians, and refresher training for all categories of staff. Although enrolled nurse training will eventually be transferred to Bansang, it is anticipated that enrolled nurses in training will be attached on rotation to R V H departments. The senior medical staff based at R V H will be expected to take a national view of their responsibilities, and advise on the development of their specialties throughout the country. The diagnostic services of R V H will continue to support outlying units, and R V H will be the principal centre for clinical research.

**Implicit** in this concept of the future role of the hospital is a concern for more adequate performance of tasks already defined, rather than the adoption of new functions. In particular, the proliferation of minor specialties has been resisted.

After a careful review, department by department, of the needs for additional capacity, it was determined that female surgery, (including gynaecology), paediatrics, and ophthalmology should be allocated additional beds. A scheme to reconstruct and expand the maternity unit had already been formulated and adopted before the master planning exercise started; this scheme pre-empted almost half the total additional bed capacity, though without question for a high priority specialty. It has since been found necessary to transfer the Infectious Diseases Hospital (treating mostly tuberculosis cases) to the R V H site.



Of the medical service units, it was determined that only limited development of pathology and radiology was needed, but the theatre suite and associated facilities needed to be totally re-provided. In the light of the decision to transfer general outpatient services to an adjacent urban health centre, the opportunity will arise to reorganise the accommodation for consultant clinics, and for a casualty department which does not yet exist. The physiotherapy department needs more spacious and appropriate accommodation than it now occupies.

The kitchen, laundry and workshops are not thought to need major redevelopment, but some re-equipment and reorganisation will be required.

The major, and **long-recognised**, deficiency of the present hospital is the very poor condition of its engineering services (water, electricity, sewerage and drainage). These services have now deteriorated to the point where minimal standards of safety and hygiene have been flouted. While the urgent need to repair these gross deficiencies was long recognised, it was also understood that until the future type and location of demand for these services had been worked out, it would not be possible to plan their reprovision. Hence the Master Plan exercise was seen as pre-requisite to the essential programme of re-wiring and re-plumbing the entire hospital site. Another deterrent to action was that it was recognised that much of the accommodation attached to these services (toilets, showers, sluices) needed to be expanded and remodelled. It was logical that the two needs should be combined in one programme of work, especially as the rewiring and re-plumbing would inevitably cause great disruption to the fabric of existing buildings. Although consultancy services are now needed to plan in detail for this complex undertaking, the master planning exercise has clarified the service requirement, and cost estimates have been obtained for the two components.

While it is difficult to assign dates to future steps in implementation of the Master Plan, the probable sequence of developments can be discerned:-

- ( i ) Reconstruction of Maternity unit 1984-85, a major scheme financed by the UK Government;
- (ii) Transfer of the SEN School to new accommodation, 1985, and re-use of accommodation for ophthalmology, a minor scheme financed by Christian Eye Ministry and the Royal Commonwealth Society for the Blind. Construction of a residence for duty medical staff, financed by Gambia Government;
- (iii) Reprovision of engineering services (electricity, water, sewerage and drainage), and associated refurbishment of existing wards: relocation of Infectious Diseases Hospital;
- (iv) New operating theatre suite with CSSD/TSSU, nurse changing facilities, new or additional accommodation for pathology, dentistry and physiotherapy; relocation of administration.
- ( v ) Additional paediatric beds, closure of general outpatient services and remodelling of accommodation;
- (vi) Additional ward for female surgery/gynaecology

From item (iii) onwards, the sources of funds for developments have yet to be identified. The critical next step is the relatively large and intrinsically indivisible capital investment in new engineering services; though unglamorous, this project is essential not merely to the future expansion of the hospital, but even to the maintenance of present services. It is both feasible and necessary to complete this project within the next four years.

Bansang Hospital

A Statement of Need prepared for Bansang Hospital begins with a recapitulation of its role: Bansang Hospital will be developed to a level slightly below the R V H. There will be clinical specialist departments in general medicine, general surgery, obstetrics and paediatrics. The present bed complement of 72 is quite insufficient, and the planning target for the year 2000 is 150 beds. At full development, Bansang Hospital will be able to provide a good referral service to the eastern half of the country, and will need to transfer only a small percentage of patients to R V H. The Statement goes on to review the location and site of the hospital, and concludes that it is appropriate to undertake development on the present site.

It is envisaged that the total capacity of the hospital, expressed in proxy units of bed numbers, will more than double over the planning period to the year 2000. The ultimate development will provide around 35 beds in each of the four main specialties, plus a further 10 beds in a multi-purpose isolation block. The contrast with the present position lies not only in total bed numbers, but also in their distribution. The historic endowment of beds at Bansang is divided by sex: a male ward and a female ward, each of around 35 beds. The greatest pressure is experienced in the female ward, because it also accommodates obstetric and paediatric cases. The problems in the present situation can therefore be characterised as

- ( i ) an absolute deficiency of beds, relative to the need for hospital care arising in the eastern half of the country;

- (ii) an internal imbalance between the capacity of medical service and domestic department, and the small number of beds;
- (iii) an imbalance in the distribution of beds between categories of patients.

All of these problems will be eased by the proposal which is the key point of the first phase redevelopment: the rehabilitation and conversion of the existing (but unused) paediatric ward into a combined obstetric and paediatric unit with a total of 40 beds. This would allow the present main ward block to be re-partitioned on the basis of specialty, putting all surgical patients on the ground floor (on the same level as X-ray and operating theatres), and all medical patients on the upper floor. A minor scheme consequential on this reallocation is the provision of additional **toilets and showers** on each floor. At a later stage in the redevelopment, it is envisaged that a new ward will be built, for either paediatrics or obstetrics, and the combined ward will be applied exclusively to the alternate specialty at that stage.

Of the medical service departments, the view was taken that with the exception of outpatient services, the other departments would be adequate through the planning period with relatively minor alterations. There is a need for improved operating theatre facilities, and the spatial planning of the site will allow for their eventual total reprovision, but within the present planning period it is felt that alterations to provide ancillary accommodation to the present suite will suffice. Minor extensions are also required to X-ray and laboratory facilities, space for which would be made available in the context of the remodelling of the outpatient services. There is a need for the provision of accommodation for ante-natal and child welfare clinics, and for the dental department.

./...

The domestic departments are well provided by a recently completed scheme, financed by a mixture of local funds and grants from the UK Government, to provide a new kitchen, laundry and stores. These departments have a capacity to serve a hospital at least as large as the development now proposed by the year 2000, and no expenditure other than for maintenance and replacement of equipment will be required within this period.

A long-standing problem at Bansang has been the insufficiency of staff housing (particularly for senior staff) and the poor quality of the available stock, as a product of accumulated neglect of routine maintenance. The position has recently improved substantially, partly by the construction of new housing (not specifically for the hospital, but constituting a pool from which the hospital can benefit) and partly by the commencement of a scheme financed by the Gambia Government to rehabilitate existing staff houses. The housing problem, which has hitherto constituted a major impediment to the proper staffing of Bansang Hospital, is therefore beginning to recede.

One other concern which it is proposed to address in the first phase redevelopment is erosion over the hospital site. Surface runoff from the hill behind it has already seriously undermined existing buildings and poses a long term threat to the entire site. It is intended to deal with the threat by a combination of tree planting, construction of surface water drains, and site fencing (to keep out animals which destroy the vegetation cover).

Estimates of costs

The cost estimates given below have been prepared by a consultant architect, working from the schedules of accommodation provided in Phase 3 of the long term hospital planning exercise. The estimates were derived from analysis of the costs of the present contract to extend and rehabilitate the Maternity Unit at R V H. They include allowances for contract preliminaries and contingencies; for furniture and installed equipment; and cost escalation to the reference date of January 1985. However, they do not include the costs of consultants fees and expenses for detailed design and supervision of works.

These estimates relate only to the first phase of redevelopment on each site, programmes which might reasonably be undertaken within the next four years. They are as follows:-

Royal Victoria Hospital, Banjul

1. (a) <u>Reprovision of engineering services</u>	D
Electric wiring	2,920,000
Water supplies and reserve storage	710,000
Surface water drainage )	
Sullage disposal        )	3,800,000
Demolitions, reinstatements and new covered ways	<u>360,000</u>
Sub total	<u>7,790,000</u>
(b) Refurbishment of existing wards	<u>5,069,000</u>
Total	<u>12,859,000</u>
2.       Reprovision of Infectious Diseases Hospital	4,070,000
3.       Reprovision of Outpatient Department, Ante-natal and Child Welfare clinics	3,570,000

Bansang Hospital

D

1. (a)	Rehabilitation and conversion of existing paediatric ward to provide maternity and paediatric wards.	2,054,000
(b)	Reorganization of male and female wards, and additional sanitation	<u>216,000</u>
		<u>2,270,000</u>
2.	Replacement of Dental Department, Outpatient Department and new provision of Ante-Natal and Child Welfare clinics	1,000,000
3.	Alteration and extension of theatre suite	225,000
4.	Rehabilitation of Isolation Ward	181,000
5.	Surface drainage and fencing	80,000
6.	Other works and equipment	<u>1,220,000</u>
	Total	<u>4,976,000</u>

Further Documentation

1. Statement of Hospital Development Policies
2. Statement of Need for Royal Victoria Hospital, Banjul
3. Statement of Need for Bansang Hospital
4. An Appraisal of the Building Requirements for the Upgrading and Extension of Bansang Hospital and the Royal Victoria Hospital, Banjul, The Gambia, by E.H. Riley, September 1984 (This report is the source of the cost estimates used above).

Copies of these reports are available on application.

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Nancy Birdsall		N452
APPROPRIATE DISPOSITION	NOTE AND RETURN	
APPROVAL	NOTE AND SEND ON	
CLEARANCE	PER OUR CONVERSATION	
COMMENT	PER YOUR REQUEST	
FOR ACTION	PREPARE REPLY	
INFORMATION	RECOMMENDATION	
INITIAL	SIGNATURE	
NOTE AND FILE	URGENT	
REMARKS:		
<p>You asked me to return this.</p> <p>Thanks, B.</p>		
FROM: BRUNS	ROOM NO.:	EXTENSION:



To: Ms. Nancy Birdsall, Ms. Barbara Bruns

From: Jae So

Ext: 61634

Date: February 25, 1985

Subject: Recurrent cost financing in the Gambia

The purpose of this exercise is to analyse the recurrent expenditures in the health sector in the Gambia to predict the consequences of the government recurrent expenditure policy. These are the concerns addressed in this memo:

1. The extent to which the Gambian government has been able to meet the recurrent costs of its health sector investments, notably from 1975 to 1982, is analysed. As data on what a health system would cost to run optimally was not available at this time, comparisons were made with recurrent cost expenditures of the health systems in some neighboring countries.

2. Next, this historical data is related to the proposed government investment program in the health sector, in order to determine the feasibility of the program. Specifically, the recurrent costs projected by the World Bank Population, Health, and Nutrition (PHN) project are compared with the recurrent costs projected by the Gambian government.

3. Finally, some questions which would have made this analysis more complete are listed. Collection of the types of data listed in this section might be advisable for a future mission to the Gambia.

#### 1. Historical Data of Recurrent Expenditures in Health Sector

There were several non-financial indications that the government of the Gambia was not able to meet the necessary costs of operating

the existing health system, as recorded during a World Bank mission to Gambia in 1984. For example, the operating fuel costs of the transportation component of the village health care fell so behind the required levels that the number of trips made to villages had to be cut in half during a 1982 study of immunization coverage in the MCH program. In the two hospitals in the Gambia, the Royal Victoria Hospital and the Bansang Hospital, drugs were generally available; however, there were no reserve supplies. In addition, there were critical shortages of non-pharmaceutical items such as blankets, sheets, and dressings. Out of the five sterilization machines at the Royal Victoria Hospital, only one was in working condition. Some of the problems of the acute staffing shortages were caused because of this hospital's large population coverage. It was estimated to serve a large number of non-Gambian patients as well as Gambians. The catchment area was estimated to extend for a 200 mile circumference around the city of Banjul, in which it is located.

In Bansang Hospital a pediatric ward, which had been recently constructed, was deteriorating without ever having been used because of "gross structural defects." In addition, the shortage of staff housing and of the condition of the existing housing was a serious constraint to staffing at this hospital. Isolation facilities for patients suspected of having contagious diseases consisted of an unfurnished area behind the main hospital building where patients were placed on mats on the floor. Because of staff shortages, these patients had to be attended to and fed by their families, who camped out near the hospital grounds.

#### Assumptions

The following assumptions were made in attempting an analysis of

recurrent expenditures. First, in order to project recurrent cost data, two r-coefficients were used. The first, .35, was taken from a study of recurrent cost financing in the village health care system done in 1980 in the Sahelian countries, most specifically Niger. The second r-coefficient figure, .17, was used by a UNDP consultant in a recent analysis of recurrent cost financing in the Gambia. The justifications for either figure are not immediately apparent, however. In a WHO country resource utilization review of the health sector done in 1984, an r-coefficient of .16 was used, but again there was no justification provided in the document. Both extremes were therefore accepted as the high and low limits of recurrent expenditures, although it is suspected that even .35 is a low r-coefficient for operation of health centers.

An additional concern is that r-coefficients tend to decrease the higher the level of care. Since the r-coefficient is a ratio of the recurrent expenditure to total investment costs, it is reasonable that the greater the investment costs, the lower the ratio. In Ethiopia, for example, the r-coefficient for the health sector varied from .65 for a village health station to .26 for a 200 bed hospital. Therefore, the sectoral r-coefficients of .16 and .17, obtained by the WHO and CILSS, must be further broken down into the different levels of health care, for a more complete analysis.

The unit costs of health centers and dispensaries were estimated by dividing total operating costs by the number of units in the system. This is a rather simplistic assumption, for example, that the 2 medical officers employed by the health center system as a whole divide their time equally between all 17 health centers.

The ledger for the government recurrent expenditures included certain investments in equipment. However, these sums were assumed to be the replacement costs normally counted as part of recurrent expenditures. They were therefore not separated from the recurrent budget, although they are distinguished from the recurrent budget in Table 2.

Finally, in order to compare recurrent health sector expenditures with health sector expenditures in other countries, it is necessary to have data on the coverage and efficiency of the health facilities in the Gambia. For example, if it were possible to identify the number of patients per health center, then it will be possible to compare the recurrent expenditures for the health center with recurrent expenditures for similar health centers in other countries. By comparing the two numbers it may be possible to see whether the Gambia's recurrent expenditures were adequate for a health center of a certain size and coverage. As there are no norms for recurrent expenditures in African countries, this would be the most feasible way to compare recurrent expenditures in the health sector in the Gambia and in other countries. In this case, until coverage data for the Gambian health centers is not yet available, coverage can be estimated to be the rural population, 549,000, divided by the number of health centers, 17, or 33,000 per health center. However, as a large percentage of the patients served by the health centers were in fact Senegalese, 50 - 80%, data should be collected to reflect this increase in population.

#### Discussion

The table below shows the breakdown of the salaries, drugs, and non salaries component of the total expenditures on medical and health

services, according to Table 2.

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	1979/80	1980/81	1981/82	1982/83	1983/84	1984/85
Salaries	55%	61%	74%	77%	74%	71%
Drugs	7%	12%	6%	9%	10%	11%
Non salaries	38%	27%	20%	14%	16%	18%

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The salaries component included salaries, wages, and allowances. All of the rest of the operating expenditures except for drugs was allocated to the non salary component. The above data does not divide up the administrative overhead component of the Ministry of Health, Labour and Social Welfare among the different departments nor does it include the expenditures on labour and social welfare. Consequently only the budget allocated specifically to the medical and health component is analysed.

The jump in the expenditures on salaries may be explained by the fact that the number of employees in the health system went from 1,791 in 1980/81 to 1,935 in 1981/82. However, in 1982/83 the number dropped to 1,730, and in 1983/84, increased marginally to 1,794. The data on salaries does not reflect the drop in personnel in 1982/83.

The breakdown in health sector expenditure by level of health facilities is given in a country resource utilization review by WHO.

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 Shares of Health Specific Expenditure Items in Total Allocable Budget  
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	1980/81	1981/82	1982/83	1983/84	1984/85
Hospitals	61.03	58.20	59.26	56.08	54.29
Basic Health Services	15.88	16.85	14.16	26.97	30.27
Specialized Services	21.57	22.78	23.90	13.19	11.82
Research & Training	1.53	2.16	2.68	3.75	3.62

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 These figures do not include administration, cleansing, labour and social welfare expenditures.

In analysing the health centers and the dispensaries component, the investment costs associated with the building of four health centers and 2 dispensaries included in the First Development Plan from 1975 to 1980 were related to the total operating expenditures of the health centers and dispensaries. This was used to project the annual recurrent expenditures at these levels of the health care system. Unit costs of operations for these facilities were obtained by dividing the total recurrent expenditure by number of facilities.

There is a steady increase in the r-coefficients for health centers from 1980/81 to 1984/85, from Table 3C. The r-coefficients range from .04 to .3, as projected in 1984/85. When separated into salaries and non salaries components, it can be seen that the non salaries component

is not increasing as steadily as the salaries component. The reason for this is a phenomenon known as wage creep, which illustrates a natural increase in salaries over a period of time with all other factors remaining constant. The non salaries component in fact increases at a much slower rate over the five year period.

Although r-coefficient analysis should only be used as a general indication, these very low figures seem to indicate that not enough money was being spent on financing the recurrent expenditures of health centers. Although the projections in the last two years of data greatly improves the r-coefficient analysis, they are projections and the actual data must be calculated to verify the r-coefficients.

The r-coefficient for the upgraded health centers ranged from .08 in 1980/81 to .26 in 1984/85. Upgraded health centers represents health centers which were formerly dispensaries. It is unclear exactly what is meant by improved health centers, but given the relatively low investment cost, the r-coefficients are much higher than the r-coefficient for new health centers. For example, the r-coefficient yielded a very large 1.22 for 1984/85. However, as it is not possible to determine unit costs more closely than by dividing total operating costs by the number of facilities, the assumptions on the meaning of these r-coefficients cannot be substantiated.

The r-coefficients for the dispensaries also showed a steady increase over the five year period, as seen in Table 4C. What is distressing is that the start-up costs of a dispensary are usually low in comparison to the operating costs, usually resulting in high r-coefficients for such primary health care facilities; however, the ratio of operating

costs to investment in this case seem to be extremely low, ranging from .02 to .17. The .17 projected in 1984/85 coincides with the figures presented by the WHO and UNDP reports for the health sector *r*-coefficient.

Tables 5 and 6 show the attempt to isolate the recurrent costs of the other components of the first investment program from total recurrent expenditures of the Ministry; however, the general ledgers were not sufficiently detailed to be able to separate the specific costs from the overhead. Only those resources specifically attributed to the new facilities, for example x-ray technicians hired in 1981, are listed. The figures in the table may be taken as a beginning to a recurrent costs analysis of those investments.

In Table 5B, the estimated *r*-coefficients may be taken as a salaries component of the *r*-coefficient for the x-ray center. In Table 6B, the *r*-coefficient for the MCH program shows an attempt to increase the recurrent budget, in the projections for 1983/84 and 1984/85.

The expenditure on drugs, separate from the total recurrent budget, is listed in Table 7. Here, data was sufficiently detailed to distinguish by level of health facility the amount which was spent on drugs. Again, more detailed information is needed on coverage at the different levels of health care in order to estimate the unit costs of drug cost per population. Otherwise, a simplistic calculation can be made by dividing health center and dispensary data by rural population, 549,000, in order to arrive at .26 Dalasis being spent per rural population on drugs in 1980.

In Senegal, the estimated coverage of health centers is 600,000 by 4 health centers, or 150,000 per health center. In addition, there



are 45 satellite health posts, each with a coverage of 12,000. A 1981 study done of the health sector financing in Senegal assumed an  $r$ -coefficient of .38 for a health center and an  $r$  coefficient of 3.8 for a health post. However, these were regarded by the government and the World Bank project officers to be much too high. In 1982, it was projected that the investment in health center staff training would be CFAF 199582. The recurrent costs projected by the government were CFAF 109324000, resulting in an  $r$ -coefficient of .55 for the health manpower component. No recurrent costs were projected for the health centers, as the health center investment proposed were all replacement health centers, and it was assumed that existing government recurrent budget would account for the new replaced health centers.

In Niger, a study of the village health care system estimated an  $r$ -coefficient of .35 per village health team. This was estimated with a 11,000 km radius assumed to be covered by each village health team.

A comparison with the above countries will be possible if more data were available on the coverage per health center and dispensary in the Gambia. However, it is possible to already see that the  $r$ -coefficient of less than .1 yields a recurrent expenditure projection far below the estimated recurrent expenditures necessary to run secondary health care systems in these countries.

## 2. Implications of Recurrent Expenditure of Basic Needs Program

In the latest development program, the majority of the projects were on rehabilitation rather than on capital investment. Therefore,

the government used a figure of .08 to project recurrent costs necessary of the development program as a whole. This is again lower than the UNDP, the WHO, or the Sahelian analysis by CILSS. It is also lower than the projected average recurrent expenditure on improved health centers to date, 1.2 (Table 3C), which might still be inadequate in meeting the recurrent cost needs of the health centers.

In Table 8, annual recurrent cost expenditures of the government Basic Needs Program were estimated with r-coefficients of .16 and .35. Using an exchange rate of Dalasis 4 to US \$1, the total incremental recurrent costs of the proposed program range from \$455,600 to \$996,625. This means at least an 18% one-time increase in recurrent expenditures in order to operate these additional facilities. From Table 1 it can be seen that no government trend in recurrent expenditures can be clearly distinguished. There has been an increase from 1978/79 to the projected expenditures in 1984/85; however the percentage increase has fluctuated severely.

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Increase in Government Recurrent Expenditures on Health Services

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1978/79 to 1979/80	19%
1979/80 to 1980/81	31%
1980/81 to 1981/82	3%
1981/82 to 1982/83	18%
1982/83 to 1983/84	46% (estimated)
1983/84 to 1984/85	4% (estimated)

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Using r-coefficient analysis, it is predicted that the government recurrent expenditures must increase by at least 18% in order to accommodate the proposed program. However, it must be noted that a percentage of the proposed program is in rehabilitation rather than on new construction. Therefore, it might not be reasonable to make the r-coefficient analysis, except as a very general guideline, for example, that \$1 spent at present would cost from \$.16 to \$.35 to operate in the future.

In Table 10, the World Bank and the Gambian government projections of the cost of the proposed program were compared. It is unclear whether the Basic Needs Program is separate from these government projections. They may be the same plan, presented under a different title. Total project costs for the World Bank project estimated by the government were \$13,963,000. The World Bank project estimated the total costs of the project at \$11,000,000. Table 10 shows a comparison of the components of the two projections.

### 3. Questions

These are questions which were raised during this exercise. Answers to these questions may help to better estimate the needed expenditure on recurrent costs. In general, these involve data collection which may best be done on site, with the officials who actually run these health care systems estimating the additional operating expense requirements.

1. Better indication of the coverage at each level of the health care system. Some estimates may need to be made on the Sahelian population which uses the Gambian health system.

2. A ratio of the general administration overhead allocated to

Ministry of Health, Labour and Social Welfare would be helpful to determine the total operating costs of the Ministry of Health, Labour, and Social Welfare, specifically the health sector.

3. Unit cost information by health centers and dispensaries will be helpful. This will better estimate needs of operating expenditures for improved/rehabilitated health centers. This is more important than operating cost information per new health center, as the proposed program consists mostly of rehabilitation than construction.

4. An indication of the efficiency of operation of these health facilities. With efficiency approximations, it will be possible to more closely monitor the growth in certain areas of the recurrent budget such as maintenance and operating costs for vehicles used in health centers.

5. Regional breakdown of expenditures of the health sector would be helpful in estimating the unit costs of regional health facilities.

TABLE 1A

TOTAL GOVERNMENT AND MINISTRY OF HEALTH, LABOUR AND SOCIAL WELFARE RECURRENT EXPENDITURES, 1974/75-1984/85  
CURRENT PRICES

	MHLS	GOVERNMENT	PERCENTAGE
1974/75 ACTUAL	5107	33096477	0.0002
1975/76 ACTUAL	3632602	44046791	0.0825
1976/77 ACTUAL	6678578	60219120	0.1109
1977/78 ACTUAL	7542469	73274764	0.1029
1978/79 ACTUAL	8284460	76160326	0.1088
1979/80 ACTUAL	8620712	91251468	0.0945
1980/81 ACTUAL	10178259	91698334	0.1110
1981/82 ACTUAL	11985196	137300000	0.0873
1982/83 ACTUAL	11866088	129600000	0.0916
1983/84 EST.	14043790	164900000	0.0852
1984/85 EST.	14507990	180900000	0.0802

TABLE 18

TOTAL GOVERNMENT AND MINISTRY OF HEALTH, LABOUR AND SOCIAL WELFARE RECURRENT EXPENDITURES, 1974/75-1984/85  
1980 PRICES

	MHLS	GOVERNMENT	PERCENTAGE
1974/75 ACTUAL	2,502	16,217,274	0.0002
1975/76 ACTUAL	2,241,315	27,176,870	0.0825
1976/77 ACTUAL	4,821,933	43,478,205	0.1109
1977/78 ACTUAL	6,124,485	59,499,108	0.1029
1978/79 ACTUAL	7,315,178	67,249,568	0.1088
1979/80 ACTUAL	8,077,607	85,502,626	0.0945
1980/81 ACTUAL	10,178,259	91,698,334	0.1110
1981/82 ACTUAL	12,944,012	148,284,000	0.0873
1982/83 ACTUAL	14,120,645	154,224,000	0.0916
1983/84 EST.	19,239,992	225,913,000	0.0852
1984/85 EST.	19,875,946	247,833,000	0.0802

TABLE 2A  
 MINISTRY OF HEALTH, LABOUR AND SOCIAL WELFARE RECURRENT EXPENDITURES, 1977/78-1984/85  
 CURRENT PRICES

	1977/78 ACTUAL EXPENDITURE	1978/79 APPROVED ESTIMATES	1979/80 ESTIMATES	1980/81 ACTUAL EXPENDITURE	1981/82 ACTUAL EXPENDITURE	1982/83 ACTUAL EXPENDITURE	1983/84 APPROVED ESTIMATES	1984/85 ESTIMATES
ADMINISTRATION								
SALARIES		492200	558180	693435	738451	879834	1090820	1112620
NON SALARIES COMPONENT	170004	148000	183000	910589	651737	700880	779520	971080
MEDICAL SERVICES								
SALARIES		2912460	3172550	4049416	4787638	5295722	6431770	6354940
DRUGS & DRESSINGS	309024	300000	400000	766430	383143	606809	706000	1000000
NON SALARIES COMPONENT	1677916	1561320	2000450	997043	546513	593188	891300	1042040
PURCHASE OF ADDTL. EQUIPMENT	428377	329000	127000	121277	120644	85435	140000	136000
OPERATION/MAINTENANCE OF EQUIP.	1742	13600	27050	670551	665188	297056	353200	446930
CLEANSING SERVICES (SANITATION)								
SALARIES	998698	800000	800000	1001956	1202312	105373	112300	107740
PAYMENT TO CONTRACTORS					1862706	3074094	3005680	3005680
NON SALARIES COMPONENT	353072	243600	270000	207864	63503	7976	20500	20110
SOCIAL WELFARE								
SALARIES		71270	74120	76039	98940	110245	143450	140160
NON SALARIES	57915	36730	53520	25912	38634	38402	55020	56340
LABOUR								
SALARIES		79790	79470	55376	67915	70168	104680	103460
NON SALARIES	10545	8400	12200	12959	4050	906	9550	10870
PRISON								
SALARIES		251270	318100	327472	411396			
NON SALARIES	249986	153900	187300	261940	342426			
TOTAL	4257179	7501540	8262950	10178259	11985196	11866088	14043790	14507990

TABLE 2B  
 MINISTRY OF HEALTH, LABOUR, AND SOCIAL WELFARE RECURRENT EXPENDITURES, 1977/78-1984/85  
 1980 PRICES

	1977/78 ACTUAL EXPENDITURE	1978/79 APPROVED ESTIMATES	1979/80 ESTIMATES	1980/81 ACTUAL EXPENDITURE	1981/82 ACTUAL EXPENDITURE	1982/83 ACTUAL EXPENDITURE	1983/84 APPROVED ESTIMATES	1984/85 ESTIMATES
<b>ADMINISTRATION</b>								
SALARIES		434,613	523,015	693,435	797,527	1,047,002	1,494,423	1,524,289
NON SALARIES COMPONENT	170,005	130,684	171,471	910,589	562,086	834,047	1,067,942	1,330,380
<b>MEDICAL SERVICES</b>								
SALARIES		2,571,702	2,972,689	4,049,416	5,170,649	6,301,909	8,811,525	8,706,268
DRUGS & DRESSINGS	250,927	264,900	374,800	766,430	413,794	722,103	1,241,220	1,370,000
NON SALARIES COMPONENT	1,362,387	1,378,846	1,874,422	997,043	590,234	705,894	1,221,081	1,427,595
PURCHASE OF ADDTL. EQUIPMENT	347,842	290,507	118,999	121,277	130,296	101,668	191,800	186,320
OPERATION/MAINTENANCE OF EQUIP.	1,415	12,009	25,346	670,551	718,403	353,497	483,884	612,294
<b>CLEANSING SERVICES</b>								
SALARIES	810,943	706,400	749,600	1,001,956	1,298,497	125,394	153,851	147,604
UNIFORMS & PROTECTIVE CLOTHING					2,011,722	3,658,172	4,117,782	4,117,782
NON SALARIES COMPONENT	286,694	303,399	252,990	207,864	53,583	9,491	28,085	27,551
<b>SOCIAL WELFARE</b>								
SALARIES		62,931	69,450	76,039	135,855	131,192	196,527	192,019
NON SALARIES	47,027	32,433	50,148	25,912	41,725	45,698	75,377	77,186
<b>LABOUR</b>								
SALARIES		70,455	74,463	55,376	73,348	83,500	143,412	141,753
NON SALARIES	8,563	7,417	11,431	12,959	4,374	1,078	13,084	14,892
<b>PRISON</b>								
SALARIES		221,871	298,060	327,472	444,308			
NON SALARIES	202,999	135,894	175,500	261,940	369,820			
<b>TOTAL</b>	<b>3,594,873</b>	<b>6,623,860</b>	<b>7,742,384</b>	<b>10,178,259</b>	<b>12,944,012</b>	<b>14,120,645</b>	<b>19,239,992</b>	<b>19,675,946</b>



TABLE 3A  
HEALTH CENTER INVESTMENT, 1975/76-1980/81, AND RECURRENT EXPENDITURES, 1980/81-1984/85  
CURRENT PRICES

SOURCE OF FINANCE	SANDU/WULI	KARANTABA	KARANTABA	BWIAM DISP. (UPGRADE TO FATOTO HLTH CENTER)	
	YOROSAWOL			FATOTO	HLTH CENTER)
	GLF	PRC	GLF	GLF	GLF
REV. TOTAL COST ESTIMATES	975125	750000	520000	705404	576757
ACTUAL EXP. 75/76,77/78	787642			672374	416998
ACTUAL EXP. 78/79	137483			33030	109759
REVISED ESTIMATES 79/80	705404		250000		50000
BUDGET ESTIMATES 80/81	50000		270000		

GLF: DOMESTIC FUNDS  
PRC: PEOPLES REPUBLIC OF CHINA

HEALTH CENTERS (17)

	1980/81	1981/82	1982/83	1983/84	1984/85
	ACTUALS	ACTUALS	ACTUALS	APPROVED ESTIMATES	ESTIMATES
SALARIES	305891	297355	380898	1074370	1132230
WAGES OF HOSPITAL LABOR	11714	8715	7233	10000	2500
ALLOWANCES	21292	37369	42490	186400	176520
SUBTOTAL	338897	343439	430621	1270770	1311250
TRAVELLING EXPENSES	16603	8979	12698	20000	40000
UNIFORMS	2725	7499	6527	20000	10000
PATIENTS' FOOD	15438	11709	24218	60000	60000
MISC. OFFICE EXPENSES	582	229	106	2000	2000
OP. & MAINT. OF VEHICLES	245348	397112	107670	80000	100000
OF GENERATORS & PUMPS	40702	69408	66987	30000	100000
PURCHASE OF ADOTL. EQUIP.	17658	2169	950	10000	10000
REPLACEMENT OF EQUIPMENT			286	10000	10000
SUBTOTAL	339056	495105	219442	282000	332000
DRUGS & DRESSINGS	121133	34334	63574	150000	214000
OTHER MEDICAL STORES			3303	15000	30000
SUBTOTAL	121133	34334	66877	165000	244000
HEALTH MATERIALS(MCH)			19999	20000	20000
TOTAL	799086	872878	736939	1737770	1907250

TABLE 3B  
HEALTH CENTER INVESTMENT, 1975/76-1980/81, RECURRENT EXPENDITURE, 1980/81-1984/85, AND ESTIMATED UNIT COSTS OF OPERATION  
1980 PRICES

SOURCE OF FINANCE	SANDU/WULI		BWIAM DISP. (UPGRADE TO HLTH. CENTER FATOTO HLTH CENTER) IMPROVEMENTS			
	YORDBAWOL	KARANTABA	KARANTABA	FATOTO	HLTH CENTER	IMPROVEMENTS
REV. TOTAL COST ESTIMATES	GLF	PRC	GLF	GLF	GLF	GLF
REV. TOTAL COST ESTIMATES	975125	750000	520000	705404	576757	123297
ACTUAL EXP. 75/76,77/78	485,975		0	414,855	257,288	71,947
ACTUAL EXP. 78/79	121,397		0	29,165	96,917	1,492
REVISED ESTIMATES 79/80	660,964		234,250		46,850	4,685
BUDGET ESTIMATES 80/81	50,000		270,000			
R COEFFICIENT(SALARIES)	0.0425	0.0747	0.1110	0.1261	0.1396	0.7158
R COEFFICIENT(DRUGS)	0.0071	0.0125	0.0186	0.0211	0.0234	0.1202
R COEFFICIENT(NON SALARIES)	0.0176	0.0310	0.0461	0.0524	0.0580	0.2976
R COEFFICIENT	0.0672	0.1182	0.1758	0.1996	0.2210	1.1345

HEALTH CENTERS (17)	ESTIMATED UNIT COSTS OF OPER							
	1980/81	1981/82	1982/83	1983/84	1984/85	1980/81	1981/82	
	ACTUALS	ACTUALS	ACTUALS	APPROVED ESTIMATES	ESTIMATES	ACTUALS	ACTUALS	
SALARIES	305,891	321,143	453,269	1,471,887	1,551,155	17,994	18,891	
WAGES OF HOSPITAL LABOR	11,714	9,412	8,607	13,700	3,425	689	554	
ALLOWANCES	21,292	40,359	50,563	255,368	241,832	1,252	2,374	
SUBTOTAL	338,897	370,914	512,439	1,740,955	1,796,413	19,935	21,818	
TRAVELLING EXPENSES	16,603	7,537	15,111	27,400	54,800	977	443	
UNIFORMS	2,725	8,099	7,767	27,400	13,700	160	476	
PATIENTS' FOOD	15,438	12,646	28,819	82,200	82,200	908	744	
MISC. OFFICE EXPENSES	582	247	126	2,740	2,740	34	15	
OP. & MAINT. OF VEHICLES	245,348	428,881	128,127	109,600	137,000	14,432	25,228	
OF GENERATORS & PUMPS	40,702	74,961	79,715	109,600	137,000	2,394	4,409	
PURCHASE OF ADDTL. EQUIP.	17,658	2,343	1,131	13,700	13,700	1,039	138	
REPLACEMENT OF EQUIPMENT			340	13,700	13,700	0	0	
SUBTOTAL	339,056	534,713	261,136	386,340	454,840	19,944	31,454	
DRUGS & DRESSINGS	121,133	37,081	75,653	205,500	293,180	7,125	2,181	
OTHER MEDICAL STORES			3,931	20,550	41,100	0	0	
SUBTOTAL	121,133	37,081	79,584	226,050	334,280	7,125	2,181	
HEALTH MATERIALS(MCH)			23,799	27,400	27,400	0	0	
TOTAL	799,086	942,708	876,957	2,380,745	2,612,933	47,005	55,453	

TABLE 4A  
 DISPENSARIES & SUBDISPENSARIES INVESTMENT, 1975/76-1980/81, AND RECURRENT EXPENDITURES, 1980/81-1984/85  
 CURRENT PRICES

SOURCE OF FINANCE	DISP. & HLTH. CENTERS		
	GAMBISARA SUBDISP.	NEW YUNDUM DISP.	IMPROVEMENT
REV. TOTAL COST ESTIMATES	62667	189662	353421
ACTUAL EXP. 75/76,77/78	21691	132155	66519
ACTUAL EXP. 78/79	30976	48507	1902
REVISED ESTIMATES 79/80	10000	9000	185000
BUDGET ESTIMATES 80/81			100000

DISPENSARIES (20) & SUBDISPENSARIES (55)

	1980/81 ACTUALS	1981/82 ACTUALS	1982/83 ACTUALS	1983/84 APPROVED ESTIMATES	1984/85 ESTIMATES
SALARIES	95750	100916	89725	248580	321340
WAGES OF HOSPITAL LABOR	2388	4658	6210	5000	2000
ALLOWANCES	10461	17076	20715	26500	37000
SUBTOTAL	108599	122650	116650	280080	360340
TRAVELLING EXPENSES	11100	10072	7259	23000	32000
UNIFORMS	1669	2619	1260	8000	8000
OP. & MAINT. OF VEHICLES	114720	34905	36375	25000	30000
PURCHASE OF ADDTL. EQUIP.	20000	224	210	5000	5000
MISC. OFFICE EXPENSES				2000	2000
SUBTOTAL	147489	47620	45104	63000	77000
DRUGS & DRESSINGS	23456	56660	79522	120000	150000
SUBTOTAL	23456	56660	79522	120000	165000
TOTAL	279544	227130	241276	463080	602340

TABLE 4B  
 DISPENSARIES & SUBDISPENSARIES INVESTMENT, 1975/76-1980/81, RECURRENT EXPENDITURES, 1980/81-1984/85  
 1980 PRICES AND ESTIMATED UNIT COSTS OF OPERATION

SOURCE OF FINANCE	DISP. & HLTH. CENTERS		
	GAMBISARA SUBDISP.	NEW YUNDUM DISP. IMPROVEMENT	
REV. TOTAL COST ESTIMATES	GLF 62667	GLF 189662	GLF 353421
ACTUAL EXP. 75/76,77/78	13,383	81,540	41,042
ACTUAL EXP. 78/79	27,352	42,832	1,679
REVISED ESTIMATES 79/80	9,370	8,433	173,345
BUDGET ESTIMATES 80/81			93,700
R COEFFICIENT(SALARIES)	0.0669	0.0252	0.0108
R COEFFICIENT(DRUGS)	0.0303	0.0114	0.0049
R COEFFICIENT(NON SALARIES)	0.0237	0.0089	0.0038
R COEFFICIENT	0.1209	0.0456	0.0196

DISPENSARIES (20) & SUBDISPENSARIES (55)	ESTIMATED UNIT COSTS OF O							
	1980/81 ACTUALS	1981/82 ACTUALS	1982/83 ACTUALS	1983/84 APPROVED ESTIMATES	1984/85 ESTIMATES	1980/81 ACTUALS	1981/82 ACTUALS	
SALARIES	95,750	108,989	106,773	340,555	440,236	1,277	1,453	
WAGES OF HOSPITAL LABOR	2,388	5,031	7,390	6,850	2,740	32	67	
ALLOWANCES	10,461	18,442	24,651	36,305	50,690	139	246	
SUBTOTAL	108,599	132,462	138,814	383,710	493,666	1,448	1,766	
TRAVELLING EXPENSES	11,100	10,878	8,638	31,510	43,840	148	145	
UNIFORMS	1,669	2,829	1,499	10,960	10,960	22	38	
OP. & MAINT. OF VEHICLES	114,720	37,697	43,286	34,250	41,100	1,530	503	
PURCHASE OF ADDTL. EQUIP.	20,000	242	250	6,850	6,850	267	3	
MISC. OFFICE EXPENSES				2,740	2,740			
SUBTOTAL	147,489	51,646	53,674	86,310	105,490	1,967	689	
DRUGS & DRESSINGS	23,456	61,193	94,631	164,400	205,500	313	816	
SUBTOTAL	23,456	61,193	94,631	164,400	226,050	313	816	
TOTAL	279,544	245,300	287,118	634,420	825,206	3,727	3,271	

TABLE 5A

ROYAL VICTORIA HOSPITAL X RAY & HEMATOLOGICAL EQUIPMENT INVESTMENT AND PARTIAL ASSOCIATED OPERATING COSTS  
CURRENT PRICES

SOURCE OF FINANCE	GLF
REV. TOTAL COST ESTIMATES	421069
ACTUAL EXP. 75/76,77/78	278273
ACTUAL EXP. 79/79	94796
REVISED ESTIMATES 79/80	48000

## SOME RECURRENT EXPENDITURES (SALARIES), 1980/81-1984/85

	1980/81	1981/82	1982/83	1983/84	1984/85	1980/81	1981/82	1982/83	1983/84	1984/85
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	ACTUALS	ESTIMATES	ESTIMATES	ESTIMATES	ESTIMATES
ORGANIZER (BLOOD BANK)	1	1	1	1	1	3396	3462	4157	4241	4325
LABORATORY ATTENDANTS	2	2	2	2	2	3672	3760	4478	4598	4718
CLERK/RECEPTIONIST	1					1932				
RADIOLOGIST				1	1				10	10
SENIOR RADIOGRAPHER	1	1	1	1	1	7788	7788	8736	8916	9096
RADIOGRAPHERS	4	4	4	4	3	25200	25200	15888	29268	16296
SENIOR X RAY ASSISTANT	1	1	1	1	1	3396	3396	3996	3996	4101
X RAY ASSISTANTS	2	3	3	3	3	5274	8368	9996	10140	10284
CLERK/RECEPTIONIST	1	1	1	1	1	1972	2020	2474	2534	2534
X RAY ATTENDANTS	2	2	2	3	3		4172	4968	6877	6997

TABLE 5B

ROYAL VICTORIA HOSPITAL X RAY & HEMATOLOGICAL EQUIPMENT INVESTMENT AND PARTIAL ASSOCIATED OPERATING COSTS  
1980 PRICES

SOURCE OF FINANCE	BLF
REV. TOTAL COST ESTIMATES	421069
ACTUAL EXP. 75/76,77/78	171,694
ACTUAL EXP. 78/79	83,705
REVISED ESTIMATES 79/80	44,976

## SOME RECURRENT EXPENDITURES (SALARIES), 1980/81-1984/85

	1980/81	1981/82	1982/83	1983/84	1984/85	1980/81	1981/82	1982/83	1983/84	1984/85
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	ACTUALS	ESTIMATES	ESTIMATES	ESTIMATES	ESTIMATES
ORGANIZER (BLOOD BANK)	1	1	1	1	1	3,396	3,739	4,947	5,810	5,925
LABORATORY ATTENDANTS	2	2	2	2	2	3,672	4,061	5,329	6,299	6,464
CLERK/RECEPTIONIST	1					1,932				
RADIOLOGIST				1	1				14	14
SENIOR RADIOGRAPHER	1	1	1	1	1	7,788	8,411	10,396	12,215	12,462
RADIOGRAPHERS	4	4	4	4	3	25,200	27,216	18,907	40,097	22,327
SENIOR X RAY ASSISTANT	1	1	1	1	1	3,396	3,668	4,755	5,475	5,618
X RAY ASSISTANTS	2	3	3	3	3	5,274	9,037	11,895	13,892	14,089
CLERK/RECEPTIONIST	1	1	1	1	1	1,972	2,182	2,944	3,472	3,472
X RAY ATTENDANTS	2	2	2	3	3		4,506	5,912	9,421	9,586

TABLE 6A  
MCH PROGRAMME INVESTMENT AND PARTIAL OPERATING COSTS  
CURRENT PRICES

SOURCE OF FINANCE	UK/61
REV. TOTAL COST ESTIMATES	648030
ACTUAL EXP. 75/76,77/78	29553
ACTUAL EXP. 78/79	198477
REVISED ESTIMATES 79/80	420000

UK/61: UNITED KINGDOM 1975 GRANT

SOME RECURRENT EXPENDITURES (SALARIES), 1980/81-1984/85

	1980/81	1981/82	1982/83	1983/84	1984/85
	ACTUALS	ACTUALS	ACTUALS	APPROVED ESTIMATES	ESTIMATES
SALARIES	29447	16977	27681	47640	59090
ALLOWANCES			9599	21700	26500
SUBTOTAL	29447	16977	37280	69340	84590
TRAVELLING EXPENSES	9282	7665	1641	8000	4000
UNIFORMS			1648	2500	2500
MCH - STORES & SUPPLIES			282	10000	10000
MISC. OFFICE EXPENSES	906	3824	7085	2500	2500
OP. & MAINT. OF VEHICLES	21270	10832	9516	10500	15000
MAINT. EQUIPMENT				1000	1000
PURCHASE ADDTL. EQUIP.	4791	2075	7495	10000	10000
REPLACEMENT OF EQUIP.				5000	5000
SUBTOTAL	36249	24396	27667	49500	50000
DRUGS & VACCINES	5978	9580	19555	25000	25000
SUBTOTAL	5978	9580	19555	25000	25000
TOTAL	71674	50953	84502	143840	159590

TABLE 6B  
MCH PROGRAMME INVESTMENT AND PARTIAL ASSOCIATED OPERATING COSTS  
1980 PRICES

SOURCE OF FINANCE	UK/61
REV. TOTAL COST ESTIMATES	648030
ACTUAL EXP. 75/76,77/78	18,234
ACTUAL EXP. 78/79	175,255
REVISED ESTIMATES 79/80	393,540

RECURRENT EXPENDITURES (SALARIES), 1980/81-1984/85

	1980/81	1981/82	1982/83	1983/84	1984/85
	ACTUALS	ACTUALS	ACTUALS	APPROVED ESTIMATES	ESTIMATES
SALARIES	29,447	18,335	32,940	65,267	79,583
ALLOWANCES			11,423	29,729	36,305
SUBTOTAL	29,447	18,335	44,363	94,996	115,888
TRAVELLING EXPENSES	9,282	8,278	1,953	10,960	5,480
UNIFORMS			1,961	3,425	3,425
MCH - STORES & SUPPLIES			336	13,700	13,700
MISC. OFFICE EXPENSES	906	4,130	8,431	3,425	3,425
OP. & MAINT. OF VEHICLES	21,270	11,699	11,324	14,385	20,550
MAINT. EQUIPMENT				1,370	1,370
PURCHASE ADDTL. EQUIP.	4,791	2,241	8,919	13,700	13,700
REPLACEMENT OF EQUIP.				6,850	6,850
SUBTOTAL	36,249	26,348	32,924	67,815	68,500
DRUGS & VACCINES	5,978	10,346	23,270	34,250	34,250
SUBTOTAL	5,978	10,346	23,270	34,250	34,250
TOTAL	71,674	55,029	100,557	197,061	218,638



TABLE 7A  
 EXPENDITURE ON DRUGS  
 CURRENT PRICES

	1977/78 ACTUAL EXPENDITURE	1978/79 APPROVED ESTIMATES	1979/80 ESTIMATES	1980/81 ACTUALS	1981/82 ACTUALS	1982/83 ACTUALS	1983/84 ESTIMATES	1984/85 ESTIMATES
ROYAL VICTORIA HOSPITAL				475121	172828	291585	350000	350000
BANSANG HOSPITAL				140742	109741	144345	250000	250000
HEALTH CENTERS				121133	34334	63574	150000	214000
DISPENSARIES & SUBDISPENSARIES				23456	56660	79522	120000	150000
MCH/EPI UNIT (INCL. VACCINES)				5978	9580	19555	25000	25000
COMMUNITY HEALTH						8228	11000	11000
TOTAL	309024	300000	400000	766430	383143	606809	906000	1000000

TABLE 7B  
EXPENDITURE ON DRUGS  
1980 PRICES

	1977/78 ACTUAL EXPENDITURE	1978/79 APPROVED ESTIMATES	1979/80 ESTIMATES	1980/81 ACTUALS	1981/82 ACTUALS	1982/83 ACTUALS	1983/84 ESTIMATES	1984/85 ESTIMATES
ROYAL VICTORIA HOSPITAL				475,121	186,654	346,986	479,500	479,500
BANSANG HOSPITAL				140,742	118,520	171,771	342,500	342,500
HEALTH CENTERS				121,133	37,081	75,653	205,500	293,180
DISPENSARIES & SUBDISPENSARIES				23,456	61,193	94,631	164,400	205,500
MCH/EPI UNIT (INCL. VACCINES)				5,978	10,346	23,270	34,250	34,250
COMMUNITY HEALTH						9,791	15,070	15,070
TOTAL	250,927	264,900	374,800	766,430	413,794	722,103	1,241,220	1,370,000

TABLE 8  
BASIC HEALTH SERVICES DEVELOPMENT PROGRAMME

COST SUMMARY

COMPONENT	1986/87	1987/88	1988/89	1989/90	1990/91	TOTAL	ANNUAL	ANNUAL
							REC. COSTS PROJECTED WITH R-COEFF .16	REC. COSTS PROJECTED WITH R-COEFF .35
CONSTRUCTION	1166000	1166000	1166000	1166000	1166000	5830000	932800	2040500
UTILITIES								
ELECTRICITY	537000	538000				1075000	172000	376250
WATER	330000	330000				660000	105600	231000
TRANSPORT								
VEHICLES	480000	480000	480000	480000	480000	2400000	384000	840000
FUEL	90000	90000	90000	90000	90000	450000	72000	157500
EQUIPMENT/FURNITURE	80000	80000	80000	80000	80000	400000	64000	140000
IN SERVICE TRAINING	15000	15000	15000	15000	15000	75000	12000	26250
TELECOMMUNICATIONS	250000	250000				500000	80000	175000
TOTAL	2948000	2949000	1831000	1831000	1831000	11390000	1822400	3986500

TABLE 9  
COMPARISON OF ESTIMATED WORLD BANK AND THE GAMBIAN GOVERNMENT PROJECT COSTS  
US DOLLARS (MILLIONS)

	WORLD BANK ESTIMATE			THE GAMBIAN GOVERNMENT ESTIMATE		
	WORLD BANK	LOCAL	TOTAL	WORLD BANK	OTHER (SOURCE)	TOTAL
PART A: OPERATIONS SUPPORT						
1. PRIMARY HEALTH CARE				1.141	0.411 (NETH)	1.552
PHC COVERAGE	2.5	0.5	3		1.668 (UNCDF)	1.668
2. REFERRAL SERVICES						
ROYAL VICTORIA HOSPITAL	0.5	0.2	0.7			
ENGINEERING				3.21	(UK)	3.21
IDH				1.02	(UK)	1.02
OPH				0.89	(UK)	0.89
BANSANG HOSPITAL	0.5	0.1	0.6			
WARDS				0.57	(ADB)	0.57
DENTAL, OPD				0.25	(ADB)	0.25
THEATRE UNIT				0.056	(ADB)	0.05625
ISOLATION WARD				0.045	(ADB)	0.04525
SURFACE DRAINAGE AND EQUIPMENT				0.02	(ADB)	0.02
OTHER WORKS AND EQUIPMENT				0.305	(ADB)	0.305
BASIC HEALTH SERVICES						
CONSTRUCTION				1.458	(ADB)	1.458
UTILITIES - ELECTRICITY				0.268		0.26875
- WATER				0.076		0.0765
TRANSPORT				0.712		0.7125
EQUIPMENT AND FURNITURE/MAINTENANCE				0.16		0.16
3. REVOLVING FUND FOR DRUGS						
DRUGS	1	0.9	1.9	0.45		0.45
CENTRAL MEDICAL STORES				0.345	(UK)	0.345
SUBTOTAL PART A	4.5	1.7	6.2	2.808	10.24	13.05725
PART B: INFRASTRUCTURE DEVELOPMENT						
4. TRAINING						
NURSES	1	0.1	1.1			
CHN SCHOOL/ IN SERVICE				0.518		0.51875
5. COMMUNICATIONS INFRASTRUCTURE						
TARGETTED MASS COMMUNICATIONS	0.7	0.1	0.8			
RADIO TELECOMMUNICATIONS	0.6		0.6	0.125		0.125
6. STRENGTHENING ANALYTIC CAPACITY						
STRENGTHENING PLANNING	1.2	0.1	1.3			
PROJECT EVALUATION & APPLIED RESEARCH	0.7		0.7			
PROJECT PLANNING	0.3		0.3			
HEALTH MANAGEMENT SYSTEM				0.078	0.184 (ADB)	0.262
SUBTOTAL PART B	4.5	0.3	4.8	0.721	0.184	0.90575
TOTAL	9	2	11	3.530	10.43	13.963

TABLE 10A  
 PROPOSED INVESTMENTS IN HEALTH BY MINISTRY OF HEALTH, LABOUR AND SOCIAL WELFARE, 1982/83 - 1984/85  
 CURRENT PRICES

	1982/83 ACTUALS	1983/84 ESTIMATES	1984/85 ESTIMATES
<b>A. HOSPITALS AND SPECIALIZED UNITS</b>			
ROYAL VICTORIA HOSPITAL			
REROOFING OF OPT. WORKSHOP/DISP.	16877		
CONVERSION OF NEW MATERNITY WING		500000	3000000
ACCESS ROADS TO SEWERAGE	13157	350000	
BANSANG HOSPITAL			
RENOVATION OF STAFF HEADQUARTERS		100000	50000
REHABILITATION OF HOSPITAL BUILDING	813482		
HOME FOR INFIRM: TOILETS AND FENCING	6757		
<b>B. HEALTH CENTERS AND DISPENSARIES</b>			
KIANG KARANTABA HC STAFF QUARTERS			
	130000		
KUDANG HEALTH CENTER			
MINOR WORKS	9654		
HEALTH CENTER	200810		
WATER/ELECTRICITY CONNECTION	26679		
SERRUKUNDA AND BAKUN POLYCLINIC			
EQUIPMENT/FURNITURE			50000
BUILDINGS WORK		360000	550000
LAND COMPENSATION	41620		
KAUR HEALTH CENTER			
HEALTH CENTER	300000	800000	
WATER/ELECTRICITY	150000		
FARAFENNI HEALTH CENTER			
HEALTH CENTER	1000000	300000	
CIVIL WORKS			
HEALTH CENTER/DISPENSARY IMPROVEMENTS	36120		25000
<b>C. OTHER HEALTH CARE</b>			
MCH PROGRAM: CONSTRUCTION WORK			
		140000	320000
SUPPORT FOR VILLAGE HEALTH SERVICE			
TRAINING	4980	20000	20000
MATERIALS/EQUIPMENT	7100	15000	8000
DEVELOPMENT GRANTS FOR VDCS	10040	20000	22000
PRIMARY HEALTH CARE FACILITIES			
COMPENSATION TO EMPLOYEES		109000	171000
PURCHASE OF GOODS/SERVICES		47000	109000
TRANSPORT EQUIPMENT		121000	
MACHINERY/EQUIPMENT		70000	176000
BUILDING		516000	718000
PRE-INVESTMENT AND OTHER	44575	140000	349000
CONTROL OF CHILDHOOD COMM. DISEASE			
TOTAL	2812203	3608000	5568000

SIR,—Dr Todd is unfair, not only to some hospital consultants but also to GPs who have already moved out of the dark ages he describes.

I can speak only for my own district and specialty of ear-nose-and-throat surgery, in which we see 15–20 new patients at each clinic. There is possibly one referral amongst these who has been sent for "reassurance", and even in some of these we find disease, so the number of unnecessary consultations is very low indeed. About one-third of these new patients are seen only once and are returned directly to their GPs, having had, for example, their nose cauterised or a hearing aid prescribed. The first half of the clinic is devoted to old patients only. These are seen by my registrar or by me on a roughly 50:50 basis, and they are also discharged as soon as possible. Those who fail to attend are not sent another appointment and in these ways *only* are we able to keep the number of old patients below 45 per clinic. Unfortunately there are very few GPs who are prepared to clean out mastoid cavities, cauterise noses, wash out sinuses, or even do audiograms on children, and until they are we shall have to continue to see large numbers of their patients on a regular basis. And this is for the patient's benefit, not that of the registrar, who would far rather be seeing interesting new referrals.

Not all specialists are as narrow-minded as Todd seems to think. We regularly diagnose carcinoma of the bronchus (causing hoarseness), hypertension (epistaxis), diabetes (aural furunculosis), and hiatus hernia (dysphagia) and send the patient back to their GP for management.

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CAROL WENGRAF

SIR,—I read with interest and approval Dr Todd's article on referrals to hospital. Until about 12 years ago I was guilty of running large follow-up clinics for patients discharged from the geriatric assessment unit. Many patients were brought back every month or two for a long time until I realised that this was illogical. What we seemed to be hoping was that the patient would be sufficiently cooperative to acquire her "new pathology" or extend her "old pathology" in the days or weeks immediately before her outpatient attendance. What was probably more likely was that a new clinical problem developed soon after her attendance—eg, due to sitting in an ambulance on the way to and from the outpatient clinic in company with potentially infectious patients. We now run very small follow-up clinics and usually a small minority of patients attend only a few times.

Instead we now send to the general practitioner (or his health visitor colleague) a very simple functional profile of the discharged patient indicating mobility, mental state, and competence in activities of daily living and ask the primary-care team to institute such surveillance as they see fit so that any functional change may be detected. In these elderly patients new disease or exacerbation of old will generally be rapidly mirrored in reduced function. Where this is detected, it is up to the general practitioner to decide what to do.

I am certain that our service has not deteriorated; it has in fact improved and we must have saved the NHS tens of thousands of pounds. Sadly, however, I suspect that much of these savings may have gone towards the maintenance of vast "outpatient empires" elsewhere.

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J. WILLIAMSON

#### PRIMARY HEALTH CARE IN GAMBIAN VILLAGES

SIR,—Dr Lamb and colleagues (Oct 20, p 912), from a Medical Research Council/Cambridge team that has been working in rural Gambian villages since 1974, recommend that countries characterised by "extreme poverty, undernutrition, and primitive hygiene" should nevertheless place doctors and nurses in rural villages to serve as few as 2000 inhabitants per team, as does their facility. This bespeaks blinkered adherence to the technological imperative so characteristic of health-care delivery in developed countries—"if we can do it, we must, and don't count the cost". Yet the cost of a unit like theirs, perhaps \$50 000 or more for the clinical and service components alone, amounts to \$25 per inhabitant in

their three villages. This is 25 times the total per caput budget available for health in many poor countries like The Gambia. Of this the largest part is taken off the top for hospital care (doctors and nurses primarily) to a few people in cities, leaving even less for health care to the rural majority.

It would be nice if public health planners for developing countries could opt to provide care in rural areas with teams of doctors and nurses. Alas, financial realities make the choice of low-cost, but still effective, primary-health-care delivery a necessity, not just a current fashion as Lamb et al imply.

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ROBERT S. NORTHRUP

SIR,—Dr Lamb and colleagues provide impressive evidence of the impact an efficient, albeit expensive, rural outpatient clinic can have on child mortality. However, their criticism of "low-technology, primary-health-care approaches" and their call for "professionally run up-country outpatient clinics" similar to theirs ignores economic realities.

The service Lamb et al provided must have been very expensive compared with other forms of primary health care. They only mention drug costs, which can have been but a small proportion of the total costs of their labour-intensive service. Drug expenditure of £0.34 per consultation and more than £3 per head per year gives some idea of the relative cost of such health care. Most developing countries spend about 20% of their health budget on drugs and equipment, but only one-fifth of this (4% of the total health budget) is allocated to drugs to be dispensed in rural clinics,<sup>1</sup> the proportion actually arriving there being probably much smaller.<sup>2</sup> A crude calculation suggests that if £3 is spent on drugs per head per year in a rural clinic the total health budget required to finance such a health service would be around £125 per head—and that is about half the gross national product per head in most poor countries. Even this is probably a gross underestimate because Lamb et al will have spent far more on salaries and other non-drug expenditure than the 30% of the total budget spent on this in other rural health centres.<sup>3</sup>

£3 per head is about six times what the Government of Mozambique allocates for drugs and equipment—and this would leave no money for hospital care—and the £0.34 is roughly 17 times the money to be spent on drugs per consultation in Tanzania.<sup>4,5</sup> Mills and Walker estimated that "the drugs required to treat at least 80% of the conditions patients present with cost about US\$0.50 per head per year of the population served".<sup>6</sup>

I agree that studies on the efficacy of primary health care are badly needed, but the costs and effectiveness of all health interventions (including improving sanitation, better nutrition, and health education) need to be studied. Only on the basis of such studies and within the economic framework of a particular country will health planners be able to decide how money is best spent and health care provided most effectively.

Ernst-Curtius-Weg 7,  
D-34 Göttingen, West Germany

ANSGAR W. LOHSE

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#### IMMUNISATION MISINFORMATION

SIR,—Doctors, nurses, and others are confused about the contraindications to pertussis and other childhood immunisations.<sup>1</sup> For a small group of children with rare neurological or immunological disorders, controversy is unavoidable. However, written guidelines should be simple, straightforward, and, most important, in accord: they are not.

*Gambia file*  
ImHarding  
SEN School  
RWH  
Banjul

REPORT ON THE ASSESSMENT  
OF BASIC NURSING EDUCATION  
IN THE GAMBIA.

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SEPTEMBER 1982.

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My sincere gratitude to the government of The Gambia and its various functionaries, my professional colleagues, the Vice-President of the West African College of Nursing Mrs. Muriel Fye, and those special others who made the completion of this assignment possible.

## SUMMARY AND MAJOR RECOMMENDATIONS

The assessment of the basic nursing education was at the invitation of the West African College of Nursing. The major recommendations are listed below while the justifications for them and other details may be found in the body of the Report.

1. Assistance should be provided in the areas of

### Nursing Education

- Curriculum Evaluation and Re-Construction
- Tests and Measurements
- Educational Management & Administration
- Short-term consultants in all areas of nursing specialization

### Nursing Service

- Management & Administration of Nursing Care Services
- Continuing Education Consultant
- Staff-Exchange with other health institutions
- Quality Control and Assurance in Nursing

2. Setting up a Nursing & Midwifery Licensing Body is essential to setting and maintenance of professional standard.
3. Nursing should be an autonomous unit within the Ministry of Health so as to establish a 'unity of command;' set up co-ordinated and integrated programs that will meet the Nation's Health needs.

REPORTS ON THE ASSESSMENT OF THE BASIC  
NURSING EDUCATION IN THE GAMBIA.

Background

On July 29th, 1982, the Secretary-General for the West African College of Nursing (WACN) wrote a letter to the Vice Chancellor of the University of Ife, Ile-Ife, Nigeria, requesting for permission to be granted to Mrs. O. O. Kujore so that she could visit The Gambia. The purpose of the visit was for her to make an independent evaluation of the basic nursing education and to make recommendations for future assistance in areas of deficiency. The Vice Chancellor gave the permission and the visit was planned to commence any date between September 5th and 19th, 1982.

No. formal briefing by WACN Secretariat was received. The Co-ordinator for Nursing Affairs however, had earlier sent documents related to the curriculum of the School of Nursing and Midwifery, Gambia College. These documents provided a bird's eyeview of basic nursing education in The Gambia (See appendix I for comments and suggestions).

Visit to The Gambia

I arrived in The Gambia by air on 17th September, 1982 and was met by the Vice President W.A.C.N. Mrs. Muriel Fye. All arrangements were made for a reasonable and comfortable accommodation.

On the evening of the day of my arrival the Vice-President WACN, Mrs. M. Fye and I had a discussion on the plans for accomplishing my assignment. She pointed out that since the W.A.C.N. wanted me to carry out an independent assignment, no itinerary was made for me. The government, the School and the Nursing Service were prepared to give all the assistance required for my work.

Based on the objective of my visit I had prepared a draft itinerary which was to take me to all the areas where students receive theoretical and clinical instructions; to schools preparing other Nursing personnel; to typical settings where trained nurses from the School of Nursing and Midwifery work; and to individuals and/or groups responsible directly or indirectly for the management, financial support and policy formation as regards health and health manpower development. With minor amendments to time schedules, my itinerary was accepted for use (See appendix II). The programme was to start on Monday 20th September, 1982. However, I decided to spend a part of the evening visiting the Royal Victoria Hospital (R.V.H.), the apical hospital of The Gambia, which was a very short walking distance from my hotel. \*

It was a good opportunity to see the hospital during a shift different from what was contained in my schedule. I was accompanied by the Vice-President W.A.C.N.

## 1.0 INTRODUCTION

The quality of nursing education is intrinsically related to the quality of nursing service and vice versa. Therefore, an assessment of one area without having at least a cursory view of the other would make the assessment incomplete. One also realises that Nursing as a profession is greatly influenced and directed by other factors within the community. Therefore, the quality or quantity of Nursing must be examined taking into consideration both the intrinsic and extrinsic factors. The reader will, hopefully, see why observations and comments in this report go beyond the assignment given - to evaluate the basic nursing education and make recommendations for assistance. The report for the above reasons covers in greater detail the area of nursing education, and in lesser detail nursing service and other related factors.

## 2.0 NURSING EDUCATION

### 2.1 Assessment of Basic Nursing Education.

The following activities were engaged in the process of the assessment.

(i) Visit to the School of Nursing and Midwifery where theoretical and practical instruction were given to the student.

X Discussions were held with the Principal and Vice Principal of Gambia College. The School of Nursing and Midwifery is one of the Schools of the College although it is physically located about 20 km from the main campus. Discussions were also held first with the Principal Lecturer in Nursing Mrs. R. Palmer, and three members of the School staff.

At the initial meeting with Mrs. R. Palmer the Principal Lecturer of the School of Nursing and Midwifery, historical background and general information about the school were supplied. The School which was started through World Health Organization's special assistance in 1964 as part of the Royal Victoria Hospital (R.V.H.). It was just like the traditional hospital School of Nursing. But when The Gambia College was established in 1979, the School of Nursing and Midwifery became an integral part of the College administratively.

Observation:

Although the latter change occurred, it appeared that in practice this change is yet to be fully incorporated into the School administration. The physical isolation of the school from the College and the fact that the new administrative set up is a big departure from the traditional milieu for nurse and midwife training, might be responsible for the present state of affairs.

The School was proud to be part of Gambia College, but the implications did not appear to be well understood by the school of Nursing and Midwifery administration.

On the other hand, one could conclude that the R.V.H. and its management board appeared to have relinquished absolutely any form of commitment to the School even though it is situated in the adjacent ground and the R.V.H. also seemed to employ at least 95 percent of the products of the school.

Recommendations:

- (1) It is very necessary that the demands, responsibilities and privileges of the present position of the School of Nursing and Midwifery viz-a-viz. Gambia College be fully discussed with and documented for the nursing staff. Failure to do this, may result in a situation that might jeopardise the advantages that could be derived from this laudable venture. This is an excellent opportunity for the curriculum of the School to be enriched at little or no extra cost to the nation.
- (2) It is obvious from discussion with various personnel and from observation that the provision of clinical environment conducive to learning good nursing is no longer considered as a primary responsibility of the hospital. It must be added that although efforts are being made to improve on the quality of health and nursing care, the present provisions are far from meeting the minimum required for professional nurse and midwife training.
- (3) The authorities of the School, the Gambia College and the Royal Victoria Hospital need to set up a machinery for re-examining the contributions of each body to the education and training of nurses and midwives within the present framework. The present condition for learning clinical nursing is deplorable and no college should allow itself to be associated with such a condition.

## 2.2. Discussion of questionnaire on Facilities

- A questionnaire on facilities available for instruction was given to the Head of Nursing to fill. The purpose of the questionnaire is to collect basic information which can serve as a guide in the assessment. The information supplied in the questionnaire tallied fairly well with the observation of facilities available for theoretical and clinical instruction. (See Appendix III).

- (i) The following are areas of concern:-
- (i) The objective of the School is "to assist in educating the Nurse for care of the community." The School seems to place itself in a secondary position as regards the professional education of the nurse.

### Recommendation

- i. There is need for assistance in the areas of identifying and writing programme and educational objectives. Without properly identified and stated objectives appropriate content could not be selected, and evaluation done.
- ii. The Nursing Service has no objective for clinical teaching and supervision of students. This might be partly responsible for the low level participation of the Nursing Service in the education and training of students.
- iii. Although various types of health personnel were listed in the questionnaire hardly any participate in the teaching of the students. Some of the personnel mentioned that they used to be invited by the school to teach, but somehow this was discontinued unilaterally by the School.

### Recommendation:

Considering the limited expertise available in the School, the School need to utilize all available resources in the immediate environment so as to achieve its objectives. Many of the teachers in the School have no further preparation beyond their basic nursing qualifications. Under normal circumstances they should only assist trained tutors who are specialists in their areas of nursing. It is necessary to have a special program for sending the unqualified 'tutors' for formal training, if the standard of nurse and Midwife Training in the School is to reach a professional level.

2.3 Discussions with the Principal and Vice-Principal of Gambia College

The discussions centred around the place of the School of Nursing and Midwifery in the College, and the plans for the future development of Nursing within the College.

I particularly want to place on record that, although these gentlemen are Laymen to the nursing profession, all the same, they possess good insights into the problems of nursing generally and the School in particular. They are experienced men of vision and action; and given time and the necessary co-operation might be able to up-lift nursing to a professional height in the Gambia.

They are aware of the needs to, place the School within the proper administrative structure of the College; review the curriculum so that it attains both academic and professional standard; review admission criteria and provide academic facilities for the up-liftment of interested candidates to General Certificate of Education Ordinary Level in desirable subjects; seek external assistance, and raise the standard of nursing in the Gambia to an international level.

Their immediate and long term goals for Nursing include:

- X (a) Train nurses as presently done, but review the curriculum. Relieve Principal Lecturer in Nursing of mundane jobs so that concentration is on academic and professional development of students.
- X (b) Develop opportunity for General Certificate of Education Ordinary Level for prospective candidates.
- X (c) Develop academic stream in Nursing.
- X (d) Streamline the administrative structure of the College.
- X (e) Establish exchange programs for students. Gambian students to take examinations of other Universities in West Africa.
- X (f) Establishment staff exchange.
- (g) Obtain central funding by government for the College instead of the current system of subventions from the ministries of Education and Health.

Recommendations:

- X It is necessary that the School regard itself as being within the College rather than being part of it. The standard of Nursing and Midwifery will be raised faster to a professional level by this association.

#### 2.4. Meeting with Ex-Students

A meeting was held with nine Nurses who were ex-students of the School of Nursing and Midwifery. The purpose of the meeting was to obtain from the nurses evaluation of the educational programme they received and suggestions for improvement of the programme.

There were bright, articulate young men and women who knew precisely what they wanted and how to achieve their goals. But, like their age group anywhere else, they are very dissatisfied with the system. Given a better opportunity they would achieve better.

In terms of the curriculum they had during training, they were rather disappointed that the school prepared them at a level of nursing which is not in actual fact acceptable internationally not even in West African; while all along they were made to believe that the S.E.N. obtained carried more weight.

They expressed annoyance at the fact that the School reduced the entry qualification from General Certification of Education ordinary level or attempted to Junior High School standard and below. This has brought down the standard of entry to S.E.N. education to the level of State Enrolled Assistant Nurse (SEAN). This, they said, has lowered their value in the labour market. With a situation such as this they would never encourage those with General Certificate of Education Ordinary Level or above to come into Nursing.

They further expressed dissatisfaction with the treatment they had received from the Nursing Service since they left the School. They had neither been given proper uniforms nor placed on the deserved salary scale. As an observer, I was rather disappointed to see some of the nurses on duty in the wards wearing street clothes. One could not tell a nurse from either a patient or a visitor.

One major need identified by the nurses is opportunity for post-basic studies outside the Gambia. Some mentioned that they were studying for the General Certificate of Education Ordinary Level already, and would appreciate sponsorship to study in a country where the S.R.N. diploma is internationally recognised.

#### Observation and Recommendations.

The conclusions that could be reached are that:-

- (a) the lowering of entry qualification to the School demoralises the products of the school. The School authorities should re-examine the current admission policy.



- (b) the nurses would like to possess a nursing diploma that has ~~an~~ international recognition, at least in West Africa. The School should review its curriculum. Tied to (a), the lower the entry qualification, the more difficult it would be to strengthen the curriculum content and also attract highly qualified staff.
- (c) The alumni of an institution can serve as an important instrument in the fostering of its growth. They are in a position to encourage well qualified others to join the institution.

The School needs to encourage the participation of its alumni in its affairs. Feedbacks that will be beneficial might emanate from this source.

#### 2.5. Assistance Required by the School

At the second final discussion held with the school staff, the Chief Nursing Officer and the Principal Nursing Officer, my observations were fully shared. This was followed by identification of areas in which assistance could be offered by the West African College of Nursing (W.A.C.N.),

- (a) Consultants in planning and executing Continuing Education programme with Gambian counterparts.
- (b) Short-term personnel in Nursing Management and Supervision.
- (c) Trained Tutors in Nursing, Midwifery Community Health Nursing and Psychiatric Nursing.
- (d) Community Health Nursing Consultants.
- (e) Short-term consultants in Curriculum Development and Implementation.
- (f) Sponsorships for Gambian Nurses to spend periods of attachment in other West African Health College countries.

ALL the above needs were identified and agreed upon after frank and open discussions.

The urgent need for close collaboration between nursing education and nursing service, and among all nurses through an active Nurses and Midwives Association was also discussed. Finally, the role of a Nursing and Midwifery Board in the elevation of the standard of education and practice was raised.

Information, was given that the plan for the organization of the Board was at an advanced stage.

#### 3.0. NURSING SERVICE

- 3.1 Interaction with the nursing service was through the various discussions held with nursing and other health personnel and through visits to the various nursing service areas within and outside the hospital.

Discussions were held in particular with the Chief Nursing Officer (C.N.O.) Miss Clara MacMason, the Principal Nursing Officer (P.N.O.) Miss A. Lusack, Senior Nursing Sister and Nursing Sisters in charge of wards and services. There was also opportunity to discuss with the Hospital Secretary, Mr. Gomez who was Secretary to the Board of Management of the Hospital. Unfortunately, the Chairman of the Board was unable to see me due to unavoidable circumstance. I also had a brief discussion with the Principal of School for State Enrolled Nurse Mrs. Harding. The discussions centred around the goal of nursing service; the relationship between nursing service and nursing education; the responsibility of nursing service for the clinical teaching and supervision of students from the School of Nursing and Midwifery; the type of commitment the Hospital Board has towards the School, and the adequacy of the clinical facilities for student learning.

Conducted and non-conducted visits were made to the various units of the hospital, health centres and clinics.

3.2 Observations: These are summarised as follows:-

- (i) Facilities in the hospital were grossly inadequate for a very minimum level of safe nursing practice. There is no basis for allowing professional nurses in training to be placed in such an environment for the purpose of learning. Basic equipments were lacking. No privacy for patients. Toilet facilities for patients were poorly maintained. Wards were congested with patients and their families who obviously did the caring. The situation on some wards were very depressing.
- (ii) Staffing - wards have very few professionally qualified nurses to provide necessary supervision of and demonstration to student nurses. A situation where nursing auxiliaries became the role model for professional student nurses is very unhealthy.

As mentioned earlier, some nursing personnel were not dressed in uniforms. There were evidence of indiscipline - nursing personnel smoking in the wards and responding non-chalantly to Ward Leaders..

There were a variety of patients on the wards to provide sufficient experience for students.

3.3 Discussion revealed the following points:-

The nurses were generally dissatisfied with real low quality nursing practice. The chronic shortage of most basic essential instruments and equipment, they claimed, gave them a deep sense of frustration. Although the management was trying very hard, the effect could hardly be seen or felt.

Participation of Nursing Services in basic Nursing Education appeared low but active participation in the S.E.A.N. program was more apparent. Reference were constantly made to the effect that the students were independent of the Nursing Service and the staff of the School had responsibility for their clinical teaching and supervision. Sometimes, individual ward Sister got involved merely in personal bases. This attitude was seen mainly in the hospital, in the Health Centres, the nurses knew the learning requirements of the students and appeared more committed to student teaching and supervision. It should be emphasized that the condition in the hospital provided little to foster enthusiasm in student teaching and supervision. The apparent frustration of not being able to give nursing care to needy patients might constitute enough problem.

Ward Sisters usually did not know what students were supposed to learn. Since the transfer of the School to the College, there is no formal declaration as to the responsibilities of the Hospital Management Board to the School and vice versa.

3.4 Recommendations

The Nursing Service and Nursing Education should identify the areas of co-operation in the training of student nurses irrespective of change in the administrative status of the School. The program arrived at should be made available to all nurses who are expected to be involved. The School should fully utilize the expertise and experience of the Principal of the S.E.A.N. School located in the hospital. Considering Mrs. Harding's rich experience, she should be more involved in the education and training for professional nursing rather than auxiliary.

- (ii) The Hospital Management Board and The Gambia College need to formalise  
X the current status of the School and identify the responsibilities  
of each organisation towards basic nursing education. Since students have specific period for their training, provision of basic equipments and structures necessary for nursing just have to be treated with urgency. Failure to act urgently would perpetuate the graduating of nurses with deficient necessary skills and attitudes.

### 3.5 Identified Needs

The following are areas of needed assistance as identified by the Nurses.

- (i) Opportunity for short-term attachment in specific nursing specializations.
- (ii) Opportunity for courses in Ward Administration and Clinical specializations.
- (iii) Short-term clinical consultants to work with Nurses on units and for continuing education.
- (iv) From observation, the upper echelon Nursing require formal preparation in Nursing Management and Administration.

### 4.0 RELATED AREAS

The Permanent Secretary Ministry of Health, Mr. S. N'Jie and the Deputy Director of Medical Services, Dr. H. N'Jie gave useful information especially in relation to the objectives of health care services and the administration of health services in the Gambia. The major objective of health care delivery was to extend health facilities and care to many of the agricultural inner land of the Gambia, and to develop the manpower necessary for the implementation of such services. There is a network of health centres managed by special trained health centre superintendents and special Maternal and Child Health (M.C.H.) program designed to extend into villages and hamlets.

Nursing is under the Director of Medical Services (D.M.S.) hence the Chief Nursing Officer is directed and responsible to the Director of Medical Services.

After the transfer of the School of Nursing and Midwifery to Gambia College, the Ministry of Health has intensified support for the Community Nurses School at Mansakonko and the school for Enrolled Assistant Nurses at the Royal Victoria Hospitals. These two schools are producing more nursing personnel in larger quantity than the main School of Nursing and Midwifery with higher entry qualifications. The present trend may adversely effect the growth of professional nursing in the Gambia.

The Ministry's obligation to the School of Nursing appeared to be only through the annual subvention to the Gambia College. Subvention is also given to the hospitals through its Management Board. What is not clear is whether the teaching functions of these hospitals were considered in the allocation of funds. The clinical facilities in the hospital are too poor to support any nursing educational program be it for assistants or professionals.

4.1 Recommendation:

- (i) The Ministry of Health in collaboration with the Directorate of Medical Services, the Hospital Management Board and Gambia College need to identify the essential clinical facilities that would support current nursing educational programs, and seek ways of obtaining them.
- (ii) It is necessary for the Nursing Section to direct the affairs of nursing. Situations where there is no unity of command and direction cause chaos in any organization. The Chief Nursing Officer should be accountable to the Minister of Health through the Permanent Secretary for all matters relating to Nursing. This will make for co-ordinated and integrated development of Nursing Education and Nursing Service.

4.2 World Health Organization Contribution.

Opportunity was provided for me to meet with the World Health Organization Nurse, Mrs. C. Akrofi who participates in the Maternal and Child Health program in the School.

Observation and Recommendation

The School of Nursing and Midwifery should tap the facilities and contributions of World Health Organization and its staff more and more.

THE GAMBIA SCHOOL OF NURSING  
AND MIDWIFERY.

Appendix I

Comments on Curriculum for Nursing

General Comments

1. The curriculum lacks the general information as to the
  - i. Philosophy and Objectives of the School
  - ii. The competencies that could be expected of the nurse after training
  - iii. Unifying concepts of the total program and from year to year.
  - iv. Candidate who qualify for Admission into the School
  - v. How long the program of training is.

Specific Comments

Introductory Study Block

1. There is a general description of what the students would do during the 16-week block.  
The objectives are stated either as learning nor teaching objectives. For example, obj.1. If the student is "to practice basic nursing skills so that he/she may able to function comfortably, usefully and safely in the ward situation," then there is no evidence of her having learnt anything from the teacher. Similar comments can be made of the other objectives.
2. (i) The procedure followed in the development of the course contents was not clear.  
(ii) If each teacher is expected to develop and adopt the content of the course she is responsible for,
  - (a) who developed the original content in the present curriculum?
  - (b) how are the course contents related to each other?
  - (c) Is there a Curriculum Committee?
  - (d) No indication of the number of hours of each course, methods of teaching, students' learning activity and where clinical demonstrations take place.
  - (e) No evidence of how the objectives of each course are evaluated?
3. Fundamentals of Nursing  
The contents of this course are terribly inadequate as a foundation for professional nursing. Emphasis seems to be on the acquisition a few essential basic skills. Students are expected later to 'identify methods of meeting needs, plan, implement and evaluate Nursing Care, when the Nursing Process has been taught.'

4. Introduction to Human Anatomy and Physiology

- (i) The purpose the content of this course supposed to serve in relation to other courses in the Introductory Period, especially, the Fundamental of Nursing is not clear.
- (ii) Content grossly inadequate to assist the student basic nursing care skills on the understanding of gross functioning of the Human Body.
- (iii) It is necessary to show more details of what goes into each unit.
- (iii) No indication of length of course.

5. Public Health

- (i) The concept of the "family" as the target unit in public health nursing is totally excluded.
- (iii) Family Health should be introduced at this level.
- (iii) Concept of disease should be examined along with concept of health.
- (vi) Introduce what Public Health Nursing is about, so that the enumerated content can be meaningful to the students.

6. Microbiology

- (i) The appropriate title for this course should be Prevention of Infection which is only as aspect or unit in microbiology which normally covers Development of microbiology, classification of micro-organism, Infection; Prevention of Infection; Immunity, Investigations in micro-biology, Environmental Aspects of Microbes.
- (ii) Content grossly inadequate for Professional Nursing

7. Pharmacology

- (i) Objective inadequate.
- (ii) Considering the general and professional knowledge of the students at this time only topics in Units 1,2 and 3 (i) can be taught at a level of comprehension by the students. Other topics should be left until more advanced anatomy and physiology and introduction to disease are taught.

8. Psychology

- (i) The objectives do not depict what psychology is about
- (ii) The course content depicts application of a few concepts in psychology to Nursing.
- (iii) The concepts in psychology should be taught first before proceeding to application. e.g. Basic Human Needs, Personality development, perception, Motivation, Learning, Attitude, Change, Behaviour, Interpersonal relationship, Communication Leadership.

9. Sociology

- (i) Sociology should first be taught before application.  
E.g. The Nature of Sociology:  
Social Process - Socialization culture, social stratification,  
social change, group and population dynamics.  
Social Institutions:-The Family, School, Religious Institutions,  
Formal and Informal Organizations Health Care Institutions  
Sociology of Health  
-Urban and Rural Sociology.
- (ii) All above can be followed immediately or later with the various  
Nursing diensions.

10. Student Project

- (i) Objectives poorly stated. One does not get the benefit of this  
important experience.
- (ii) Are the topics the same for all times?
- (iii) By whom are the topics?
- (iv) Why does 'Modern and Old Fashion dancing' deserve a prize, when the  
activities which appear to support the first two objectives do not?

11. Field Trip

- (i) Objectives of the Field Trips are not documented.
- (ii) No evidence of guidelines being given to the students.
- (iii) No statement as to how students experiences are evaluated.

MAJOR OMISSIONS

- (i) No Chemistry, Physics, or evidence of Ordinary Level Biology.
- (ii) No course in English and Nutrition.

Course Outline for First Year Block

Comments

- (i) How long is the Block?
- (ii) How soon after the Introductory Block?
- (iii) The background of the student at this point of training is  
inadequate for a meaning ful MCH program, P.H.N. Obstetrical  
Nursing and Pediatric nursing.  
The Student should first learn about diseases and their management  
in adulte, before embarking on the care of sick children and care  
of the pregnant women.  
This way she has the pre-requisite knowledge, skills and  
attitude that can be applied.
- (iv) Psychology, Sociology and English unless English is a special  
problem, should be completed during Introductory Period. Revision  
and application should follow in subsequent years.
- (v) Growth and Development should be taught in first year Block.



- (iv) Care of the Adult Patient and Community Health Nursing which should include, Primary Care Family Health, including MCH, School Health, Occupation Health, Environmental Health, Port Health, Agencies, Organisation of Community Health Nursing, The Referral System.
- (vii) Obstetrical Nursing and Nursing the Sick Child should move to 2nd year Block.  
"Prevalent disease conditions during Childhood and adolescent in The Gambia and their plan of Treatment" should normally be a unit of Nursing the Sick Child.
- (viii) There is no evidence of clinical/practical requirements of student.

Comments of each Course

1. Growth and Development
- (i) The course should cover the total life cycle - from conception to senescence.
- (ii) The objectives should therefore reflect (i).  
Objective No. 3 seems to be out of place.
- (iii) Method of Evaluation:- No. 1 not clearly stated. The relevance of No. 2 is obscure. No. 3 is pertinent.
2. Care of Children and Adolescent
- Objectives 1 and Unit 1 of course content belong to Family Health Unit of Community Health Nursing.
- (ii) Objective 2 and Units 2 - 7 of course content should become part of a New Course "Care of the Sick Child". The words "Child" be used in legal terms.
3. Obstetrical Nursing
- (i) Course Outline appears adequate.
- (ii) Would there be practical demonstrations to and clinical requirements of the students?
- (iii) Unit V would read better things:- Common abnormalities of pregnancy, Labour, delivery and puerperium.  
"Problem of Anaemias and Puerperial Sepsis in The Gambia."
4. Prevalent Condition During Childhood and Adolescent in The Gambia and their plan of Treatment
- (i) This should be a component of 'Nursing the Sick Child.'
5. Public Health
- (i) The content does not support the title of the Course. Since it has to do with Nursing, Public Health Nursing or Community Health Nursing is a more appropriate title.  
The content for the course is recommended earlier.

Student Projects

- (i) What purpose is this exercise supposed to fulfil in the Students' training?
- (ii) Objectives - not stated as instructional objectives. Rather, a list of activities the students are expected to perform.
- 7. Psychology, Sociology and English
  - (i) Move to Introductory Block.

Second Year Block

General Comments

- (i) Suggestion has been given earlier that "Care of Adult Patient (Part I)" be moved to First Year Block "Care of the Adult Patient with Medical-Surgical conditions"

Comments of each Course

- 1. Characteristics of a Healthy Adult
  - (i) This should have been taught under Growth and Development. Only a short review necessary, with students being given reading assignments.
- 2. Psychological Aspect of Illness
  - (i) Objectives - poorly state.
  - (ii) Course content (2) should examine the sick patient both in hospital as well as at home so that students are assisted to see the comprehensive nature of nursing care.
  - (iii) Add: (a) "Reactions to Dying and Death"
    - (b) Pain and Its Alleviation

Prevalent Diseases and Conditions in The Gambia and their Plan of Treatment

- i. Course Objectives not instructional
- ii. Course is very self-limiting as teaching tends to depend on what can be extracted from Records.
- iii. There are many medical-surgical conditions which abound in the literature which students may not see until sometime after training. The teachers must all use other resources besides records to determine the content of the course.
- iv. The content of this course is inadequate for General Nursing especially in depths for Professional Nursing. e.g. Unit 7 has Diabetes Mellitus as the Metabolic Disorder for study in that unit.
- v. Unit 8 on page. Should be discussed after psychological Aspects of Illness. It should be expanded to include Body Adaptation in Health and Disease and Nutrition in Disease.

4. Sociology:- It should have been covered in Introductory Block

5. Administration

- (i) Objectives:- Not instructional.
- (ii) What is the purpose of this course?
- (iii) How long is the course?
- (iv) There is no content for the course
- (v) I suggest that
  - (a) the course be titled Introduction to the Principles of Administration and Management of a Nursing Unit.
  - (b) The course be taught in the final year.
  - (c) Clinical experience be provided as principles of management are taught.

Final Year Block

- (i) There is need to streamling the Medical-Surgical Nursing contents of both Year three and Final Blocks.
- (ii) Administration and Management - teach in the final year.

Programme of Visit of The Gambia

- Friday 18, September 1982 - Arrival in The Gambia
- Saturday 19, September 1982 - Discussion with Vice-President  
WAVN.
- Monday - 21st September 1982 - Discussion with Principal,  
School of Nursing
- Courtesy Calls:
- (1) Hospital Secretary
- (2) P.N.O. & Staff,
- (3) B.C.O. - Discussion
- (4) D.M.S. - Discussion
- Tuesday 22nd September, 1982 - Ward Round.  
Discussion with P.N.O.  
Meeting with Ex-Students  
Gambia School of Nursing
- Wednesday, 23rd September 1982 - Field Trip to:  
- Mansakonko  
- Bansang
- Thursday, 24th September 1982 - Meeting with Permanent Secretary  
Ministry of Health
- " Morning - Staff-School of Nursing
- " Afternoon - Visit to wards. R.V.H.
- Friday, 25th September 1982 - Meeting with:-  
Morning 8.30 a.m. - C.N.O.  
P.N.O.
- 9.30 a.m. - Principal School of Nursing  
- Principal Gambia College
- 12.00 noon - Chairman/Secretary,  
Hospital Management Board.
- Saturday 26th September 1982 - Meeting with W.H.O. Staff
- Sunday 27th September 1982 - Discussion with C.N.O.
- Monday 28th, September 1982 - Depart The Gambia Vice-President.

QUESTIONNAIRE ON FACILITIES AVAILABLE AT SCHOOLS OF  
NURSING/INSTITUTION

PURPOSE:

The purpose of this Questionnaire is to collect information on the suitability of the Institution as A Nurse Training School.

- |                           |  |
|---------------------------|--|
| 1. Name of Institution    | <u>School of Nursing &amp; Midwifery</u> |
| (a) Postal Address        | <u>P. O. Box 435</u>                     |
| (b) Telephone Number      | <u>673</u>                               |
| (c) Date of Establishment | <u>1966</u>                              |

2. Name of Authorities responsible for the Hospital.  
Mission/Government/Hospital Management Board

GAMBIA COLLEGE

3. What are the objectives of the school? The objective of this programme is to assist in educating the Nurse for care of the Community

The education will prepare the Nurse to:-

- (a) assess the needs of the individual and the community and Plan to meet them;
- (b) practice principles of healthful living
- (c) utilize community resources for the improvement and maintenance of health and prevention of disease
- (d) evaluate the effectiveness of the Nursing plan;
- (e) be involved in Social and Professional activities by contributing Constructively towards developments in the areas;
- (f) be a responsible member of the health team and demonstrate her obligation to keep abreast of changing trends in the delivery of health care

4. (A) Names and Addresses of branches of this Hospital/Institution included in the training scheme.

School is now part of Gambia College

4. (B) Group Training Scheme. Where a group training scheme is established or proposed, please give names and addresses of hospital forming the group, (Please indicate clearly established or proposed).

(C) Scheme of Secondment.

	Name of Hospital	TYPE OF EXPERIENCE	Length of Stay
1.	Royal Victoria Hospital	Practical	Total hours in
2.	Metal Hospital	"	Hospital Settings
3.	Home for Infirm	"	= 42 weeks
4.	Senatorun	"	
5.	Medical Reserch Council	"	Total hours in
6.	Bakau Health Centre	"	Health Centres
7.	Brikana Health Centre	"	and Other rural
8.	M.C.H. Clinics	"	Community Health
9.	Bansang Hospital		Setting = 32 weeks
10.	Basse Health Centre		

PROVISION FOR NURSING CARE SERVICES:\*

Bed State

5. (a) Bed allocation (of this hospital and any branches included in the training scheme).

W A R D S.	Mail	Female	Children	Total	Daily Average Occupancy
General Medical	36	28		64	54.63
Paediatric					
Surgical	MIXED WARD				
Medical			61	61	53.22
General Surgical	68	27		95	95.82
Gynaecological	-	4		4	5.00
Obstetrics		43		43	48.58
Ear, Nose & Throat				9	8.1
Ophthalmic &	MIXED WARD	9		9	8.11
Dermatological	-	-			
Psychiatric	20	20		40	56.63
Isuro-Surgical					
Private or Amonity	MIXED WARD	7		7	5.92
Isolation	3	3		6	3.45
Other Beds (Please Specify)	8			8	4.05

HOME FOR INFIRM  
Others - Bansang 137

TOTAL NUMBER OF BEDS Royal Victorie Hospital 337 as above

Special Departments

Does the hospital include:-

(a) out-patient Department? Yes Separately or Combined? \_\_\_\_\_

Please put a tick against clinics held:-

General Medical \_\_\_\_\_ Paediatrics \_\_\_\_\_ Orthopaedic \_\_\_\_\_  
 General Surgical \_\_\_\_\_ Genito-urinary \_\_\_\_\_ Dermatological \_\_\_\_\_  
 Gynaecological \_\_\_\_\_ & Throat \_\_\_\_\_ Venereal \_\_\_\_\_ Child \_\_\_\_\_  
 Ophthalmic \_\_\_\_\_ Psychiatric \_\_\_\_\_ Any Other \_\_\_\_\_

(b) Casualty Department? \_\_\_\_\_

(c) Operating Theatre? \_\_\_\_\_

Number of operations performed during the past year 1981

In main theatre (s):	Major	Minor
	<u>3091</u>	<u>5001</u>

In out-patient and  
 Casualty departments 900

What provisions have you for the following:-

(a) Seating and waiting accomodation (b) Canteen (c) Conveniences.

7. Medical Specialist available (as approved by the Gambian Medical Council)

	Full-Time Duties	Part-Time Duties
Nos. of Physicians	1	1
" " Surgeons	2	-
" " Paediatricians	1	1
" " Anaesthetists	-	-
" " Obstetrician/ Gynaecologist	2	-
Ophthalmologist E.N.T.	2	
Others - please specify		

- 3 DENTISTS
- 1 REGISTRAR
- 9 MEDICAL OFFICERS
- 2 HOUSE OFFICERS (PRE,REG.M.O.)

8. Aims/Objectives of the Nursing Service (1) To Provide effective Nursing Care and treatment for all Patients and Staff of the Hospital thereby assisting to maintain life and improving the health Status of the Community.

(2) Upgrade and maintain a high standard of Nursing at all times depending on the available financial and personnel resources and to maintain the established Norm of Pride and dignity of the Nursing Profession.

9. Pattern of patient care in use:

\* Team Nursing? Yes

\*\* Functional Assignment? Yes (Job) \_\_\_\_\_

\*\*\* Patient Assignment Sometime  
Any Other \_\_\_\_\_

\* Team Nursing:- is a group of Nursing personnel assigned under a team leader to care for a group of patients.

\*\* Functional Assignment:- All medications given by one nurse, all dressings done by one nurse etc.

\*\*\* Patient Assignment:- Each nurse given responsibility for complete care of a number of patients.

10. (a) Administrative Nursing Staff

	Name	Qualifications
Matron	LUSACK ANNIE S.R.N.	S.C.M.
Deputy Matron	DAVIES ANETTA S.R.N.	S.C.M.
Assistant Matron (s)		
Administrative Sister (s) Superintendents	1) N'DOW MARIE S.R.N. 2) N'JIE REBECCA S.R.N.	S.C.M. S.C.M.
Night Superintendent	DRANMED ELIZABETH S.R.N.	S.C.M.

10. (b) State the total No. of the following Nursing Personnel in your hospital

	No. on full Time Duties	No. on Part Time Duties
1. Ward Sister (Medical)	3	
" " Surgical & Gynac	3	
" " Paediatric	2	
" " Gynaecological		
" " Obstetrics	1	
" " Ear, Nose & Throat	NIL	
" " Ophthalmic	1 full-time duties	
" " Orthopaedic	NIL	
" " Dermatological	NIL	
" " Psychiatric	1 full-time duties	
" " Neurological	NIL	
" " Private or Amenity	1 full-time duties	
" " Isolation	NIL	



	No. on Full Time Duties	No. on Part-Time Duties
2. <u>Departmental Sisters</u>		
Out-patient Department	1 on full time duties	1 on part-time duties
Children's Emergency	NIL	NIL
Children's Clinic	-	-
Casualty	NIL	-
Operating Theatre	on full time duties	-
I.G.U.	NIL	-
Metabolic Unit	NIL	-
3. <u>Others</u>		
Public Health Sister/Nurse	1 on full-time duties Sister	-
Home Sister	NIL	-
Night Sister	1 on full-time duties	-
4. Staff Nurses C.S.S.D.	1 on full-time duties	-

10. (c) State Average Nurse

Patient-ratic available Morning	1 - 8,	1 - 10
Afternoon	1 - 16,	1 - 20 1 - 30
Night	1 - 25,	1 - 35

11. Facilities for Clinical Experience in health fields.

	Yes	No	No. of Trained Nurses
(a) Community Health	Yes		? ?
School Health	?	?	Some sort of School Service is given by D.D.S.
(b) Psychiatric	Yes		3 Trained Nurses

12. What arrangements do you have for Staff Development of trained personnel e.g. In-Service Training.

1) In-Service Training

2) Workshops and Seminars

3) Refreshers Courses

13. Auxiliaries (State Specific duties) To help the trained Nurses in the execution Nursing Care and Treatment to Patients - Must be under Supervision where possible.

14. Does the hospital have the Following?

	Yes	No
(a) Covered corridors	✓	
(b) Mothers rest room	✓	
(c) Records department	✓	
(d) Pharmacy	✓	
(e) X-Ray department	✓	
(f) Pathological Laboratory/ies	✓	
(g) Blood bank	✓	
(h) Physiotherapy department	✓	
(i) Occupational Therapy <u>IN THE PSYCHIATRIC UNIT</u>	✓	
(j) Rehabilitation centre	✓	
(k) Med. Social Services	✓	
(l) Mortuary (with refrigeration)		

15. Are facilities provided for the following services?.....

- (a) Engineering YES
- (b) Maintenance (including instrument curator's dept. YES)
- (c) Laundry (Please specify type) WASHING MACHINES INCLUDING PRESSING MACHINE & DRIER
- (d) Catering UNDER THE HOSPITAL SECRETARY
- (e) Sterilizing (Please specify type) C.S.S.D. DEPARTMENT OUT WARDS are provided with Sterilizers
- (f) Stores and supplies Hospital Stores which is a substore of the Main Central Store
- (g) Ambulance  
General  
Communication - Telephone, intercom, radiophone
- (h) Are fire extinguishers available Yes or No No
- (i) Others amenities - e.g. Canteen services, changing rooms for nurses etc.

- (a) Canteen Services
- (b) Changing room

Yes	No
	✓
	✓

- (j) Emergency electricity power generator service YES covers the main Hospital
- (k) Water - Pipe born YES  
Is the supply continuous. YES
- (l) What arrangements do you have for emergency? Hortican. Lamps with Kerosene in Wards & Water Tankers available in Emergency
16. Allocation of officer for Nursing Service Administration  
(a) Picture state No. of offices for Teaching Staff:- No specific office  
Are there individual offices for each teacher? No  
(b) If not how are the offices allocated? The P.N.O. and ward Sister with teacher staff
17. Teaching Department:-  
(a) Number of Student Nurses at present in the School: 70 (including new intake)  
Female 36  
Male 34  
(b) Proposed No. of intake peryear for the new schemes of training 30

18. Teaching Staff (Designation and Qualifications).  
(i) Qualified tutors (Please state whether Registered Tutors):

N A M E	DESIGNATION	QUALIFICATION	FULL TIME PART TIME	REGISTRA- TION NO.
Mrs. R. Palmer	Principal Lecturer	S.R.N. Cert. Ed. Dip. Ed.	Full time	No Register as yet
Miss Q. Roberts	Senior Lecturer	S.R.N. S.C.M. Dip. Ed.	"	
Mrs M. Fye	Senior Lecturer	S.R.N. S.C.M. Public Health	"	
Mrs. E. M'Eye	Lecturer	S.R.N. S.C.M.	"	
Miss. A. Betz	"	S.R.N. S.C.M.	"	
Mrs. M. Boob	"	S.R.N. S.C.M. Cert. Ed.	"	
Mr.- P. Sarr	"	B.N.Sc. S.R.N. Dispensing Cert.		

18. (ii) Other Teaching Staff:

N A M E	DESIGNATION	QUALIFICATION	FULL TIME OR PART TIME
Mr. S. Jack	Senior Lecturer	B.Sc. General Science	Part-time
Mr. Ingster	Principal Lecturer	B.A. English	"

19. What arrangements have you made for teaching staff development:

Formal training programmes. In-Service Courses  
Workshop. Discussion groups, Participation in various Nursing and  
other National Committees/Meetings

20. Ratio of Students to Tutors:- 16 to 1

21. Facilities for Administration in the School of Nursing.

a. No. of Officers for Hospital Administration

b. Are there individual offices for tutors. Yes Or No

c. If individual offices are not available, what arrangements are made  
for private interviews? 2 Tutors share an office. For Private  
interviews. The tutors not involved, continue his/her work in the  
Library

d. Are rooms available for the following?

Reception Yes

Conference Yes

General Store Yes

Clerical Staff Yes

22. Teaching Facilities:-

Please state number of rooms available for:

(A) Classes 6

(B) Tutorials No Specific room

(C) Demonstration 1

a. Auditorium, if not, what arrangements are made for the assembly of  
students?

No Auditorium. We use the lawn. In the future Auditorium at  
College Campus will be used.

b. Nursing Art Demonstration Rooms Yes

c. Urine Testing rooms and water disposal Yes

d. Science Laboratory: Yes (Yet to be properly set up)

Equipment e.g.

Burners Yes

Slabs Yes

Microscope Yes

Reagents Yes

Hot & Cold Water, etc. Yes

e. Audio-Visual aid equipment store (Aircondition) Yes (Non-Airconditione

II. Please list the audio-visual aids available e.g.

Anatomical charts etc. \_\_\_\_\_

(1) Anatomical Charts and Models. \_\_\_\_\_

(2) Film Strips and Overhead Projections \_\_\_\_\_

(3) Motion Pictures \_\_\_\_\_

(4) Graphics \_\_\_\_\_

(5) Slider \_\_\_\_\_

(6) Individual Cassette viewer \_\_\_\_\_

23. Library Facilities.

a. Seating Capacity Present Library 30. New Library 50

b. Total holdings of the Library: Present 300. New Library 600-750

i. No. of Professional Books: Present 250

ii. State the various types General Nursing. Med./Surg.

Paediatrics, Applied Sciences, Gyanc/Obstetrics etc. Humanities

No. of various Journals and Periodicals

Nursing Journals, WEST AFRICAN NEWS WEEK, Local Newspaper

New AFRICAN, W.H.O. Publications etc.

iii. Please attach catalogue of your Library holdings.

c. Who is responsible for the Library? Chief Librarian Gambia College

d. Average sum spent annually on:-

i. Library books D4500

ii. Journals D1000

24. The Curriculum

a. Please submit a copy of the proposed curriculum

b. Who is responsible for the curriculum planning and review? At Present Curriculum Development Committee of the School

c. How would you evaluate the effectiveness of the Programme? (1) Feed-back from areas where students and qualified Nurses practice

(2) Observation by Tutors and others of the performance of Students and those who graduated from other School

(3) Students own evaluation

25. Please state duration of night duty for:

1st Year One month

2nd Year One month

3rd Year 6 weeks

26. Indicate the methods of Teaching used in the

a. Class room

1. The entire group  
Discussions  
Group work  
Seminars  
Panels  
Visual aids  
Others

ii. The individual Student  
Individual project  
Case Study  
Personal Conference  
Others

Clinical areas

- 1. The entire group
  - Observation
  - Active participation
  - Field excursions
  - Projects
  - Discussions
  - Seminars
  - Visual aids
  - Consultants rounds
- ii. The individual student
  - Individual Project
  - Case Study
  - Personal conference

c. The entire group

27. What methods do you propose to use to evaluate the students progress:  
a. Class room Written assignments, Discussion, Tests  
b. Clinical: Conferences, Objective evaluation of Students performance
28. What arrangements do you have for students counselling and guidance?  
Periodic counselling. On-going counselling and guidance by tutorial staff Discussion with individual students and for groups of students strengths and weaknesses
29. (a) Is Residential accommodation provided for:-  
i. Male Students ✓  
ii. Female Students ✓
29. (b) Who is in charge of the Nurses' Residence Lady Warden
30. State the social and recreational facilities available for the Students  
Sport, In-Door games, Music Activities Planned by Student Nurses Association e.g. Dances, Public Meetings, Debates, Picnics etc.
31. What provisions are made for the care of the students during illness?  
One of the Tutorial staff responsible for student Health. Refer to Hospital for care. If necessary sick students are admitted in hospital if not they are cared for in the Residence
32. Are Fire Extinguishers available in the School and Hostels?

YES

Signature: Rachel Palmer  
(Head of Nurse Training School)

Signature: A.H. Lusack 23/9/82  
(Matron/Chief Nursing Superintendent i/c)

Date: \_\_\_\_\_

Signature: \_\_\_\_\_  
(Chief/Principal Nursing Officer).

Please return this form to:-

EmHarding

REPORT ON FAMILIARIZATION VISIT TO THE GAMBIA

PREPARED BY MRS. JOANA SAMARASINGHE,  
CO-ORDINATOR FOR NURSING AFFAIRS WACN

9TH - 18TH JULY, 1982

INTRODUCTION

The visit was planned as part of CNA's scheduled visits to fulfil a long intended tour which did not materialise due to unavoisable administrative constraints.

The Secretariat of WACN and the Steering Committee had been concerned about the nursing situation in the Gambia particularly as it affects the utilization of study Fellowships.

A good percentage of prospectives candidates whose names and curriculum vitae were submitted by the Gambia for admission into Post-Basic Nursing Education Programmes in the Sub-Region did not meet the entry requirements for courses they intended to pursue. The visit was therefore undertaken to afford the CNA the opportunity to obtain first hand information about the Nursing Scene in the Gambia.

SUMMARY OF ACTIVITIES DURING CNA'S DUTY TOUR OF THE GAMBIA

1. Courtesy calls on the Honourable Minister of Health and Social Welfare, the Deputy Minister and top officials of the Ministry.
2. Meeting with the D.M.S. Dr. Oldfield
3. Meeting with the Chief Nursing Officer
4. Meetings with Nursing Staff of the Royal Victoria Hospital and cross section of Nurses.
5. Meeting with Fellows of the Gambia Chapter and other non Fellows

6. Visit to training institutions:
  - The School of Nursing and Midwifery
  - The Yundum College.
7. Visit to Service institutions:
  - Royal Victoria Hospital
  - Medical Research Centre.
  - Bakau Health Centre
8. Visit to the Provinces
  - Mansakonko Health Centre
  - Bansang Hospital
  - Basse Health Centre.

#### OBJECTIVES

These were derived from back-ground information on hand

1. To visit Nurse Training Institutions and become acquainted with programme offered.
2. To visit Health Care Institutions.
3. To meet and hold discussions with Health Policy Makers and officials of the Health Department and Ministry in the Gambia.
4. To meet and hold discussions with nurse leaders tutors and administrators.
5. To meet and hold discussions with cross section of the nursing profession.

A programme was drawn up by the nursing authorities in The Gambia to meet the stated objectives.

#### ARRIVAL AT YLNDUM AIRPORT

I arrived at Yndum Airport on Saturday 10th July after going through some of the usual travel inconveniences typical with West Coast flights. Beginning with hours of delay at the onset followed by a lost ticket, and to cap it, a lost baggage



which was recovered a few days later.

MONDAY 12TH JULY, 1982

Accompanied by Mrs Muriel Fye Vice-President WACN and Liaison Officer/Secretary of the Gambia Chapter, courtesy calls were made to the Minister for Health and Social Welfare Hon. M.C. Jallow who was very pleased to receive me.

Brief discussion was held on the purpose of the visit, highlighting among other things the concern of WACN for Post-basic Nursing opportunities for nurses in The Gambia. The need for strengthening the basic nursing education programme which is a pre-requisite for future advanced programmes, for the preparation of nurse leaders, administrators/planners/teachers and researchers for the Health Services in The Gambia.

Other dignitaries met were The Parliamentary Secretary Mrs. N'Jia, the Ag. Permanent Secretary Mr. Singateh, Dr. Jones Chairman of the Hospital and Dr. F. Oldfield the head of the Health services. The latter gave an overview of the set up and historical development of health training institutions in The Gambia.

He said the training of nurses and other Public Health personnel is presently carried out within The Gambia College which was established in 1978 as a multidisciplinary College.

MEETING WITH DR. OLDFIELD D.M.S. 13/7/82 - 14/7/82

After statement on the purpose of my visit, the DMS expressed his delight at the interest shown by WACN in the development of a strong nursing service in The Gambia.

He expressed his concern over the trend of development and progress made so far in nursing in The Gambia, he regretted this was not at all satisfactory and something had to be done about it by the Nursing authorities.

The School of Nursing had been established for the purpose of training nurses to meet the needs of the Community but

Under the present arrangements, the School of Nursing and Midwifery are operating under the Gambia College and the Health Department has no control over the institution though it has influence at the Executive Board level.

The purpose for which The Gambia College was established in 1978 was a very good one and a progressive idea at that for a small country the size of The Gambia.

The intention was to have a Multidisciplinary College One College of Higher Education which can develop into a University in the future. In this way resources could be pooled together.

Functionally this has not been working well, it seems that a workable administrative machinery has not been properly developed to make it possible for the laudable ideas behind the establishment of the College to be concretised.

Guidelines for the operation of the College were yet to be developed. At the time of visit he said a re-organization exercise was in progress headed by CFTC Technical Assistance Personnel contracted for 2 years.

#### OBSERVATIONS

##### Entry requirements

This seems to be declining since the inception of the School.

- . School not fully equiped
- . Staff compliment short
- . Hospital back up not adequate
- . Public Health back up pretty good
- . Psychiatry inadequate.

##### Problems

There seems to be no job satisfaction among nursing staff

No job openings

Nursing needs to be upgraded this has not been done.

Consequently Nursing had been lowering its entry requirements. Also because School failed to make students achieve professional goals some left for the UK.

Prospects of post-basic education rather low since graduates fail to meet the requirements of other countries because of the low basic educational standards.

Needed Assistance

The School will require qualified personnel both for teaching and clinical areas.

Teaching Staff Requirements:

- Midwifery Tutor,
- Public Health Nursing Tutor.

Hospital Staff Requirements:

- Ward Sisters for Medical and Surgical Wards and all specialists areas, eg Paediatrics, Administrators, Clinical Instructors

Medical Research Council: Established 1948

Mrs. Pamela N'Jai

Quasi Government project collaboration between government of The Gambia/UK.

Hospital Capacity

- 36 beds
- 10 cots
- 10 beds for kids
- Adult ward 18 beds
- Staff 3 SRM SCM 1 part time
- 13 dressers 3 girls 10 males

The centre handles referred cases. There is a gate system for out patient cases 24 hours service.

The hospital is used as a practical area for student nurses both RNS and SENs 4 weeks clinical experience in each case, mainly for Paediatric and Medical Nursing experience.

CHAPTER MEETING 2 P.M.

Discussions focussed on Nursing Education generally Standards required for Fellowship courses and examinations.

Need for in-service Education.

The role of National Chapters in achieving objectives of WACN was stressed.

Meeting with WHO Representative - Dr. Akim.

Briefly Dr. Akim reviewed WHO involvement in Health Care Activities in The Gambia - This includes Nursing Education, Primary Health Care at Mansakonko.

EPI programme, this was to be integrated into training programme of all Health Personnel.

There is a Health Inspector in charge of initial operations immunisation of large numbers and the supply of cold chain. MCH in charge is very senior Nurse Mrs. Mboge who supervises the lower Cadre of staff.

Brief discussion was held with the WHO Nurse Educator Mrs. Comfort Akrofi who is also involved in Teaching examination and evaluation. She also expressed concern over the low calibre of students and low standard of training. She supports a pre-nursing programme as an interim measure to improve the educational level of student nurses.

HEALTH CARE SERVICE INSTITUTIONS VISITED

- Bakau Health Centre

Integrated service with the Medical Research Centre Trained nurses are in charge. Clinic was in session and quite busy at time of visit

There was a Sister (Nurse) in charge.

Clinic Schedule

1. Daily Out-patient Clinic for the sick all ages as well as baby Clinics. Sister does the screening and refers serious cases to the Doctor on the spot.

2. There are 5 Maternity beds  
Deliveries are between 900 - 1,000 a month
3. Mobile Clinic is run by Sister at Serrakunda which is about 7 miles from Bakau.

There is a stand by ambulance for emergencies.  
Disease Problems treated are mainly Diarrhoeal diseases, chest Conditions and measles.  
Surprisingly nutritional problems are not high on the list; about 90% of children are immunized against Childhood diseases.

#### VISIT TO THE PROVINCES 15TH - 16TH JULY

A two day trip was made to the provinces to the farthest point of The Gambia accompanied by the Vice-President to see Health Care **Delivery** Institutions and other facilities for the training of other categories of nurses.

This trip was very informative and educative.

I observed the contribution of nurses to the Health Services in The Gambia and the conditions under which they work.

Mansakonko HC - Central Region. Services MCH and General cases

Catchment area 3 - 4 miles from centre

A satellite clinic is held 10 miles away once every alternative week or bi-monthly.

#### Staff

Nurse in charge male - Mr. Newlands Williams qualified 1968.

2 Midwives

2 Dresser/Dispensers

4 Auxiliary

#### Beds

2 Labour Beds

6 Cots

Female ward 5 beds both ante-natal and post-delivery

Infant welfare clinic held weekly.

All other cases are seen and screened by the nurse for either treatment or referred to hospital.

Restricted quantities and types of drugs are kept. A store keeper had these in custody, but the nurse prescribes.

Average of 100 cases are seen daily.

Monthly attendance 3,000 - 5,000

Nurse expressed the desire for further training to enhance his performance.

Community Health Nurse School, Mansakonko

Tutor in charge Mrs. C. Coker. RN, RM. PH Nurse  
Assisted by 3 other, Qualifications RN/Midwifery  
Programme has been running for 6 years

1st Intake of 16 was in 1976

Duration 18 months

Entry Requirements

Junior Secondary School Leaving Certificate, English,  
Agricultural Sciences

2 local languages

Selection is by entrance examination and an interview  
which candidates must pass.

Content of Programme includes:

Anatomy and Physiology

Personal Hygiene

Introduction to Public Health

Environmental Health

Health Education

Communicable Diseases

Community Health Nursing

Concepts of Public Health

Primary School Health Education Curricula

Midwifery - Must witness 10 deliveries and Deliver 1

Family Planning

Child Health

Nutrition

Attrition is about 2%.

Bansang Hospital Eastern Region

Dr. A.A. Coesay, Medical Officer in charge  
Assisted by 7 Chinese Medical Team  
Nursing Sister, Nil  
2 Wards Male and Female Children  
Maternity Wing  
Labour Ward

This Hospital was commissioned on 11th April, 1938 as The Gambia Protectorate Hospital by Sir Thomas Southern KGMG KBE the then Governor.

There are 17 qualified and unqualified nurses  
Mr. N.B. Fatty nurse in charge with 26 years of service  
Older nurses are in charge of the Community Health Nursing Programme.

A brief meeting was held with the nursing staff to give information about the College and talk about nursing service and on going education for nurses.

It was observed that there were so many things causing frustration among nurses in the Provinces -e.g.  
high cost of living,  
lack of equipment to work with,  
shortage of staff,  
no uniform supply etc etc  
Morale of Nurses was very low. The same conditions prevail in the Capital.

Basse Health Centre. Upper River Division

This Health Centre is the biggest in the Upper River Division, it is the Referral Health Centre and the Division.

There are 5 smaller Health Centres and 5 sub-dispensaries in the Division.

It was opened in the early 1950s.

Facilities

Male ward 9 beds  
Female Medical 5 beds  
Isolation 2 beds 1 cot  
Maternity ward 7 beds and costs

Labour Ward 2 beds

Children ward 8 cots

Miss Marie Forbes N/Midwife in charge RN 1976 Mid 1980  
has been at post for 18 months. Very confident and good  
at her work.

5 Rural Community Attendants

2 Community Health Nurses Trained

1 Health Inspector

1 Dresser/Dispenser

Only 1 nurse on call 24 hours

Referrals come from the 5 Health Centres

More than 30 referrals a month

High maternal deaths

Combined Clinics are held at the centre

Satelite Clinics are held in 4 villages

Infant welfare and ante-natal clinic are held in Basse

MCH Clinic Fridays

Ante natal Tuesdays

The Centre runs an imprest for feeding of patients this  
is controlled by the commissioners office -head of the  
District

There are 2 cooks and 2 washermen

Dry stock of food and drugs are supplied from Banjul

#### Training Institutions Banjul

SEN School

This is within the Royal Victoria Hospital - Part of the  
Hospital is used for the purpose.

Officer in charge

Mrs. Harding an expatriate officer. British Technical  
Assistance. She gave a brief historical background of the commen-  
cement of the SEN training and an overview of the programme. The  
main objectives were to train a second level nurse within a  
reasonably short period of time to augment the existing RNS in  
meeting the increasing health needs of the people of The Gambia  
both Urban and rural populations.

The SEN so trained were to be responsible for basic  
nursing care under minimal supervision in the hospital and the  
community.



The candidates for training were to be selected from among auxiliary nurses with at least 5 years service.

The programme is a very impressive, well organised and comprehensive one for that level staff.

The curriculum is taught in modules with in built evaluation system which makes it easy to eliminate poor students

Students only move onto the next module on successful completion of preceeding module.

Duration - 2 years taught in 4 phases with integrated clinical and field learning experience.

MEETING WITH NURSING STAFF 13, 14, 17

4 meetings were held with the nursing staff of The Gambia including one each with the Chapter WACN and student nurses.

Purpose of the meetings was:

1. To explain the purpose of my visit.
2. Discuss WACN as at present and its future aspirations.
3. Nursing in The Gambia
4. Observations made on the tour and the role of Nursing in the Health Services of The Gambia.
5. Nursing Education

The need for:

- a. a sound basic nursing education
- b. continuing education
- c. a strong well organised nursing service.

Discussions were frank and open.

It was generally agreed that the standard of nursing care at the RVH was at its lowest, that there was more room for improvement that nurses need to play more role in the organisation and development of the profession. That there is the need for adequate preparation for nurses for leadership roles, that the standard Nursing Education should be raised and that there should be opportunity for on going education for nurses and exchange programmes, that there should be adequate materials and equipment to work with.

### OBSERVATIONS

It was generally observed that nurses were working under many trying conditions. There was general apathy and job dissatisfaction. So many reasons could be attributed to the poor state of nursing in The Cambia for examples:-

No uniform supplies some nurses were on the wards in mufty.

Poor working environment - the hospital needs a good cleaning up

Low remuneration

Slow or lack of progression most nurses felt they had poor prospects - this was reflected in their performance. It seemed regrettably that the advent of a school of nursing has had no effect on clinical nursing practice in the hospital, especially considering that the programme is clinically oriented.

Nursing staff on the wards were not able to assist student nurses in their learning and practice in the clinical areas, because they themselves lacked the technical know how.

#### Need for Self Improvement

Cross section of nurses spoken to and interviewed expressed the strong desire for on-going education

- a. To upgrade their general education
- b. To improve professional knowledge and skills
- c. To be prepared in areas of special interest.

### YUNDUM COLLEGE

Meeting with Mr. Edu Ampomah, new Principal, CFTC  
Vice Principal - Mr. N'Jai

The purpose of my visit was explained to both officers who were most receptive and sympathetic, to the problems of nursing education. They readily understood the need for higher education for nurses.

They agreed that the entry requirements for training should be at the same level as other courses of the college.

The idea of a pre-nursing programme was suggested which they were willing to consider since the facilities were already there.

The whole College was undergoing a re-organisation programme to set up a proper administrative machinery for its operation.

Funds will be centrally controlled but each programme will be adequately provided for. Heads of the programmes will also be represented on the College Board.

DISCUSSION WITH MRS RACHEL PALMER - PRINCIPAL SCHOOL OF NURSING

The Principal mentioned some of the constraints the school had in trying to maintain the stated and desired entry requirements.

The future prospects of products of the school were discussed in terms of current problems encountered in their gaining admission for post-basic courses.

It was strongly emphasized that there was an urgent need to raise entry requirements and the quality of the training programme in its totality if progress was to be made.

The concern of WACN on the present state of affairs was reiterated as well as the proposal to send an independent assessor to The Gambia in the very near future. This was favourably accepted.

Improvement of Clinical areas used for training purposes, and on-going education for sisters and other nurse leaders - the school could take the initiative in this area.

DISCUSSION WITH C.N.O. 17/7/82

Miss Clara MacMason had been at Post since March 1979. The present structure of the Nursing service was discussed and observations made on the various places visited.

The role of C.N.O.

The C.N.O. advises on nursing matters if these are referred to her.

Some activities of her division are

There had been in-service education programme for a limited number of trained nurses with experience 6 - 8 weeks duration organised in Banjul and Sierra Leone SHDS/WHO.

Also short orientation courses in Health assessment, treatment and management.

Review of the Nurses Act which now remains to go through legislative process.

She was also working on staffing needs. CNO was advised on the following:-

The need for a Nursing Policy from which goals and objectives could be derived was emphasized  
Nursing Manpower requirements also needs to be identified and plans for its execution prepared.

The need for a collaborative effort between the present nurse leaders i.e. Administrators in all service areas and Educators to assess the present situation in The Gambia, the resources available and ways and means of systematically improving the Nursing service was suggested.

It was stressed that the Nurses of The Gambia were first to determine the standard of Nursing, their desire for their country in the context of PHC and objectives of WACN.

Miss MacMason was advised to consider taking advantage of the existing Management programme offered by the University of Benin, Nigeria for Senior Nurses in Management and Administrative positions. A set of application forms were left for her.

A brief meeting was arranged for me to meet with Miss Annie Lussack PNO in charge of RVH who was on vacation at the time of my visit. Mutual discussion was held on the Nursing situation in The Gambia, Nursing and Primary Health Care, the College and its objectives and the support and contribution of nurses especially the leaders to bring about changes in the profession for the better.

FINAL DISCUSSION WITH DMS DR. F. OLDFIELD

The two top priority areas for attention are

- i. The School of Nursing
- ii. Clinical areas for training, practice and service

There is the urgent need for:

- a. Equipment and other materials
- b. Continuing Education
- c. External evaluation of the Nursing Programme ✓
- d. External examiners for qualifying examination
- e. Tutors for the School -  
Midwifery and Public Health Tutors

FINAL DISCUSSION WITH MINISTER OF HEALTH, HON. M.C. JALLOW AND HIS STAFF

The Minister was briefed on observations made during the tour - which required his attention.

The present standard of Nursing Education, need for the improvement of Clinical areas for learning, practice and service.

Improved service conditions of nurses which will go along with the two above and make for career mobility.

It was conveyed to the Minister that most nurses were generally working hard and doing their best. Especially nurses met with in the provinces, but certain inherent factors in the existing system frustrated them - these have been mentioned elsewhere in this report.

I concluded by thanking the Minister for giving me audience both before and after the tour and for his continued interest and support for the profession and WACN in particular.

The Minister in turn expressed his appreciation for my coming and extending the tour to the provinces and promised to look into the areas of inadequacy with the view of making necessary improvements.

GENERAL OBSERVATION AND REMARKS

Even though there is a Nursing Division it did not seem as if nurses, were in control of nursing.

The need for the conscious preparation of staff for leadership roles became more and more evident at every level of the Nursing hierarchy in The Gambian situation.

Nurses at post were doing their "Best" but that is not enough. Existing system does not make room for the best in nursing leadership and the trend may likely remain unchanged for some time to come unless a new scheme of service was introduced.

### RECOMMENDATIONS

As a first step the College should nominate an experienced nurse educator as discussed previously to visit The Gambia to study and assess the present Training programme both in terms of content, theory and clinical experience in meeting.

1. The nursing manpower needs of The Gambia and
2. Providing the sound foundation required for future Post basic Nursing Education for the various specialty areas in Nursing.
3. The ready acceptability of graduates of the current programme into nursing institutions of the WAHC and to
4. Identify any short-comings or inadequacies in terms of the foregoing and make recommendations to help improve the situation.

### RELATIONSHIP BETWEEN THE SCHOOL AND THE CLINICAL AREA

The seeming dichotomy between the school and the clinical area needs to be bridged in order that students will derive the full benefits of both areas in their learning experience.

The school has an important role which extends beyond producing students. Its existence should be reflected on the standard of Nursing especially in the training Hospital and other Clinical areas used for teaching purposes.

Presently the standard of nursing is woefully low and needs to be revolutionerised if the young nurses are to be retained in the service long enough to enjoy some degree of job satisfaction.

### QUALIFIED STAFF (SENIOR)

Inadequate or lack of preparation (Post Basic) of this cadre of nurses especially in the hospital service is glaringly reflected on the level of nursing standards.

This is a serious shortcoming and needs priority action. Talking to staff both individually and collectively did generate from them the desire for continuing education programmes in preparation for the task and roles they are expected to perform. They feel inadequate in themselves.

### NURSING POLICY

The lack of a clearly defined national policy on nursing from which a nursing manpower Plan or profile could be developed systematically, has contributed in no small way to the present state of Nursing in The Gambia.

A scheme of service for nurses needs to be developed. This will of course be derived from a National Nursing Policy and a statement should be made. This should be given the priority it deserves.

### ENTRY REQUIREMENT TO BASIC NURSING PROGRAMME PROFESSIONAL

This needs to be raised in order to attract the right level and calibre of students into the professional nursing programme. This in turn will contribute a high level of nursing standard.

The Nursing leaders in The Gambia need to determine the kind of nursing service they desire for the country and actively work towards achieving that.

The professional programme should strive to meet acceptable standards both in theory and in practice.

### ACKNOWLEDGEMENTS

I wish to record my appreciation to the Minister of Health and Social Welfare Hon. M.C. Jallow and his Staff for

receiving me warmly and holding discussions with me. The D.M.S. for his readiness to meet with him and his interest in Nursing Education.

The Principal and Vice-Principal Yundum College for their understanding of the nursing problem and willingness to assist.

The WHO representative and nurse educator.

The CNC, Staff of RVH MTC and the provinces where I visited.

Principal and Staff the School of Nursing and Midwifery.

Mrs. Harding and Staff SEN school for their ingenuity.

Last but by no means the least, Mrs. Muriel Fye for her interest in the future of Nursing and for all the arrangements made for a successful tour. Also to Mr. N'Jai the very competent driver who took us to the provinces.



*file Gambia/health*

## SESSION I

### Status of Measles in The Gambia, 1981

Pap J. Williams and Harry F. Hull

*From the Medical and Health Department, Banjul, The Gambia; and the Centers for Disease Control, Atlanta, Georgia*

Measles registries were instituted in all rural health facilities in The Gambia during January through December 1981. House-to-house surveillance of three infected villages revealed a 7% acute case-fatality rate. Infected villages were followed up until December 1981. Finger-prick specimens of blood, complete measles history, and vaccination status of 380 children aged six months to five years were studied. Data on children from the area with the lowest coverage for measles vaccination in 1980 were collected and analyzed. Of the 60% of children who were vaccinated, 75% seroconverted, while 8% reported measles infection after immunization. The Gambia's immunization program is composed of static immunization units with outreach stations and rural health workers in immunization services. The strong faith of mothers in the maternal and child health services coupled with the commitment of the health workers in The Gambia is helping to provide important leadership in the struggle to attain global control and eradication of measles by the year 2000.

Measles is a major cause of preventable mortality in African children. Morley [1] attributed 15.5% of deaths of African children younger than five years of age to measles. Cantrelle et al. [2] reported similar figures for Senegal, Upper Volta, and Dahomey, with mortalities of 15%-54%, 31.6%, and 8.8%, respectively. In Morley's prospective follow-up study of children younger than five years old in Imesi, Nigeria [3], 15 of 222 children with measles died of measles and its complications, such as pneumonia, diarrhea, undernourishment, and secondary infection. In Keneba, The Gambia, McGregor [4] documented 37 deaths due to measles in 307 children younger than 72 months of age. This was the status of measles mortality in Africa in the 1960s. What then is the impact of measles in African children today?

We present data on measles and measles vaccination in The Gambia during the past decade and a half.

#### Vaccination Program

Organized measles vaccination was first introduced in The Gambia in 1967 as part of the West African Smallpox Eradication Program assisted by the U.S. Agency for International Develop-

ment. Three mobile teams using jet injector guns vaccinated all children aged six months to four years. Independent assessment documented coverage rates for measles vaccination of 96%. By May of 1967 The Gambia became the first country in the world in which measles transmission was interrupted [5].

However, measles returned as an endemic disease in 1972. Three causes for failure to maintain the measles control program were identified: first, the lack of a health infrastructure to identify and immunize new susceptible individuals; second, the lack of resources and supervisory skills to maintain mobile operations; and third (and primarily), inadequate supply of vaccine.

Over the past decade, The Gambia has developed an extensive Maternal and Child Health (MCH) Service consisting of 18 fixed centers and over 100 outreach clinics. Services of the MCH agency consist of nutrition screening and education, treatment of common conditions, and immunizations. With support from the World Health Organization (WHO) and the regional Strengthening Health Delivery Systems program, improvements were made in training and in cold-chain operation, supervision, and monitoring, with the aim of improving vaccination coverage and the quality of immunization.

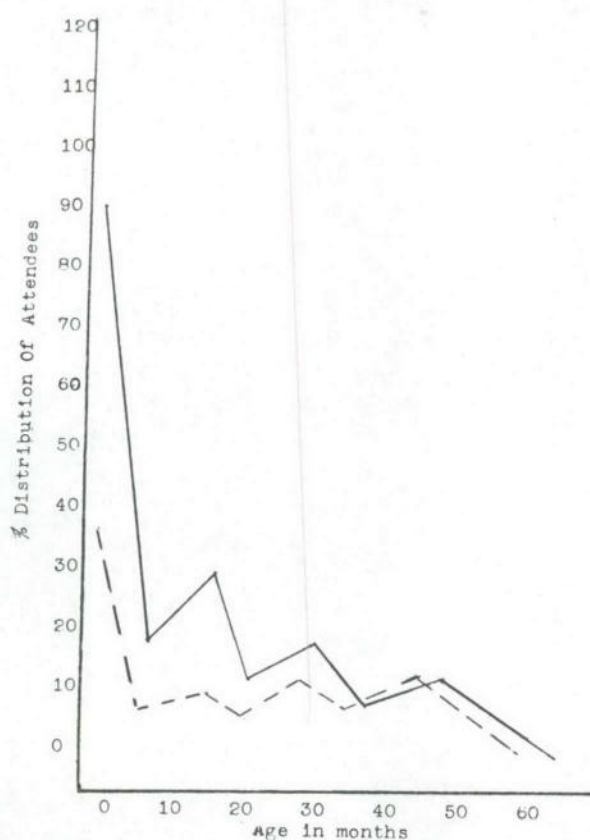


Figure 1. Percentage of total visits to child welfare clinics attended by sick children (—) and well children (---), respectively, of indicated age: The Gambia, 1981.

### First Assessment

In the initial assessment by The Gambia government, WHO, and the Centers for Disease Control (CDC), we observed that only 40% of the children in the target group (nine to 24 months of age) were receiving measles vaccine. Investigation of this low coverage revealed that by the age of nine months attendance at MCH clinics dropped (figure 1), that visits by the sick exceeded those by the healthy, and that sick children were not immunized.

It was recognized that the risk of measles infection was far greater than the theoretical but undocumented risk of vaccinating sick children, and a policy was established that all children aged nine months to five years, sick or well, would be vaccinated upon attending MCH clinics. By October 1981, coverage by measles vaccination as determined by a cluster sample survey was 70%.

### Morbidity and Mortality

Since the objective of measles immunization is not coverage but reduction in morbidity and mortality, the program priority during the last 18 months has been the monitoring of the effectiveness of measles immunization in reducing morbidity and mortality. In January 1981, we intensified surveillance by asking all health centers to identify and report measles-infected villages. Through questioning of patients with measles at routine clinics, three villages were identified and investigated. At each village, all children  $\leq 10$  years of age were enumerated, measles cases were identified, and measles-associated deaths were documented. Follow-up visits were conducted at the third and ninth months.

**Mortality.** In a population of 1,073 children, 146 cases of measles were documented (table 1). Of these 146 patients, seven (4.8%) died of acute measles. No mortality was recorded during the epidemic among children who did not experience measles.

**Mortality at nine months.** From three to nine months after the outbreaks, 13 additional children with measles died, and 11 were lost to follow-up; thus the nine-month mortality rate was 14.8%.

**Vaccine efficacy.** The efficacy of vaccine in age groups in The Gambia is worth special observation (table 2). The figures correlate with the

Table 1. Time of death of children with measles, The Gambia, 1981.

Age (no.)	No. of deaths			Total no. of deaths/no. of measles cases (%)
	Acute	Within 3 months	3-9 months	
0-2 months (34)	0	0	0	0/0
3-5 months (35)	0	0	0	0/2 (0.0)
6-8 months (36)	0	0	2	2/2 (100.0)
9-11 months (29)	2	1	2	5/7 (71.4)
1 year (128)	1	1	2	4/18 (22.2)
2 years (118)	2	0	1	3/17 (17.6)
3 years (121)	2	0	1	3/23 (13.0)
4 years (105)	0	1	0	1/8 (12.5)
5 years (113)	0	0	1	1/18 (5.6)
6 years (118)	0	1	0	1/18 (5.6)
7 years (77)	0	0	0	0/7 (0.0)
8 years (70)	0	0	0	0/8 (0.0)
9 years (64)	0	0	0	0/4 (0.0)
10 years (34)	0	0	0	0/2 (0.0)
Unknown	0	0	0	0/1 (0.0)
Total	7	4	9	20/135 (14.8)

**Table 2.** Vaccine efficacy among children aged nine months to five years, by age at vaccination, The Gambia, 1981.

Status	No. with measles/ no. vaccinated (% attack rate)	Vaccine efficacy (%)
Unvaccinated	82/268 (30.60)	. . .
Vaccinated 6-8 months	3/13 (23.08)	24.6
Vaccinated 9-11 months	3/58 (5.17)	83.1
Vaccinated >12 months	10/227 (4.41)	85.6
Vaccinated >15 months	8/206 (3.88)	87.3

decrease in reported cases of measles [4]. From 1977 through 1979, 6,110 measles cases were reported, for an annual average of 2,036 cases. In 1980 and 1981, only 274 cases were reported, a reduction of 86.5%

*How typical of the rest of Africa?* Studies in Kenya [6] documented a case-fatality rate of 6.5%. Zaire [7] has recorded a 6.1% case-fatality rate. Dr. T. Dondero has reported a 2.3% case-fatality rate for Yaoundé, Cameroon (personal communications). In Somalia the case-fatality rates range from 1.7% to 38% in villages and refugee camps, respectively.

### Serologic Studies

With the cooperation of the Medical Research Council (Fajara, The Gambia), five villages of McCarthy, Island Division, determined that their populations had lower than expected levels of HAI antibody (table 3). Only 62% of children vaccinated at nine months and older had titers of HAI antibody >1:4, whereas 25% of nonimmunized

**Table 3.** Age-specific rates of seroconversion among 210 Gambian children aged 0-5 years immunized against measles in 1981.

Age (no.)	No. (%) with indicated titer of HAI measles antibody	
	>1:4	<1:4
6-8 months (1)	1 (1)	0 (0)
9-11 months (11)	8 (73)	3 (27)
1 year (74)	41 (55)	33 (45)
2 years (69)	43 (62)	26 (38)
3 years (37)	24 (65)	13 (35)
4 years (14)	12 (86)	2 (14)
5 years (4)	3 (75)	1 (25)
Total	132 (62)	78 (38)

children of the same age were positive for HAI antibody (table 4). If all susceptible immunized and nonimmunized children were to be infected on exposure, vaccine efficacy would be ~51%.

### Possible Factors in High Mortality

Five factors in high mortality rates can be identified.

*Age at infection.* The average age of infection ranges from 14 months in densely populated areas of Africa, where children are on their mother's back most of the time, to 24-60 months in low-density areas.

*Nutritional status.* Undernourishment is a major cause of high mortality. The low measles mortality among well-nourished upper-class African children supports the theory of nutrition-associated mortality.

*Duration of diarrhea.* Recent studies in Bangladesh [8] have shown that diarrhea lasting more than seven days can accurately predict measles mortality. This relationship has yet to be documented in Africa, although Morley [9] observed an increase of morbidity due to diarrhea after measles epidemics.

*Pathogenicity of secondary infection.* Undernourishment, malaria, and hunger certainly increase mortality and occurrence and susceptibility to secondary infection.

*Availability of care.* Wider availability of medical care will undoubtedly reduce mortality.

**Table 4.** Age-specific rates of seroconversion among 147 Gambian children unimmunized against measles in 1981.

Age (no.)	No. (%) with indicated titer of HAI measles antibody	
	>1:4	<1:4
0-2 months (9)	5 (56)	4 (44)
3-5 months (34)	10 (29)	24 (71)
6-8 months (37)	2 (5)	35 (95)
9-11 months (10)	0 (0)	10 (100)
1 year (12)	2 (19)	10 (81)
2 years (13)	3 (23)	10 (77)
3 years (19)	8 (42)	11 (58)
4 years (7)	2 (29)	5 (71)
5 years (2)	0 (0)	2 (100)
Unknown (2)	1 (50)	1 (50)
Total	33 (22)	114 (78)

### Conclusion

The Gambia has been successful in raising the average age at which measles occurs through high vaccination coverage and the use of effective vaccine, but malnutrition, hunger, and chronic diarrhea still abound. Measles is still a major killer of African children. Data from field studies in The Gambia have documented that measles vaccine can be administered effectively. The challenge to all of us is to provide the training resources and supervision necessary to eliminate this major cause of death among African children.

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DR. FRED OLDFIELD, DIRECTOR OF MEDICAL SERVICES, MEDICAL AND HEALTH DEPARTMENT, BANJUL, THE GAMBIA. THIS IS TO BRING YOU UP TO DATE ON OUR EFFORTS TO ASSIST YOU TO FIND SUITABLE CONSULTANTS FOR AND OUR SUGGESTIONS ON SCHEDULING THE POLICY STUDIES ON FAMILY PLANNING AND NUTRITION AND THE PROGRAMMING OF HEALTH COMMUNICATION WORK, INCLUDING IN FAMILY PLANNING AND NUTRITION.

AAA REGARDING THE FAMILY PLANNING POLICY WORK, FRED SAI HAS UNFORTUNATELY NOW SAID HE CANNOT COME TO GAMBIA BEFORE DECEMBER BECAUSE OF UNFORESEEN OTHER CHANGES IN HIS TRAVEL PLANS. HE SUGGESTS YOU CONTACT DR. ARKUTU, THROUGH UNITED NATIONS FUND FOR POPULATION ACTIVITIES, IPAD, DAILY NEWS BUILDING, 220 E 42 STREET, NEW YORK, NEW YORK 10017. YOU COULD ALSO CONTACT GEORGE ZAIDANSTEIN, POPULATION COUNCIL, NEW YORK, AND ASK IF THEY COULD PROVIDE A CONSULTANT FOR ABOUT TWO WEEKS TO REVIEW THE FAMILY PLANNING POLICY ISSUES NOTED IN YOUR TERMS OF REFERENCE. YOU COULD INDICATE THEY SHOULD CONTACT ME IF THEY HAVE QUESTIONS.

BBB RE NUTRITION POLICY, WE HIGHLY RECOMMEND SOL CHAFKIN, A SENIOR-LEVEL NUTRITION CONSULTANT. HE WAS CHAIRMAN OF THE INTERNATIONAL NUTRITION COMMITTEE OF THE US NATIONAL ACADEMY OF SCIENCES, THE UN PROTEIN ADVISORY GROUP AND THE ADVISORY GROUP ON

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NUTRITION TO THE UN SYSTEMS. HE HAS EFFECTIVELY ASSISTED THE BANK IN NUTRITION PROJECTS IN INDIA, COLOMBIA, BRAZIL AND INDONESIA AND HELPED A NUMBER OF GOVERNMENTS IN DEVELOPING NUTRITION POLICIES AND PROGRAMS. HE IS AVAILABLE FOR TWO TO THREE WEEKS BETWEEN NOW AND END OF NOVEMBER. HE WILL SEND YOU BY TELEX AN INDICATION OF HIS COSTS.

CCC REGARDING HEALTH EDUCATION PROGRAMMING, WE UNDERSTAND YOU WILL HAVE RECEIVED A PROPOSAL FROM MANOFF INTERNATIONAL AND POSSIBLY FROM ACADEMY OF EDUCATION DEVELOPMENT. THE TIMING OF THE MANOFF PROPOSAL, WHICH WOULD PERMIT LIMITED WORK DEFINING THE GENERAL OUTLINES OF PROGRAMS IN HEALTH COMMUNICATIONS BEFORE APPRAISAL AND DETAILED PROGRAMMING IN 1986 WOULD BE ACCEPTABLE TO US FROM THE POINT OF VIEW OF WHAT SHOULD BE ACCOMPLISHED PRIOR TO APPRAISAL.

LET ME KNOW IF I CAN BE OF FURTHER ASSISTANCE, REGARDS, BIRDSALL, INTBAFRAD

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CLASS OF SERVICE: <b>Telex</b>	TELEX NO.: <b>992 2204 GV</b>	DATE: <b>Oct. 3, 1985</b>
SUBJECT: <b>The Gambia</b>	DRAFTED BY: <b>NBirdsall:lcj</b>	EXTENSION: <b>61581</b>
CLEARANCES AND COPY DISTRIBUTION:  <b>cc and cleared with:</b> <b>Mr. D. Mahar, Acting Chief, PHND2</b> <b>cc: Messrs. Berg and Sai</b>	AUTHORIZED BY (Name and Signature): <b>Nancy Birdsall, Chief</b>	
	DEPARTMENT: <b>PHNPR</b>	
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DR. FRED OLDFIELD, DIRECTOR MEDICAL SERVICES, MEDICAL AND HEALTH  
DEVELOPMENT, GOVERNMENT OF THE GAMBIA, BANJUL, GAMBIA  
HERE ARE NAMES AND ADDRESSES OF POSSIBLE CONSULTANTS FROM ALAN  
BERG: DAVID BOIANOVSKY, LAGO SUL, Q1 16, CONJ. L-NO 12,  
BRASILIA, BRAZIL; DR. CLAUDIO SHUFTAN, TULANE UNIVERSITY, SCHOOL  
OF PUBLIC HEALTH & TROPICAL MEDICINE, 1430 TULANE AVENUE, NEW  
ORLEANS, LA 70112; DR. DAVID SANDERS, DEPARTMENT OF PEDIATRICS,  
FACULTY OF MEDICINE, UNIVERSITY OF ZIMBABWE, PARIRNATWA HOSPITAL,  
HARARE, ZIMBABWE; MARCIA GRIFFITHS, MANOFF INTERNATIONAL, INC.,  
2001 S STREET, N.W., SUITE 420, WASHINGTON, DC 20009; JAMES  
PINES, TRANSCENTURY FOUNDATION, 1789 COLUMBIA ROAD, N.W.,  
WASHINGTON, DC 20006; MAX RUTMAN, CASILLA 9649, SANTIAGO, CHILE.  
ISHRAT Z. HUSAIN, PHND2, INTBAFRAD.

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SUBJECT: <b>GAMBIA</b>		DRAFTED BY: <b>ABerg:cj</b>	EXTENSION: <b>61576</b>
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		DEPARTMENT: <b>PHND2</b>	
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DR. FRED OLDFIELD, DIRECTOR OF MEDICAL SERVICES, MEDICAL  
AND HEALTH DEPARTMENT, BANJUL, THE GAMBIA  
FRED SAI MAY BE ABLE TO DO FAMILY PLANNING POLICY STUDY,  
SPENDING ABOUT 10 DAYS IN GAMBIA IN EARLY OCTOBER. HE CANNOT  
CONFIRM AVAILABILITY FOR ANOTHER WEEK AS DEPENDS ON OTHER  
COMMITMENTS. I WILL MEANWHILE PROVIDE SUGGESTIONS FOR CONSULTANTS  
ON THE FAMILY PLANNING PROGRAM AND FAMILY PLANNING COMMUNICATIONS  
AND EDUCATION WORK. REGARDS, NANCY BIRDSALL, WORLD BANK

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CLASS OF SERVICE: **Cable**

TELEX NO.:

DATE: **9/13/85**

SUBJECT: **Proposed PHN Project in Gambia**

DRAFTED BY: **Nancy Birdsall**

EXTENSION: **6-1581**

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cc: Dr. Sai, Ms. Fogle**

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To: Ms. Nancy Birdsall, Ms. Barbara Bruns

From: Jae So

Ext: 61634

Date: February 25, 1985

Subject: Recurrent cost financing in the Gambia

The purpose of this exercise is to analyse the recurrent expenditures in the health sector in the Gambia to predict the consequences of the government recurrent expenditure policy. These are the concerns addressed in this memo:

1. The extent to which the Gambian government has been able to meet the recurrent costs of its health sector investments, notably from 1975 to 1982, is analysed. As data on what a health system would cost to run optimally was not available at this time, comparisons were made with recurrent cost expenditures of the health systems in some neighboring countries.

2. Next, this historical data is related to the proposed government investment program in the health sector, in order to determine the feasibility of the program. Specifically, the recurrent costs projected by the World Bank Population, Health, and Nutrition (PHN) project are compared with the recurrent costs projected by the Gambian government.

3. Finally, some questions which would have made this analysis more complete are listed. Collection of the types of data listed in this section might be advisable for a future mission to the Gambia.

#### 1. Historical Data of Recurrent Expenditures in Health Sector

There were several non-financial indications that the government of the Gambia was not able to meet the necessary costs of operating

the existing health system, as recorded during a World Bank mission to Gambia in 1984. For example, the operating fuel costs of the transportation component of the village health care fell so behind the required levels that the number of trips made to villages had to be cut in half during a 1982 study of immunization coverage in the MCH program. In the two hospitals in the Gambia, the Royal Victoria Hospital and the Bansang Hospital, drugs were generally available; however, there were no reserve supplies. In addition, there were critical shortages of non-pharmaceutical items such as blankets, sheets, and dressings. Out of the five sterilization machines at the Royal Victoria Hospital, only one was in working condition. Some of the problems of the acute staffing shortages were caused because of this hospital's large population coverage. It was estimated to serve a large number of non-Gambian patients as well as Gambians. The catchment area was estimated to extend for a 200 mile circumference around the city of Banjul, in which it is located.

In Bansang Hospital a pediatric ward, which had been recently constructed, was deteriorating without ever having been used because of "gross structural defects." In addition, the shortage of staff housing and of the condition of the existing housing was a serious constraint to staffing at this hospital. Isolation facilities for patients suspected of having contagious diseases consisted of an unfurnished area behind the main hospital building where patients were placed on mats on the floor. Because of staff shortages, these patients had to be attended to and fed by their families, who camped out near the hospital grounds.

#### Assumptions

The following assumptions were made in attempting an analysis of

recurrent expenditures. First, in order to project recurrent cost data, two r-coefficients were used. The first, .35, was taken from a study of recurrent cost financing in the village health care system done in 1980 in the Sahelian countries, most specifically Niger. The second r-coefficient figure, .17, was used by a UNDP consultant in a recent analysis of recurrent cost financing in the Gambia. The justifications for either figure are not immediately apparent, however. In a WHO country resource utilization review of the health sector done in 1984, an r-coefficient of .16 was used, but again there was no justification provided in the document. Both extremes were therefore accepted as the high and low limits of recurrent expenditures, although it is suspected that even .35 is a low r-coefficient for operation of health centers.

An additional concern is that r-coefficients tend to decrease the higher the level of care. Since the r-coefficient is a ratio of the recurrent expenditure to total investment costs, it is reasonable that the greater the investment costs, the lower the ratio. In Ethiopia, for example, the r-coefficient for the health sector varied from .65 for a village health station to .26 for a 200 bed hospital. Therefore, the sectoral r-coefficients of .16 and .17, obtained by the WHO and CILSS, must be further broken down into the different levels of health care, for a more complete analysis.

The unit costs of health centers and dispensaries were estimated by dividing total operating costs by the number of units in the system. This is a rather simplistic assumption, for example, that the 2 medical officers employed by the health center system as a whole divide their time equally between all 17 health centers.

The ledger for the government recurrent expenditures included certain investments in equipment. However, these sums were assumed to be the replacement costs normally counted as part of recurrent expenditures. They were therefore not separated from the recurrent budget, although they are distinguished from the recurrent budget in Table 2.

Finally, in order to compare recurrent health sector expenditures with health sector expenditures in other countries, it is necessary to have data on the coverage and efficiency of the health facilities in the Gambia. For example, if it were possible to identify the number of patients per health center, then it will be possible to compare the recurrent expenditures for the health center with recurrent expenditures for similar health centers in other countries. By comparing the two numbers it may be possible to see whether the Gambia's recurrent expenditures were adequate for a health center of a certain size and coverage. As there are no norms for recurrent expenditures in African countries, this would be the most feasible way to compare recurrent expenditures in the health sector in the Gambia and in other countries. In this case, until coverage data for the Gambian health centers is not yet available, coverage can be estimated to be the rural population, 549,000, divided by the number of health centers, 17, or 33,000 per health center. However, as a large percentage of the patients served by the health centers were in fact Senegalese, 50 - 80%, data should be collected to reflect this increase in population.

#### Discussion

The table below shows the breakdown of the salaries, drugs, and non salaries component of the total expenditures on medical and health

services, according to Table 2.

---

	1979/80	1980/81	1981/82	1982/83	1983/84	1984/85
Salaries	55%	61%	74%	77%	74%	71%
Drugs	7%	12%	6%	9%	10%	11%
Non salaries	38%	27%	20%	14%	16%	18%

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The salaries component included salaries, wages, and allowances. All of the rest of the operating expenditures except for drugs was allocated to the non salary component. The above data does not divide up the administrative overhead component of the Ministry of Health, Labour and Social Welfare among the different departments nor does it include the expenditures on labour and social welfare. Consequently only the budget allocated specifically to the medical and health component is analysed.

The jump in the expenditures on salaries may be explained by the fact that the number of employees in the health system went from 1,791 in 1980/81 to 1,935 in 1981/82. However, in 1982/83 the number dropped to 1,730, and in 1983/84, increased marginally to 1,794. The data on salaries does not reflect the drop in personnel in 1982/83.

The breakdown in health sector expenditure by level of health facilities is given in a country resource utilization review by WHO.

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 Shares of Health Specific Expenditure Items in Total Allocable Budget  
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	1980/81	1981/82	1982/83	1983/84	1984/85
Hospitals	61.03	58.20	59.26	56.08	54.29
Basic Health Services	15.88	16.85	14.16	26.97	30.27
Specialized Services	21.57	22.78	23.90	13.19	11.82
Research & Training	1.53	2.16	2.68	3.75	3.62

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 These figures do not include administration, cleansing, labour and social welfare expenditures.

In analysing the health centers and the dispensaries component, the investment costs associated with the building of four health centers and 2 dispensaries included in the First Development Plan from 1975 to 1980 were related to the total operating expenditures of the health centers and dispensaries. This was used to project the annual recurrent expenditures at these levels of the health care system. Unit costs of operations for these facilities were obtained by dividing the total recurrent expenditure by number of facilities.

There is a steady increase in the r-coefficients for health centers from 1980/81 to 1984/85, from Table 3C. The r-coefficients range from .04 to .3, as projected in 1984/85. When separated into salaries and non salaries components, it can be seen that the non salaries component

is not increasing as steadily as the salaries component. The reason for this is a phenomenon known as wage creep, which illustrates a natural increase in salaries over a period of time with all other factors remaining constant. The non salaries component in fact increases at a much slower rate over the five year period.

Although  $r$ -coefficient analysis should only be used as a general indication, these very low figures seem to indicate that not enough money was being spent on financing the recurrent expenditures of health centers. Although the projections in the last two years of data greatly improves the  $r$ -coefficient analysis, they are projections and the actual data must be calculated to verify the  $r$ -coefficients.

The  $r$ -coefficient for the upgraded health centers ranged from .08 in 1980/81 to .26 in 1984/85. Upgraded health centers represents health centers which were formerly dispensaries. It is unclear exactly what is meant by improved health centers, but given the relatively low investment cost, the  $r$ -coefficients are much higher than the  $r$ -coefficient for new health centers. For example, the  $r$ -coefficient yielded a very large 1.22 for 1984/85. However, as it is not possible to determine unit costs more closely than by dividing total operating costs by the number of facilities, the assumptions on the meaning of these  $r$ -coefficients cannot be substantiated.

The  $r$ -coefficients for the dispensaries also showed a steady increase over the five year period, as seen in Table 4C. What is distressing is that the start-up costs of a dispensary are usually low in comparison to the operating costs, usually resulting in high  $r$ -coefficients for such primary health care facilities; however, the ratio of operating

costs to investment in this case seem to be extremely low, ranging from .02 to .17. The .17 projected in 1984/85 coincides with the figures presented by the WHO and UNDP reports for the health sector  $r$ -coefficient.

Tables 5 and 6 show the attempt to isolate the recurrent costs of the other components of the first investment program from total recurrent expenditures of the Ministry; however, the general ledgers were not sufficiently detailed to be able to separate the specific costs from the overhead. Only those resources specifically attributed to the new facilities, for example x-ray technicians hired in 1981, are listed. The figures in the table may be taken as a beginning to a recurrent costs analysis of those investments.

In Table 5B, the estimated  $r$ -coefficients may be taken as a salaries component of the  $r$ -coefficient for the x-ray center. In Table 6B, the  $r$ -coefficient for the MCH program shows an attempt to increase the recurrent budget, in the projections for 1983/84 and 1984/85.

The expenditure on drugs, separate from the total recurrent budget, is listed in Table 7. Here, data was sufficiently detailed to distinguish by level of health facility the amount which was spent on drugs. Again, more detailed information is needed on coverage at the different levels of health care in order to estimate the unit costs of drug cost per population. Otherwise, a simplistic calculation can be made by dividing health center and dispensary data by rural population, 549,000, in order to arrive at .26 Dalasis being spent per rural population on drugs in 1980.

In Senegal, the estimated coverage of health centers is 600,000 by 4 health centers, or 150,000 per health center. In addition, there



are 45 satellite health posts, each with a coverage of 12,000. A 1981 study done of the health sector financing in Senegal assumed an r-coefficient of .38 for a health center and an r coefficient of 3.8 for a health post. However, these were regarded by the government and the World Bank project officers to be much too high. In 1982, it was projected that the investment in health center staff training would be CFAF 199582. The recurrent costs projected by the government were CFAF 109324000, resulting in an r-coefficient of .55 for the health manpower component. No recurrent costs were projected for the health centers, as the health center investment proposed were all replacement health centers, and it was assumed that existing government recurrent budget would account for the new replaced health centers.

In Niger, a study of the village health care system estimated an r-coefficient of .35 per village health team. This was estimated with a 11,000 km radius assumed to be covered by each village health team.

A comparison with the above countries will be possible if more data were available on the coverage per health center and dispensary in the Gambia. However, it is possible to already see that the r-coefficient of less than .1 yields a recurrent expenditure projection far below the estimated recurrent expenditures necessary to run secondary health care systems in these countries.

## 2. Implications of Recurrent Expenditure of Basic Needs Program

In the latest development program, the majority of the projects were on rehabilitation rather than on capital investment. Therefore,

the government used a figure of .08 to project recurrent costs necessary of the development program as a whole. This is again lower than the UNDP, the WHO, or the Sahelian analysis by CILSS. It is also lower than the projected average recurrent expenditure on improved health centers to date, 1.2 (Table 3C), which might still be inadequate in meeting the recurrent cost needs of the health centers.

In Table 8, annual recurrent cost expenditures of the government Basic Needs Program were estimated with r-coefficients of .16 and .35. Using an exchange rate of Dalasis 4 to US \$1, the total incremental recurrent costs of the proposed program range from \$455,600 to \$996,625. This means at least an 18% one-time increase in recurrent expenditures in order to operate these additional facilities. From Table 1 it can be seen that no government trend in recurrent expenditures can be clearly distinguished. There has been an increase from 1978/79 to the projected expenditures in 1984/85; however the percentage increase has fluctuated severely.

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Increase in Government Recurrent Expenditures on Health Services

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1978/79 to 1979/80	19%
1979/80 to 1980/81	31%
1980/81 to 1981/82	3%
1981/82 to 1982/83	18%
1982/83 to 1983/84	46% (estimated)
1983/84 to 1984/85	4% (estimated)

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Using r-coefficient analysis, it is predicted that the government recurrent expenditures must increase by at least 18% in order to accommodate the proposed program. However, it must be noted that a percentage of the proposed program is in rehabilitation rather than on new construction. Therefore, it might not be reasonable to make the r-coefficient analysis, except as a very general guideline, for example, that \$1 spent at present would cost from \$.16 to \$.35 to operate in the future.

In Table 10, the World Bank and the Gambian government projections of the cost of the proposed program were compared. It is unclear whether the Basic Needs Program is separate from these government projections. They may be the same plan, presented under a different title. Total project costs for the World Bank project estimated by the government were \$13,963,000. The World Bank project estimated the total costs of the project at \$11,000,000. Table 10 shows a comparison of the components of the two projections.

### 3. Questions

These are questions which were raised during this exercise. Answers to these questions may help to better estimate the needed expenditure on recurrent costs. In general, these involve data collection which may best be done on site, with the officials who actually run these health care systems estimating the additional operating expense requirements.

1. Better indication of the coverage at each level of the health care system. Some estimates may need to be made on the Sahelian population which uses the Gambian health system.

2. A ratio of the general administration overhead allocated to

Ministry of Health, Labour and Social Welfare would be helpful to determine the total operating costs of the Ministry of Health, Labour, and Social Welfare, specifically the health sector.

3. Unit cost information by health centers and dispensaries will be helpful. This will better estimate needs of operating expenditures for improved/rehabilitated health centers. This is more important than operating cost information per new health center, as the proposed program consists mostly of rehabilitation than construction.

4. An indication of the efficiency of operation of these health facilities. With efficiency approximations, it will be possible to more closely monitor the growth in certain areas of the recurrent budget such as maintenance and operating costs for vehicles used in health centers.

5. Regional breakdown of expenditures of the health sector would be helpful in estimating the unit costs of regional health facilities.

TABLE 1A

TOTAL GOVERNMENT AND MINISTRY OF HEALTH, LABOUR AND SOCIAL WELFARE RECURRENT EXPENDITURES, 1974/75-1984/85  
CURRENT PRICES

	MHLS	GOVERNMENT	PERCENTAGE
1974/75 ACTUAL	5107	33096477	0.0002
1975/76 ACTUAL	3632602	44046791	0.0825
1976/77 ACTUAL	6678578	60219120	0.1109
1977/78 ACTUAL	7542469	73274764	0.1029
1978/79 ACTUAL	8284460	76160326	0.1088
1979/80 ACTUAL	8620712	91251468	0.0945
1980/81 ACTUAL	10178259	91698334	0.1110
1981/82 ACTUAL	11985196	137300000	0.0873
1982/83 ACTUAL	11866088	129600000	0.0916
1983/84 EST.	14043790	164900000	0.0852
1984/85 EST.	14507990	180900000	0.0802

	MHLS MEDICAL EXPENDITURES	GOVERNMENT	PERCENTAGE
1974/75 ACTUAL		33096477	
1975/76 ACTUAL		44046791	
1976/77 ACTUAL		60219120	
1977/78 ACTUAL	2513477	73274764	0.0343
1978/79 ACTUAL	5553025	76160326	0.0729
1979/80 ACTUAL	6240773	91251468	0.0684
1980/81 ACTUAL	7645575	91698334	0.0834
1981/82 ACTUAL	7257437	137300000	0.0529
1982/83 ACTUAL	7794475	129600000	0.0601
1983/84 EST.	9883894	164900000	0.0599
1984/85 EST.	10269643	180900000	0.0568

TABLE 19

TOTAL GOVERNMENT AND MINISTRY OF HEALTH, LABOUR AND SOCIAL WELFARE RECURRENT EXPENDITURES, 1974/75-1984/85  
1980 PRICES

	MHLS	GOVERNMENT	PERCENTAGE
1974/75 ACTUAL	2,502	16,217,274	0.0002
1975/76 ACTUAL	2,241,315	27,176,370	0.0825
1976/77 ACTUAL	4,321,903	47,479,205	0.1109
1977/78 ACTUAL	6,124,485	59,499,108	0.1029
1978/79 ACTUAL	7,315,178	67,249,568	0.1088
1979/80 ACTUAL	8,077,607	85,502,626	0.0945
1980/81 ACTUAL	10,179,059	91,698,334	0.1110
1981/82 ACTUAL	12,944,012	148,284,000	0.0873
1982/83 ACTUAL	14,120,645	154,224,000	0.0916
1983/84 EST.	19,239,992	225,913,000	0.0852
1984/85 EST.	19,375,946	247,333,000	0.0802

	MHLS MEDICAL EXPENDITURES	GOVERNMENT	PERCENTAGE
1974/75 ACTUAL		16,217,274	
1975/76 ACTUAL		27,176,370	
1976/77 ACTUAL		47,479,205	
1977/78 ACTUAL	2,140,943	59,499,108	0.0343
1978/79 ACTUAL	4,907,021	67,249,568	0.0729
1979/80 ACTUAL	5,847,604	85,502,626	0.0684
1980/81 ACTUAL	7,645,575	91,698,334	0.0834
1981/82 ACTUAL	7,308,000	148,284,000	0.0529
1982/83 ACTUAL	9,175,425	154,224,000	0.0601
1983/84 EST.	12,540,905	225,913,000	0.0559
1984/85 EST.	14,059,410	247,333,000	0.0568

TABLE 2A  
 MINISTRY OF HEALTH, LABOUR AND SOCIAL WELFARE RECURRENT EXPENDITURES, 1977/78-1984/85  
 CURRENT PRICES

	1977/78 ACTUAL EXPENDITURE	1978/79 APPROVED ESTIMATES	1979/80 ESTIMATES	1980/81 ACTUAL EXPENDITURE	1981/82 ACTUAL EXPENDITURE	1982/83 ACTUAL EXPENDITURE	1983/84 APPROVED ESTIMATES	1984/85 ESTIMATES
ADMINISTRATION								
SALARIES		492200	558180	693435	738451	879834	1090820	1112620
NON SALARIES COMPONENT	170004	148000	183000	910589	651737	700880	779520	971080
MEDICAL SERVICES								
SALARIES		2912460	3172560	4049416	4787638	5295722	6431770	6354940
DRUGS & DRESSINGS	309024	300000	400000	766430	383143	606809	906000	1000000
NON SALARIES COMPONENT	1677816	1561320	2000450	997043	546513	593188	891300	1042040
PURCHASE OF ADDTL. EQUIPMENT	428377	329000	127000	121277	120644	85435	140000	136000
OPERATION/MAINTENANCE OF EQUIP.	1742	13600	27050	670551	665188	297056	353200	446930
CLEANSING SERVICES(SANITATION)								
SALARIES	998698	800000	800000	1001956	1202312	105373	112300	107740
PAYMENT TO CONTRACTORS					1862706	3074094	3005680	3005680
NON SALARIES COMPONENT	353072	343600	270000	207864	63503	7976	20500	20110
SOCIAL WELFARE								
SALARIES		71270	74120	76039	98940	110245	143450	140160
NON SALARIES	57915	36730	53520	25912	38634	38402	55020	56340
LABOUR								
SALARIES		79790	79470	55376	67915	70168	104680	103480
NON SALARIES	10545	8400	12200	12959	4050	906	9550	10870
PRISON								
SALARIES		251270	318100	327472	411396			
NON SALARIES	249986	153900	187300	261940	342426			
TOTAL	4257179	7501540	8262950	10178259	11985196	11966088	14043790	14507990

TABLE 29  
 MINISTRY OF HEALTH, LABOUR, AND SOCIAL WELFARE RECURRENT EXPENDITURES, 1977/78-1984/85  
 1980 PRICES

	1977/78 ACTUAL EXPENDITURE	1978/79 APPROVED ESTIMATES	1979/80 ESTIMATES	1980/81 ACTUAL EXPENDITURE	1981/82 ACTUAL EXPENDITURE	1982/83 ACTUAL EXPENDITURE	1983/84 APPROVED ESTIMATES	1984/85 ESTIMATES
<b>ADMINISTRATION</b>								
SALARIES		434,613	523,015	693,435	797,527	1,047,002	1,494,423	1,524,289
NON SALARIES COMPONENT	170,005	130,684	171,471	910,589	562,086	834,047	1,067,942	1,330,380
<b>MEDICAL SERVICES</b>								
SALARIES		2,571,702	2,972,689	4,049,416	5,170,649	6,301,909	8,811,525	8,706,268
DRUGS & DRESSINGS	250,927	264,900	374,800	766,430	413,794	722,103	1,241,220	1,370,000
NON SALARIES COMPONENT	1,362,387	1,378,646	1,874,422	997,043	590,234	705,894	1,221,081	1,427,595
PURCHASE OF ADDTL. EQUIPMENT	347,842	290,507	118,999	121,277	130,296	101,668	191,800	186,320
OPERATION/MAINTENANCE OF EQUIP.	1,415	12,009	25,346	670,551	718,403	353,497	483,884	612,294
<b>CLEANSING SERVICES</b>								
SALARIES	810,943	706,400	749,600	1,001,956	1,298,497	125,394	153,851	147,604
PAYMENT TO CONTRACTORS					2,011,722	3,658,172	4,117,782	4,117,782
NON SALARIES COMPONENT	286,694	303,399	252,990	207,864	68,583	9,491	28,085	27,551
<b>SOCIAL WELFARE</b>								
SALARIES		62,931	69,450	76,039	106,855	131,192	196,527	192,019
NON SALARIES	47,027	32,433	50,148	25,912	41,725	45,698	75,377	77,186
<b>LABOUR</b>								
SALARIES		70,455	74,463	55,376	73,348	93,500	143,412	141,768
NON SALARIES	8,563	7,417	11,431	12,959	4,374	1,078	13,084	14,892
<b>PRISON</b>								
SALARIES		221,871	298,060	327,472	444,308			
NON SALARIES	202,989	135,894	175,500	261,940	369,820			
<b>TOTAL</b>	<b>3,594,873</b>	<b>6,623,860</b>	<b>7,742,384</b>	<b>10,178,259</b>	<b>12,944,012</b>	<b>14,120,645</b>	<b>19,239,992</b>	<b>19,875,946</b>



TABLE 3A  
HEALTH CENTER INVESTMENT, 1975/76-1980/81, AND RECURRENT EXPENDITURES, 1980/81-1984/85  
CURRENT PRICES

SOURCE OF FINANCE	SANDU/WULI	KARANTABA	KARANTABA	BWIAM DISP. (UPGRADE TO FATOTO HLTH CENTER)	
	YOROBAWOL			FATOTO	HLTH CENTER)
REV. TOTAL COST ESTIMATES	GLF 975125	PRC 750000	GLF 520000	GLF 705404	GLF 576757
ACTUAL EXP. 75/76,77/78	787642			672374	416998
ACTUAL EXP. 78/79	137483			33030	109759
REVISED ESTIMATES 79/80	705404		250000		50000
BUDGET ESTIMATES 80/81	50000		270000		

GLF: DOMESTIC FUNDS  
PRC: PEOPLES REPUBLIC OF CHINA

HEALTH CENTERS (17)

	1980/81	1981/82	1982/83	1983/84	1984/85
	ACTUALS			ACTUALS	
SALARIES	305891	297355	380898	1074370	1132230
WAGES OF HOSPITAL LABOR	11714	8715	7233	10000	2500
ALLOWANCES	21292	37369	42490	196400	176520
SUBTOTAL	338897	343439	430621	1270770	1311250
TRAVELLING EXPENSES	16600	6979	12698	20000	40000
UNIFORMS	2725	7499	6527	20000	10000
PATIENTS' FOOD	15438	11709	24218	60000	60000
MISC. OFFICE EXPENSES	582	229	106	2000	2000
OP. & MAINT. OF VEHICLES	245348	397112	107670	80000	100000
OF GENERATORS & PUMPS	40702	69408	66997	30000	100000
PURCHASE OF ADDTL. EQUIP.	17658	2169	950	10000	10000
REPLACEMENT OF EQUIPMENT			286	10000	10000
SUBTOTAL	339056	495105	219442	282000	332000
DRUGS & DRESSINGS	121133	34334	63574	150000	214000
OTHER MEDICAL STORES			3303	15000	30000
SUBTOTAL	121133	34334	66877	165000	244000
HEALTH MATERIALS (MCH)			19999	20000	20000
TOTAL	799086	872878	736939	1737770	1907250

TABLE 3B  
HEALTH CENTER INVESTMENT, 1975/76-1980/81, RECURRENT EXPENDITURE, 1980/81-1984/85, AND ESTIMATED UNIT COSTS OF OPERATION  
1980 PRICES

SOURCE OF FINANCE	SANDU/MULI			(UPGRADE TO HLTH. CENTER FATOTO HLTH CENTER) IMPROVEMENTS		
	YORDBAWOL	KARANTABA	KARANTABA	FATOTO	HLTH CENTER)	IMPROVEMENTS
	GLF	PRC	GLF	GLF	GLF	GLF
REV. TOTAL COST ESTIMATES	975,125	750,000	520,000	705,404	576,757	123,297
ACTUAL EXP. 75/76,77/78	485,975		0	414,855	257,288	71,947
ACTUAL EXP. 78/79	121,397		0	29,165	96,917	1,492
REVISED ESTIMATES 79/80	660,964		234,250		46,850	4,685
BUDGET ESTIMATES 80/81	50,000		270,000			

HEALTH CENTERS (17)

HEALTH CENTERS ESTIMATED UNIT COSTS OF OPERATION

	1980/81	1981/82	1982/83	1983/84	1984/85	1980/81	1981/82	1982/83	1983/84	1984/85
	ACTUALS	ACTUALS	ACTUALS	APPROVED ESTIMATES	ESTIMATES	ACTUALS	ACTUALS	ACTUALS	ESTIMATES	ESTIMATES
SALARIES	305,891	321,143	453,269	1,471,887	1,551,155	17,994	18,891	26,663	86,582	91,244
WAGES OF HOSPITAL LABOR	11,714	9,412	8,607	13,700	3,425	689	554	506	806	201
ALLOWANCES	21,292	40,359	50,563	255,368	241,832	1,252	2,374	2,974	15,022	14,225
SUBTOTAL	338,897	370,914	512,439	1,740,955	1,796,413	19,935	21,818	30,143	102,409	105,671
TRAVELLING EXPENSES	16,603	7,537	15,111	27,400	54,800	977	443	889	1,612	3,224
UNIFORMS	2,725	8,099	7,767	27,400	13,700	160	476	457	1,612	806
PATIENTS' FOOD	15,438	12,646	28,819	82,200	82,200	908	744	1,695	4,835	4,835
MISC. OFFICE EXPENSES	582	247	126	2,740	2,740	34	15	7	161	161
OP. & MAINT. OF VEHICLES	245,348	428,881	128,127	109,600	137,000	14,432	25,228	7,537	6,447	8,059
OF GENERATORS & PUMPS	40,702	74,961	79,715	109,600	137,000	2,394	4,409	4,689	6,447	8,059
PURCHASE OF ADDTL. EQUIP.	17,658	2,343	1,131	13,700	13,700	1,039	138	67	806	806
REPLACEMENT OF EQUIPMENT			340	13,700	13,700	0	0	20	806	806
SUBTOTAL	339,056	534,713	261,136	386,340	454,840	19,944	31,454	15,361	22,726	26,755
DRUGS & DRESSINGS	121,133	37,081	75,653	205,500	293,180	7,125	2,181	4,450	12,088	17,246
OTHER MEDICAL STORES			3,931	20,550	41,100	0	0	231	1,209	2,418
SUBTOTAL	121,133	37,081	79,584	226,050	334,280	7,125	2,181	4,681	13,297	19,664
HEALTH MATERIALS(MCH)			23,799	27,400	27,400	0	0	1,400	1,612	1,612
TOTAL	799,086	942,708	876,957	2,380,745	2,612,933	47,005	55,453	51,586	140,044	153,702

TABLE 3C  
HEALTH CENTER ESTIMATED R-COEFFICIENTS BY YEAR

	SANDU/WULI YOROBAWOL	KARANTABA	KARANTABA	UPGRADE TO HLTH. CENTER FATOTO HLTH CENTER) IMPROVEMENTS		
1980/81						
R COEFFICIENT (SALARIES)	0.0204	0.0266	0.0383	0.0283	0.0346	0.1617
R COEFFICIENT (DRUGS)	0.0077	0.0095	0.0137	0.0101	0.0124	0.0578
R COEFFICIENT (NON SALARIES)	0.0205	0.0266	0.0384	0.0283	0.0346	0.1618
R COEFFICIENT	0.0482	0.0627	0.0904	0.0666	0.0815	0.3812
1981/82						
R COEFFICIENT (SALARIES)	0.0224	0.0291	0.0420	0.0309	0.0378	0.1770
R COEFFICIENT (DRUGS)	0.0022	0.0029	0.0042	0.0031	0.0038	0.0177
R COEFFICIENT (NON SALARIES)	0.0327	0.0419	0.0605	0.0446	0.0545	0.2551
R COEFFICIENT	0.0569	0.0739	0.1066	0.0786	0.0961	0.4498
1982/83						
R COEFFICIENT (SALARIES)	0.0307	0.0402	0.0580	0.0427	0.0523	0.2445
R COEFFICIENT (DRUGS)	0.0048	0.0062	0.0090	0.0066	0.0081	0.0380
R COEFFICIENT (NON SALARIES)	0.0155	0.0205	0.0295	0.0218	0.0266	0.1246
R COEFFICIENT	0.0510	0.0669	0.0965	0.0711	0.0870	0.4070
1983/84						
R COEFFICIENT (SALARIES)	0.1050	0.1365	0.1969	0.1452	0.1776	0.8306
R COEFFICIENT (DRUGS)	0.0136	0.0177	0.0256	0.0189	0.0231	0.1078
R COEFFICIENT (NON SALARIES)	0.0233	0.0303	0.0437	0.0322	0.0394	0.1843
R COEFFICIENT	0.1420	0.1846	0.2662	0.1962	0.2400	1.1228
1984/85						
R COEFFICIENT (SALARIES)	0.1084	0.1409	0.2032	0.1498	0.1832	0.8570
R COEFFICIENT (DRUGS)	0.0202	0.0262	0.0378	0.0279	0.0341	0.1595
R COEFFICIENT (NON SALARIES)	0.0274	0.0357	0.0515	0.0379	0.0464	0.2170
R COEFFICIENT	0.1560	0.2028	0.2925	0.2156	0.2637	1.2335

TABLE 4A  
 DISPENSARIES & SUBDISPENSARIES INVESTMENT, 1975/76-1980/81, AND RECURRENT EXPENDITURES, 1980/81-1984/85  
 CURRENT PRICES

SOURCE OF FINANCE	DISP. & HLTH. CENTERS		
	BAMBISARA SUBDISP.	NEW YUNDUM DISP.	IMPROVEMENT
REV. TOTAL COST ESTIMATES	62667	189662	353421
ACTUAL EXP. 75/76,77/78	21691	132155	66519
ACTUAL EXP. 78/79	30975	48507	1902
REVISED ESTIMATES 79/80	10000	9000	185000
BUDGET ESTIMATES 80/81			100000

DISPENSARIES (20) & SUBDISPENSARIES (55)

	1980/81 ACTUALS	1981/82 ACTUALS	1982/83 ACTUALS	1983/84 APPROVED ESTIMATES	1984/85 ESTIMATES
SALARIES	95750	100916	89725	248580	321340
WAGES OF HOSPITAL LABOR	2388	4658	6210	5000	2000
ALLOWANCES	10481	17076	20715	26500	37000
SUBTOTAL	108599	122650	116650	280080	360340
TRAVELLING EXPENSES	11100	10072	7259	23000	32000
UNIFORMS	1669	2619	1260	8000	8000
OP. & MAINT. OF VEHICLES	114720	34905	36375	25000	30000
PURCHASE OF ADDTL. EQUIP.	20000	224	210	5000	5000
MISC. OFFICE EXPENSES				2000	2000
SUBTOTAL	147489	47820	45104	63000	77000
DRUGS & DRESSINGS	23456	56660	79522	120000	150000
SUBTOTAL	23456	56660	79522	120000	165000
TOTAL	279544	227130	241276	463080	602340

TABLE 4B

DISPENSARIES & SUBDISPENSARIES INVESTMENT, 1975/76-1980/81, RECURRENT EXPENDITURES, 1980/81-1984/85  
1980 PRICES

## AND ESTIMATED UNIT COSTS OF OPERATION

SOURCE OF FINANCE	DISP. & HLTH. CENTERS		
	GAMBISARA SUBDISP.	NEW YUNDUM DISP.	IMPROVEMENT
REV. TOTAL COST ESTIMATES	GLF 62667	GLF 189662	GLF 353421
ACTUAL EXP. 75/76,77/78	13,383	81,540	41,042
ACTUAL EXP. 78/79	27,352	42,832	1,679
REVISED ESTIMATES 79/80	9,370	8,433	173,345
BUDGET ESTIMATES 80/81			93,700

## DISPENSARIES (20) &amp; SUBDISPENSARIES (55)

## ESTIMATED UNIT COSTS OF OPERATION

	1980/81	1981/82	1982/83	1983/84	1984/85	ESTIMATED UNIT COSTS OF OPERATION				
	ACTUALS	ACTUALS	ACTUALS	APPROVED ESTIMATES	ESTIMATES	1980/81 ACTUALS	1981/82 ACTUALS	1982/83 ACTUALS	1983/84 APPROVED ESTIMATES	1984/85 ESTIMATES
SALARIES	95,750	108,989	106,773	340,555	440,236	1,277	1,453	1,424	4,541	5,870
WAGES OF HOSPITAL LABOR	2,388	5,031	7,390	6,850	2,740	32	67	99	91	37
ALLOWANCES	10,461	18,442	24,651	36,305	50,690	139	246	329	484	676
SUBTOTAL	108,599	132,462	138,814	383,710	493,666	1,448	1,766	1,851	5,116	6,582
TRAVELLING EXPENSES	11,100	10,878	8,638	31,510	43,840	148	145	115	420	585
UNIFORMS	1,669	2,829	1,499	10,960	10,960	22	38	20	146	146
OP. & MAINT. OF VEHICLES	114,720	37,697	43,286	34,250	41,100	1,530	503	577	457	548
PURCHASE OF ADDL. EQUIP.	20,000	242	250	6,850	6,850	267	3	3	91	91
MISC. OFFICE EXPENSES				2,740	2,740				37	37
SUBTOTAL	147,489	51,646	53,674	86,310	105,490	1,967	689	716	1,151	1,407
DRUGS & DRESSINGS	23,456	61,193	94,631	164,400	205,500	313	816	1,262	2,192	2,740
SUBTOTAL	23,456	61,193	94,631	164,400	226,050	313	816	1,262	2,192	3,014
TOTAL	279,544	245,300	287,118	634,420	825,206	3,727	3,271	3,828	8,459	11,003

TABLE 4C  
DISPENSARIES ESTIMATED R-COEFFICIENTS BY YEAR

	GAMBISARA SUBDISP.	NEW YUNDUM DISP.	DISP. & HLTH. CENTERS IMPROVEMENT
1980/81			
R COEFFICIENT(SALARIES)	0.0231	0.0076	0.0041
R COEFFICIENT(DRUGS)	0.0050	0.0016	0.0009
R COEFFICIENT(NON SALARIES)	0.0314	0.0104	0.0056
R COEFFICIENT	0.0595	0.0197	0.0105
1981/82			
R COEFFICIENT(SALARIES)	0.0282	0.0093	0.0050
R COEFFICIENT(DRUGS)	0.0130	0.0043	0.0023
R COEFFICIENT(NON SALARIES)	0.0110	0.0036	0.0019
R COEFFICIENT	0.0522	0.0172	0.0093
1982/83			
R COEFFICIENT(SALARIES)	0.0295	0.0098	0.0052
R COEFFICIENT(DRUGS)	0.0201	0.0067	0.0036
R COEFFICIENT(NON SALARIES)	0.0114	0.0038	0.0020
R COEFFICIENT	0.0611	0.0202	0.0108
1983/84			
R COEFFICIENT(SALARIES)	0.0816	0.0270	0.0145
R COEFFICIENT(DRUGS)	0.0350	0.0116	0.0062
R COEFFICIENT(NON SALARIES)	0.0184	0.0061	0.0033
R COEFFICIENT	0.1350	0.0446	0.0239
1984/85			
R COEFFICIENT(SALARIES)	0.1050	0.0347	0.0186
R COEFFICIENT(DRUGS)	0.0481	0.0159	0.0085
R COEFFICIENT(NON SALARIES)	0.0224	0.0074	0.0040
R COEFFICIENT	0.1756	0.0580	0.0311

TABLE 5A  
 ROYAL VICTORIA HOSPITAL X RAY & HEMATOLOGICAL EQUIPMENT INVESTMENT AND PARTIAL ASSOCIATED OPERATING COSTS  
 CURRENT PRICES

SOURCE OF FINANCE	GLF
REV. TOTAL COST ESTIMATES	421069
ACTUAL EXP. 75/76,77/78	278273
ACTUAL EXP. 78/79	94796
REVISED ESTIMATES 79/80	48000

SOME RECURRENT EXPENDITURES (SALARIES), 1980/81-1984/85

	1980/81	1981/82	1982/83	1983/84	1984/85	1980/81	1981/82	1982/83	1983/84	1984/85
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	ACTUALS	ESTIMATES	ESTIMATES	ESTIMATES	ESTIMATES
ORGANIZER (BLOOD BANK)	1	1	1	1	1	3396	3462	4157	4241	4325
LABORATORY ATTENDANTS	2	2	2	2	2	3672	3760	4478	4598	4718
CLERK/RECEPTIONIST	1					1932				
RADIOLOGIST				1	1				10	10
SENIOR RADIOGRAPHER	1	1	1	1	1	7788	7788	8736	8916	9096
RADIOGRAPHERS	4	4	4	4	3	25200	25200	15888	29268	16294
SENIOR X RAY ASSISTANT	1	1	1	1	1	3396	3396	3996	3996	4101
X RAY ASSISTANTS	2	3	3	3	3	5274	8368	9996	10140	10284
CLERK/RECEPTIONIST	1	1	1	1	1	1972	2020	2474	2534	2534
X RAY ATTENDANTS	2	2	2	3	3		4172	4968	6877	6997
TOTAL	15	15	15	17	16	52630	58166	54693	70580	58359

TABLE 5B  
 ROYAL VICTORIA HOSPITAL X RAY & HEMATOLOGICAL EQUIPMENT INVESTMENT AND PARTIAL ASSOCIATED OPERATING COSTS  
 1980 PRICES

SOURCE OF FINANCE	GLF
REV. TOTAL COST ESTIMATES	421069
ACTUAL EXP. 75/76,77/78	171,694
ACTUAL EXP. 78/79	83,705
REVISED ESTIMATES 79/80	44,976

SOME RECURRENT EXPENDITURES (SALARIES), 1980/81-1984/85

	1980/81	1981/82	1982/83	1983/84	1984/85	1980/81	1981/82	1982/83	1983/84	1984/85
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	ACTUALS	ESTIMATES	ESTIMATES	ESTIMATES	ESTIMATES
ORGANIZER (BLOOD BANK)	1	1	1	1	1	3,396	3,739	4,947	5,810	5,925
LABORATORY ATTENDANTS	2	2	2	2	2	3,672	4,061	5,329	6,299	6,464
CLERK/RECEPTIONIST	1					1,932				
RADIOLOGIST				1	1				14	14
SENIOR RADIOGRAPHER	1	1	1	1	1	7,788	8,411	10,396	12,215	12,462
RADIOGRAPHERS	4	4	4	4	3	25,200	27,216	18,907	40,097	22,323
SENIOR X RAY ASSISTANT	1	1	1	1	1	3,396	3,668	4,755	5,475	5,618
X RAY ASSISTANTS	2	3	3	3	3	5,274	9,037	11,895	13,892	14,089
CLERK/RECEPTIONIST	1	1	1	1	1	1,972	2,182	2,944	3,472	3,472
X RAY ATTENDANTS	2	2	2	3	3		4,506	5,912	9,421	9,586
TOTAL	15	15	15	17	16	52,630	62,819	65,085	96,695	79,952
ESTIMATED R-COEFFICIENTS(SALARIES)						0.1250	0.1492	0.1546	0.2296	0.1899



TABLE 6A  
MCH PROGRAMME INVESTMENT AND PARTIAL OPERATING COSTS  
CURRENT PRICES

SOURCE OF FINANCE	UK/61
REV. TOTAL COST ESTIMATES	648030
ACTUAL EXP. 75/76,77/78	29553
ACTUAL EXP. 79/79	198477
REVISED ESTIMATES 79/80	420000

UK/61: UNITED KINGDOM 1975 GRANT

SOME RECURRENT EXPENDITURES (SALARIES), 1980/81-1984/85

	1980/81 ACTUALS	1981/82 ACTUALS	1983/84 1982/83 ACTUALS	APPROVED ESTIMATES	1984/85 ESTIMATES
SALARIES	29447	16977	27681	47640	58090
ALLOWANCES			9599	21700	26500
SUBTOTAL	29447	16977	37280	69340	84590
TRAVELLING EXPENSES	9282	7665	1641	8000	4000
UNIFORMS			1648	2500	2500
MCH - STORES & SUPPLIES			282	10000	10000
MISC. OFFICE EXPENSES	906	3824	7085	2500	2500
OP. & MAINT. OF VEHICLES	21270	10832	9516	10500	15000
MAINT. EQUIPMENT				1000	1000
PURCHASE ADDTL. EQUIP.	4791	2075	7495	10000	10000
REPLACEMENT OF EQUIP.				5000	5000
SUBTOTAL	36249	24396	27667	49500	50000
DRUGS & VACCINES	5978	9580	19555	25000	25000
SUBTOTAL	5978	9580	19555	25000	25000
TOTAL	71674	50953	84502	143840	159590

TABLE 6B  
MCH PROGRAMME INVESTMENT AND PARTIAL ASSOCIATED OPERATING COSTS  
1980 PRICES

SOURCE OF FINANCE	UK/61
REV. TOTAL COST ESTIMATES	648030
ACTUAL EXP. 75/76,77/78	18,234
ACTUAL EXP. 78/79	175,255
REVISED ESTIMATES 79/80	393,540

RECURRENT EXPENDITURES (SALARIES), 1980/81-1984/85

	1980/81 ACTUALS	1981/82 ACTUALS	1982/83 ACTUALS	1983/84 APPROVED ESTIMATES	1984/85 ESTIMATES
SALARIES	29,447	15,335	32,940	65,267	79,583
ALLOWANCES			11,423	29,729	36,305
SUBTOTAL	29,447	15,335	44,363	94,996	115,888
TRAVELLING EXPENSES	9,282	8,278	1,953	10,960	5,480
UNIFORMS			1,961	3,425	3,425
MCH - STORES & SUPPLIES			336	13,700	13,700
MISC. OFFICE EXPENSES	906	4,130	8,431	3,425	3,425
OP. & MAINT. OF VEHICLES	21,270	11,699	11,324	14,385	20,550
MAINT. EQUIPMENT				1,370	1,370
PURCHASE ADDTL. EQUIP.	4,791	2,241	8,919	13,700	13,700
REPLACEMENT OF EQUIP.				6,850	6,850
SUBTOTAL	36,249	26,348	32,924	67,815	68,500
DRUGS & VACCINES	5,978	10,346	23,270	34,250	34,250
SUBTOTAL	5,978	10,346	23,270	34,250	34,250
TOTAL	71,674	55,029	100,557	197,061	218,638
R COEFFICIENT(SALARIES)	0.0454	0.0283	0.0685	0.1466	0.1788
R COEFFICIENT(DRUGS)	0.0092	0.0169	0.0359	0.0529	0.0529
R COEFFICIENT(NON SALARIES)	0.0559	0.0407	0.0508	0.1046	0.1057
R COEFFICIENT	0.1106	0.0849	0.1552	0.3041	0.3374

TABLE 7A  
 EXPENDITURE ON DRUGS  
 CURRENT PRICES

	1977/78 ACTUAL EXPENDITURE	1978/79 APPROVED ESTIMATES	1979/80 ESTIMATES	1980/81 ACTUALS	1981/82 ACTUALS	1982/83 ACTUALS	1983/84 ESTIMATES	1984/85 ESTIMATES
ROYAL VICTORIA HOSPITAL				475121	172828	291585	350000	350000
BANSANG HOSPITAL				140742	109741	144345	250000	250000
HEALTH CENTERS				121133	74334	63574	150000	214000
DISPENSARIES & SUBDISPENSARIES				23456	56660	79522	120000	150000
MCH/EPI UNIT (INCL. VACCINES)				5978	9580	19555	25000	25000
COMMUNITY HEALTH						3228	11000	11000
TOTAL	209024	300000	400000	766430	383143	506809	906000	1000000

TABLE 7B  
EXPENDITURE ON DRUGS  
1990 PRICES

	1977/78 ACTUAL EXPENDITURE	1978/79 APPROVED ESTIMATES	1979/80 ESTIMATES	1980/81 ACTUALS	1981/82 ACTUALS	1982/83 ACTUALS	1983/84 ESTIMATES	1984/85 ESTIMATES
ROYAL VICTORIA HOSPITAL				475,121	186,654	346,986	479,500	479,500
BANSANG HOSPITAL				140,742	118,520	171,771	342,500	342,500
HEALTH CENTERS				121,133	37,081	75,653	205,500	293,180
DISPENSARIES & SUBDISPENSARIES				23,456	61,193	94,531	164,400	205,500
MCH/EPI UNIT (INCL. VACCINES)				5,978	10,346	23,270	34,250	34,250
COMMUNITY HEALTH						9,791	15,070	15,070
TOTAL	250,927	264,900	374,900	766,430	413,794	722,103	1,241,220	1,370,000

TABLE B  
BASIC HEALTH SERVICES DEVELOPMENT PROGRAMME

COST SUMMARY

COMPONENT	1986/87	1987/88	1988/89	1989/90	1990/91	TOTAL	ANNUAL	ANNUAL
							REC. COSTS PROJECTED WITH R-COEFF .16	REC. COSTS PROJECTED WITH R-COEFF .35
CONSTRUCTION	1156000	1156000	1156000	1156000	1156000	5830000	932800	2040500
UTILITIES								
ELECTRICITY	537000	538000				1075000	172000	376250
WATER	330000	330000				660000	105600	231000
TRANSPORT								
VEHICLES	480000	480000	480000	480000	480000	2400000	384000	840000
FUEL	90000	90000	90000	90000	90000	450000	72000	157500
EQUIPMENT/FURNITURE	80000	80000	80000	80000	80000	400000	64000	140000
IN SERVICE TRAINING	15000	15000	15000	15000	15000	75000	12000	26250
TELECOMMUNICATIONS	150000	150000				300000	90000	175000
TOTAL	2948000	2949000	1831000	1831000	1831000	11390000	1822400	3986500

TABLE PA

PROPOSED INVESTMENTS IN HEALTH BY MINISTRY OF HEALTH, LABOUR AND SOCIAL WELFARE, 1982/83 - 1984/85  
CURRENT PRICES

	1982/83 ACTUALS	1983/84 ESTIMATES	1984/85 ESTIMATES
<b>A. HOSPITALS AND SPECIALIZED UNITS</b>			
ROYAL VICTORIA HOSPITAL			
REROOFING OF OPT. WORKSHOP/DISP.	16837		
CONVERSION OF NEW MATERNITY WING		500000	3000000
ACCESS ROADS TO SEWERAGE	13153	350000	
BANGANG HOSPITAL			
RENOVATION OF STAFF HEADQUARTERS		100000	50000
REHABILITATION OF HOSPITAL BUILDING	813482		
HOME FOR INFIRM: TOILETS AND FENCING	6753		
<b>B. HEALTH CENTERS AND DISPENSARIES</b>			
KIANG KARANTABA HC STAFF QUARTERS			
	130000		
KUDANG HEALTH CENTER			
MINOR WORKS	9654		
HEALTH CENTER	200810		
WATER/ELECTRICITY CONNECTION	26679		
SERRUKUNDA AND BAKUM POLYCLINICS			
EQUIPMENT/FURNITURE			50000
BUILDINGS WORK		360000	550000
LAND COMPENSATION	41620		
KAUR HEALTH CENTER			
HEALTH CENTER	300000	800000	
WATER/ELECTRICITY	150000		
FARAFENNI HEALTH CENTER			
HEALTH CENTER	1000000	300000	
CIVIL WORKS			
HEALTH CENTER/DISPENSARY IMPROVEMENTS	36120		25000
<b>C. OTHER HEALTH CARE</b>			
MCH PROGRAM: CONSTRUCTION WORK			
		140000	320000
SUPPORT FOR VILLAGE HEALTH SERVICE			
TRAINING	4980	20000	20000
MATERIALS/EQUIPMENT	7100	15000	8000
DEVELOPMENT GRANTS FOR VDCCS	10040	20000	22000
PRIMARY HEALTH CARE FACILITIES			
COMPENSATION TO EMPLOYEES		109000	171000
PURCHASE OF GOODS/SERVICES		47000	109000
TRANSPORT EQUIPMENT		121000	
MACHINERY/EQUIPMENT		70000	176000
BUILDING		516000	718000
PRE-INVESTMENT AND OTHER	44975	140000	349000
CONTROL OF CHILDHOOD COMM. DISEASE			
TOTAL	2812203	3608000	5568000

TABLE 74  
 PROPOSED INVESTMENTS IN HEALTH BY MINISTRY OF HEALTH, LABOUR AND SOCIAL WELFARE, 1982/83 - 1984/85  
 CURRENT PRICES

	1982/83 ACTUALS	1983/84 ESTIMATES	1984/85 ESTIMATES
<b>A. HOSPITALS AND SPECIALIZED UNITS</b>			
ROYAL VICTORIA HOSPITAL			
REDOOFING OF OPT. WORKSHOP/DISP.	16837		
CONVERSION OF NEW MATERNITY WING		500000	3000000
ACCESS ROADS TO SEWERAGE	13153	350000	
BANSANG HOSPITAL			
RENOVATION OF STAFF HEADQUARTERS		100000	50000
REHABILITATION OF HOSPITAL BUILDING	813482		
HOME FOR INFIRM: TOILETS AND FENCING	6753		
<b>B. HEALTH CENTERS AND DISPENSARIES</b>			
KIANG KARANTABA HC STAFF QUARTERS	130000		
KUDANG HEALTH CENTER			
MINOR WORKS	9654		
HEALTH CENTER	200810		
WATER/ELECTRICITY CONNECTION	26679		
SERRUKUNDA AND BAKUN POLYCLINICS			
EQUIPMENT/FURNITURE			50000
BUILDINGS WORK		360000	550000
LAND COMPENSATION	41620		
KAUR HEALTH CENTER			
HEALTH CENTER	300000	800000	
WATER/ELECTRICITY	150000		
FARAFENNI HEALTH CENTER			
HEALTH CENTER	1000000	300000	
CIVIL WORKS			
HEALTH CENTER/DISPENSARY IMPROVEMENTS	36120		25000
<b>C. OTHER HEALTH CARE</b>			
MCH PROGRAM: CONSTRUCTION WORK		140000	320000
SUPPORT FOR VILLAGE HEALTH SERVICE			
TRAINING	4980	20000	20000
MATERIALS/EQUIPMENT	7100	15000	8000
DEVELOPMENT GRANTS FOR VDCCS	10040	20000	22000
PRIMARY HEALTH CARE FACILITIES			
COMPENSATION TO EMPLOYEES		109000	171000
PURCHASE OF GOODS/SERVICES		47000	109000
TRANSPORT EQUIPMENT		121000	
MACHINERY/EQUIPMENT		70000	176000
BUILDING		516000	718000
PRE-INVESTMENT AND OTHER	44975	140000	349000
CONTROL OF CHILDHOOD COMM. DISEASE			
TOTAL	2812203	3608000	5568000

TABLE #9

PROPOSED INVESTMENTS IN HEALTH BY MINISTRY OF HEALTH, LABOUR AND SOCIAL WELFARE, 1982/83 - 1984/85,  
1983 PRICES AND ESTIMATED ANNUAL RECURRENT COSTS

	1982/83 ACTUALS	1983/84 ESTIMATES	1984/85 ESTIMATES	TOTAL	ANNUAL RECURRENT COSTS USING R COEFF. .16	ANNUAL RECURRENT COSTS USING R COEFF. .35
<b>A. HOSPITALS AND SPECIALIZED UNITS</b>						
ROYAL VICTORIA HOSPITAL						
REROOFING OF OPT. WORKSHOP/DISP.	14,480			14,480	2,317	5,068
CONVERSION OF NEW MATERNITY WING		500,000	3,000,000	3,500,000	1,120,000	1,225,000
ACCESS ROADS TO SEWERAGE	11,312	350,000		361,312	113,810	126,459
BANSANG HOSPITAL						
RENOVATION OF STAFF HEADQUARTERS		100,000	50,000	150,000	48,000	52,500
REHABILITATION OF HOSPITAL BUILDING	699,595			699,595	111,935	244,858
HOME FOR INFIRM: TOILETS AND FENCING	5,808			5,808	929	2,033
<b>B. HEALTH CENTERS AND DISPENSARIES</b>						
KIANG KARANTABA HC STAFF QUARTERS						
	111,800			111,800	17,888	39,130
KUDANG HEALTH CENTER						
MINOR WORKS	8,302			8,302	1,328	2,906
HEALTH CENTER	172,697			172,697	27,631	60,444
WATER/ELECTRICITY CONNECTION	22,944			22,944	3,671	8,030
SERRUKUNDA AND BAKUN POLYCLINICS						
EQUIPMENT/FURNITURE			50,000	50,000	16,000	17,500
BUILDINGS WORK		360,000	550,000	910,000	291,200	318,500
LAND COMPENSATION	35,793			35,793	5,727	12,528
KAUR HEALTH CENTER						
HEALTH CENTER	258,000	800,000		1,058,000	297,280	370,300
WATER/ELECTRICITY	129,000			129,000	20,640	45,150
FARAFENNI HEALTH CENTER						
HEALTH CENTER	860,000	300,000		1,160,000	233,600	406,000
CIVIL WORKS						
HEALTH CENTER/DISPENSARY IMPROVEMENTS	31,063		25,000	56,063	12,970	19,622
<b>C. OTHER HEALTH CARE</b>						
MCH PROGRAM: CONSTRUCTION WORK						
		140,000	320,000	460,000	147,200	161,000
SUPPORT FOR VILLAGE HEALTH SERVICE						
TRAINING	4,283	20,000	20,000	44,283	13,485	15,499
MATERIALS/EQUIPMENT	6,106	15,000	8,000	29,106	8,337	10,187
DEVELOPMENT GRANTS FOR VDCCS	8,634	20,000	22,000	50,634	14,822	17,722
PRIMARY HEALTH CARE FACILITIES						
COMPENSATION TO EMPLOYEES		109,000	171,000	280,000	89,600	98,000
PURCHASE OF GOODS/SERVICES		47,000	109,000	156,000	49,920	54,600
TRANSPORT EQUIPMENT		121,000		121,000	38,720	42,350
MACHINERY/EQUIPMENT		70,000	176,000	246,000	78,720	86,100
BUILDING		516,000	718,000	1,234,000	394,880	431,900
PRE-INVESTMENT AND OTHER	38,679	140,000	349,000	527,679	162,669	184,687
CONTROL OF CHILDHOOD COMM. DISEASE						
TOTAL	2,418,495	3,608,000	5,568,000	11,594,495	1,855,119	4,058,073



TABLE 10  
COMPARISON OF ESTIMATED WORLD BANK AND THE GAMBIAN GOVERNMENT PROJECT COSTS  
US DOLLARS (MILLIONS)

	WORLD BANK ESTIMATE			THE GAMBIAN GOVERNMENT ESTIMATE		
	WORLD BANK	LOCAL	TOTAL	WORLD BANK	OTHER(SOURCE)	TOTAL
PART A: OPERATIONS SUPPORT						
1.PRIMARY HEALTH CARE				1.141	0.411 (NETH)	1.552
PHC COVERAGE	2.5	0.5	3		1.668 (UNCDF)	1.668
2.REFERRAL SERVICES						
ROYAL VICTORIA HOSPITAL	0.5	0.2	0.7			
ENGINEERING					3.21 (UK)	3.21
IDH					1.02 (UK)	1.02
OPH					0.89 (UK)	0.89
BANSANG HOSPITAL	0.5	0.1	0.6			
WARDS					0.57 (ADB)	0.57
DENTAL, OPD					0.25 (ADB)	0.25
THEATRE UNIT					0.056 (ADB)	0.05625
ISOLATION WARD					0.045 (ADB)	0.04525
ISOLATION WARD					0.02 (ADB)	0.02
SURFACE DRAINAGE AND EQUIPMENT					0.305 (ADB)	0.305
OTHER WORKS AND EQUIPMENT						
BASIC HEALTH SERVICES						
CONSTRUCTION					1.458 (ADB)	1.458
UTILITIES - ELECTRICITY				0.268		0.26875
- WATER				0.076		0.0765
TRANSPORT				0.712		0.7125
EQUIPMENT AND FURNITURE/MAINTENANCE				0.16		0.16
3.REVOLVING FUND FOR DRUGS						
DRUGS	1	0.9	1.9	0.45		0.45
CENTRAL MEDICAL STORES					0.345 (UK)	0.345
SUBTOTAL PART A	4.5	1.7	6.2	2.908	10.24	13.05725
PART B: INFRASTRUCTURE DEVELOPMENT						
4.TRAINING						
NURSES	1	0.1	1.1			
CHN SCHOOL/ IN SERVICE				0.518		0.51875
5.COMMUNICATIONS INFRASTRUCTURE						
TARGETTED MASS COMMUNICATIONS	0.7	0.1	0.8			
RADID TELECOMMUNICATIONS	0.6		0.6	0.125		0.125
6.STRENGTHENING ANALYTIC CAPACITY						
STRENGTHENING PLANNING	1.2	0.1	1.3			
PROJECT EVALUATION & APPLIED RESEARCH	0.7		0.7			
PROJECT PLANNING	0.3		0.3			
HEALTH MANAGEMENT SYSTEM				0.078	0.184 (ADB)	0.262
SUBTOTAL PART B	4.5	0.3	4.8	0.721	0.184	0.90575
TOTAL	9	2	11	3.530	10.43	13.963

HOLD

ROUTING SLIP		DATE:
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## OFFICE MEMORANDUM

DATE : 10 July, 1986

TO : See Distribution below

FROM : Dennis Mahaffey *DM* Acting Chief, PHND2

EXTENSION : 61535

SUBJECT : The Gambia: National Health Development Project  
Yellow Cover Appraisal Report Review Meeting

1. Attached for your review and comments is a draft yellow cover Staff Appraisal Report on The Gambia, National Health Development Project. A draft President's Report and Recommendation will be circulated separately. As this project was appraised in January, 1986 it is being processed under procedures then prevailing and not the new OMS issued on May 27, 1986. Comments and questions on this report should be referred to Mr. Bumgarner (ext. 61549).

2. The project was prepared and appraised prior to agreement of the Bank and other lenders with the Government on an Economic Recovery Program (ERP) for The Gambia, and prior to undertaking of a consultants report for the ERP on an Organization, Staffing and Efficiency (OSE) Study of Government. The attached draft SAR has been written to take into account an early version of the ERP which was available to us but the review and comment of the Region is requested to ensure that the proposals of the project are consistent with the latest developments on the ERP. The draft SAR also takes into account the OSE Study and is consistent with the consultant's broad recommendations.

3. Changes made in the proposed project since the Issues/Decision memoranda include: (1) deletion of some minor project activities to avoid implementation difficulties; and (2) consolidation of focus for other small but important activities under a proposed National Council on the Family, Health and Nutrition, to ensure adequate continuity and breadth of attention is paid to several difficult subjects at an appropriate level in Government (para. 3.20 of the SAR). Provision for agreement with the Government on total expenditures for the health sector and an annual review with the Association to provide a framework for donor assistance has also been included (para. 3.11) as suggested in comments by the SVPOP on the Decision Memo.

4. Remaining issues involve the financing plan for the project. Bilateral funding from the U.K., Italy and The Netherlands seems fairly well assured. Financing from China for rehabilitation of the Royal Victoria Hospital (RVH) is not yet assured. If this does not materialize we would simply drop RVH rehabilitation from the project. As a result, the Government may incur higher operating and maintenance costs for the next few years in view of the dilapidated state of RVH, but in terms of health priorities other items deserve funding. If Chinese funding does materialize we consider it important to retain RVH in the project so that we can support the architectural design and supervision role of the U.K. - funded UKPO

(architectual office) which has the experience in The Gambia to ensure civil works designs and standards are appropriate.

5. A more serious financing issue is that amounts shown under the column of "Other" in Table IV.3 of the SAR are as yet unfunded. Financing from The Netherlands will apparently be limited to \$1 million equivalent, a much smaller amount than we had anticipated. This has created a substantively important financing gap in that we had expected Dutch co-financing for most of the drugs to establish the revolving fund. While Italy has indicated willingness to supply some of these, a major shortfall still exists. We intend to again seek both Dutch and Italian financing for at least some of the shortfall. A recent agreement between UNICEF and The Gambia of which we do not yet have the details may also cover part of these costs.

6. Remaining unfunded amounts in Table IV.3 are for rehabilitation of health centers and dispensaries. We would prefer to leave these amounts in the project for the time being until we can have a thorough review with Government of the priority of these items in comparison to some of the others, particularly some which are being financed by Italy. Moreover, as the project will relieve Government of some recurrent financing costs over the next five years it may well be appropriate that Government, as part of its health budget, finance some or all of this rehabilitation. As we do not now have a complete picture of the finance plan for the health sector for the coming year we cannot judge the feasibility of this. Pending advice and assistance on this point from the Regional staff dealing with the ERP we would therefore propose to retain the financing plan as is until negotiations when we can have a detailed discussion with Government of their sectoral financing plan.

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STAFF APPRAISAL REPORT

THE GAMBIA

NATIONAL HEALTH DEVELOPMENT PROJECT

July 8, 1986

Population, Health and Nutrition Department

CURRENCY EQUIVALENTS

Currency Unit = Dalasi (D)  
US\$1.00 = D 6.8  
D 1 = US\$0.15  
D 1 million = US\$147.060

FISCAL YEAR

July 1 to June 30

GLOSSARY OF ACRONYMS

BH	Bansang Hospital
CHN	Community Health Nurse
CMS	Central Medical Store
DMS	Director of Medical Services
EPI	Expanded Program of Immunization
FAI	Italian Assistance Fund
GFPA	Gambia Family Planning Association
HEU	Health Education Unit
IDA	International Development Association
MCH	Maternal and Child Health
MEPID	Ministry of Economic Planning and Industrial Development
MHLSW	Ministry of Health, Labor and Social Welfare
MRC	Medical Research Council of Great Britain
NGO	Non-Governmental Organization
NPC	National Population Council
ODA	Overseas Development Administration
OSE	Organization, Staffing and Efficiency Study
PHC	Primary Health Care
PICC	Project Implementation Coordinating Committee
PMU	Project Management Unit
RHT	Regional Health Team
RVH	Royal Victoria Hospital
SEN	State Enrolled Nurse
SRN	State Registered Nurse
TBA	Traditional Birth Attendent
UKPO	United Kingdom Projects Office
UNFPA	United Nations Fund for Population Activity
UNICEF	United Nations Children's Fund
VHW	Village Health Worker
WHO	World Health Organization

THE GAMBIA

NATIONAL HEALTH DEVELOPMENT PROJECT

Credit and Project Summary

Borrower : The Gambia  
Amount : IDA Credit: SDR.... million (US\$4.0 million equivalent)  
Terms : Standard  
Project : The proposed project consists of two parts to be undertaken over a five year period:

- (a) a program of reforms to strengthen health sector management, financing and support systems through decentralization, reorganization, foreign and local technical assistance, training, establishment of a revolving fund for drugs and medical supplies, and provision of equipment and vehicles to support health services; and
- (b) a program of investment to strengthen national health care through (i) extension of the PHC program to the Western Region (including the Banjul peri-urban area), (ii) enhanced MCH, family planning and nutrition programs coordinated by a National Council on the Family, Health and Nutrition (iii) expansion of the communicable disease program nationwide, (iv) construction and rehabilitation of health facilities, (v) supply of appropriate medical and teaching equipment and materials, (vi) improved pre-and in-service training for nursing personnel, and (vii) foreign and local training and technical assistance.

The project offers benefits on a number of levels. The reforms of management, finance and supporting systems will encourage better use of scarce resources, increased responsiveness to local needs and greater accountability for expenditures. Semi-autonomous status for the hospitals will help to identify and control the resources used by them so that decisions about subsidies can be related to performance. Improvement of support systems will make a difference to the feasibility and effectiveness of a revolving fund for drugs and medical supplies. Strengthening of health services will offer low cost basic health care and disease prevention to many who do not now have it. Communicable disease programs will help to further reduce mortality and morbidity.

Nurse training will improve the quality and quantity of the primary line of health workers, to deal with the endemic problems of malnutrition and poor maternal and child health. High level coordination of the interrelated problems of family planning, health and nutrition by the proposed National Council offers opportunity for the many assistance programs concerned with these areas to make a major difference in only a few years. Rehabilitation and construction of health facilities will add credibility to the health system, reduce expensive maintenance of deteriorating facilities, improve staff morale and productivity and enhance ability to institute greater cost recovery. Establishment of priorities in a health investment plan will provide a framework for Government to use in channelling foreign assistance, thereby improving absorptive capacity.

The risks in the project are also significant. Reforms may not be carried out and inefficiency, lack of control at lower levels and centralization would block improvements in service. Lack of determination to improve cost recovery, especially through the revolving fund, would destroy health system credibility if supplies were not available and funds for operations remained almost non-existent. There is also risk of mismanagement and waste in the drug revolving fund. Moreover, any reversal of the Government's policy of convertibility of the Dalasi might make the fund's operation impossible. The project is designed to account for these risks and contains technical assistance to reduce them but there will be no substitute for attention of The Gambia's leadership to ensure that the reforms can be made to work. The rehabilitation and construction program carries the risk that ineffective coordination among donors will result in expensive construction and equipment, or in the use of materials, standards and technologies inappropriate to The Gambia. Consultants would help to guard against this but Government will have to ensure that these arrangements work. Other physical investments and training programs carry little risk in themselves but their benefits may not be realized if the reforms and improved cost recovery are not achieved. Overall, there is the risk that the management of the MHLSW will continue to find it difficult to deal with so many sources of funding for the health sector, resulting in ineffective follow-up on key issues facing the sector. Technical assistance can help, but close attention by Government and IDA to the reform program and to development of an investment Plan to provide a framework for all donors is recommended to address this risk.



<u>Estimated Costs</u> <sup>1/</sup>	Local	Foreign	Total
	(US\$ million)		
A. Reforms in Management, Finance and Support Systems	0.3	3.6	3.9
B. Strengthening Health Services	2.0	10.8	12.8
C. PPF	0.0	0.5	0.5
<b><u>Total Base Costs</u></b>	<b>2.3</b>	<b>14.9</b>	<b>17.2</b>
Physical contingencies	0.0	0.2	0.2
Price Contingency	0.1	2.7	2.8
<b><u>Total Project Costs</u></b>	<b>2.4</b>	<b>15.8</b>	<b>18.2</b>

Financing Plan

IDA	0.2	3.8	4.0
Government	0.4	0.0	0.4
Cofinanciers	1.8	12.0	13.8
<b><u>Total financing</u></b>	<b>2.4</b>	<b>15.8</b>	<b>18.2</b>

Estimated Disbursements

<u>IDA FY</u>	1987	1988	1989	1990	1991	1992
- Annual	0.2	1.1	1.2	0.9	0.5	0.1
- Cumulative	0.2	1.3	2.5	3.4	3.9	4.0

Rate of Returns: n.a.

<sup>1/</sup> Net of import taxes and duties

STAFF APPRAISAL REPORT

THE GAMBIA

NATIONAL HEALTH DEVELOPMENT PROJECT

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This report is based on the findings of an IDA mission, that visited The Gambia in January 1986. The mission consisted of N. Birdsall (mission leader), R. Bumgarner, C. Fogle, Dr. A. Measham, G. Sinclair and M. Wheeler (consultant).

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## GAMBIA

### NATIONAL HEALTH DEVELOPMENT PROJECT

#### I. INTRODUCTION

**1.01** The Gambia is a poor country whose economic potential is limited; it is dependent on rainfall that is highly irregular and is concentrated in a short period of the year. Its economy is predominantly rural, with agriculture (largely small traditional family farms) making up 58 percent of gross domestic product (GDP). There are no known mining resources; irrigated agriculture is hampered by intrusion of tidal salt water far upriver during the long dry season; dry cropping of groundnuts and of a few drought-resistant grains are the only potential sources of economic growth. GNP per capita is only \$290 (1983) and has been declining steadily over the past decade due in large part to the sharp drop in the relative price of groundnuts beginning in the early 1980's. With the GNP expected to increase by no more than 0.5 percent per annum in the medium term, the rate of economic growth is unlikely to exceed that of population growth.<sup>1/</sup>

**1.02** The Gambia is typical of many countries of Sub-Saharan Africa which suffer from high fertility and mortality rates with widespread malnutrition and morbidity. High fertility leads to population growth and densities which natural resources cannot sustain and which outstrip the economy's capacity to provide jobs, education and health services. High disease prevalence combined with poverty and limited food supplies worsens morbidity and mortality rates, lowering children's capacity to benefit from education and adult's capacity for productive labor.

**1.03** The Gambia has taken initial steps in policy and in programs that position it -- better than most countries in West Africa -- to deal with the problems confronting it. Health services include a substantial preventive focus, with good coverage of immunization and ante-natal services through established static and mobile clinics. A further extension of services is being attempted through a program of village health services, designed to provide basic health care in rural areas. There is a national policy of fertility reduction to achieve lower population growth rates and to improve maternal and child health. Government is integrating family planning services and, to a lesser extent programs to combat malnutrition, with the emerging primary health care system. National development plans call for modest expansion of the range of services, with relatively more rapid expansion in currently underserved areas, and with emphasis on rehabilitation and improvement of existing facilities rather than new construction.

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<sup>1/</sup> Basic needs in The Gambia. World Bank, December 1981.

## II. POPULATION, HEALTH AND NUTRITION IN THE GAMBIA

### A. Health, Nutrition and Demographic Profile

**2.01** Infections, complications of pregnancy and childbirth, and malnutrition contribute to a life expectancy of 42 years, among the world's lowest. Infant mortality in 1973 was 217 per 1000 live births. Data is not yet available from the 1983 census but there are preliminary indications that the rate is now below 200 per 1000 live births. A recent study undertaken by the Government suggested a maternal mortality rate around 10 per thousand live births, among the highest reported anywhere in the world.

**2.02** The most widespread diseases in The Gambia are malaria, diarrhea, and respiratory tract infections. All available evidence confirms that malaria is an important cause of mortality and morbidity; it is the commonest cause of outpatient consultation in the basic health services, and studies indicate that 1 in 20 children under age five die as a direct result of malaria. Despite training for all health workers in the system in the recognition and standard treatment of malaria, high fatality rates among all ages persist. The likely causes for the high rates of illness and death associated with the onset of malaria include delayed consultation with a health worker and self-medication with aspirin. Three years ago, the Government began testing a new approach to malaria control through nationwide chemoprophylaxis aimed at those most at risk, *i.e.* children under five and pregnant women. Preliminary results confirm that treatment provided to these two high-risk groups has begun to significantly lower rates of malaria morbidity and mortality.

**2.03** For the most vulnerable groups (infants and young children) there is a pronounced seasonality to morbidity and mortality, with peaks during the rainy season when increases in malaria-carrying mosquitoes and environmental conditions conducive to the spread of diarrhea greatly increase. While there have been no comprehensive epidemiological surveys, hospital data indicate a rising incidence of tuberculosis over the past several years, and little decline in leprosy and schistosomiasis incidence. Programs for tuberculosis/leprosy and schistosomiasis are being included in the nationwide effort to expand the range and effectiveness of services offered at the village level. Other diseases (such as meningitis and the sexually transmitted diseases) are also important causes of morbidity and mortality but limitations in diagnostic services preclude the development of reasonable nationwide estimates of prevalence.

**2.04** Malnutrition severely affects infants and young children and is exacerbated by the poor nutritional status of many women. Energy intake of pregnant and lactating women is below the WHO/FAO recommendations year round and during the rainy season falls to below 40-50% of the recommended levels. Coupled with heavy demands on women to provide agricultural labor, this contributes to declines in birth weights and in maternal milk

production. A review of hospital admissions during 1982 showed that malnutrition was the second most common diagnosis among children. Eighteen percent of these children died, usually of malnutrition with a secondary diagnosis of an infectious disease.

**2.05** During the decade between the last two censuses, The Gambia experienced a rapid expansion of population -- from 493,000 persons in 1973 to 697,000 in 1983 -- an annual growth rate of 3.5%. The crude birth rate is estimated at 55 per 1,000 persons for 1983 and the crude death rate at 20 per 1,000 persons. The total fertility rate is estimated to be 6.5. In rural areas a typical age of marriage is 15 years, with immediate commencement of childbearing which often continues until the mother's own health has been affected by repeated pregnancies. While widespread breastfeeding helps ensure that birth intervals are not unduly short, Government policy is to increase birth intervals, as well as to increase the age of first pregnancy, thus reducing maternal and infant mortality and morbidity and the population growth rate. It is estimated that 51% of the population are between 15-54 years of age. The population is approximately 25-30% urban with 90% of the urban dwellers resident in Banjul and its peri-urban areas. Until data from the 1983 census are more fully analyzed, it is not possible to isolate the relative importance of in-migration and high fertility rates in the population's growth; both are important, and there appears to be considerable movement of Senegalese and other non-Gambians in and out of The Gambia.

#### **B. Government Development Strategy for Sector**

**2.06** During the First Five Year Plan (1975-1980), the health sector shared in an increasing volume of public expenditure. There were modest extensions and improvements to the two hospitals, but emphasis was on extending services to rural areas. The main achievement was the establishment of a national system of MCH clinics with mobile teams serving over 100 locations. In 1979 the Gambia adopted a Primary Health Care (PHC) Program which proposed that by the year 2000 there should be village health services manned by community volunteers in all villages with more than 200 population.

**2.07** The Second Five Year Plan (1981-1986) placed the national priority on rural development, and in the health chapter identified the PHC Program as the instrumental strategy. The Plan enumerated the resource shifts implied by the policy:- from urban to rural, from curative to preventive, from individual to community, and from personal to environmental services. Notwithstanding severe cuts in real expenditure over the last three years, the MHLSW has adhered to the policy, as evidenced by the relative shift in financial resources away from hospitals and the over-achievement of the Plan target for village health services (260 villages with more than 400 population each, compared with the target of 200 villages). The Gambia's population policy was also radically revised in the Second Plan, which acknowledged for the first time the need for an official family planning program:

### C. Health Services Organization and Administration

**2.08** Health services are provided through the Ministry of Health, Labor and Social Welfare (MHLSW). Religious missions, the British Medical Research Council and private physicians also provide some services. There are three levels of public health services: a) the Royal Victoria Hospital (RVH) and Bansang Hospital (BH); b) health centers, dispensaries and subdispensaries; and c) village health services.

**2.09** The Ministry is responsible for the formulation and implementation of national health policy and for management of the country's health system. The Medical and Health Department of MHLSW is the unit responsible for provision of health services and its head, the Director of Medical Services (DMS), functions as the chief professional advisor to the Minister (Chart 1.). In administrative and policy matters, the DMS is responsible to the Minister through the Permanent Secretary of the Ministry. The DMS is supported by senior professional advisors and heads of services (including the Assistant DMS, Medical Officer of Health, Chief Pharmacist and the Chief Nursing Officer), and by technical support units (Epidemiology/Statistics, MCH, EPI, Health Education, PHC Training, Nutrition). Key logistical and support services (accounts, transport, central stores) and the Health Planning Unit are administratively under the direct control of the Permanent Secretary. The management of the MHLSW is highly centralized with an unusual number of detailed matters having to be decided upon directly by the Permanent Secretary's office, yet the Medical and Health Department is organizationally and physically separate from the Ministry. This contributes to frequent delays and inefficiency in the delivery of health services by the Department. Further, within the Department, organizational units are handicapped by lack of even basic budget authority (e.g. use of fuel and vehicles on a day-to-day basis must be approved by the Permanent Secretary). Control over personnel assignments, discipline and work programs is also highly centralized and difficult for work units to influence. This has limited the capacity of the Medical and Health Department to carry out its activities efficiently. The Health Planning Unit does not yet function effectively to identify key constraints to the delivery of services and to formulate plans of action and new investments to address the shortcomings. The Epidemiology and Statistics Unit has suffered from lack of trained staff and resources to collect and analyze health data. The Unit's Director is currently completing graduate studies abroad in epidemiology and his post is being filled temporarily by an expatriate statistician-epidemiologist supported from a bilaterally funded project. Additional staff and operating budget, a review of the current health information system, especially in relation to family planning, MCH and nutrition needs, and a detailed plan to guide the Unit's work are needed.

**2.10** Under the DMS there are three Regional Health Teams, each with posts for a Medical Officer, Public Health Nurse and Public Health Superintendent (not all posts are filled). To date only very limited planning and virtually no budget authority (e.g. even to repair a tire puncture) has been delegated to the Regional Teams and they have only

limited control over personnel matters. The three health regions cut across The Gambia's five administrative divisions (see map). The two hospitals are excluded from regional administration and have been treated as extensions of the Medical and Health Department, which must approve all major administrative decisions. The hospital managers are directly responsible to the DMS. The hospitals do not keep separate financial accounts nor are there cost accounting systems in place to provide incentives to efficient internal management.

#### **D. Health Services**

**2.11** RVH with 283 beds and BH with 70 beds provide the tertiary level of health care for the country. In addition to functioning as referral hospitals for the western and eastern parts of the country respectively, they act as training centers for medical, dental, nursing and technical manpower. RVH relies heavily on expatriates to fill specialist medical and technical positions. These include British physicians, funded with support from the Overseas Development Administration and pediatric and maternity nursing staff support by Save the Children, a non-governmental organization (NGO). At BH a Chinese medical team provides 9 of the 10 physicians on the staff. Although designed to serve as the country's major referral facility, RVH's capacity for such is frequently overcome by its heavy outpatient load caused by lack of health center capacity within Banjul itself. RVH has a new maternity ward but is in generally dilapidated condition. Electric power, water and maintenance are inadequate. There are no emergency or intensive care facilities or equipment and only one operating theater. Laboratory facilities are cramped and ill-equipped but able to meet much of the need through an active staff. Pediatric facilities are in particularly poor condition, grossly over-crowded and underequipped. Conditions at Bansang Hospital are generally even worse.

**2.12** A network of 16 health centers, 14 dispensaries, 7 other clinics and 67 subdispensaries provides basic health services countrywide. Health centers and dispensaries are staffed facilities providing daily services. The health centers typically have a senior staff of three persons, of whom two are trained as nurse-practitioners - one of whom is the dresser-dispenser, responsible for handling minor trauma and illness; the second is a nurse-midwife, responsible for maternity care, family planning and child health. The third staff member is normally a public health inspector, primarily engaged in environmental health activities but also trained to assist in the immunization program. Treatment sessions are held at subdispensaries on regular visits by the dresser-dispenser based at the nearest health center or dispensary. "Trekkling teams" based at health centers visit surrounding dispensaries, subdispensaries, and other selected locations to hold ante-natal and child welfare clinics. These mobile teams provide MCH services (including immunizations) at more than 120 locations throughout The Gambia. Most rural health facilities are dilapidated, with leaky roofs, inadequate light and ventilation. Electricity and water supplies are inadequate or unavailable. Simple furniture for patients and



for storage is in short supply and basic medical equipment for diagnosis and treatment is often non-existent or broken. Essential medicines and supplies are scarce and health center staff often show ingenuity and care in coping with the problems.

**2.13** Village level services are provided through the PHC Program which will eventually be extended to all villages with more than 200 inhabitants. In villages now under the program, there has been substantial utilization of the services of village-based health workers. These are of two types: a village health worker (VHW) (usually a male) trained to administer simple curative health services and preventive care, and a traditional birth attendant (TBA) (usually female) trained in maternity care. Both workers are chosen by village representatives organized into a village development committee which is responsible for arranging payments in kind or in cash to the VHW; the traditional birth attendant is compensated for services directly by her patients, as she had been traditionally. Following a short training period, both workers operate under the supervision of a community health nurse (CHN) based in a "key" village. The "key" village is typically the largest of a cluster of 4 or 5 villages; the CHN visits each on a weekly schedule. VHWs are provided by the MHLSW with an initial three months stock of eleven basic drugs, the sale of which permits restocking of supplies. The PHC program is generally working well with the exception of inadequate recurrent cost funding for 1) adequate transport, fuel and supplies for supervisory personnel and mobile teams and 2) training of village development committees in village development planning and cash management to enable them to play the supervisory role toward the VHWs. In addition, at present, village health workers are given technical supervision directly by the Regional Health Team without regular participation by the health center staff, thus failing to reinforce the referral links from village to health center.

**2.14** The VHW system was established first in the eastern and central regions, as they were previously less well-served than was the western region. Resource constraints have prevented the MHLSW to date from extending this PHC system to the third of the country included in the western Region. The only village health care presently available in the western Region is that of traditional healers and/or birth attendants. In addition the extension of the PHC system to the western Region will also include the peri-urban area of Banjul. About 132,000 persons, or 19% of the country's population resides in areas outside the city of Banjul or its affluent suburbs and have little or no access to primary health care programs or facilities. This population lives in high density settlements with little in the way of public utilities or social services and projections suggest that the number of such persons could quadruple by the year 2000. While the established PHC pattern for delivery of health services in rural villages is satisfactory, the establishment of PHC in peri-urban areas will be a more problematic undertaking, since community organization patterns are quite different from those in the villages. A WHO consultant is currently conducting a study to determine the social structures which operate in this peri-urban area and to identify the most appropriate channels through which community-based health programs can function.

**2.15** Although MCH services in The Gambia enjoy a priority which predates the primary health care strategy, these have focussed on the needs of children. This is understandable in that the diseases responsible for most childhood morbidity and mortality can be prevented or treated at the village level through health education, simple technologies and immunization. However, even the limited MCH services introduced in recent years have been sharply cut back in 1985/86 due to shortages of fuel and of vaccines. MCH services had been offered 2-4 times a month in each health center through mobile health clinics staffed by a visiting team based at regional levels. Now, however, mobile clinics rarely visit more than once a month. Despite the great importance of family planning services in improving the health of women and children, the availability of such services (and particularly surgical contraceptive procedures) remains very limited. Adequate care of obstetrical emergencies requires the availability of appropriately trained staff including a physician, an operating room, and the capacity to provide caesarean operations and to provide blood transfusion. Such facilities in The Gambia are only available now at RVH and BH.

**2.16** The important role which nurses play in the health system has greatly been undermined by two factors: (a) a serious shortage of nurses in all three cadres; and (b) a nurse training curricula which does not reflect the health system's new orientation toward primary health care. At present, there are three cadres of nursing staff in The Gambia, the State Registered Nurses (SRNs), the State Enrolled Nurses (SENs) and the Community Health Nurses (CHNs). There are now 249 SRNs, 47 SENs and 104 CHNs. The SRNs have three years of training to prepare them for administrative and supervisory roles in hospital and health center settings. Neither their preservice training (in Banjul) nor their subsequent postings (also usually in Banjul) encourage the development of links between the activities of the SRNs and the community level health activities. The middle level nursing cadre, the SENs, undergo two years of training mainly at RVH to perform practical nursing activities in both hospitals and health centers, the latter of which is now not emphasized adequately. Their role has become blurred since their training overlaps with that of both the SRNs and CHNs, and, like that of the SRNs, includes little orientation to function within the growing primary health care system. CHNs are a recently formed cadre recruited mainly from areas outside the capital. They receive 18 months of training at Mansakonko (in the central health region), including field training in the villages to prepare them to act as first line supervisors of village level workers and to provide MCH services at health centers. The CHN workload is far too heavy for continuing effective performance and the burden on them is growing. Nursing instruction techniques and materials need upgrading, in

light of the new definition of health system goals. At The Gambia School of Nursing and Midwifery, reform of the curriculum for State Registered Nurses (SRNs) and State Certified Midwives and the retraining of nursing instructors to include primary health care in the curriculum, is already underway with support from the United Kingdom. Revision is also needed in the curricula of the State Enrolled Nurses and the Community Health Nurses and retraining for nursing instructors and clinical supervisors to upgrade the clinical training being offered and to instruct these nursing cadres in the concept of PHC and in their role in its successful functioning.

#### **E. Supporting Facilities and Supplies**

**2.17** The existing DMS vehicle fleet includes about 90 poorly maintained units, of which one-third should be scrapped and one-third should undergo major repairs. At present, over fifty percent of the MHLSW's vehicles are off the road at any given time due to excessive age, shortages of spare parts and inadequate vehicle maintenance. These problems are exacerbated by a non-standardized fleet and lack of maintenance facilities. The budgetary allocation for operating costs is grossly insufficient, and there are severe difficulties in fuel allocation and distribution, especially to remote rural stations. Lack of reliable transport has had serious effects on the delivery of health services, delayed delivery of drugs to the field, and disrupted staff training programs. To link the village and dispensary-level health services more effectively to the referral health centers and the two hospitals, the transportation fleet would need to be partially replaced over the next five years, better maintenance assured, and new procedures established to assure reliable fuel supply.

**2.18** Telecommunications in The Gambia are unreliable at best and non-existent for most of the areas served by key health facilities. Lack of phone or radio links between the hospitals, the Regional Medical Directors and the health centers leads to wasteful use of scarce fuel and vehicles, creates a sense of isolation and neglect for staff in peripheral areas and makes routine supervision and administration unduly difficult. A communications network could also be used for emergency consultation on diagnoses and treatment by less-trained health staff with higher-level staff.

**2.19** Drugs and consumable medical supplies are procured and distributed by the Central Medical Stores (CMS) of the MHLSW. Storage conditions at CMS are generally adequate given conditions in The Gambia but selected upgrading of the building and of cool storage space for some drugs, better fire protection, increased shelf space and better transport are all urgently needed. The RVH and BH are supplied directly from CMS as is the Western Region. Regional medical stores exist for the central and eastern region and maintain small working stocks to resupply the health centers and dispensaries in their areas. CMS has received technical assistance in drug and supply management, inventory control and monitoring from Africare, an NGO. While basic systems for efficient management are in place, strict

enforcement of procedures, higher staff productivity and motivation, and most importantly, regular funding are needed.

**2.20** The RVH is a major user of supplies from CMS but RVH keeps no cost accounts and there is no effective control on subsidies going to the hospital from the budget; nor is there control on the proportion of total supplies from CMS going to the RVH. Further, the total value of medical supplies and drugs available to CMS falls substantially short of even the minimum amount needed to cope with The Gambia's health problems. The average annual value of drug and consumable imports (public and private) from 1978/79 to 1984/85 was D3.9 million or roughly D6/capita. This figure however includes patent medicines, lotions and tonics sold by the private sector and while no separate figures are available, the total import of pharmaceuticals was very much lower. Private sector pharmacies exist primarily in the Banjul area and pharmaceuticals account for only a portion of their sales. At least since the economic downturn in 1983 private sector sales of pharmaceuticals do not appear to have been a significant part of the national total and certainly do not have much effect in the rural areas. The budget allocation for CMS drugs and supplies for 1985/86 was D0.8 million (about \$300,000 equivalent at the time the budget was approved). This would be equivalent to only 7.4% of the budget for health services, abnormally low by a large magnitude compared with other countries. Budgeted expenditure on public sector supply of drugs is D 1.1/capita (\$0.34 equivalent) whereas the WHO guideline for approximate essential drug requirements is about \$1.50/capita.

**2.21** The overall scarcity of foreign exchange has meant that CMS has been dependent on donations from official and private sources to try to meet the balance of official drug and supplies needs. These have been far from adequate and quantities of drugs and medical supplies are seriously deficient at most levels of the health system. Health workers report frequent shortages of even the most basic drugs, with serious health consequences, particularly with regard to communicable diseases. Supplies in PHC villages are more reliable as their health workers charge a modest fee for dispensing the basic medications in their stock which is used to replenish their supply from the nearest health centers. These PHC drug supplies are administered separately in the medical stores system and are resupplied by UNICEF. For other drugs, replenishment requests to CMS from lower levels in the system can often be only partly filled, if at all.

**2.22** Health, family planning and nutrition education has been constrained by lack of tested informational materials and training for health workers in the effective use of these material. Coordination of health education activities with health services within the MHLSW has been difficult, due in part to management and transport constraints. Advance activity planning has been hampered by the general budget planning weaknesses in MHLSW. Successful earlier health education campaigns such as the oral rehydration therapy program funded by USAID have ended, and the lack of follow-up activity risks the loss of awareness and experience by health workers and clients.

## **F. Family Planning Services**

**2.23** Interest in and delivery of family planning services appear to be on the verge of expanding, with the encouragement of the government's policy to emphasize family planning to help reduce fertility and improve maternal and child health. Family planning services are provided by the MHLWS and by the private Gambia Family Planning Association (GFPA). The MHLWS's family planning activities have in the past been provided mainly at RVH and Bansang Hospitals, and, to a more limited extent, at health centers and dispensaries. However, under the PHC program, training in family planning has been provided to traditional birth attendants and village health workers and the community health nurses; training for other nurse cadres in the Regional Health administration is planned. As training of village workers is completed in various parts of the country, distribution of pills and condoms and referral to health centers for other contraceptive services is becoming more widespread.

**2.24** The GFPA has 7 clinics and provides mobile services at 70 other locations. It has trained about 50 agents, most of them dresser/dispensers, who operate private clinics and pharmacies, to provide family planning information and dispense contraceptives. The GFPA also began a community based distribution project in 1984; it has provided one month of training for 30 community residents (usually traditional birth attendants) to give information about family planning at the village level and distribute contraceptives. The large number of acceptors in these villages suggests there is substantial unmet need for such services. In 1983, the Government and the GFPA signed a memorandum of understanding, agreeing to use a common training curricula, a uniform clinical record card, and to coordinate services where appropriate. However, there has been little actual coordination, and there are clearly unexploited opportunities for the Government to make better use of the resources of the GFPA to complement its own activities.

**2.25** The overall contraceptive prevalence rate is approximately 15 percent (based on analysis of GFPA and government acceptor data); this figure is considerably above the 3-5 percent reported for most neighboring countries. While fertility is still much too high, the contraceptive prevalence rate is encouraging in view of the newness of the Government's primary health program and the fact that it has only recently begun to cooperate with GFPA. To further increase contraceptive acceptance, the Government's program must work to overcome the long standing bias toward large families, in part the result of constant high infant mortality rates, and in part the perceived need on the part of parents for economic assistance in their old age from their children. (See also Annex 2). It also must more actively address the related problems of nutrition and maternal and child health. Better coordination in all these fields and strengthened health education efforts will be mandatory for success.

### G. Nutrition Services

**2.26** In response to high incidence of malnutrition among mothers and children in The Gambia, particularly in the rainy season, the MHLSW has included limited nutrition-related activities in its PHC program. Infant-weighting scales and growth charts have been distributed to CHNs, who have received some training in their use. When malnutrition in a village is identified, however, the only program response now available at that level is the use of nutrition education messages for the mother, a strategy which does not address real shortages of food during the 'hungry season' or reluctance of mothers to devote time to child feeding during the busy planting season. Extreme cases of malnutrition require the removal of child and mother from the village to a health center or to the RVH for several weeks of medical treatment, but this happens only in a minority of cases.

**2.27** The Nutrition Unit based in the Medical and Health Department is staffed by a nutritionist trained abroad, two other Gambians and one junior expatriate. Lack of funding has prevented the Unit from doing more than nutritional surveillance. There are sizable but uncoordinated nutrition efforts in the Departments of Agriculture, Education and Community Development whose impact on nutrition status has not been evaluated. A large number of non-governmental and external organizations are involved in nutrition in The Gambia -- 13 non-governmental agencies and 7 international and bilateral agencies -- and there is little apparent coordination of their activities. Their combined impact on nutrition, therefore, has been much less than it should have been due to inadequate coordination and cooperation with government policies and programs. Moreover, since nutritional conditions in The Gambia are heavily influenced by macroeconomic policies such as the pricing of agricultural products, improvements in nutritional status are unlikely to occur until those policies are made with nutrition considerations in mind. Better coordination between the MHLSW, the Ministry of Agriculture, MEPID and other agencies is needed if the severe nutritional problems are to be adequately addressed.

### H. Sectoral Expenditures

**2.28** Since the PHC program was established in 1979/80 the Government has made marked efforts to refocus budget expenditures in favor of PHC and to emphasize development expenditures in contrast to recurrent funding. During 1979/80 to 1985/86 health expenditures grew at an annual average rate of 38% (reaching D 11.79 million). Development expenditures during this period grew at 82% while recurrent cost grew at 31% annual rate. As a result, while only 17% of the budget was spent on development costs in 1979/80, 46% was thus spent in 1985/86. During the entire period Government spent 64% of its development budget on the PHC program and 36% on hospitals. This contrasts sharply with the previous decade to 1976/77 when 70% of capital expenditures was on hospitals.

**2.29** Budgeted per capita expenditure totaled D 23.8 in 1985/86 (\$7.43 equivalent at the exchange rate prevailing at the beginning of the year but

only \$3.50 equivalent at current rates). These rates are still low in comparison to other countries, as is health expenditure as a proportion of GDP (2.7%). (These figures do not include the cost of the Banjul waste disposal service). External capital aid accounts for about 95 % of development expenditure in the health sector.

**2.30** These data disguise a disturbing and increasing trend within the recurrent budget toward preponderance of expenditure on personnel, and relatively low expenditures on materials (drugs and supplies) and maintenance of capital assets. Expenditure on drugs and supplies is well under 20% of recurrent expenditures and allocations have declined in real terms since 1983 while population and utilization of services have grown. This trend has been part of the general problem of increasing public sector employment and wages during the last several years without a corresponding increase in productivity and output. The health sector, like others, has been instructed to reduce numbers of personnel, especially temporary hire staff, and to ensure that remaining staff are qualified and managed to function effectively. Further details of health sector expenditures are given in Annex 3.

**2.31** The principle of cost recovery is established in The Gambia's public sector health services. At the lowest level of the system, the direct operating costs of village health services are already largely covered by the beneficiaries through communal income support to community health workers, and at least partial payment by individuals for drugs received from VHWs. In 1985 the Government introduced general outpatient fees payable at all health units, though the levels are low (D 0.25 to D 0.50). Central financial and monetary authorities have thus far not accepted the principle of retention of fee income within the health sector, although two significant exceptions do exist - the revolving funds for drugs used in village health services, and a revolving fund for eyeglasses at RVH. There has thus been little incentive in either the MHLWS or at the local level to couple innovations in fees with improved health services and supplies.

**2.32** In 1984, external aid to the health sector amounted to about US\$4.3 million, or about US\$ 6.14 per capita. The major multilateral donors active in The Gambia include WHO, which provides training and technical assistance to the MHLWS, UNICEF, which focuses on immunizations, drug procurement, child nutrition and rural health; and UNFPA which provides contraceptives, family planning technical assistance and census support. Bilateral donors include Great Britain, which provides a wide range of technical assistance in the areas of health system management and service delivery, vehicles and program supplies; the Netherlands, which provides technical assistance and drugs; and China, which provides the physicians at BH and has constructed and operates four health centers. In addition, there are other donors, both governmental and non-governmental, active in support to overseas training, technical assistance, foodstuffs and equipment. A serious problem for the MHLWS is presented by the multiplicity of small official and NGO assistance efforts in the health sector, particularly those which relate to family planning and nutrition but without adequate linkages to health services. The cumulative effect of the numbers of donors and

programs is that the already pressed administrative capability of the MHLSW to undertake sound implementation and adequate monitoring is further stressed. Adding of expatriate personnel only addresses part of the problem and often worsens the non-salary recurrent cost problems which Government faces. To address this issue the MHLSW and MEPID need to : (a) develop a specific medium term plan for the health sector (and related aspects of family planning and nutrition); (b) to solicit offers of assistance which support such a plan; and (c) to politely but firmly decline offers of projects, research and assistance which fall outside of the planned priorities or would result in approaches which involve excessive capital or recurrent costs.

### **I. Sectoral Issues**

**2.33** As described above, the effectiveness of the health care system is limited by three major constraints. The first is the inadequate financing of non-salary recurrent costs. This impinges daily on services at every level. Currently the Government is unable to provide essential support for the health system infrastructure (fuel and maintenance of vehicles, building maintenance, etc.) or a reliable supply of essential drugs and basic medical supplies. The second constraint is a highly-centralized management structure, with inadequate attention to budgeting and planning. The result has been inaction, inefficient delivery of health services, lack of prioritization, stifling of initiative, and lack of accountability. The third constraint is human resource weaknesses, both inadequate numbers of some types of manpower, particularly doctors and senior nursing staff and weak skills across all categories of manpower, including administrative.

### **J. Bank Role and Assistance Strategy**

**2.34** During project preparation IDA has been closely involved with the MHLSW and MEPID in assessing the strengths and weaknesses of the health system and related family planning and nutrition efforts. The main themes which have emerged from this work - the need for reforms and decentralization of management, planning and budgeting, reaffirmation of focussed interventions in primary health care, strengthening of family planning services and of health manpower and new efforts to solve recurrent cost financing problems - have become mainstays of Government's sectoral strategy, particularly as the overall economic conditions have worsened and concerns with reform and efficiency have spread throughout the economy. As a result, and with strong commitment to its national health objectives, the Government has cooperated in preparation of a project which involves substantial reforms to improve efficiency, new initiatives in MCH, family planning, nutrition and manpower training, and intensified efforts at cost recovery. Success in these efforts will allow The Gambia not only to consolidate and preserve the impressive gains which it has made with primary health care but to extend these to unserved areas, strengthen basic health infrastructure and services, and develop and experiment with new initiatives



that combine prevention, cost-effective treatment, and increased resource mobilization to ensure affordability.

**2.35** IDA's support and technical assistance has been instrumental in development of Government's strategy to address the needs of the health sector. This technical assistance role will be a continue during supervision of Government's efforts under the project. The rationale for IDA involvement in the health sector in The Gambia is to help structure and ensure the implementation of the needed policy reforms, to strengthen institutions and their management at all levels of the health system, to help Government develop efficiency in use of resources for the health sector and to effect cost savings through project design and investments which improve productivity and avoid future high operating expenditures. IDA will also have the opportunity thereby to encourage other donors and to assist Government to (a) coordinate inputs to the health sector in order to emphasize the key themes mentioned above and (b) to avoid investment in buildings, equipment or technologies which do not address priority needs, or which do not minimize additional recurrent costs and imports in the future.

### **III. THE PROJECT**

#### **A. Project Objectives and Background**

**3.01** The proposed project aims to strengthen and expand The Gambia's national health program, including essential family planning and nutrition activities. The project will decentralize health sector management, improve planning, enhance cost recovery, expand primary health care and family planning services, improve institutional effectiveness and efficiency throughout the health system, and strengthen support systems, including the supply and distribution of drugs and consumables, transport and telecommunications. As part of the ERP, the Government is undertaking a widespread retrenchment of investment and reduction in excessive staffing of civil services posts, particularly those which are outside the regular approved posts structure. An Organization, Staffing and Efficiency Study (OSE Study) has recommended a number of organizational reforms and reduction of a number of civil service posts with consequent recurrent cost savings. The proposed project and the reforms envisaged thereunder are broadly consistent with these recommendations. Further reforms are identified to be undertaken as part of the project. Where additional staffing is recommended and investments are provided, these are justified by the need to make effective use of the existing resources and infrastructure of a potentially strong health system and to reduce the unacceptably high levels of fertility, malnutrition, morbidity and mortality by which The Gambia's health status characterized. To postpone these investments during the ERP period while waiting for economic growth to accelerate would be unacceptable in both its human and economic costs given The Gambia's very poor health status and the onerous longer term consequences of high rates of illness, mortality and excessive fertility.

## **B. Project Description**

**3.02** The proposed project consists of two parts to be undertaken over a five year period:

(a) a program of reforms to strengthen health sector management, financing and support systems through decentralization, reorganization, foreign and local technical assistance, training, establishment of a revolving fund for drugs and medical supplies, and provision of equipment and vehicles to support health services; and

(b) a program of investment to strengthen national health care through (i) extension of the PHC program to the Western Region (including the Banjul peri-urban area), (ii) enhanced MCH, family planning and nutrition programs coordinated by a National Council on the Family, Health and Nutrition (iii) expansion of the communicable disease program nationwide, (iv) construction and rehabilitation of health facilities, (v) supply of appropriate medical and teaching equipment and materials, (vi) improved pre-and in-service training for nursing personnel, and (vii) foreign and local training and technical assistance.

### **Project Components**

#### **(a) Reforms to Strengthen Health Sector Management, Finance and Support Systems:**

**3.03** To strengthen management, financing and supporting systems the Government would implement a series of reforms to provide greater efficiency, accountability, improved planning and coordination, increased resource mobilization, and better and more timely logistical support and supply.

**3.04** The MHLSW and the Department of Health and Medical services would integrate their health responsibilities through relocation of key staff to a single office complex, realignment of administrative responsibilities, and amalgamation of the two separate record systems. Existing and proposed reorganization charts of the MHLSW are shown in Annex 4. These reforms and the reorganization are supported by the conclusions of the OSE study.

**3.05** Decentralization of management would take place at all levels. Within policy guidelines to be issued by the Ministry, the three Regional Health Teams will have increased authority to manage daily affairs, including expenditure authority within approved budget allocations, personnel management within predetermined limits, and control over local transport. Health center staff would be given greater responsibility for supervision of village health services (to strengthen referral functions and better integrate fixed facility and outreach services) and village

development committees would be assisted to play a more active role in supervising activities of the village health workers.

**3.06** As recommended by the OSE Study the hospitals would be made semi-autonomous institutions under the MHLSW with a specific set of devolved management and financial responsibilities. A Hospital Board would be established to contribute to MHLSW's development of health care policy and to ensure that such policy was being put into effect at the hospitals. A Hospital Executive Committee would be responsible for implementing policy and conducting day-to-day management of the hospitals. As semi-autonomous institutions, the hospitals would be required to establish separate accounting systems, keep cost accounts, plan and administer the annual budget, and manage allocated manpower, all within policy guidelines established by the Hospital Board and approved by the MHLSW.

**3.07** To begin to improve the financing of non-salary recurrent costs the Government will extend its cost recovery efforts by:

- (i) gradually increasing the levels and improving existing systems for collection and accounting for fees;
- (ii) establishing fees for medical services, such as inpatient care and selected diagnostic services, in the hospitals;
- (iii) establishing, under the management of Central Medical Stores, a revolving fund and beginning to charge fees for drugs and medical supplies, the income from which would be used to replenish the revolving fund. The fund would have as its long term objective the achievement of break-even status and the preservation of an adequate amount of working capital to cover its operational needs. This may be possible only after some years, however, due to low consumer income levels and the need to continue to supply many drugs free of charge for key public health purposes. However the fund could serve gradually to reduce subsidies, improve efficiency and generate some revenues for health care. Grant co-financing for drugs and supplies under the project would serve to capitalize the fund. (Details considered in design of the revolving fund, tentative projections of fund income and expenditures, and risks to be considered and are contained in Annex 5).

**3.08** CMS will be strengthened with materials handling equipment and its facilities upgraded modestly to enable it to manage the revolving fund for drugs and medical supplies, to improve efficiency in planning, stocking and distribution of supplies, and to reduce losses and wastage. The MHLSW's transport services would be reorganized and improved through a program to replace about 30 unserviceable vehicles, standardize vehicle types, reduce fleet size to about 70 vehicles and reduce the number of drivers, institute a regular maintenance and repair program, provide an adequate stock of spare parts, establish routine service facilities in each region and a routine maintenance center near Banjul, and rationalize fuel distribution including establishment of regional storage facilities and provision of a tanker truck. A local transport fleet manager would be appointed as recommended by

the OSE Study. Further details are given in Annex 6. To redress the critical shortage of fuel which has plagued the MHLWS in recent times the project includes a modest allocation for the annual work program of the health services. To improve the quality and supervision of basic health services and the PHC program, a communications network between the Ministry and peripheral health units throughout the country would be developed. The Department of Medical Services would develop a schedule and protocols for operation of the system of about 30 small VHF transceivers which would be solar powered in many rural locations. Slightly larger units would be provided at the DMS, the Regional offices and the two hospitals. A consultant funded under the PPF would design the system and assist in preparation of specifications (including a list of spare parts), ensuring training for a local service vendor and preparation of a simple operating handbook.

**3.09** Technical assistance in support of these reforms include 24 person months of foreign assistance for a health economist to assist in determining resource implications of policy reforms and to train staff of the Health Planning Unit, 6 person months for a hospital management and finance specialist to assist in the decentralization of hospital administration and 10 person months for a drug revolving fund/inventory management specialist for the establishment and operation of the drug revolving funds. Staff training at the MHLWS, in the regional offices, health centers and at the village level will be organized to introduce and give guidance on implementation of this plan of reform. Local consultants, materials and operating costs will also be provided to assist the reform process (see Annex 7).

**3.10** New recruitment required to support effective implementation of these reforms in the MHLWS include a personnel officer for the Ministry, five finance officers (one each for the hospitals and the three regional teams), three finance clerks and three administrative officers (one for each regional team) and a senior hospital administrator for RVH. The proposed recruitment is consistent with the recommendations of the OSE Study.

**3.11** The Government should provide assurances that by January 1, 1987 it would present for IDA's concurrence a plan of reform for management, financial and support systems of the MHLWS including appropriate detailed procedures and regulations, and a schedule for drug charges and fees for services and will thereafter implement said plan including making appropriate provisions for its implementation in the annual health budget. To ensure that income from the sale of grant-financed drugs and supplies will not substitute for budget allocations to health sector the Government would provide assurances that during the project, budget expenditures on health, as a percentage of total budget expenditures (exclusive of debt service) would be maintained at not less than 1985 levels. In support of the program of reforms and to address the current weaknesses in health sector planning, budgeting for recurrent costs and coordinating official and NGO donor assistance to the sector, the Government should provide assurances that: (a) it will before January 1, 1987 provide to the Association for review and agreement a rolling two-year Plan for expenditures for the health

sector (including family planning and nutrition as appropriate); (b) the Plan will be consistent with the Economic Recovery Program, and subsequent such programs, if any; (c) the proposed annual expenditures under the Plan will be reviewed with the Association before the start of each budget year; and (d) the Plan will become the framework for all donor assistance to the sector.

**(b) Investments to Strengthen National Health Services**

**3.12** The project will expand the primary health care program to 53 villages, including 11 key villages each with a CHN, in the Western Region. The VHWs and TBAs will be provided with basic medical equipment as well as one bicycle to be shared between two of them. The 11 CHN's will each receive a motorcycle for use in weekly supervision of their assigned villages. Initial and in-service training for VHWs and TBAs in primary health care will be included. Training in basic principles of management and simple financial accounting and control would be provided for selected village development committee members in each village. To improve integration of the PHC program with basic health service delivery and strengthening of the referral system, outreach clinics, including MCH and family planning activities, would be conducted by regional health teams in all key villages and in larger PHC villages. VHWs and TBAs would participate in these clinics and would be encouraged to refer patients.

**3.13** The PHC program will also be extended to the peri-urban areas of Banjul, upon completion of technical assistance for a social survey and program design, which will recommend any changes required in the organization of the PHC program for peri-urban areas. Village health workers for the peri-urban areas will be supplied with basic equipment and in-service training under the project.

**3.14** Communicable disease programs will be expanded with drugs for treatment, laboratory supplies for diagnosis, and in service training for about 330 CHWs during the project period for the malaria, tuberculosis/ leprosy and schistosomiasis prevention and treatment.

**3.15** Neglect of budgetary provision for maintenance has hastened the deterioration of health facilities at all levels and has increased maintenance costs. To reduce these costs and to provide facilities which can effectively deliver minimum standard health services with low future maintenance costs, the project provides for rehabilitation and upgrading existing buildings at RVH and Bansang hospitals and at five (special MCH) health centers and five dispensaries, minor upgrading at seven health centers and seven dispensaries, and the construction of 12 staff houses, a new health center for an unserved peri-urban area, and a new polyclinic in Banjul. The polyclinic would substitute for general outpatient services now centered in RVH, thereby relieving overcrowding and permitting RVH to function as a referral facility only. At RVH, water, drainage and electricity systems, urgently needed structural maintenance and selected facility upgrading, including the pediatric unit and the control laboratory,

will be undertaken. At Bansang hospital an existing but unused ward block would be rehabilitated to provide a pediatric ward, obstetric ward with delivery rooms, a new outpatient department incorporating MCH and dental clinics and remodelling of existing wards, operating rooms, laboratory, X-ray and other departments. At each facility, refrigeration, emergency lighting and water heating will be provided (solar powered where appropriate) and standby power and water supplies upgraded where necessary. Furniture and simple medical and surgical equipment will be provided as required.

**3.16** To directly attack The Gambia's extremely high maternal mortality and morbidity rates, five existing health centers, selected to be accessible to the rural areas in each of the regions, would be upgraded and equipped as special MCH centers to deal with obstetrical complications, provide clinical family planning services and strengthen the referral system. These centers would be able to manage high risk pregnancies (including caesarean sections), IUD insertion, surgical contraception and prevention of infertility through the control of sexually transmitted diseases. Simple family shelters will be built at each of the five sites to provide accommodation for women identified as high risk pregnancies prior to delivery. At three of the clinics a small boat will be stationed to ferry emergency cases across the river. Prior to completion of the centers, five Gambian doctor and 10 nurse midwives would receive in-service training at John Hopkins Program for International Education in Gynecology and Obstetrics to upgrade their skills to enable them to provide the services. During the first year of their return to service, two expatriate obstetrician/gynecologists and five expatriate nurse midwives will provide clinical assistance to ensure effective development of the centers and their staff.

**3.17** To strengthen nurse training, the curricula for the Community Health Nurses and the State Enrolled Nurses will be revised and upgraded to incorporate PHC themes. CHN training will continue to be conducted at Mansakouko which has the advantage of utilizing existing facilities there, maximizing exposure of the students to rural life, and permitting clinical practice in the villages to be more easily arranged. Foreign technical assistance for a nurse-tutor (24 person months) to assist in curriculum revision and in teaching, would be provided, as would teaching equipment and materials, and 24 months of foreign fellowships for two CHN nursing instructors to strengthen clinical and teaching skills.

**3.18** SEN training will be transferred to Bansang hospital where a school built under a previous IDA-financed education project is currently being extended for this purpose. Transfer of SEN training to Bansang will complement the rehabilitation of BH and improve the quality of staff. It should also help to increase the supply of nurses willing to serve in the eastern and rural regions of The Gambia. Teaching materials and equipment and 6 person years of foreign technical assistance (two nurse tutors and one physician) will support the upgraded SEN training. Five person years of overseas fellowships will upgrade teaching skills of nursing instructors and senior nursing staff to form the basis for lasting improvements in nursing education at the SEN school.

**3.19** In-service CHN and SEN training will be undertaken by a team of three senior Gambian nurses trained in family planning, midwifery and nutrition, who will work with the Regional Health Teams. Foreign technical assistance (12 months) will permit a physician to join the team to assist in training in diagnostic and prescription skills.

**3.20** The Gambia's extraordinarily severe and interrelated problems of high fertility, high maternal and child mortality and morbidity and widespread malnutrition have proven very difficult for Government to deal with effectively (paras. 2.04-5; 2.23-27). The large number of organizations (domestic and foreign, governmental and nongovernmental) conducting programs and providing assistance in this field has clearly strained the Gambia's administrative system. More importantly, the impact of the resources expended for all of these efforts has not been as marked as is required and there is a clear need in the circumstances of the ERP for Government to forcefully take the initiative in providing better coordination and focus to all of these efforts. To initiate this, the Government would establish under the project a National Council on the Family, Health and Nutrition to develop and supervise a coordinated approach to family planning, family health and nutrition problems. The Council will be based in MHLSW and would assume most of the functions of the existing sector planning subcommittee on Population within MEPID. Membership in the Council would include MHLSW and MEPID (the Permanent Secretaries of which would serve as co-chairmen), the GFP, the Ministry of Agriculture, the Women's Bureau, the Director of RVH and religious and community leaders. The Council would have a full time Executive Secretary responsible for developing and maintaining a complete inventory of all relevant programs in the Gambia (current and proposed) and for issuing a monthly progress report thereon to the Council. In addition, the following activities would be coordinated, detailed plans reviewed and approved by the Council before release of funds in the annual MHLSW budget:

- (i) Development, by the Health Education Unit (HEU) of the MHLSW, of a systematic, rolling, two-year work plan for family, health and nutrition educational messages and information. The HEU would be responsible for development and testing and the various agencies of the Council would reproduce and disseminate family planning, health and nutrition education messages especially focussed on the PHC activity. The project includes a small materials production budget under the Council for use by the GFP and MHLSW in producing and disseminating materials. A modest provision of technical assistance (1.5 person months foreign and five person months local) will assist the HEU to develop the initial plan. Twelve months of foreign fellowships will strengthen the HEU in being able to produce more effective educational materials;
- (ii) Improved coordination of nutrition activities through development by the Council of a nutrition action program, with the assistance of the Nutrition Unit in MHLSW (Annex 8). The Nutrition Unit would also undertake operational research on nutrition interventions which can be replicated broadly in rural areas.

This would include food supplement programs for sick children and pregnant and lactating women, group feeding of malnourished children and working mothers, day care nurseries in villages, communal vegetable gardens and nutrition education for men. Arrangements would be made for an annual joint workshop on health and nutrition for staff of the Ministry of Agriculture Nutrition Unit and the MHLSW.

- (iii) In-service training for 10 doctors and 40 nurse midwives from MHLSW and the GFPA in family planning and MCH programs, issues and techniques and a study tour for two staff each from the MHLSW and the GFPA to a successful program in another country;

The project includes technical assistance to the Council for two years by an expatriate advisor. The Government should provide assurances that it would establish by January 1, 1987 a National Council on the Family, Health and Nutrition with terms of reference, staffing and authority satisfactory to IDA. The monthly and annual reports of the Council would be sent to IDA for comment and coordinating functions of the Council would be reviewed as part of regular project supervision.

**3.21** The Epidemiology and Statistics Unit of the MHLSW would: (a) review and improve, with technical assistance from the PPF, the current health information system, especially in relation to family planning, health and nutrition needs; and (b) develop by January 1, 1987 a five year action plan to guide the Unit's work during the project period. Funding for mid-term and final reviews of project progress is included for the Unit to cover operational research and data collection needs.

#### **IV. PROJECT COSTS AND FINANCING**

**4.01** Project Costs. The total cost of the project is estimated at US\$18.2 million equivalent, net of taxes and duties, with a foreign exchange component of US\$15.8 million, or 87 percent of total project cost. Costs include civil works, materials, equipment, vehicles, drug and medical supplies, local and overseas training, fellowships, and technical assistance. Estimates are based on January 1986 prices and recent procurement experience in projects elsewhere. Project costs by objective and by expenditure category are summarized in Tables IV.1 and IV.2 (details in Annex 9).

**4.02** Contingencies. Physical contingencies of 10 % of base costs are provided for civil works. Price contingencies are based on the following expected rates of increase for both domestic and international prices: 6.8% for 1987 and 1988; 7.0 % for 1989; 7.1 % for 1990; and 4.0 % for 1991. No price contingencies are applied to items financed by bilateral donors as the total value of their financing package has already been fixed.



Table IV.1 - PROJECT COSTS BY EXPENDITURE CATEGORY

THE GAMBIA NATIONAL HEALTH DEVELOPMENT PROJECT SUMMARY ACCOUNTS COST SUMMARY									
(DALASIS Million)			(US\$ Million)			% Foreign Exchange	% Total Base Costs		
Local	Foreign	Total	Local	Foreign	Total				
<b>I. INVESTMENT COSTS</b>									
<b>A. CIVIL WORKS</b>									
1. REHABILITATION	12,315.9	49,175.8	61,491.7	1.8	7.2	9.0	80	53	
2. FURNITURE AND EQUIPMENT	241.3	965.0	1,206.3	0.0	0.1	0.2	80	1	
3. ARCHITECTURAL FEES	-	6,029.5	6,029.5	-	0.9	0.9	100	5	
Sub-Total CIVIL WORKS	12,557.1	56,170.3	68,727.4	1.8	8.3	10.1	82	59	
B. EQUIPMENT	13.9	4,121.6	4,135.6	0.0	0.6	0.6	100	4	
C. VEHICLES	-	2,652.6	2,652.6	-	0.4	0.4	100	2	
<b>D. TECHNICAL ASSISTANCE</b>									
1. LOCAL CONSULTANTS	311.6	-	311.6	0.0	-	0.0	-	0	
2. FOREIGN CONSULTANTS	-	13,693.6	13,693.6	-	2.0	2.0	100	12	
Sub-Total TECHNICAL ASSISTANCE	311.6	13,693.6	14,005.2	0.0	2.0	2.1	98	12	
<b>E. TRAINING</b>									
1. INSERVICE TRAINING	531.3	-	531.3	0.1	-	0.1	-	0	
2. FOREIGN FELLOWSHIPS	-	3,016.8	3,016.8	-	0.4	0.4	100	3	
3. STUDY TOURS	-	189.5	189.5	-	0.0	0.0	100	0	
Sub-Total TRAINING	531.3	3,206.3	3,737.6	0.1	0.5	0.5	86	3	
F. MATERIALS	167.2	1,472.3	1,639.5	0.0	0.2	0.2	70	1	
G. DRUGS AND CONSUMABLES	-	14,875.2	14,875.2	-	2.2	2.2	100	13	
H. OPERATIONS RESEARCH	134.6	134.6	269.2	0.0	0.0	0.0	50	0	
I. PROJECT PREPARATION FACILITY	306.0	2,754.0	3,060.0	0.0	0.4	0.5	90	3	
<b>Total INVESTMENT COSTS</b>	<b>14,021.7</b>	<b>99,080.6</b>	<b>113,102.4</b>	<b>2.1</b>	<b>14.6</b>	<b>16.6</b>	<b>88</b>	<b>97</b>	
<b>II. RECURRENT COSTS</b>									
A. SALARIES	1,485.0	-	1,485.0	0.2	-	0.2	-	1	
B. FUEL	-	1,625.4	1,625.4	-	0.2	0.2	100	1	
<b>Total RECURRENT COSTS</b>	<b>1,485.0</b>	<b>1,625.4</b>	<b>3,110.4</b>	<b>0.2</b>	<b>0.2</b>	<b>0.5</b>	<b>52</b>	<b>3</b>	
<b>Total BASELINE COSTS</b>	<b>15,506.8</b>	<b>100,706.0</b>	<b>116,212.8</b>	<b>2.3</b>	<b>14.8</b>	<b>17.1</b>	<b>87</b>	<b>100</b>	
Physical Contingencies	304.7	1,269.0	1,573.7	0.0	0.2	0.2	81	1	
Price Contingencies	932.1	5,223.4	6,155.4	0.1	0.8	0.9	85	5	
<b>Total PROJECT COSTS</b>	<b>16,743.5</b>	<b>107,198.5</b>	<b>123,942.0</b>	<b>2.5</b>	<b>15.8</b>	<b>18.2</b>	<b>86</b>	<b>107</b>	

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Table IV.2 - PROJECT COSTS BY COMPONENT

THE GAMBIA  
NATIONAL HEALTH DEVELOPMENT PROJECT  
PROJECT COST SUMMARY

	(DALASIS Million)			(US\$ Million)			% Foreign Exchange	% Total Base Costs
	Local	Foreign	Total	Local	Foreign	Total		
A. REFORMS TO STRENGTHEN HEALTH SECTOR MANAGEMENT , FINANCE AND SUPPORT SYSTEM								
1. SECTOR REFORMS	1,561.6	2,884.4	4,446.1	0.2	0.4	0.7	65	4
2. DRUGS AND CONSUMABLES	99.3	15,405.7	15,505.0	0.0	2.3	2.3	99	13
3. VEHICLES AND SPARE PARTS	107.3	4,941.1	5,048.4	0.0	0.7	0.7	98	4
4. SHORTWAVE RADIO SYSTEM	-	1,161.0	1,161.0	-	0.2	0.2	100	1
Sub-Total REFORMS TO STRENGTHEN HEALTH SECTOR MANAGEMENT , FINANCE AND SUPPORT SYSTEM	1,768.2	24,392.3	26,160.5	0.3	3.6	3.8	93	23
B. STRENGTHENING HEALTH SERVICES								
1. NATL EXTENSION OF VILLAGE HEALTH SERVICES	195.9	1,191.5	1,387.3	0.0	0.2	0.2	86	1
2. MATERNAL CARE AND FP INITIATIVES	345.7	8,006.2	8,351.9	0.1	1.2	1.2	96	7
3. STRENGTHENING NUTRITION SERVICES	108.4	97.0	205.4	0.0	0.0	0.0	47	0
4. HEALTH EDUCATION	228.6	993.4	1,222.0	0.0	0.1	0.2	81	1
5. NURSE TRAINING	-	6,558.6	6,558.6	-	1.0	1.0	100	6
6. MONITORING AND EVALUATION	37.6	37.6	75.2	0.0	0.0	0.0	50	0
7. REHABILITATION OF HEALTH FACILITIES	12,479.2	55,946.4	68,425.7	1.8	8.2	10.1	82	59
8. PROJECT MANAGEMENT UNIT	37.2	729.1	766.3	0.0	0.1	0.1	95	1
Sub-Total STRENGTHENING HEALTH SERVICES	13,432.5	73,559.8	86,992.3	2.0	10.8	12.8	85	75
C. REPAYMENT OF PPF	306.0	2,754.0	3,060.0	0.0	0.4	0.5	90	3
Total BASELINE COSTS	15,506.8	100,706.0	116,212.8	2.3	14.8	17.1	87	100
Physical Contingencies	304.7	1,269.0	1,573.7	0.0	0.2	0.2	81	1
Price Contingencies	932.1	5,223.4	6,155.4	0.1	0.8	0.9	85	5
Total PROJECT COSTS	16,743.5	107,198.5	123,942.0	2.5	15.8	18.2	86	107

4.03 The proposed IDA Credit for SDR -- million (US\$4.0 million equivalent) will finance 24 % percent of foreign exchange costs (US\$ 15.8 million) and US\$ 0.2 million of local costs. Table IV.3 below shows the financing plan for the project for IDA and the various cofinaciers.

THE GAMBIA NATIONAL HEALTH DEVELOPMENT PROJECT Financing Plan by Project Components (US\$ Million)															
	IDA		UNITED KINGDOM		ITALY		CHINA		NETHERLANDS		UNCDF	OTHER	GOVT	Total	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount
A REFORMS TO STRENGTHEN HEALTH SECTOR MANAGEMENT, FINANCE AND SUPPORT SYSTEM															
1. SECTOR REFORMS	0.5	66.6	-	-	-	-	-	-	-	-	-	-	0.3	33.4	0.8
2. DRUGS AND CONSUMABLES	0.1	3.9	-	-	0.6	26.7	-	-	-	-	-	1.7	69.0	0.0	0.3
3. VEHICLES AND SPARE PARTS	0.8	99.1	-	-	-	-	-	-	-	-	-	-	-	0.0	1.7
4. SHORTWAVE RADIO SYSTEM	-	-	-	-	0.2	100.0	-	-	-	-	-	-	-	-	0.2
<b>SUB-TOTAL REFORMS TO STRENGTHEN HEALTH SECTOR MANAGEMENT, FINANCE AND SUPPORT SYSTEM</b>	<b>1.4</b>	<b>34.2</b>	<b>-</b>	<b>-</b>	<b>0.8</b>	<b>19.4</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1.7</b>	<b>39.8</b>	<b>0.3</b>	<b>6.6</b>
B STRENGTHENING HEALTH SERVICES															
1. NATL EXTENSION OF VILLAGE HEALTH SERVICES	0.2	89.5	-	-	-	-	-	-	-	-	-	-	0.0	10.5	0.2
2. MATERNAL CARE AND FP INITIATIVES	1.7	91.1	-	-	0.0	2.7	-	-	0.0	2.2	-	-	2.1	4.0	1.4
3. STRENGTHENING NUTRITION SERVICES	0.0	94.5	-	-	-	-	-	-	-	-	-	-	0.0	5.5	0.0
4. HEALTH EDUCATION	0.2	100.0	-	-	-	-	-	-	-	-	-	-	-	-	0.2
5. NURSE TRAINING	-	-	-	-	-	-	-	-	1.0	100.0	-	-	-	-	1.0
6. MONITORING AND EVALUATION	0.0	100.0	-	-	-	-	-	-	-	-	-	-	-	-	0.0
7. REHABILITATION OF HEALTH FACILITIES	0.3	3.1	0.8	7.5	5.8	54.8	1.0	9.4	-	-	0.2	1.6	2.5	23.6	10.6
PROJECT MANAGEMENT UNIT	0.1	100.0	-	-	-	-	-	-	-	-	-	-	-	-	0.1
<b>SUB-TOTAL STRENGTHENING HEALTH SERVICES</b>	<b>2.2</b>	<b>16.0</b>	<b>0.8</b>	<b>5.9</b>	<b>5.9</b>	<b>43.2</b>	<b>1.0</b>	<b>7.4</b>	<b>1.0</b>	<b>7.3</b>	<b>0.2</b>	<b>1.3</b>	<b>2.5</b>	<b>18.4</b>	<b>0.1</b>
C. REPAYMENT OF PPF	0.5	100.0	-	-	-	-	-	-	-	-	-	-	-	-	0.5
<b>Total Disbursement</b>	<b>4.1</b>	<b>22.2</b>	<b>0.8</b>	<b>4.4</b>	<b>6.7</b>	<b>36.6</b>	<b>1.0</b>	<b>5.5</b>	<b>1.0</b>	<b>5.5</b>	<b>0.2</b>	<b>0.9</b>	<b>4.2</b>	<b>22.9</b>	<b>0.4</b>

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4.04 Recurrent Cost Implications of the project are very difficult to estimate because of the lack of data. Hospital costs, which are a major part of health sector recurrent costs, are unlikely ever to be fully recoverable from patients and some continuing subsidy from the exchequer is probable. Depending on how efficient and cost conscious the hospitals become under semi-autonomous operation, the amount of subsidy may change substantially. The estimate used in the financial projections of the

revolving fund indicates that during the project period subsidies to the hospitals for drugs and consumables may total about D 6.4 million. In the first year after the project this subsidy may be about D 1.4 million (in constant prices) which compares to D 1 million in the 1983/84 RVH budget for these same items. This difference is not large for growth over an 8 year period. Moreover, there is considerable scope for added cost recovery from patient fees, etc., which the hospital should institute to close this gap. For example, income from deliveries in the RVH maternity ward alone in 1984 would have totaled D 0.1 million at the proposed fee level of D 20 (US\$3 equivalent). Overall, however, RVH will continue to require some subsidy for both salary and non-salary operating costs.

**4.05** Recurrent costs for other (non-hospital) drugs and consumables in the first year after project completion are expected to be fully recovered from fees if the revolving fund is made to function effectively. Other fees paid by visitors to health centers and dispensaries may generate income totaling D 0.5-1.0 million annually by the end of the project assuming that fees instituted last year are only kept constant in real terms.

**4.06** At the end of the project period, the incremental recurrent costs to be financed by Government would be for building and equipment maintenance, drugs and consumables for hospitals, fuel for the MHLWS, and materials used in the normally delivery of services by MHLWS. A significant portion of these costs would also exist as recurrent liabilities to Government even if there would be no project. A crude estimate of the recurrent cost burden facing Government in 1992 can be made by projecting the 1983/84 recurrent budget (excluding RVH and salaries) to 1992, adjusted for inflation, population growth and a 75 % increase in utilization. Under this assumption, non-salary recurrent costs would total D 7.2 million. In the budget situation prevailing in 1983/84 the entire burden of financing these costs would have been borne by the budget. With the project, funds available from fees and the revolving fund to meet the costs may total D 5.9 million, without allowance for gains in efficiency as expected from the reform program. The net result will be that improved health services will present much less of a fiscal burden to Government at the end of the project than they do now.

**4.07** Status of Project Preparation. Preparation of the proposed National Health Development Project predates the detailed formulation of the Government's Economic Recovery Plan (ERP), which is described in the President's Report on a Development Credit and a Special African Facility Credit for a Structural Adjustment Program (IDA Report No. \_\_\_\_\_, 1986). The National Health Development Project is consistent with and supports the objectives of the ERP. The project's objectives of improving overall efficiency, increasing cost recovery and strengthening Government's ability to coordinate donor inputs, will also aid in reducing or meeting operating costs.

**4.08** An advance of US\$450,000 under the Project Preparation Facility was approved by IDA to finance a series of studies including finance and management in the health sector, rural health and nutrition needs, vehicle

maintenance and fuel requirements and training of the various nursing cadres.

**4.09** The Overseas Development Administration (ODA) of Great Britain will provide the equivalent of about US\$800,000 for the design and supervision of project civil works by the United Kingdom Projects Office (UKPO) in Banjul. It is expected that the proposed construction program would require about 3.5 years to complete. The UKPO staff will be increased from 3 to 4 positions by the addition of an architectural/building technician with a training/site supervisory role. The unit will also include a quantity surveyor and two other architectural/building technicians. The UKPO will also undertake the training of 4-6 architectural technicians based in the Ministry of Works. Additional support of US\$84,000 equivalent will be required from the project by the UKPO to cover the costs of two vehicles and consultant services for the final preparation and printing of bills of quantities. Work on the site plans and building and services surveys for Bansang Hospital and the health centers has begun.

**4.10** The role of the UKPO will be central to controlling recurrent costs for the civil facilities to be built and rehabilitated under the project. Because of its experience in The Gambia, the UKPO is experienced at designs and building materials which are suitable to local conditions and which will minimize future maintenance costs. Accordingly, assurances will be obtained at negotiations that the Government will ensure that contractors (including those funded from bilateral sources) engaged for civil construction under the project will work according to the detailed designs of the UKPO and that construction supervision will be performed on behalf of the Government by the UKPO.

**4.11** Organization and Management. The project will be implemented under the auspices of a Project Implementation Coordinating Committee (PICC), chaired by the Permanent Secretary of MHLWS who will also act as Project Coordinator. Other members of the PICC would include the Permanent Secretaries of MEPID, and of Finance, staff of the President's Office, the Director of Medical Services, the Project Manager and a representative of the MRC and the GFPA. The project would be implemented on a day-to-day basis through the line units of the MHLWS under the coordination of a Project Management Unit (PMU) responsible to the Permanent Secretary, MHLWS. The PMU will consist of the Project Manager and Deputy Project Manager, a project accountant and clerical support. This unit will be responsible for all project matters, will assist in the preparation of annual work programs and budgets for project components, procurement of goods and arrangements for technical assistance, processing of credit withdrawal applications and preparation and submission to IDA of project progress reports. The project will also support 8 months of technical assistance to support the preparation and carrying out of mid-term and final project evaluations. During negotiations, the Government will provide assurances that it will submit the results of the mid-term evaluation to the IDA by June 30, 1989 and the final evaluation by December 31, 1991. Both of these evaluations will be based on criteria submitted to IDA for concurrence by October 1, 1987.

**4.12**     Procurement. Procurement of equipment, vehicles, educational and teaching materials and fuel to be financed by IDA would be procured under International Competitive Bidding (ICB) following Bank Procurement Guidelines, except as described below (see Annex 9.1). Items would be grouped into bid packages to encourage competition and bulk procurement. Local manufacturers would be eligible for a margin of preference of 15%, or the prevailing customs duty, whichever is lower, in the evaluation of bids. Procurement of these items and groups of items estimated to cost less than \$25,000 equivalent, subject to an aggregate of US\$300,000 equivalent, may be through: (a) contracts awarded on the basis of comparison of quotations invited from at least three suppliers eligible under the Guidelines; or (b) by direct purchase where justified by the need for standardization. Prior Association review of contract awards would include all contracts of \$50,000 equivalent or more. Sample post reviews of smaller contracts would be carried out during supervision missions. Selection of technical assistance consultants would be carried out in accordance with Bank Group Guidelines on the use of consultants. Fellowships and operations research expenditures would be organized by the MHLWS. Items financed by bilateral donors will be procured according to their own regulations but IDA will have the right to review and comment on the proposed site plans and bid documents for civil works, equipment lists and terms of reference for technical assistance.

**4.13**     Disbursements. The credit of US\$4.0 million equivalent would be disbursed against the following items, net of taxes:

- a) 100 % of the cost of consultant services;
- b) 100 % of the cost of fellowships;
- c) 100 % of the cost of materials for teaching, for health/nutrition education, for office operations and for operational research;
- (d) 100 % of the foreign exchange cost of equipment, vehicles, and fuel; and
- (e) repayment of the project preparation facility.

**4.14**     Withdrawal applications to IDA would be grouped into packages of at least US\$50,000 equivalent and would be fully documented, except for expenses related to project administration and miscellaneous operating costs, training and contracts of less than US\$25,000 equivalent. These expenses would be reimbursed against certified statements of expenditure, for which documentation would be retained for review by IDA supervision missions and by the project auditors. Annex 9.2 shows the estimated schedule of disbursements. The proposed programs of reforms and investments under the project are expected to be implemented over a five year period, and should be completed by December 31, 1991 with a closing date of June 30, 1992.

**4.15** Special Accounts. To facilitate the pre-financing of expenditures by the Government, an amount of US\$200,000 will be advanced from the IDA credit and deposited in a Special Account held in a local bank under the control of the Project Director. The Special Account would cover about three months of estimated project expenditures. In order to ensure that the Government's counterpart financing is promptly available, the Government would establish a separate replenishable advance account in local currency of about D..... million (US\$20,000 equivalent). Opening of this account and depositing the initial amount of D... would be a condition of credit effectiveness.

**4.16** Accounts and Audits. The Project Management Unit will maintain all project accounts, which will be audited annually by auditors acceptable to the Association. Certified copies of the audited accounts will be forwarded to the Association for review within six months after the end of each fiscal year. Quarterly reports on the progress of project implementation will be submitted to IDA by the Project Management Unit. A project completion report will be submitted to IDA within six months of the closing date.

**4.17** A separate audit of the drug revolving fund will be carried out within six months after the end of each fiscal year, by auditors acceptable to IDA. Certified copies of the accounts and the auditors report will be forwarded to the Association for review within six months after the end of each fiscal year.

## **V. PROJECT BENEFITS AND RISKS**

**5.01** The project offers benefits on a number of levels. The reforms of management, finance and supporting systems will encourage better use of scarce resources, increased responsiveness to local needs and greater accountability for expenditures. Semi-autonomous status for the hospitals will help to identify and control the resources used by them so that decisions about subsidies can be related to performance. Improvement of support systems will make a difference to the feasibility and effectiveness of a revolving fund for drugs and medical supplies. Strengthening of health services will offer low cost basic health care and disease prevention to many who do not now have it. Communicable disease programs will help to further reduce at a low cost the mortality and morbidity. Nurse training will improve the quality and quantity of the primary line of health workers, to deal with the endemic problems of malnutrition and poor maternal and child health. High level coordination of the interrelated problems of family planning, health and nutrition by the proposed National Council offers opportunity for the many assistance programs concerned with these areas to make a major difference in only a few years. Rehabilitation and construction of health facilities will add credibility to the health system, reduce expensive maintenance of deteriorating facilities, improve staff morale and productivity and enhance ability to institute greater cost recovery. Establishment of priorities in a health investment plan will

provide a framework for Government to use in channelling foreign assistance, thereby improving absorptive capacity.

**5.02** The risks in the project are also significant. Reforms may not be carried out and inefficiency, lack of control at lower levels and centralization would block improvements in service. Lack of determination to improve cost recovery, especially through the revolving fund, would destroy health system credibility if supplies were not available and funds for operations remained almost non-existent. There is also risk of mismanagement and waste in the drug revolving fund. Moreover, any reversal of the Government's policy of convertibility of the Dalasi might make the fund's operation impossible. The project is designed to account for these risks and contains technical assistance to reduce them but there will be no substitute for attention of The Gambia's leadership to ensure that the reforms can be made to work. The rehabilitation and construction program carries the risk that ineffective coordination among donors will result in expensive construction and equipment, or in the use of materials, standards and technologies inappropriate to The Gambia. UKPO would help to guard against this but Government will have to ensure that these arrangements work. Other physical investments and training programs carry little risk in themselves but their benefits may not be realized if the reforms and improved cost recovery are not achieved. Overall, there is the risk that the management of the MHLWS will continue to find it difficult to deal with so many sources of funding for the health sector, resulting in ineffective follow-up on key issues facing the sector (para. 2.33). Technical assistance can help, but close attention by Government and IDA to the reform program and to development of an investment Plan to provide a framework for all donors is recommended to address this risk.

## **VI. AGREEMENTS TO BE REACHED AND RECOMMENDATIONS**

**6.01** During negotiation the following assurance should be obtained:

- (a) the Government would present for IDA's concurrence by January 1, 1987 a plan of reform for management, financial and support systems of the MHLWS, including appropriate detailed procedures and regulations, and a schedule for drug changes and fees for services and will thereafter implement said plan including making appropriate provision for its implementation in the annual budget of the MHLWS (para. 3.11);
- (b) the Government would ensure that during the project, budget expenditures on health, as a percentage of total budget expenditures (\*exclusive of debt service) would be maintained at not less than the 1985 level (para. 3.11)
- (c) the Government would ensure that: (a) it will before January 1, 1987 provide to the Association for review and agreement a rolling two-year Plan for expenditures for the health sector (including family planning and nutrition as appropriate); (b) the Plan will



be consistent with the Economic Recovery Program, and subsequent such programs, if any; (c) the proposed annual expenditures under the Plan for expenditures under the Plan will be reviewed with the Association before the start of each budget year; and (d) the Plan will become the framework for all donor assistance to the sector (para. 3.11);

- (d) the Government would establish by January 1, 1987 a National Council on the Family, Health and Nutrition with terms of reference, staffing and authority satisfactory to IDA (para. 3.20);
- (e) the Government will ensure that contractors (including those funded from bilateral sources) engaged in civil construction under the project will work according to the detailed designs of the UKPO and that construction supervision will be performed on behalf of the Government by the UKPO (para. 4.09); and,
- (f) the Government will carryout and submit to IDA the results of a mid-term evaluation of the project by June 30, 1989 and a final evaluation of the project by December 31, 1991. Both of these evaluation will be based on criteria to be submitted to IDA for concurrence by October 1, 1987 (para. 4.19).

**6.02** As a conditions of effectiveness the Government would establish of the Special Account and deposit of the initial amount of D\_\_\_\_\_million (US\$20,000 equivalent (para. 4.14).

**6.03** On these conditions, a credit of \$4.0 million equivalent for this project is recommended.

THE GAMBIANATIONAL HEALTH DEVELOPMENT PROJECTBASIC DATAA. General Country Data

1. Total Area (sq. km) .....	11,000
2. Total population - (mid-1983 Estimate) (millions) ..	0.7
3. GNP per capita, US Dollars (1983) .....	290

B. Population Data

1. Population Density (per sq. km) (1983) .....	64
2. Urban Population (%) (1983) .....	30
3. Annual Population Natural Increase (1985) .....	3.5
4. Total Fertility Rate (1984) .....	6.5
5. Crude Birth Rate per 1,000 (1985) .....	55
6. Crude Death Rate per 1,000 (1985) .....	20

C. Health and Nutrition Data

1. Life Expectancy at Birth (1984) (years) .....	42
2. Infant Mortality Rate per 1,000 (1973) .....	217
3. Population per Physician (1980) .....	
4. Population per Nursing Person (1980) .....	
5. Maternal Mortality Rate per 1,000 .....	10
6. Daily Calorie Supply as % of Requirement (1982) ....	

Annex 1.2DEFINITIONS

- Child Death Rate : The number of deaths among children 1-4 years of age per 1,000 children in the same age group in a given year.
- Crude Birth Rate : The number of live births per year per 1,000 people in a given year.
- Crude Death Rate : The number of deaths per year per 1,000 people in a given year.
- Incidence Rate : The number of persons contracting a disease in a population during a specified period of time. Usually expressed as the number of cases per 1,000 persons.
- Infant Mortality Rate : The number of deaths of infants under 1 year of age in a given year per 1,000 live births during the same year.
- Life Expectancy at Birth : Number of years a newborn child would live if subject to the mortality risks prevailing for the cross-section of population at time of birth.
- Maternal Mortality Rate : The number of maternal deaths per 1,000 live births in a given year attributable to pregnancy and childbearing complications.
- Morbidity : The frequency of disease and illness in a population.
- Prevalence Rate : The number of persons having a particular disease at a given point in time per 1,000 population at risk.
- Rate of Natural Increase : Difference between crude birth and crude death rates; usually expressed as a percentage of the total population in a given year.
- Total Fertility Rate : The average number of children that would be born alive to a woman during her lifetime if she were to pass through her childbearing years conforming to the age-specific fertility rates of a given year; serves as an estimate of average number of children per family.

THE GAMBIA

NATIONAL HEALTH DEVELOPMENT PROJECT

Documents and Data in The Project File

- A. General Reports and Studies Relating to The Health Sector
  - A.1 World Bank, Basic Needs in The Gambia, December 1981.
  - A.2 World Health Organization, Health Resources Group for Primary Health Care, Country Resource Utilization Review, December 1984.
  - A.3 MHLWS, National Primary Health Care Review, 1985.
  
- B. Selected Reports and Studies Relating to The Project
  - B.1 Joint UNDP/World Bank Energy Sector Management Assistance Program Activity Completion Report No. 032/85, Preinvestment Report on Solar Photovoltaic Applications in The Health and Telecommunications Sectors, March 1985.
  - B.2 Mauburay, Momodou Kunta, Transport Study of the MHLWS, October, 1985.
  - B.3 United Medical Enterprises, Management and Financial Study, February, 1986.
  - B.4 The Government of The Gambia, Health Sector Development Project Proposal, November, 1985.
  - B.5 Alan Berg, Notes on Nutrition in The Gambia, August, 1985.
  - B.6 McCormack, Carol. Report on Socio-Anthropological Study of Rural Society in The Gambia, September, 1985.
  - B.7 Edwards, Paula. Proposals for Nurse Training for The Health Services in The Gambia, December, 1985.

THE GAMBIANATIONAL HEALTH DEVELOPMENT PROJECTFamily Planning in The Gambia

1. The Gambia Family Planning Association (GFPA) and the Ministry of Health, Labor and Social Welfare (MHLSW) are the two main providers of family planning services. GFPA began to provide services in 1969, while MHLSW services started with this decade.

2. The Gambia Family Planning Association Program. GFPA provides services through 7 clinics, 83 satellite (itinerant) clinics, 60 community-based agents (mostly female), and 12 medical agents (mostly ex-dresser dispensers operating pharmacies). Contraceptives are provided free in the clinics, where there is a registration fee, but are sold by the community and medical agents, who retain half of the selling price. Clinics provide the IUDs, orals, injectables and conventional contraceptives (condoms, foams etc.), while community and medical agents distribute mainly orals and condoms, and in some cases (mostly medical agents), injectables and the IUD. Women requesting tubal ligation are referred to the Royal Victoria Hospital (RVH) or to private physicians. Service statistics from 1985 appear below:

New Acceptors and Continuing Contraceptive Users,  
by Method, GFPA, 1985

<u>Method</u>	<u>New Acceptors</u>	<u>Continuing Users</u>	<u>Total</u>
Orals	1922	2059	3981
Injectables	640	538	1178
Condoms	290	350	640
IUD	184	149	333
Other	300	313	613
<b>Total</b>	<b>3336</b>	<b>3409</b>	<b>6745</b>

3. MHLSW Family Planning Services. MHLSW provides services through hospitals and health centers and provides condoms through the village-based PHC program (village health workers re-supply condoms, and traditional birth attendants, orals). The Royal Victoria Hospital is the predominant clinical service point, for which service statistics follow:

Current Contraceptive Users,  
by Method, Royal Victoria Hospital, 1984-1985

<u>Method</u>	<u>1984</u>	<u>1985</u>
Orals	3879	4001
Injectables	1533	1900
IUD	1158	966
Condoms	356	176
<b>Total</b>	<b>6926</b>	<b>7043</b>

4. Family planning services have been available in MHLSW health centers, dispensaries and through the village-based system only for the past few years. Incomplete service statistics for 1985 are:

Current Contraceptive Users, by Method and Region,  
MHLSW 1985

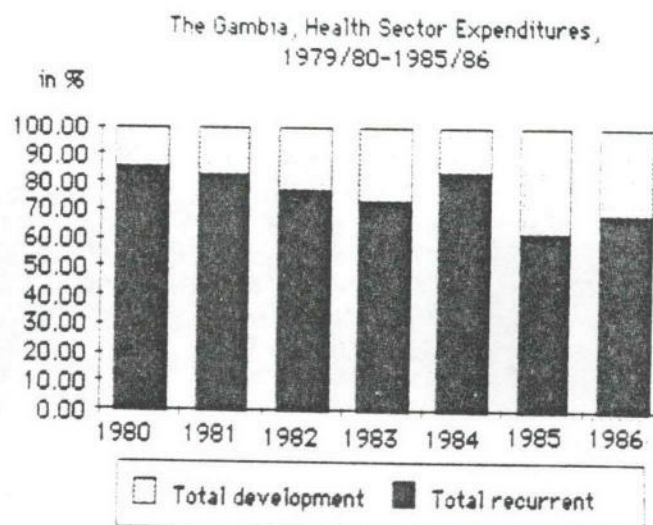
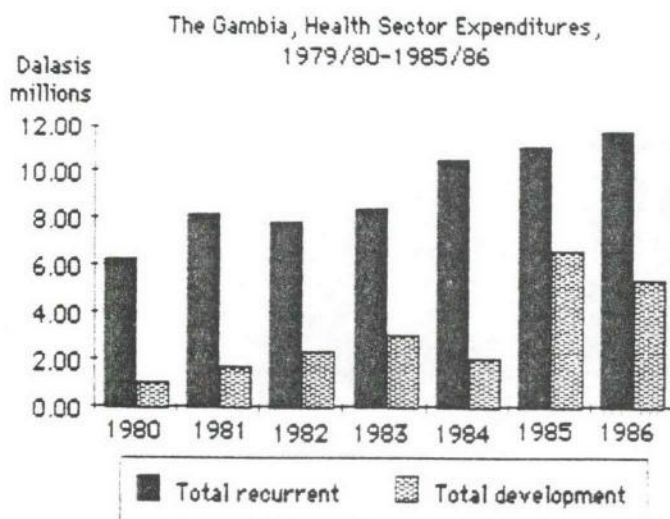
<u>Method</u>	<u>Western</u>	<u>Central</u>	<u>Eastern</u>	<u>Grand Total</u>
Oral	336	7	194	
IUD	2	1	23	
Injectables	249	10	51	
Condom	-	-	1	
<b>Total</b>	<b>587</b>	<b>18</b>	<b>269</b>	<b>874</b>

5. The data above indicate that at least 14,662 Gambian women were current users of family planning in 1985, assuming that there is no double-counting between programs and institutions. This total does not include those who obtain family planning in the private sector (other than from community and medical agents), acceptors of tubal sterilization (an

indeterminate number are performed at RVH and in the private sector), and those using traditional methods (breast feeding, rhythm, abstinence, withdrawal). Data are not available to provide an accurate denominator of women in the reproductive age group. However, assuming that the current population is 730,000, and applying the Dryfoos/Polgar/Varky formula, we crudely estimate the denominator can be roughly estimated at 104,000 women in the reproductive age group. This gives a very conservative estimate of current modern contraceptive use as 14 % of eligible couples.

**The Gambia**  
**National Health Development Project**  
**Health Sector Expenditures, 1979/80 - 1985/86**

	1979/80	1980/81	1981/82	1982/83	1983/84	1984/85	1985/86
<b>Administration</b>							
recurrent	1.01	1.51	1.36	1.55	1.80	2.01	2.06
development	0.04				0.04		
sub-total	1.05	1.51	1.36	1.55	1.84	2.01	2.06
<b>Hospital</b>							
recurrent	4.21	4.09	3.80	4.09	4.93	4.92	5.35
development	0.25	0.99	1.49	0.95	0.14	3.05	1.30
subtotal	4.46	5.08	5.29	4.94	5.07	7.97	6.65
<b>HCs and VHS</b>							
recurrent		1.06	1.10	0.98	2.37	2.74	2.94
development	0.81	0.79	0.89	2.26	1.90	3.65	4.12
subtotal	0.81	1.85	1.99	3.24	4.27	6.39	7.06
<b>Special Services</b>							
recurrent	0.94	1.44	1.49	1.65	1.16	1.07	1.09
development							
subtotal	0.94	1.44	1.49	1.65	1.16	1.07	1.09
<b>Research and Training</b>							
recurrent	0.14	0.10	0.14	0.19	0.33	0.33	0.35
development							
subtotal	0.14	0.10	0.14	0.19	0.33	0.33	0.35
<b>Total recurrent</b>	<b>6.30</b>	<b>8.20</b>	<b>7.89</b>	<b>8.46</b>	<b>10.59</b>	<b>11.07</b>	<b>11.79</b>
<b>Total development</b>	<b>1.10</b>	<b>1.78</b>	<b>2.38</b>	<b>3.11</b>	<b>2.08</b>	<b>6.70</b>	<b>5.42</b>
<b>Grand Total</b>	<b>7.40</b>	<b>9.98</b>	<b>10.27</b>	<b>11.57</b>	<b>12.67</b>	<b>17.77</b>	<b>17.21</b>





## The Gambia - Recurrent Budgets, Health Sector, 1983-85

Details	1983/84	1984/85	1985/86	Details	1983/84	1984/85	1985/86
	Actuals	Estimates	Estimates		Actuals	Estimates	Estimates
	(in Dalasis '000s)				(in Dalasis '000s)		
<b>Ministry</b>				<b>Bansang Hospital</b>			
Salaries	302.90	380.90	399.60	Salaries	352.30	466.30	500.10
clerical asst.	0.00	1.00	1.00	Wages Hosp.Labor	3.80	5.00	5.00
Allowances	38.20	57.70	60.10	Allowances	61.90	79.50	79.50
Travel Exp.	3.90	5.00	5.00	Travel Exp.	15.70	12.00	12.00
Misc.Off.Exp	9.10	8.00	8.00	Uniforms	21.90	10.00	10.00
Vehicle O&M	17.50	25.30	25.30	Patient's Food	65.70	70.00	70.00
Grants to L.O.	1.00	1.00	1.00	Drugs & Dressings	95.20	250.00	250.00
Cont.int'l Orgs.	367.00	328.10	328.10	Other Med. Supplies	46.20	30.00	50.00
Sub-total	739.60	807.00	828.10	Misc.Off.Exp	0.80	3.00	3.00
<b>Transport Unit</b>				Vehicle O&M	26.60	44.30	44.30
Salaries	284.60	227.60	237.60	Equipment Mainten.	3.50	5.00	5.00
Allowances	71.60	71.10	81.90	Equipment Purch.	28.00	20.00	20.00
Travel Exp.	5.30	5.00	5.00	Equipment Replac.	17.70	20.00	20.00
Uniforms	6.90	7.00	7.00	Sub-total	739.30	1015.10	1068.90
Sub-total	368.40	310.70	331.50	<b>Regional Offices</b>			
<b>Medical and Health Headquarters</b>				Salaries	6.20	86.10	89.00
Salaries	250.70	242.40	255.10	Allowances	28.30	48.90	50.10
Allowances	37.50	62.60	63.10	Travel Exp.	8.00	60.00	60.00
Overseas G.Off	27.70	0.10	0.10	Misc.Off.Exp	2.70	6.00	6.00
Travel Exp.	2.30	3.00	3.00	Vehicle O&M	21.40	30.00	30.00
Uniforms	0.00	1.00	1.00	Sub-total	66.60	231.00	235.10
Library	0.00	1.00	1.00	<b>Health Centers</b>			
Misc.Off.Exp	10.20	6.00	6.00	Salaries	1016.70	1132.20	1210.20
Food Assistance	12.70	0.00	0.00	Wages Hosp.Labor	10.40	2.50	2.50
Vehicle O&M	13.70	12.60	12.60	Allowances	122.90	176.50	176.50
Generator O&M	4.50	12.60	12.60	Travel Exp.	17.10	40.00	40.00
Hosp. Maintenance	0.00	200.00	200.00	Uniforms	17.10	10.00	10.00
Student's Allow.	350.00	350.00	350.00	Patient's Food	31.70	60.00	60.00
Sub-total	709.30	891.30	904.50	Drugs & Dressings	169.00	214.00	214.00
<b>Hospital Management Board</b>				Other Med. Supplies	13.70	30.00	50.00
Salaries	42.10	55.60	58.60	MCH Materials	1.00	20.00	20.00
Allowances	7.70	13.70	19.90	Misc.Off.Exp	0.90	2.00	2.00
Travel Exp.	0.00	0.20	0.20	Vehicle O&M	85.80	100.00	150.00
Misc.Off.Exp	4.80	5.00	5.00	Generator Mainten.	66.20	100.00	100.00
Sub-total	54.60	74.50	83.70	Equipment Purch.	58.90	10.00	10.00
<b>Royal Victoria Hospital</b>				Equipment Replac.	10.00	10.00	10.00
Salaries	2107.00	2443.00	2781.00	Sub-total	1621.40	1907.20	2055.20
Wages Hosp.Labor	6.10	1.00	1.00	<b>Dispensaries and Sub-Dispensaries</b>			
Allowances	410.70	557.20	557.20	Salaries	63.80	321.30	369.40
Travel Exp.	4.80	5.00	5.00	Wages Hosp.Labor	27.10	2.00	2.00
Uniforms	28.90	20.00	20.00	Allowances	10.10	37.00	37.00
Patient's Food	204.80	200.00	220.00	Travel Exp.	21.80	32.00	32.00
Drugs & Dressings	984.50	350.00	350.00	Uniforms	8.00	8.00	8.00
Other Med. Supplies	88.70	150.00	160.00	Drugs & Dressings	128.90	150.00	150.00
Misc.Off.Exp	2.80	6.00	6.00	Other Med. Supplies	1.70	15.00	15.00
Vehicle O&M	39.10	19.00	19.00	Misc.Off.Exp	25.80	2.00	2.00
Equipment Mainten.	12.00	20.00	20.00	Vehicle O&M	2.50	30.00	30.00
Generator O&M	17.70	25.30	30.00	Equipment Purch.	233.10	5.00	5.00
Equipment Purch.	38.00	20.00	20.00	Sub-total			
Equipment Replac.	10.00	10.00	10.00				
Sub-total	3955.10	3826.50	4199.20				

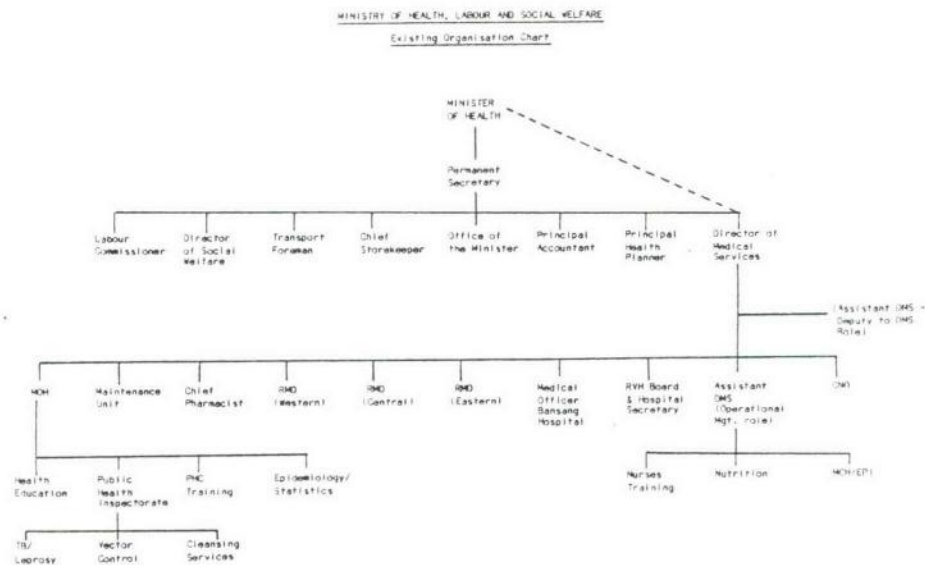
## The Gambia - Recurrent Budgets, Health Sector, 1983-85

Details	1983/84 Actuals	1984/85 Estimates	1985/86 Estimates	Details	1983/84 Actuals	1984/85 Estimates	1985/86 Estimates
	(in Dalasis '000s)				(in Dalasis '000s)		
<b>Community Health</b>				<b>Consolidated Accounts for MHLSP</b>			
Salaries	423.70	300.30	314.00	Salaries	19974.80	21388.70	22783.40
Wages Hosp.Labor	305.10	350.00	350.00	Wages Hosp.Labor	352.50	360.50	360.50
Allowances	49.90	49.30	49.30	Clerical assistance	0.00	0.00	0.00
Travel Exp.	29.00	15.00	15.00	Allowances	878.60	1206.80	1229.30
Uniforms	1.50	1.50	1.50	Travel Exp.	117.80	191.70	191.70
Drugs & Dressings	6.80	11.00	11.00	Uniforms	89.60	68.00	68.00
Health Materials	0.00	15.00	15.00	Library	0.00	1.00	1.00
Misc. Off. Exp	1.60	3.00	3.00	Patient's Food	302.20	330.00	350.00
Vehicle O&M	6.20	15.00	15.00	Drugs & Dressings	1685.50	1000.00	1000.00
Equipment Mainten.	0.00	1.00	1.00	Other Med. Supplies	150.30	225.00	275.00
Equipment Purch.	1.70	5.00	5.00	MCH Materials	17.50	45.00	50.00
Sub-total	825.50	766.10	779.80	Misc. Off. Exp	63.00	49.50	49.50
<b>MCH/EPI Unit</b>				Food Assistance	12.70	0.00	0.00
Salaries	32.00	58.10	59.60	Vehicle O&M	233.30	322.80	372.80
Allowances	10.50	26.50	27.50	Generator O&M	22.20	37.90	42.60
Travel Exp.	1.90	4.00	4.00	Hosp. Maintenance	0.00	200.00	200.00
Uniforms	2.30	2.50	2.50	Equipment Purch.	376.80	76.00	76.00
Drugs & Dressings	301.10	25.00	25.00	Equipment Replac.	37.70	40.00	40.00
MCH Materials	4.20	10.00	10.00	Student's Allow.	350.00	350.00	350.00
Misc. Off. Exp	0.70	2.50	2.50	Grants to L.O.	1.00	1.00	1.00
Vehicle O&M	7.50	15.00	15.00	Cont. Int'l Orgs.	367.00	328.10	328.10
Equipment Mainten.	1.00	1.00	1.00	Total Recurrent Costs	25032.50	26222.00	27768.90
Equipment Purch.	7.20	10.00	10.00	Salary Items	21205.90	22956.00	24373.20
Equip. Replac.	0.00	5.00	5.00	Non-salary	3826.60	3266.00	3395.70
Sub-total	368.40	159.60	162.10				
<b>Vector Control Unit</b>							
Salaries	88.60	87.50	92.50				
Allowances	21.80	21.00	21.00				
Travel Exp.	0.00	0.50	0.50				
Uniforms	0.00	5.00	5.00				
MCH Materials	12.30	15.00	20.00				
Misc. Off. Exp	0.90	1.00	1.00				
Vehicle O&M	2.30	6.30	6.30				
Equipment Mainten.	0.00	2.00	2.00				
Equipment Purch.	9.90	6.00	6.00				
Sub-total	135.80	144.30	154.30				
<b>Nurses Training</b>							
Salaries	43.70	62.80	81.60				
Allowances	7.50	5.80	6.20				
Travel Exp.	8.00	10.00	10.00				
Uniforms	3.00	3.00	3.00				
In-service Training	19.10	20.00	20.00				
Teaching Aid	5.60	15.00					
Misc. Off. Exp	2.70	5.00	5.00				
Vehicle O&M	10.70	25.30	25.30				
Student Allow.	41.70	113.00	113.00				
Sub-total	142.00	259.90	264.10				

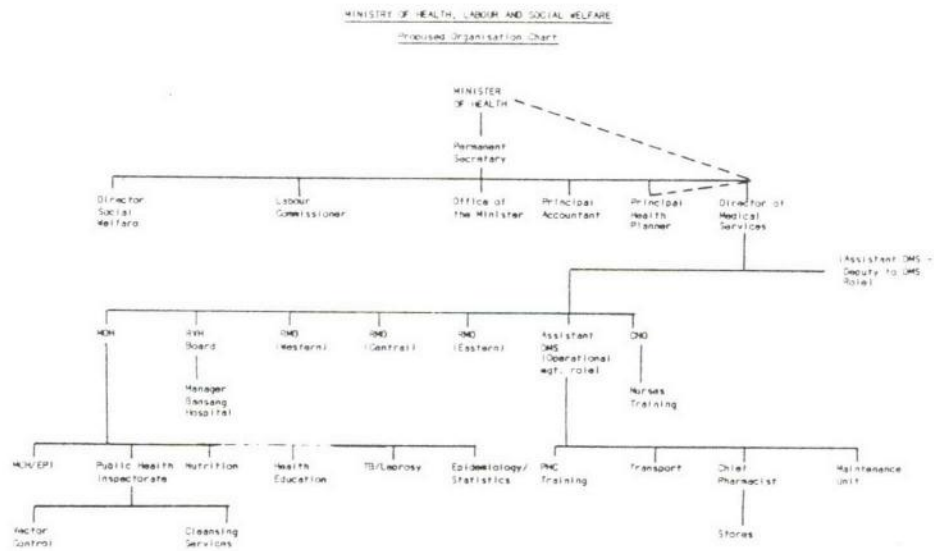
THE GAMBIA

NATIONAL HEALTH DEVELOPMENT PROJECT

Existing Organization Chart of the Ministry of Health,  
Labor and Social Welfare



THE GAMBIA  
NATIONAL HEALTH DEVELOPMENT PROJECT  
Organization Chart of the Ministry of Health,  
Labor and Social Welfare



THE GAMBIA

NATIONAL HEALTH DEVELOPMENT PROJECT

Revolving Fund for Drug and other Consumables

Background:

1. Drug Shortages. Apart from the drugs provided by the VHW, the availability of drugs and other consumables at all levels of the health system has been seriously deficient for prevention and for treatment of communicable and chronic diseases and trauma. Requests from lower levels of the system for replenishment can usually be only partially filled by CMS. Health workers report frequent shortages of even simple drugs and supplies with the result that, for example, a full course of chloroquine for treatment of malaria cannot be given.

2. A primary reason for the severe shortage has been The Gambia's poor foreign exchange situation. The health system has been heavily dependent upon donation of drugs and supplies from both official and private sources. A modest \$300,000 equivalent has been budgeted by Government for replenishment of drugs and supplies each year, but has not always been available for expenditure. Annual availability of public sector drugs has amounted to about US\$0.30 per capita, far short of the minimum WHO recommended provision of essential drugs of about \$1.50 per capita. Much of The Gambia's high incidence of communicable diseases is attributable to this unsatisfactory drug supply situation.

3. Government levies an import duty averaging 25 % on drugs and other consumables imported by the private sector. For its imports, the private sector in the past had to obtain foreign exchange on the black market at an effective rate of nearly double the official, controlled rate (until January, 1986). Even so, the value of annual imports of drugs and medical supplies has averaged D 3.9 million. While a large portion of these imports are of the patent medicine type, private pharmacies can supply antibiotics, drugs and vaccines to treat most common diseases in The Gambia. By imposing import duties on these items the Government is discouraging development of the private sector pharmacies which could, in time, efficiently provide much broader distribution of essential drugs. Duties also add to the incentives for pilferage from the public stock for resale on the private market. Together, the substantial price difference (between the public and private sectors) attributable to the previously overvalued currency, the import duty and the high demand for drugs in The Gambia, have created incentives for pilferage of public stocks estimated at up to 25 % by knowledgeable Gambian staff.

4. Devaluation and floating of the exchange rate (January, 1986) has reduced some of this incentive to corruption but Government should also reassess the benefits and costs of continuing the import duties on essential drugs and medical consumables. Total revenues raised are very small and costs to the economy, and perhaps to the budget, from the high incidence of preventable disease may far outweigh this income. For the medium term Government has already enacted a drug control and pharmacy licensing law which provides the basis for sound regulation and expansion of the private sector. It should now concentrate on effective management of CMS and its distribution system and encourage gradual development of the private pharmacies through its pricing policies for drugs available through the official system. Encouraging greater private sector sales for the drugs which are cheapest and in the greatest demand would also ease the problem Government faces with substantial numbers of people from neighboring Senegal using its health centers to obtain free drugs. A practical safety net for low income groups would, of course, have to be retained in some areas of the country.

5. Supply and Management Systems. While the Government has made an effort to establish a minimum list of essential drugs and supplies for purchase, dependency on grants and donations of drugs has compounded management and logistical problems of drug supply. Very small donations of brand pharmaceuticals, from companies and NGOs, result in difficult stores management and prescription problems, even in the hospitals. Sorting and storing these small quantities of highly specific and limited use drugs absorb a disproportionate amount staff time and good management of essential drugs has been hampered.

6. Overall management of CMS and its regional depots and the systems for accounting, maintaining inventory and distributing supplies has been the subject of technical assistance from Africare (and NGO). Inventory recording and control procedures have been established. The capacity of CMS has been increased with an additional building, shelving and equipment. The regional depots maintain an up-to-date inventory and reordering system.

7. Existing Cost Recovery Systems. The Government has established a successful system of user fees for primary health care services in the central and eastern districts of The Gambia. A modest charge of D 0.5 is made for initial visits to health centers, dispensaries and sub-dispensaries. Subsequent visits for the same illness or for referral to the next level are not charged. Exempted categories of patients (MCH care, children under five, EPI activities, etc.) are also not charged. A simple two-part chit system serves to account for charges collected and patients to be treated.

8. Health workers in PHC villages in the central and eastern districts of the country also charge a modest fee for dispensing the eleven simple medicines in their stock. Income from these sales is used to replenish the stock from the nearest health center. The system seems to be

operating well and would be extended to the western district under the project.

9. Drug Revolving Fund. As part of the project, the Government will improve the management and operation of CMS and will establish a revolving fund for drugs and other supplies to improve cost recovery at all levels of the health system.

10. In the short term, only a portion of costs might be recoverable with drug prices to users set low enough to accomplish primary health care objectives and not impose an economic burden on poor consumers. In the longer term prices could be increased, both in general and selectively, and exempted categories of consumers reduced, to increase revenues and finance a greater proportion of costs.

11. Details of Fund Establishment. The CIF value of all budget and grant financed drugs imported to The Gambia would be credited to the Fund as capital. All drugs and medical consumables would continue to be managed by CMS which would establish sound accounting and inventory control procedures to manage the assets of the Fund. Record keeping, security, storage facilities, fire prevention and distribution procedures would be improved. It would not be feasible to distinguish, at the time of drug procurement or distribution to dispensing units, which items would be "sold" and which would be dispensed free for exempted groups or programs. Therefore all drug supplies would be managed, replenished and controlled under existing unified procedures.

12. The Ministry of Health would establish sales and cash receipt control procedures so that proceeds of sales from health centers and dispensaries can be collected regularly by the RMOs and submitted to the sub-Treasury offices of the Ministry of Finance in the regions. These revenues would be clearly denominated as "income from sales of drugs and consumables" and would be consolidated as such at the national level. These revenues would be credited as income to the revolving fund until such time as the revolving fund's sustainable level of assets are adequate to finance the import or purchase of CMS's drug and medical consumable requirements. The fund's assets should be maintained in foreign exchange to protect against losses due to parity changes. Income to the fund should be immediately converted at the current rate of exchange.

13. In management of its operations the fund should have the long term aim to achieve a break-even status and preserve an adequate amount of working capital as well as to cover the operating costs of CMS (staffing, handling, storage, distribution and other operating costs). However, revenues collected by the revolving fund may not be expected to allow it to break even for some years because of low consumer income levels and the need to supply drugs free of charge for key public health needs.

14. In order to prevent hidden and uncontrollable subsidies from the revolving fund to the RVH and Bansang hospitals, all drugs and consumables supplied from CMS to the hospitals should be compensated by payments or subventions from the hospital budgets to the fund income account. The cost of these supplies to the hospitals should be fixed at actual CIF value as maintained on the books of CMS plus a fixed handling fee to cover costs. As part of their greater autonomy under planned reforms the hospitals should establish cost accounting systems for recording these and other costs and for recording the income from patients attributable to the sale of the drugs and provision of special services.

15. Technical assistance, training and some equipment and modest facility improvements would be required for CMS to manage its inventory, implement tight control systems and manage the assets and accounts of the Fund. Expatriate technical assistance to establish the framework and procedures of the Fund and to assist the Chief Pharmacist and RMOs in establishing and maintaining the operations of CMS and the regional revenue collection systems would be included in the project, as would local staff training.

16. Table 1 presents an cash flow projection for the revolving fund, with assumptions as noted in the footnotes thereto. The projection indicates that under reasonable assumptions about fee levels, utilization rates, and drugs dispensed without charge, that the fund breaks even and becomes self-sustaining in the fifth year of operation. The grants of drugs needed to capitalize the fund are estimated at about \$1.6 million equivalent over the five years. If well-managed the fund would appear to have the potential to generate considerable revenues to improve health care in The Gambia.

17. Prospects for the Revolving Fund. Experience with establishment of revolving funds has generally not been good. The most common reasons for failure<sup>1</sup> include the following, which must be paid attention to in detailed design and operation of the proposed fund for The Gambia.

- rapid program expansion for which additional capital funds are not made available;
- underestimation of the capitalization costs of the supply system;
- unanticipated losses of drugs through theft or deterioration;
- high operating costs which exceed budgeted amounts;
- prices set too low for intended level of cost recovery;
- failure to collect payment for drugs;
- delays in collections of payments from government agencies (i.e. hospitals);

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<sup>1</sup> See Peter Cross, et al; Revolving Drug Funds: Conducting Business in the Public Sector; Social Science Medicine, Vol. 22, No. 3, 1986.



- funds tied up in national banking system or Ministry accounting mechanisms;
- foreign exchange limitations which restrict foreign purchases for resupply.

**18.** Technical assistance to help MHLSW design and manage the start-up of the fund is included in the project. In staffing and managing CMS the MHLSW will especially have to pay attention to skills of inventory management and sound business practices in reordering, managing the fund's assets, and controlling operating costs. Local technical assistance from experienced Gambian pharmacy entrepreneurs could be especially helpful in this regard. Considerable changes in work practices and attitudes are likely to be required of CMS staff.

	A										
	B										
	C										
	D										
	E										
	F										
	G										
	H										
	I										
	J										
1	Exchange rate: (Dollars/ US\$)	YEAR	1987	1988	1989	1990	1991	1992	1993	1994	
2	all data below in D'000's										
3	Inflation rate		1.068	1.068	1.07	1.071	1.04	1.04	1.04	1.04	
4	Initial inventory		1000.00								
5	New stock-grant financed		2500.00								
6	Total value drug purchases		3500.00	4637.59	5561.23	6330.90	6385.84	7477.46	7913.32	8309.37	
7	Theft, wastage		700.00	742.01	667.35	633.09	558.87	598.20	474.80	498.56	
8	Value of drugs distributed		2800.00	3895.58	4893.88	5697.81	6426.97	6879.27	7438.52	7810.81	
9	Receipts from drug sales:										
10	Issues to hospitals		1400.00	2093.28	2687.77	3454.32	3951.75	4315.31	4712.32	4900.81	
11	Hospital inpatient sales		140.00	223.56	431.39	554.94	821.96	897.58	930.16	1019.37	
12	Hospital outpatient sales		350.00	558.91	862.77	1109.87	1438.44	1570.77	1715.28	1783.89	
13	(hospital growth factor)		1.40	1.20	1.20	1.10	1.05	1.05	1.00	1.00	
14	Exchequer subsidy to hospitals		910.00	1310.81	1393.61	1789.51	1691.35	1846.95	2016.87	2097.55	
15	Income from other drug sales		631.40	976.98	1407.00	2722.07	3508.65	4847.66	5390.00	5919.63	
16	(drug fee - rate per visit)		1.60	1.60	1.60	2.25	2.25	2.75	2.75	2.75	
17	Total receipts		2031.40	3070.26	4094.77	6176.39	7460.39	9162.97	10102.31	10820.44	
18											
19	Incremental Capital to maintain Fund value		1468.60	1567.33	1466.46	154.51	-474.55	-1685.51	-2188.99	-2511.06	
20	Incremental Stock toward WHO Standard		1137.59	923.64	769.67	654.94	491.62	435.86	396.05	368.27	
21	Total grant needed to recapitalize Fund		2606.19	2490.96	2236.13	809.45	17.07	-1249.65	-1792.94	-2142.79	
22	.....in US\$ equivalent ('000s)		383.26	366.32	328.84	119.04	2.51	-183.77	-263.67	-315.12	
23	end-of-year value drug stock		4637.59	5561.23	6330.90	6985.84	7477.46	7913.32	8309.37	8677.64	
24											
25	<b>Cumulative Grant Funds D('000s)</b>		5106.19	7597.16	9833.28	10642.73	10659.80	9410.15	7617.21	5474.42	
26	.....in US\$ equivalent ('000s)		750.91	1117.23	1446.07	1565.11	1567.62	1383.85	1120.18	805.06	
27	Grant financed drugs purchased /year(\$'000s)		750.91	366.32	328.84	119.04	2.51	-183.77	-263.67	-315.12	
28											
29	WHO drug requirement standard (D'000's)		8050.37	8332.13	8639.91	8950.66	8952.33	9220.90	9497.53	9782.46	
30	Subprogram for drug charges										
31	% drugs dispensed free		75%	68%	61%	55%	49%	44%	40%	36%	
32	contacts/person/year		2.00	2.30	2.65	3.04	3.50	3.50	3.50	3.50	
33	Population		764865	791635	819343	843923	869240	895318	922177	949843	
34	Population growth rate		1.035	1.035	1.035	1.03	1.03	1.03	1.03	1.03	
35	Income from other drug sales		631.40	976.98	1407.00	2722.07	3508.65	4847.66	5390.00	5919.63	

**Footnotes to Revolving Fund Projection:**

The table presents an indicative cash flow projection model of the Revolving Fund. It is presented for illustrative purposes only to indicate the order of magnitude of drug imports and stocks required, the grant financing needed to establish such a fund and the patient contact and fee recovery parameters necessary to make such a fund viable within the project period. Lack of base data and supply/demand functions for drugs have precluded other approaches to estimating such a model at this time.

Assumptions used for the model and explanations of individual line numbers are as follows:

1. Exchange rate for the Dalasi
3. International inflation rates as per World Bank estimates; continued free convertability of the currency is assumed.
4. An estimate of the inventory held in stock at CMS and its regional branches at the time the Fund is established.
5. An estimate of a reasonable level of initial imports which could effectively be handled by CMS in the first few months of operation of the Fund.
6. Total value of drug purchases: during the calendar year, financed both from income of the Fund, subsidies from the Exchequer and new grant disbursements.
7. Theft, Wastage: estimated at 20% initially based on recent experience. It is assumed to decline to 10% by 1990 and less thereafter. Much improved staff performance within CMS and good inventory management practices will be required to achieve this level.
8. Value of drugs distributed: Total value of purchases minus theft and wastage.
10. Issues to hospitals: RVH and BH are currently major consumers of drugs and supplies and this is expected to continue. In the absence of detailed data it has been assumed that the hospitals account for 50% of the supplies used from CMS in the first year of the Fund's operation and thereafter consume amounts reflecting both inflation and an initial surge of additional supplies once these are available (line 13).
11. Sales to Hospital Inpatients: Estimated at one half of hospital consumption with 20 % of costs recovered, increasing over time to 40%.
12. Sales to Hospital Outpatients: Estimated at one half of hospital consumption with 50% cost recovery, increasing to 60% over time.
13. Hospital Growth Coefficient: an estimate of the increased consumption of supplies that will occur in the first few years as supply constraints (due to inadequate foreign exchange) are relieved by the existence of the Fund.
14. Exchequer subsidy to the hospitals: It is not realistic to assume in the Gambia that hospital users can bear the full cost of care, or even of supplies, for hospital services. This is not feasible even in much wealthier countries. However, there is no reason why the Revolving Fund should itself bear the cost of subsidies. This has the undesirable effect of removing responsibility for the level of subsidy and the policy questions inherent therein from the hospital management board. It is envisioned under the project that hospitals will be semi-autonomous, have their own cost accounts and that subsidies for their operation should not come at the expense of the other parts of the health system. It has therefore been assumed that the Exchequer would subsidize the hospitals' operating budget by, inter-alia, the amount due the Fund to pay the drug and supply costs which could not be recovered from users. The hospital board and management should of course conduct affairs so as to minimize the amount of subsidy required within sound public health, technical and humane considerations.
15. Income from other Drug Sales: Income from sales of drugs through clinics, health centers etc.
16. Drug fee, rate/visit: A fixed prescription and supply charge to be charged to patients/visit. Increases over time are assumed.
17. Total receipts to Fund from sales of drugs and supplies.
19. Incremental Capital to maintain Fund value: This sum is assumed to be required to be provided to the Fund in order that it can purchase stocks for resupply. It is in effect equivalent to the deficit or surplus of Fund. It is adjusted for inflation annually.
20. Incremental Stock toward WHO Standard: Even with increased stocks, availability of essential drugs and supplies will still be far short of likely demand for many years. As an objective function to derive the upper limit of demand for drugs the model uses the WHO nominal standard of the equivalent of US\$1.50

per capita. This line represents the value of additional purchases which could be made each year to add to the Fund's stock, adjusted for inflation and for population growth, if the Government set the objective of purchasing 1/4 of the difference each year between the WHO standard and the actual stocks.

21. Total grant needed to recapitalize Fund: The sum of incremental amounts to maintain value plus the 1/4 increment toward the WHO standard.
23. End-of-year value of drug stock: The sum of total receipts (line 17) plus incremental capitalization of the Fund (line 21).
25. Cumulative Grant Funds Required: Used to make an estimate of the total in grant financing which the Gambia should seek to establish Revolving Fund.
29. WHO drug requirement standard: Calculated at \$1.50 per capita and adjusted for current prices. Used to calculate the increment on line 20.
31. % of drugs dispensed free: This percentage is assumed to decline as health conditions improve and greater numbers of non-exempt category patients use health system as its capacity and credibility improves.
32. Contacts/persons/year: The utilization rate of the health system.
34. Population growth rate: The present high rate of growth is assumed to decline slightly as family planning programs improve and as infant mortality rates begin to decline.
35. Income from other drug sales: This is the product of the proportion of drugs sold, the utilization rate, the population, the fee charged, and inflation.

THE GAMBIA

NATIONAL HEALTH DEVELOPMENT PROJECT

Transport Services

1. The MHLSW currently has about 90 vehicles in its transport fleet, of which about a third are beyond economic repair, a third in need of major overhaul and a third are currently in service but in need of regular maintenance. Over the five year project period it is estimated that about half of the 90 vehicle fleet should be replaced and types of vehicles should be standardized to ease maintenance and stocking of spares. From a health needs perspective the MHLSW could use a fleet of this size. However, in view of the economic stringencies of the ERP the project provides funding for only about 30 new vehicles and spares to do major overhauls and to keep the fleet under good maintenance during the project period. This should allow stabilization of fleet size at about 70 vehicles. The OSE Study recommends that the number of drivers employed by MHLSW might be reduced by allowing some officers of the Ministry to drive the vehicles themselves. With better fleet management and record keeping this proposal deserves support and together with the reduced fleet size for the next few years could allow some further reductions in posts in addition to the cuts recommended in the OSE Study.

2. The OSE Study suggests that the Ministry consider upgrading driver skills to allow them to become driver/mechanics. While this may be an objective to aim for over the next five years caution should be exercised in the near term, particularly with the new vehicles acquired. Increasing sophistication of auto electrical and mechanical systems make it likely that efforts at repair by poorly trained driver/mechanics without proper equipment could result in need for major repairs and shorten overall vehicle life. For this reason the project supports the establishment of a routine service center for each health region. These centers would be used only for simple service operations such as tire repair, oil and filter changes, wiper and light replacements. These tasks can be performed by drivers with little risk of damage to the vehicles and if routinely done will prolong service life. As the centers can be located at regional medical stores there will be no problems stocking spares and no additional staff would be required for the centers.

3. The project also supports establishment of a routine maintenance center at Kanifeng. Changing of batteries, tires, v-belts, brake pads, coolant, lubrication, etc. can be done there with existing staff. All mechanical and electrical repairs and adjustments, such as tune-ups, clutch, transmission, engine and bearing work should be performed at the new Government central workshop in Kotu. Spares purchased under the project for the MHLSW fleet would be stored and accounted for separately there and the vehicle fleet manager for MHLSW would ensure that the MHLSW facilities are not used to undertake such repairs.

4. Improved management of the vehicle fleet will be a prerequisite to its more effective use and necessary to protect against abuse of these assets. Consistent with the recommendations of the OSE Study a competent transport fleet manager should be appointed and charged with establishing and enforcing regulations for use of vehicles, with planning the maintenance and repair of the fleet, with training, promotion and discipline of drivers, planning and stocking of spares and development of an annual plan for effective operation of the fleet including its fuel requirements. The manager should also be charged with establishing and managing a system for regional fuel distribution depots so that MHLSW vehicles will have ready access to their fuel entitlement. The project provides specific funding for fuel during the project period to supplement the budgetary allocation under the ERP.

THE GAMBIA

NATIONAL HEALTH DEVELOPMENT PROJECT

Summary of Technical Assistance  
(Months)

Component	Description	Years					Total
		1	2	3	4	5	
<u>Sector Reforms and Strengthening</u>	Health Economist	12	12				24
	Hospital Reforms		6				6
	Establishment of Drug Revolving Funds	6	1	1	1	1	10
<u>Strengthening Health Services</u>	Periurban Social Survey	1.5					1.5
	MCH/FP Training:						
	- Obstetrician/ Gynecologists			24			24
	- Nurse midwives			60			60
	Health Education	4	3	3			10
	Nurse Training:						
	- CHN Nurse Tutors		12	12			24
	- Physicians for Bansang		12	12			24
	- Nurse Tutors for Bansang		24	24			48
	- In-service Training Physician		12				12
	Project Evaluation			4		4	8
TOTALS		23.5	82	140	1	5	251.5

**THE GAMBIA**

**NATIONAL HEALTH DEVELOPMENT PROJECT**

**Nutrition Action Program**

1. The National Council on the Family, Health and Nutrition should formulate a nutrition action program to be reflected in the Government budget and taking the following into account:
  - 1) Nutrition conditions in the Gambia will be heavily influenced by macro-economic policies (such as price policies for agriculture and for food); the nutrition action program should encourage those responsible for such policies explicitly to take nutrition/consumption issues into account;
  - 2) Government agencies active in nutrition have sometimes overlapping mandates and programs; this may lessen overall impact, involve duplication, increase operating costs and reduce program effectiveness. A review of this situation should be made in formulation of a nutrition action program.
  - 3) Many NGOs are involved in nutrition. Their combined impact may be enhanced by better coordination and links with government policies and programs. NGOs should be made aware of the nutrition action program and should be asked to adjust appropriately their programs in support of national priorities.
  - 4) Food aid from external donors should be considered in the context of the nutrition action program and donors should be asked to target food aid in accordance with government priorities.
  - 5) The most appropriate means for the health services to treat severe malnutrition, the nature of nutrition education messages, types and effective treatment of micronutrient deficiencies, nutrition aspects of MCH programs should be considered in developing the action program.
  - 6) Links between nutrition research and findings (both domestic and international) and government policies and programs should be actively fostered under the action program.



THE GAMBIA  
NATIONAL HEALTH DEVELOPMENT PROJECT  
Project Costs : Summary Accounts by Year

NATIONAL HEALTH DEVELOPMENT PROJECT								
Summary Accounts by Year								
(DALASIS '000)								
	Base Costs					Foreign Exchange		
	1	2	3	4	5	Total	%	Amount
<b>I. INVESTMENT COSTS</b>								
<b>A. CIVIL WORKS</b>								
1. REHABILITATION	17,166.9	27,735.4	15,816.5	772.9	-	61,491.7	80.0	49,175.8
2. FURNITURE AND EQUIPMENT	361.9	361.9	361.9	120.6	-	1,206.3	80.0	955.0
3. ARCHITECTURAL FEES	2,221.5	1,632.0	1,632.0	544.0	-	6,029.5	100.0	6,029.5
Sub-Total CIVIL WORKS	19,750.3	29,729.3	17,810.4	1,437.5	-	68,727.4	81.7	56,170.3
B. EQUIPMENT	2,441.8	778.1	486.9	218.3	210.5	4,135.6	99.7	4,121.6
C. VEHICLES	507.9	741.1	701.8	701.8	-	2,652.6	100.0	2,652.6
<b>D. TECHNICAL ASSISTANCE</b>								
1. LOCAL CONSULTANTS	209.1	61.8	40.7	-	-	311.6	0.0	0.0
2. FOREIGN CONSULTANTS	2,315.8	8,350.9	2,344.7	70.2	379.8	13,461.4	100.0	13,461.4
Sub-Total TECHNICAL ASSISTANCE	2,524.9	8,412.7	2,385.4	70.2	379.8	13,773.0	97.7	13,461.4
<b>E. TRAINING</b>								
1. INSERVICE TRAINING	293.8	44.1	116.2	33.2	44.0	531.3	0.0	0.0
2. FOREIGN FELLOWSHIPS	1,821.5	796.9	398.5	-	-	3,016.8	100.0	3,016.8
3. STUDY TOURS	189.5	-	-	-	-	189.5	100.0	189.5
Sub-Total TRAINING	2,304.8	841.0	514.7	33.2	44.0	3,737.6	85.8	3,206.3
F. MATERIALS	327.9	327.9	327.9	327.9	327.9	1,639.5	89.8	1,472.3
G. DRUGS AND CONSUMABLES	6,091.0	3,414.8	2,631.3	1,801.5	936.8	14,875.2	100.0	14,875.2
H. OPERATIONS RESEARCH	63.9	38.8	63.9	38.8	63.9	269.2	50.0	134.6
I. PROJECT PREPARATION FACILITY	3,060.0	-	-	-	-	3,060.0	90.0	2,754.0
<b>Total INVESTMENT COSTS</b>	<b>37,072.5</b>	<b>44,203.6</b>	<b>24,922.1</b>	<b>4,629.1</b>	<b>1,962.8</b>	<b>112,870.2</b>	<b>87.6</b>	<b>98,846.4</b>
<b>II. RECURRENT COSTS</b>								
A. SALARIES	297.0	297.0	297.0	297.0	297.0	1,485.0	0.0	0.0
B. FUEL	387.0	387.0	387.0	270.9	193.5	1,625.4	100.0	1,625.4
<b>Total RECURRENT COSTS</b>	<b>684.0</b>	<b>684.0</b>	<b>684.0</b>	<b>567.9</b>	<b>490.5</b>	<b>3,110.4</b>	<b>52.3</b>	<b>1,625.4</b>
<b>Total BASELINE COSTS</b>	<b>37,756.5</b>	<b>44,967.6</b>	<b>25,606.2</b>	<b>5,197.1</b>	<b>2,453.3</b>	<b>115,980.6</b>	<b>86.6</b>	<b>100,473.8</b>
Physical Contingencies	501.5	820.1	240.2	12.1	-	1,573.7	80.6	1,269.0
Price Contingencies	859.1	2,544.5	1,252.7	750.1	727.0	6,133.5	84.8	5,201.5
<b>Total PROJECT COSTS</b>	<b>39,117.0</b>	<b>48,332.2</b>	<b>27,099.0</b>	<b>5,959.3</b>	<b>3,180.3</b>	<b>123,687.8</b>	<b>86.5</b>	<b>106,944.3</b>
Foreign Exchange	34,194.4	41,771.8	23,070.0	5,274.5	2,633.7	106,914.3	0.0	0.0

Annex 9.2

THE GAMBIA  
NATIONAL HEALTH DEVELOPMENT PROJECT  
Summary Account by Project Component  
(DALSIS '000)

STRENGTHENING HEALTH SERVICES

	REFORMS TO STRENGTHEN HEALTH SECTOR MANAGEMENT, FINANCE AND SUPPORT SYSTEM										MATERIAL EXTENSION OF				MATERIAL SUPPORTING				Physical Contingencies	
	SECTOR REFORMS	DRUGS AND CONSUMABLES	VEHICLES AND SPARE PARTS	SHORTWAVE RADIO SYSTEM	VILLAGE HEALTH SERVICES	MATERNAL CARE AND FF INITIATIVES	STRENGTHENING NUTRITION SERVICES	HEALTH EDUCATION	MUSCLE TRAINING	REPAIR AND EVALUATION	REHABILITATION OF HEALTH FACILITIES	PROJECT MANAGEMENT UNIT	REPAIRMENT OF FF	Total	Amount	Amount				
<b>I. INVESTMENT COSTS</b>																				
<b>A. CIVIL WORKS</b>																				
1. REHABILITATION	-	175.4	126.3	-	-	-	-	-	-	-	-	-	-	61,189.9	-	-	2.3 1,394.2			
2. FURNITURE AND EQUIPMENT	-	-	-	-	-	-	-	-	-	-	-	-	-	1,206.3	-	-	10.0 170.6			
3. ARCHITECTURAL FEES	-	-	-	-	-	-	-	-	-	-	-	-	-	6,029.5	-	-	1.0 58.9			
Sub-Total CIVIL WORKS	-	175.4	126.3	-	-	-	-	-	-	-	-	-	-	68,425.7	-	-	2.3 1,573.7			
<b>B. EQUIPMENT</b>																				
C. VEHICLES	-	175.4	898.9	1,161.0	360.0	967.5	-	-	-	-	503.1	-	-	4,135.6	-	-	0.0 0.0			
D. TECHNICAL ASSISTANCE	-	-	2,315.8	-	84.1	252.6	-	-	-	-	-	-	-	2,652.6	-	-	0.0 0.0			
<b>E. TRAINING</b>																				
1. LOCAL CONSULTANTS	157.2	-	-	-	49.1	-	-	105.3	-	-	-	-	-	-	-	-	0.0 0.0			
2. FOREIGN CONSULTANTS	2,807.0	-	-	-	105.3	5,173.0	-	105.3	4,631.6	-	-	-	-	13,461.4	-	-	0.0 0.0			
Sub-Total TECHNICAL ASSISTANCE	2,964.2	-	-	-	154.4	5,173.0	-	210.5	4,631.6	-	-	-	-	13,773.0	-	-	0.0 0.0			
<b>F. MATERIALS</b>																				
1. IN-SERVICE TRAINING	153.1	46.6	-	-	146.8	173.4	11.4	-	-	-	-	-	-	531.3	-	-	0.0 0.0			
2. FOREIGN FELLOWSHIPS	-	-	-	-	-	1,403.5	-	189.5	1,423.9	-	-	-	-	3,016.8	-	-	0.0 0.0			
3. STUDY TOURS	-	-	-	-	-	189.5	-	-	-	-	-	-	-	189.5	-	-	0.0 0.0			
Sub-Total TRAINING	153.1	46.6	-	-	146.8	1,766.4	11.4	189.5	1,423.9	-	-	-	-	3,737.6	-	-	0.0 0.0			
<b>G. DRUGS AND CONSUMABLES</b>																				
H. OPERATIONS RESEARCH	77.4	-	-	-	642.1	20.6	-	822.0	-	-	-	-	-	1,487.5	-	-	0.0 0.0			
I. PROJECT PREPARATION FACILITY	-	14,875.2	-	-	-	-	194.0	-	-	-	-	-	-	289.2	-	-	0.0 0.0			
Total INVESTMENT COSTS	3,194.8	15,272.6	3,341.0	1,161.0	1,387.3	8,200.2	205.4	1,222.0	6,558.6	68,425.7	75.2	3,060.0	112,870.2	3,060.0	1,4 1,573.7	0.0 0.0				
<b>II. RECURRENT COSTS</b>																				
A. SALARIES	1,251.3	-	82.0	-	-	151.7	-	-	-	-	-	-	-	1,485.0	-	-	0.0 0.0			
B. FUEL	-	-	1,625.4	-	-	-	-	-	-	-	-	-	-	1,625.4	-	-	0.0 0.0			
Total RECURRENT COSTS	1,251.3	-	1,707.4	-	-	151.7	-	-	-	-	-	-	-	3,110.4	-	-	0.0 0.0			
Total BASELINE COSTS	4,446.1	15,272.6	5,048.4	1,161.0	1,387.3	8,351.9	205.4	1,222.0	6,558.6	68,425.7	75.2	3,060.0	115,980.6	3,060.0	1,4 1,573.7	0.0 0.0				
Physical Contingencies	-	17.5	12.6	-	-	-	-	-	-	1,543.6	-	-	-	1,573.7	-	-	0.0 0.0			
Price Contingencies	688.5	909.9	737.3	-	257.0	954.0	46.1	48.1	-	2,280.5	21.2	-	6,133.5	-	-	3.4 209.4				
Total PROJECT COSTS	5,134.5	16,200.2	5,798.4	1,161.0	1,644.4	9,305.8	251.5	1,270.1	6,558.6	72,249.7	978.4	3,060.0	123,687.8	3,060.0	1,4 1,783.2	0.0 0.0				
Foreign Exchange	3,245.0	16,083.4	5,668.1	1,161.0	1,419.8	8,909.2	118.8	1,027.9	6,558.6	59,026.6	934.4	2,754.0	106,944.3	2,754.0	1,3 1,437.3	0.0 0.0				

Annex 9.3

THE GAMBIA  
NATIONAL HEALTH DEVELOPMENT PROJECT  
BREAKDOWN OF SUMMARY ACCOUNTS  
(US\$ '000)

	Base Costs			Physical Contingencies			Price Contingencies			Total Incl. Cont.			Physical Cont. Plus Price Cont. on Physical Cont.		Base Costs + Price Cont. on Base Costs			
	Local			Local			Local			Local			Cont.	Plus Price Cont.				
	For. Exch.	Duties & Taxes	Total	For. Exch.	(Excl. Taxes)	Total	For. Exch.	(Excl. Taxes)	Total	For. Exch.	(Excl. Taxes)	Total				Taxes	Taxes	
<b>I. INVESTMENT COSTS</b>																		
<b>A. CIVIL WORKS</b>																		
1. REHABILITATION	7,231.7	1,811.2	-	9,042.9	163.8	41.3	-	205.0	240.3	60.3	-	300.6	7,635.8	1,912.7	-	9,548.5	232.4	9,316.2
2. FURNITURE AND EQUIPMENT	141.9	35.5	-	177.4	14.2	3.5	-	17.7	25.2	6.3	-	31.5	181.3	45.3	-	226.6	20.6	206.0
3. ARCHITECTURAL FEES	886.7	-	-	886.7	8.7	-	-	8.7	6.7	-	-	6.7	902.0	-	-	902.0	9.3	892.8
<b>Sub-Total CIVIL WORKS</b>	8,260.3	1,846.6	-	10,107.0	186.6	44.8	-	231.4	272.2	66.6	-	338.8	8,719.1	1,958.1	-	10,677.2	262.2	10,415.0
<b>B. EQUIPMENT</b>	606.1	2.0	-	608.2	-	-	-	61.7	0.2	-	-	61.9	667.8	2.3	-	670.1	-	670.1
<b>C. VEHICLES</b>	390.1	-	-	390.1	-	-	-	72.9	-	-	-	72.9	463.0	-	-	463.0	-	463.0
<b>D. TECHNICAL ASSISTANCE</b>																		
1. LOCAL CONSULTANTS	-	45.8	-	45.8	-	-	-	-	4.8	-	-	4.8	-	50.6	-	50.6	-	50.6
2. FOREIGN CONSULTANTS	1,979.6	-	-	1,979.6	-	-	-	180.2	-	-	-	180.2	2,159.8	-	-	2,159.8	-	2,159.8
<b>Sub-Total TECHNICAL ASSISTANCE</b>	1,979.6	45.8	-	2,025.4	-	-	-	180.2	4.8	-	-	185.0	2,159.8	50.6	-	2,210.4	-	2,210.4
<b>E. TRAINING</b>																		
1. INSERVICE TRAINING	-	78.1	-	78.1	-	-	-	-	11.7	-	-	11.7	-	89.8	-	89.8	-	89.8
2. FOREIGN FELLOWSHIPS	443.7	-	-	443.7	-	-	-	18.5	-	-	-	18.5	462.1	-	-	462.1	-	462.1
3. STUDY TOURS	27.9	-	-	27.9	-	-	-	2.0	-	-	-	2.0	29.8	-	-	29.8	-	29.8
<b>Sub-Total TRAINING</b>	471.5	78.1	-	549.6	-	-	-	20.4	11.7	-	-	32.1	491.9	89.8	-	581.8	-	581.8
<b>F. MATERIALS</b>	216.5	24.6	-	241.1	-	-	-	25.6	1.4	-	-	27.0	242.1	26.0	-	268.1	-	268.1
<b>G. DRUGS AND CONSUMABLES</b>	2,187.5	-	-	2,187.5	-	-	-	128.8	-	-	-	128.8	2,316.3	-	-	2,316.3	-	2,316.3
<b>H. OPERATIONS RESEARCH</b>	19.8	19.8	-	39.6	-	-	-	3.2	3.2	-	-	6.4	23.0	23.0	-	46.0	-	46.0
<b>I. PROJECT PREPARATION FACILITY</b>	405.0	45.0	-	450.0	-	-	-	-	-	-	-	-	405.0	45.0	-	450.0	-	450.0
<b>Total INVESTMENT COSTS</b>	14,536.5	2,062.0	-	16,598.6	186.6	44.8	-	231.4	764.9	88.0	-	852.9	15,488.1	2,194.8	-	17,682.9	262.2	17,420.7
<b>II. RECURRENT COSTS</b>																		
<b>A. SALARIES</b>	-	218.4	-	218.4	-	-	-	-	49.0	-	-	49.0	-	267.4	-	267.4	-	267.4
<b>B. FUEL</b>	239.0	-	-	239.0	-	-	-	-	-	-	-	-	239.0	-	-	239.0	-	239.0
<b>Total RECURRENT COSTS</b>	239.0	218.4	-	457.4	-	-	-	-	49.0	-	-	49.0	239.0	267.4	-	506.5	-	506.5
<b>Total</b>	14,775.6	2,280.4	-	17,056.0	186.6	44.8	-	231.4	764.9	137.1	-	902.0	15,727.1	2,462.3	-	18,189.4	262.2	17,927.2

THE GAMBIA  
NATIONAL HEALTH DEVELOPMENT PROJECT  
Project Components by Year

	Totals Including Contingencies (DALLAS \$ '000)					Totals Including Contingencies (US\$ '000)						
	1	2	3	4	5	Total	1	2	3	4	5	Total
<b>A. REFORMS TO STRENGTHEN HEALTH SECTOR MANAGEMENT, FINANCE AND SUPPORT SYSTEM</b>												
1. SECTOR REFORMS	1,811.4	1,880.8	467.2	474.5	500.6	5,134.5	266.4	276.6	68.7	69.8	73.6	755.1
2. DRUGS AND CONSUMABLES	6,566.9	3,526.3	2,817.4	2,041.7	1,247.9	16,200.2	965.7	518.6	414.3	300.2	183.5	2,382.4
3. VEHICLES AND SPARE PARTS	899.0	1,376.5	1,530.6	1,485.7	506.7	5,798.4	132.2	202.4	225.1	218.5	74.5	852.7
4. SHORTWAVE RADIO SYSTEM	1,161.0	-	-	-	-	1,161.0	170.7	-	-	-	-	170.7
<b>Sub-Total REFORMS TO STRENGTHEN HEALTH SECTOR MANAGEMENT, FINANCE AND SUPPORT SYSTEM</b>	10,438.3	6,783.6	4,815.2	4,001.8	2,255.1	28,294.1	1,535.0	997.6	708.1	588.5	331.6	4,180.9
<b>B. STRENGTHENING HEALTH SERVICES</b>												
1. MATL EXTENSION OF VILLAGE HEALTH SERVICES	461.3	257.2	569.6	173.4	182.9	1,644.4	67.8	37.8	83.8	25.5	26.9	241.8
2. MATERNAL CARE AND FP INITIATIVES	3,495.3	5,675.8	42.1	45.1	47.6	9,305.8	514.0	834.7	6.2	6.6	7.0	1,368.5
3. STRENGTHENING NUTRITION SERVICES	44.0	46.9	50.2	53.7	56.7	251.5	6.5	6.9	7.4	7.9	8.3	37.0
4. HEALTH EDUCATION	322.1	429.1	190.1	164.4	184.4	1,270.1	47.4	63.1	38.0	24.2	24.2	186.8
5. NURSE TRAINING	921.1	3,274.1	2,363.4	-	-	6,558.6	135.5	481.5	317.6	-	-	964.5
6. MONITORING AND EVALUATION	25.1	-	25.1	-	25.1	75.2	3.7	3.7	3.7	-	3.7	11.1
7. REHABILITATION OF HEALTH FACILITIES	20,283.6	31,838.9	18,636.7	1,490.5	-	72,249.7	2,982.9	4,682.2	2,740.7	219.2	-	10,625.0
8. PROJECT MANAGEMENT UNIT	66.3	26.5	406.7	30.4	418.6	978.4	9.7	3.9	59.8	4.5	65.0	143.9
<b>Sub-Total STRENGTHENING HEALTH SERVICES</b>	25,618.7	41,548.6	22,283.8	1,957.4	925.2	92,333.8	3,767.5	6,110.1	3,277.0	287.9	136.1	13,578.5
<b>C. REPAYMENT OF PPF</b>	3,060.0	-	-	-	-	3,060.0	450.0	-	-	-	-	450.0
<b>Total PROJECT COSTS</b>	39,117.0	48,332.2	27,099.0	5,959.3	3,180.3	123,687.8	5,752.5	7,107.7	3,985.2	876.4	467.7	18,189.4

THE GAMBIA

NATIONAL HEALTH DEVELOPMENT PROJECT

Procurement  
(US\$ million equivalent)

Project Element	Procurement Method		Total
	ICB	Other	Cost
Civil Works	---	9.55 (0.00)	9.55 (0.00)
Technical Assistance Fellowships and Training	---	3.73 (1.92)	3.73 (1.92)
Equipment, Materials Vehicles and Fuel	1.30 (1.30)	2.93 (0.33)	4.23 (1.63)
Project Preparation Facility	---	0.45 (0.45)	0.45 (0.45)
Salaries	---	0.27 (0.00)	0.27 (0.00)
Total	1.30 (1.30)	16.92 (2.70)	18.22 (4.00)

Note: Figures in parenthesis are the respective amounts financed by IDA.

THE GAMBIA

NATIONAL HEALTH DEVELOPMENT PROJECT

Table V.2 - Estimated Schedule of Disbursements  
(US\$million)

IDA Fiscal Year and Semester	Semester	Cumulative	Proportion Disbursed	
			Estimate for this project	West Africa education
1987		0.2	5	5.0
	2nd	0.5	18	11.0
1988	1st	0.6	33	17.0
	2nd	0.6	48	24.0
1989	1st	0.6	63	33.0
	2nd	0.5	75	42.0
1990	1st	0.4	85	52.0
	2nd	0.3	93	61.0
1991	1st	0.2	98	70.0
	2nd	0.1	100	77.0



→ Gambia box  
health

# NATIONAL PRIMARY HEALTH CARE REVIEW 1985

Maria ↓  
MUST BE  
RETURNED  
to N. GIBSON  
by Jan. 3

## THE GAMBIA

Ministry of Health, Labour  
and  
Social Welfare



*Health services statistics*

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THE GAMBIA NATIONAL PRIMARY

HEALTH CARE REVIEW

25TH SEPTEMBER TO 24TH OCTOBER 1984

1. BACKGROUND

1.1. Introduction

This review was carried out during 1984/85, a central feature of which was field data collection from 25th September to 25th October 1984. The review also took account of first hand knowledge of review team members and reports such as those by Mahoney/Eggens/Gowers.

Planning for the review was initiated by national authorities in May 1984. Preliminary meetings were held with the participation of the Ministries of Economic Planning, Health, Education, Local Government, and Water Resources.

At the request of The Gambia Government three WHO staff members assisted in the planning and first phase of questionnaire development. The process was subsequently completed by the National Team and all resources for the review were ready on time.

The main review team was composed of the following:

GAMBIA GOVERNMENT

Dr F S J Oldfield	- Director Medical Services
Dr A B H Njie	- Assistant Director Medical Services
Mr M Wheeler	- Health Planning Unit
Mrs B Mboge	- MCH Coordinator
Dr K Cham	- Regional Medical Officer
Dr T Cullinan	- Medical Officer of Health
Miss E Jones	- Ministry of Economic Planning
Mr Y Sanyang	- Medical & Health Department
Mr K Manneh	- Statistician, Medical & Health Department
Mr A Nathe	- Project Concern International
Mr M Marenah	- PHC Training Unit
Mr P McDermott	- Health Planning Unit

WORLD HEALTH ORGANIZATION

Dr N B Akim	- WHO Representative & Coordinator
Mrs J Bentley	- WHO Geneva
Dr R Herniman	- WHO Geneva
Mr S Lwanga	- WHO Geneva
Mr R Steadman	- WHO/Niamey

GOVERNMENT OF THE NETHERLANDS

Miss M Moynihan

1.2. TERMS OF REFERENCE FOR THE REVIEW

- 1.2.1. To review the status of implementation of the Primary Health Care Action Plan.
- 1.2.2. To conduct a national PHC Survey for the review.
- 1.2.3. To specifically consider the following aspects of the programme:

- i) Community participation
- ii) Distribution of Resources
- iii) Intersectoral Collaboration
- iv) Structure and function of Village Development Committees
- v) Utilization of services and Community attitudes to Village Health Services
- vi) The relationship between Community Health Workers, VDCs and CHW Supervisors
- vii) Maternal and Child Health Services with particular reference to the performance of traditional Birth Attendants (TBAs) and the related issues of vital registration and maternal mortality.

1.2.4. To identify programme achievements and constraints and to make recommendations for the future.

1.3. BASIS FOR THE REVIEW

The Gambia Primary Health Care Action Plan 1980/81 to 1985/86 formed the basis for the review. This document is not included in this report, but annexed to Country Utilization Review - The Gambia: November 1980 (HRG/CRU 1.Rev.11).

The review was conducted in two main parts, namely:

- a) A national survey at all levels of the PHC system.
- b) Analysis and synthesis of survey findings with data from a number of reference documents and interview of key officials.

On the basis of the above, programme achievements were defined, problems identified and recommendations made.

1.4. SURVEY METHODOLOGY

1.4.1. Sampling

A three stage sampling procedure was used.

First Stage

A sample of 9 districts was randomly selected. All health units within these districts i.e. 5 health centres, 5 dispensaries and one hospital fell within the sample as did the staff of these health units.

Second Stage

Twenty eight Primary Health Care Village and twenty seven non Primary Health Care Village within the selected districts were randomly selected. All Primary Health Care trained Traditional Birth Attendants, Village Health Workers and 4 Village Development Committee members in the Primary Health Care villages were interviewed. In the non-Primary Health Care village the head of the village was interviewed.

Third Stage

14 Heads of household in each Primary Health Care village and 7 in each non-Primary Health Care villages were selected and interviewed using the cluster sampling method.

TABLE 1

Level	Questionnaire	Number
National	Part 1	1
Regional	Part 2	3
Health Centre	Part 3	7
CHN	Part 4	22
VHW	Part 5	28
TBA	Part 6	28
Home	Part 7	588
VDC	Part 8	28

1.4.2. Method of data collection

i) Head of household questionnaire (No.7)

A total of 588 heads of household, 392 in Primary Health Care villages, and 196 in non-Primary Health Care villages, their wives who were mothers of index children were interviewed. Questions pertaining to child health were omitted in those interviews where the index child was more than 5 years old.

A head of household was defined as head of a house, responsible for those living under the same roof.

An index child was defined as a child under 5 years of age. In the instance where there were more than one child under 5 years old, an index child was randomly selected (by lottery) from that household.

ii) Questionnaire No 5 and 6

All Traditional Birth Attendants and Village Health Workers in each of the 28 Primary Health Care villages were interviewed.

iii) Questionnaire No 8

One hundred and twelve Village Development Committee members were interviewed, four members from each Village Development Committee in each of the 28 Primary Health Care villages. These members

included, Chairman of the Village Development Committee, one representative from the women's group and youth group and one other member. In the non-Primary Health Care villages, Section B of the Village Development Committee questionnaire was served to 27 village leaders.

- iv) Questionnaire No 4 Community Health Nurse Supervisor.

All Community Health Nurse Supervisors in the selected Primary Health Care villages fell within the sample. Twenty one Community Health Nurse Supervisors were interviewed.

- v) The Health Centre questionnaire was divided into 4 sections and served to health staff in those health units which fell in the sample districts.

#### 1.4.3. Training of interviewers and supervisors

Twenty interviewers were trained over a four day period. The training of 5 supervisors (team leaders) covered a period of six days. Interviewers were selected from the departments of Non-Formal Education, Community Development, Local Government, Education (School of Public Health) and the Medical Research Council. All supervisors were staff members of the department of Medical and Health. All interviewers and supervisors spoke wolof and mandinka, the two main languages in The Gambia.



Each interviewer was supplied with check lists for the following, in addition to a standardized arm band for measuring arm circumference.

- a) List of TBA kit contents
- b) VHW drug list
- c) Road to Health Card
- d) Health Centre drug list

Team leaders were in addition supplied with the list of selected villages, stations and names of CHN supervisors in their respective areas.

1.4.4. Limitations and Constraints

- i) While it was appreciated that the EPI cluster methodology was not ideal for the household survey, doubling the sample size per village was adopted as a workable compromise.
- ii) The field survey occurred during the busy farming season, which resulted in delays and disruption of villagers' activities.
- iii) The fact that in some instance staff were not requested to refer to records limited the value statistical information derived from the actual survey.

CHAPTER 2

PHC POLICY AND IMPLEMENTATION

2.1. NATIONAL POLICY

- 2.1.1. In The Gambia PHC is seen both as a philosophy and strategy for health development.

The Gambia Primary Health Care Action Plan, 1980/81 to 1985/86 (document HRG/CRU. 1 Rev) gives the following definition of the PHC approach:

"An approach aimed at mobilizing all potential resources, including the Communities' own resources, towards the development of the national health care system, the aim being to extend health service coverage to the entire Gambian population and to attack the main disease problems of the communities. PHC is also a mechanism for ensuring an equitable re-distribution of the limited health resources available in the country in favour of the underserved majority who live and work in the rural areas".

- 2.1.2. National Development Plan.

The PHC Action Plan forms the basis upon which the health sector component of the Second National Five-Year Development Plan (1981-82/86-87) was developed. The NDP also sets guidelines for health related activities by other sectors such as in nutrition, water and sanitation, health education and population control.

The 1984 Country Economic Memorandum restates amongst other things "the basic strategy is to continue expansion and improvement of essential social and welfare services while orienting them towards meeting the basic needs of the population by concentrating on expansion and improvement of primary level services - primary education, functional literary, Primary Health Care, adequate and safe water supplies and low cost housing".

2.2. Political Commitment

The national political will for the implementation of PHC in The Gambia has been repeatedly confirmed at the highest levels. In May 1979, His Excellency The President of The Gambia in a letter to The Director General of WHO reaffirmed that His Government is "politically committed to the inter-sectoral approach implicit in the primary health care concept". In August 1980 and in all subsequent addresses to the national parliament, The President of the Republic emphasized PHC as the adopted national strategy for health development.

More recently, on 17th October 1984, in his address to the thirteenth meeting of The Assembly of Health Ministers of the West African Health Community, The President in discussing the need to review the objectives and strategies of The Health Community towards the objective of Health For All said "Our intention in this regard is to emphasize the need for The West African Health Community to support the Primary Health Care Strategy, which was identified at the special world conference in Alma Ata in the Soviet Union ...This may call for a radical shift in priorities,

but you will agree that Primary Health Care Strategies are particularly suited to the needs of the people of developing countries where resources are scarce and health needs great".

He went on "In the event that we find these strategies inappropriate and unable to lead us to Health For All by The Year 2000 because they do not focus on the needs of the under-privileged majority, then these strategies must be changed so that the health services which our economies can support will be within the reach of the generality of our people".

2.3. Implementation Strategy (Action Plan)

The strategy for the implementation of the Action Plan (Section 2) centred on:

- a) The phased establishment of Village Health Services, initial action being concentrated on the least served areas.
- b) The strengthening and re-organization of the National Health Services in order to support the extension of the health care system to the village communities.
- c) Promotion and sustenance of Community participation and self-reliant effort in health activity at the Community level.
- d) Mobilization of extra resources for health through intersectoral cooperation and co-ordination at village and other levels.

2.4. Targets and Achievements

2.4.1. Development of Service Infrastructure

In pursuance of these objectives, specific targets were set eg:

- i) To establish Village Health Services (VHS) in 200 Villages with over 400 inhabitants each by 1986.

ACTION

By February 1985, 230 such village health programmes were in operation.

- ii) To train and install 1 VHW and 2 TBAs for each VHS.

ACTION

By February 1985, 230 trained VHWs and 241 trained TBAs were in operation. For various logistical reasons only 1 TBA per VHS is being formally trained, although each such TBA has a designated Assistant being trained on the job.

- iii) 40 Community Health Nurse Supervisors to be installed in 40 Key Villages to supervise the 200 Village Health Services.

ACTION

At the time of this review 37 such CHNs were in service at 37 Key Villages.

- iv) Eight new dispensaries to be constructed and staffed and at least eight existing dispensaries repaired and renovated.

ACTION

Targets not achieved: Only 1 new dispensary has been constructed (Brufut) even though limited renovation and repairs have been carried out in others.

However, 4 new Health centres have been constructed within the PHC areas (Karantaba, Kudang and Farafeni and Kaur), 3 of which are additional facilities. The size of this type of Health centre is such that Ministry of Health Labour and Social Welfare will have difficulty in staffing them adequately.

Although efforts were consciously concentrated on the construction and renovation of health posts and sub-dispensaries, severe constraints in the area of architectural work-up and implementation of construction works together with the unavailability of capital development funds have hindered infrastructural development.

Although delayed, the UNCDF funded project has now begun to provide health posts and key-village sub-dispensaries. By March 1985 the project will have constructed 53 new health posts, repaired 6 existing sub-dispensaries.

- v) Improvement of referral facilities at Bansang Hospital and the Royal Victoria Hospital for better support of the PHC system.

ACTION

Progress in this area has also been un-remarkable due to constraints outlined in 2.4.1(iv) above.

Detailed planning for the development of the two hospitals has been concluded and detailed design and costing now in progress.

The Maternity section of the Royal Victoria Hospital is currently under major extension and refurbishment through UK Government funding.

2.4.2. Community Participation and Intersectoral Collaboration

Section 2.2.1(ii) of the Action Plan requires the establishment or strengthening of mechanisms for intersectoral cooperation and coordination at Central, Divisional, District and Village levels. Specifically:

- i) To create or strengthen 200 VDCs by 1985/86.

ACTION

There are already in operation 230 VDCs. The VDC is further discussed in section under Management and Supervision at Community level.

- ii) To create or develop five Divisional Development Committees.

ACTION

5 DDC, are already in existence each under the Chairmanship of The Divisional Commissioner.

The entire local government administrative structure is currently under review by Central Government, with a view to increasing the effectiveness of its various levels.

A major existing defect in the system is that VDCs though recognised by Government are as yet not part of the formal local authority structures; the authority and influence of VDCs are therefore seriously compromised. This matter is therefore one of the Central points in the present re-organization exercise.

- iii) To create a central interministerial PHC Coordination Committee.

ACTION

The PHC Coordination Committee is present only in name

The PHC Coordination Committee is present only in name. At best it serves as a forum for dissemination of information on PHC implementation. It has proved singularly ineffective as a coordinating body for integrated development in support of PHC. Various steps (such as rotation of Chairmanship and a Committee of Directors) have failed to make it an effective organ for intersectoral cooperation. So far in 1984, the Committee has not met.

The lack of effectiveness of the PHC Coordinating Committee is attributable in part to the atrophy of higher level coordination machinery eg. The National Planning Council. As a result no resource allocation consequences follow from



deliberation of the PHCCC.

Whatever intersectoral activity there is occurs at the the periphery, and in spite of the rigid vertical sectoral lines of authority and accountability. This situation is aggravated by the limited degree of decentralization of authority particularly of budgetary control.

There is evidence that the expected impact of the programmes is not being fully realized, despite demonstrated high coverage and effective technology (ORS, EPI, Nutrition surveillance, Maternal Care and Supervised Deliveries and Village Health Services).

Pending availability of final results of the 1983 census, best estimate of IMR is in order of 117/1000 live births nationally.

Under such circumstances it can safely be inferred that factors not directly amenable to medical technology continue to exert very significant influence on IMR and similar indices. Factors such as safe drinking water, healthier environment, food and good nutrition, family size and economic status all are variables which determine exposure to risk and not amendable to mono-sectoral intervention approaches.

#### 2.4.3. Development of Disease Control

Section 2.2(b) of the Action Plan required the intensification of efforts for the identification of priority disease problems of the communities, and to institute measures against these problems including prevention and control of

leading endemic communicable diseases and malnutrition.

Targets

- i) A consolidated departmental Epidemiological Unit by 1980.

An Epidemiological/Medical Statistics Unit has been established at Medical Headquarters.

This Unit regularly reviews statistical returns and in close collaboration with the Regional Health Teams conducts epidemiological investigations and institutes appropriate disease control measures as necessary. A notable example of such activities is the very effective surveillance and control of epidemic meningococcal meningitis over the past three years.

- ii) A re-organized health data system by 1981.

The health data system has undergone revision almost yearly since 1980, but still needs further refinement. This subject is discussed in more detail in Section 6.

ACTION

- iii) Basic laboratory services extended to all Health Centres and the Central Laboratory strengthened by 1985/86.

ACTION

So far only 4 of the rural facilities have a regular laboratory service (Bansang, Basse, Kiang Karantaba and Mansakonko).

While the medium term Action Plan targets still hold, the short-term strategy is to provide an additional 4 such health centre services (at Yorobawol, Farafeni, Essau and Brikama) during 1985. These health centre laboratories will as an interim measure service subsidiary major clinics on a trekking basis. Six Laboratory Attendants have completed training at the Central Laboratory in Banjul, and equipment and initial supplies will be provided through the UK funded CCCD project.

- iv) To strengthen cooperation with the Medical Research Council especially in the field of epidemiology and PHC applied research.

ACTION

There is full cooperation between the MRC and The Gambia Government.

There is full cooperation between the MRC and The Gambia Government. A joint top-level Gambia Government/MRC

Committee meets regularly twice a year to review activities and identify areas of collaboration.

A small Gambia Government research team is attached to the MRC for training and for the execution of specific departmental research activities.

A PHC study is in operation in the Farafeni area, where ongoing studies include PHC base-line data, impact studies and field research on Malaria chemoprophylaxis using CHWs.

- v) Section 2.2.2(ii) of The Action Plan required the formulation and implementation of feasible programmes for prevention and control of priority disease problems.

ACTION

A list of priority disease problems is already contained in this section of the Action Plan.

Specific control programmes are already in operation for:

Malaria

**Diarrhoeal Disease**

EPI Target Diseases

MCH for Conditions of Pregnancy and childbirth

Control of acute lower respiratory Tract infections.

Programmes being developed for extension of the following into primary care levels:

Child Spacing Services

**Community Nutrition Surveillance and  
intervention**

Primary Eye Care

Primary Oral Health

Control of Sexually Transmitted Diseases

Control of Hepatitis B and Primary  
Liver Cancer

Schistosomiasis Control

Leprosy and TB Control

Some of these programmes are discussed in more detail in subsequent sections of this report.

While it is evident from this review that the main objectives of coverage have largely been achieved, the review has identified deficiencies in service quality particularly in:

- poor understanding and use of the " At-risk strategy" in MCH activities
- poor understanding and use of basic service indicators
- weakness in the chain of referral
- an inadequate health information system.

RECOMMENDATIONS:

It is recommended that:

- i) MCH service strategy be reviewed with a view to giving priority

attention to at-risk categories and priority problems.

- ii) Development of standard management protocols for major problems.
- iii) Revise the present health information system so as to highlight usable information in day to day management of the services.
- iv) Strengthen the chain of referral particularly at the intermediate level.
- v) There is urgent need to identify an appropriate means of evacuating emergency cases from the village level.

CHAPTER 3

COMMUNITY PARTICIPATION

3.1. THE CONCEPT OF COMMUNITY PARTICIPATION

The adoption of the PHC philosophy within The Gambia's national health development activities has brought about a major change in the interpretation of community participation! The Community is no longer seen as passive recipients of health care, but rather as active participants in health development.

COMMUNITIES NO LONGER SEEN AS PASSIVE RECEIPIENTS OF HEALTH CARE
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Health development is seen as a Contractual arrangement between on the one hand, Central Government through its extension agencies, and on the other the Community, through the Village Development Committees.

Mechanisms and structures have been developed in order to foster consultation and meaningful involvement at all levels of the health system, with varying degrees of success.

Organizing a government initiated programme which is to genuinely "belong" to each individual Community has created many conceptual and practical problems.

3.2. Community Participation at Central and Intermediate Levels

The various mechanisms which have so far been developed in order to promote community involvement have already been outlined under 2.4.2. The development of the PHC Action Plan was preceded by an intensive consultation with the communities at all levels.

3.2.1. Central Mechanisms

The political machinery of parliament and Cabinet ensures that major policy matters are debated, as was the case with the Action Plan before it was officially adopted, in 1980. The elected members of the House of Representatives continue to take a major interest in the development of PHC in their respective constituencies. While there is room for more lay-representation on such central bodies as the National Planning Council, the PHC Coordination Committee and Boards of Management for hospitals and health centres, the revitalization of existing structures seems the more practical option at this point in time.

As indicated under Section 2, the intermediate structures at the Divisional and District levels are being strengthened to provide more effective decentralized planning and management.

3.3. Community Participation at Peripheral Level

3.3.1. Organisation at Community Level

The Gambia PHC Action Plan emphasises services to the Community with their full participation in decision-making concerning their development activities. The plan calls for community self reliance within the national development philosophy



of "Te-sito" (self-reliance in development). To coordinate such development at the community level, the PHC Action Plan envisages the formation of Village Development Committees in preference to Health Committees. The role of such committees is "to promote, monitor and support development activities including health".

Specified functions included:

The selection of Community Health Workers  
Coordination of all matters concerning the development of the community.

The mobilization of and management of resources for PHC

The mobilization of community support for PHC.  
As at February 1985, 230 such VDCs were in operation in as many PHC villages.

### 3.3.2 Peripheral Mechanisms

#### a) Community Sensitisation

Senitisation is the first and most important mechanism used for conveying the concept of self help and managerial responsibility in PHC.

The process takes place over a period of 3 to 4 months when a series of at least three meetings are held between the village and a team of people organised by the Regional Health Team. The Sensitisation team is made up of both departmental staff and local staff of other departments including Community Development, Agriculture, Education and the Divisional Commissioner's Office. The

visit of the team is preceded by a "Courier " mission when one member often the RMO visits the Chief and Alkalo and asks for a meeting with the village to discuss Primary Health Care. During the next three meetings which are kept about a month apart, the village is introduced to the ideas of primary health care, of criteria for selecting a health worker, of criteria for selecting a Village Development Committee and why such a committee is preferable to a Health Committee. The Village Development Committee is selected by the village at meetings of the whole village. A Chairman, (often but not always the alkalo (elected village head), a treasurer and a secretary are chosen. Usually it is recommended and accepted that the leaders of the Women's Group and the Youth Group are also members. The Committee usually numbers about 10 to 12 people, including the Community Health Workers. During sensitization the roles and functions of the VDC and the CHWs are openly discussed and agreed upon. The VDC is intended to be the village's management tool for development, with particular emphasis on health. In the health field it oversees the health of the community, organises health projects, supervises the CHWs arranges for their support and is responsible for all money collected through the health programme, eg sales of drugs, fines and other forms of levy.

Support for the CHWs, particularly the VHW, may be arranged by one or more of several methods, eg communal farming of his fields, payment of a monthly compound tax, payment of an annual compound tax (often collected at harvest time). Support for the TBAs is normally agreed to be a continuation of the traditional method of giving cola nuts at the baby's naming, but in many villages the women have also agreed to pay a fixed sum, eg 1 to 5 Dalasis, after each delivery.

The end of the sensitisation process is when the CHW and VDC have been chosen by the village and a verbal contract has been agreed by the village and the sensitisation team. The agreement is usually that the village agrees to support its CHWs, to undertake promotive and preventive health projects and to build a small health facility with materials supplied by the Government. The Government side agreed to train the chosen CHWs, to supply them with drugs and equipment and to support VDC activities.

b) Community Involvement in CHW Training

Offers a second main approach to the development of community interest and participation. During the initial or pre-training phase of CHW instruction, members of the VDCs are invited to participate. This pre-training period lasts 4 weeks and takes place at the designated Key-Villages. VDCs not only provide some support to their CHW trainees during their period away from

home, but also local material and labour for such training activities as demonstration of construction of latrines, protection of wells and refuse pits. This direct involvement of VDC members during pre-training has led to spontaneous activities in the areas of water and sanitation during the mandatory 3 months or more period between pre and main training.

Village participation in the Programme is also enhanced by weekly visits from the CHW Supervisors or "Assisters". These young men and women meet with the VDC at least once a month and help them to arrange "their" health service and in particular to manage the accounting for the money collected. Over the last year or so this last aspect has been formalised so that villages can see how much money should have been collected and how much money has been accounted for. The CHWs also encourage the VDCs to embark on public hygiene programme such as improving wells, building latrines, street clearing and cutting grass. Some VDCs have systems for imposing fines on people who break local rules, such as allowing animals to roam loose or washing clothes beside the well.

The crucial measure of participation is felt to be the level of commitment to providing support for their community health worker. Some provide farming labour in lieu of a payment but most agree to pay a monthly or annual payment.

Recently there has been a move to assist the VDCs by mounting workshops for VDC members from several villages. This has been seen to be a useful exercise with good transfer of knowledge and experience between the various participants.

3.4. Evaluation

Community participation as a particular aspect of PHC was looked at (Gowers 1984) to see whether the sensitisation process was effective and to see whether the VDCs were making Programme decisions and to see if they were being implemented.

3.4.1. Sensitisation was found to be an effective process with a positive correlation between all the "Knowledge" parameters measured and the presence of respondents at sensitisation meetings.

3.4.2 Community Participation was measured by examining feelings about the organisation of the village, commitment to several aspects of PHC, utilisation of the services and by observation of projects undertaken by the villagers.

Although 68% felt the village could have been better organised, 97% liked the idea of a VDC.

Improvement in village organisation by Government action was seen more in terms of concrete provision of drugs and supplies than in organizational change such as improvement of the VDCs.

Programme benefits were cited as reasons for successful organisation.

3.4.3 Implementation of VDC Plans

Looking at the results of decision making by the VDCs it was found that the villagers were able to implement roughly 50% of the decisions made. If one assumes that the frequency of implementation of decisions reveals something about village health priorities then it was found that these priorities were different from the programme's. In rank order the villages priorities' were:

- Transport of patients
- Building of health post
- Replenishing drugs

In the 1984 PHC review, questionnaires were administered to 28 VDCs in PHC villages and to 27 "VDCs" (or equivalent) in non-PHC villages, interviewing 4 members from each committee. Table 3.1. illustrates the pattern of membership that evolved.

TABLE 3.1 Composition of VDC

Member	Response of VDC as a group (N=28)		Response of Individuals (N=112)	
Alkalo	89%	25	98%	109
Village Elder	82%	23	87	97
Religious Leader	75%	21	85	94
Youth Leader	82%	23	94%	104
Women Group	82%	23	86%	95
Local Teacher	7%	2	19%	21
Agric Worker	11%	3	15%	17
TBA	79%	22	88%	98
VHW	82%	23	89%	99
Others	11%	3	15%	17

Surprisingly, in some cases members of a VDC could not all list the same membership in the same VDC.

While the method of selection of VDC membership was not specifically enquired into during the review, the common practice is selection by consensus at a village general meeting.

VILLAGE DEVELOPMENT  
COMMITTEES DO TAKE  
THEIR WORK SERIOUSLY

Enquiries into VDC activities indicate that VDCs do take their work seriously, as indicated by the following responses:

TABLE 3.2. Frequency of VDC Meetings  
(N = 112)

Monthly	More Than Monthly	Every 2 Weeks	When Necessary	Irregularly	Never	Don't Know
37	44	8	5	12	2	3
33%	40%	7%	5%	11%	2%	3%

TABLE 3.3. VDC meetings held within past 3 months

GROUP RESPONSE	Once	Twice	3 Times	4 or More	Never	Don't Know
N = 28	21	2	-	4	-	1
INDIVIDUAL N = 112	10%	9%	26%	34%	6%	14%

The wide range of responses by individual member of the same VDC indicates some serious lack of information sharing and/or irregular attendance by individual members.

Despite the relatively high positive response by the VDC members regarding the regularity of meetings 58% of the CHN Supervisors interviewed indicated lack of regularity of VDC meeting as a major problem in programme management. However 85% of VHWS interviewed said they did meet with their VDC, at least monthly. It does appear that in many instances only a part of the VDC membership consistently attend meetings as in only 2 out of 28 VDCs were responses uniform amongst members.

It was apparent from responses of CHNs and VDC members, that decisions on development matters are made by the VDC. All 28 VDCs indicated this, supported by 98% of individual responses for decisions related to health activities. 25 out of 28 group responses (89% individual response) indicate VDC decision making in non health activities. Similar proportions apply for decisions on priorities, planning and implementation of development activities. However 2% of respondents said that such decisions are made by either the village elders, the Medical Department or the village youth.



TABLE 3.4 Specified VDC Activities (Group Response)  
(N = 28)

Activities	Yes	No
Specify Role of CHW	13	9
Supervise CHW Activities	24	1
Collect Money for Programme	19	2
Decide on how money is spent	21	-
Decide on allocation of out- side resources	11	7

All but 1 of the 28 VDCs arrive at decisions on a majority or concensus basis, the only exception seeking village concensus for major decisions.

Although VDC members (96%) indicate that they regularly report back to the village on major decisions, 25% of villagers in the 1983 (Gowers) Survey indicated the need for more such meetings.

When specifically asked what needed to be done to improve the health of the village, the activities listed correlated closely with the health problems identified by the VDCs.

TABLE 3.5 Activities Identified by VDC

Identified Activities	Health Problems
1. Cleanliness and Environmental Sanitation	1. Malaria
2. Personal hygiene	2. <b>Diarrhoea</b>
3. Good food/food hygiene	3. Stomach Pains
4. Safe Water	4. Lack of cleanliness in village
5. Public and Private Latrine	5. Fevers
6. <b>Better Food Supply</b>	6. Improper or Absence of Latrine
7. Transportation	7. <b>Lack of Food</b>
8. Increase in Drug Supply	8. Relative lack of Skilled Health Personnel

While village communities appear to be aware of their problems and can identify appropriate solutions, CHNs and VHWS cited lack of progress in these very areas as major problems in programme development. It is therefore no surprise that CHN and VHWS indicate training in planning and management as major felt needs.

The 1983 Survey showed that while 97% of villagers interviewed liked the idea of a VDC, 68% thought they could be better organized eg by using "more skilled people on VDCs and by allocation of specific responsibilities within the VDCs.

Perceived Role of VDC

Community organization, promotion of development and promotion of health were the main activities

started. There is therefore good understanding of the stated purpose of VDCs as illustrated by the table below.

TABLE 3.6 Stated Responsibilities of the VDC

PHC Review 1984 (N = 112)	1983 Community Survey (Gowers) (N = 114)
1. Promote Village Development 64%	1. Organizing People 69%
2. For Health Development 68%	2. Planning 55%
3. Plan/Implement Activities 46%	3. Resource Mobilization 35%
4. Represent Village 29%	4. CHW Supervision 27%
5. Help Develop PHC 7%	5. Don't Know 10%

Most respondents gave the Regional Health Team as the source of their information on PHC, while 2 learnt about it from neighbouring villages in earlier stages of implementation. The level of awareness of village correlates strongly with presence at sensitization meetings (Gowers).

Management of CHWs

All 28 VDCs responded that the VDC was involved in the selection of VHW and TBA, only 4% of the 112 respondents giving a different answer, one of whom indicated the entire village was involved in the selection.

When it comes to specifying the roles of VHW and TBA only 46% of group responses assigned such responsibility to the VDC. Of the rest responsibility was assigned to RHT, RHT and VDC and Village.

3.4.4. Supervision by the VDC was not seen as a priority by the Villagers. As the programme belongs to the village and they are the paymasters it is vital that in future the programme ensures that the VDCs become effective supervisors.

3.4.5. Support for the programme

75% of VDCs supported their CHWs mainly in the form of:

a)	Communal work on CHW farm	33%
b)	Direct Financial Support	43%
c)	Combination of (a) and (b)	24%

7 of the responses were either "confused" or inappropriate and were therefore listed as not positive.

It is interesting to note that although many CHWs consider the support they receive as inadequate or too sporadic to compensate for their time and energy, only 9 of the total trained have abandoned their work.

It is a welcome finding (Gowers 1983) that there is no ambiguity as to who is responsible for VHM remuneration:

VDC	94.4%
Village	5%
Government	0%
Patients	0%

The cost of the village programme was expected to be 5 to 6 Dalasis per compound per year. This is "about right" but in practice payments made by the villager were considerably lower.

3.4.6. Coordination of Intersectoral Activity

While nearly 40% of VDCs indicated involvement in decision making on the utilization of outside resources and involvement in non health development activities, there was little evidence of a coordinating role. This is perhaps to be expected in view of:

- a) The poor coordination at central and intermediate levels
- b) The lack of formal linkage between VDCs and official local government machinery
- c) The expressed need for training and support in management and organization.

Contrary to the expectations of the Action Plan for a VDC per village, separate committees are being launched under the auspices of various Government Departments and non Governmental Organizations with varying compositions and orientations each according to the sponsors whims. In many instances therefore, conflict within the Community is encouraged, and direction on community resources dispersed rather than being focused effectively.

3.4.7. Commitment

Village commitment to the Programme is reflected in the proportions of "Projects" completed in PHC Village as compared to non-PHC villages. They included activities which call for time, effort and material from the people and are a good test of Community Will. Another index of commitment on the part of the village communities is the fact that in three years, the attrition rate for CHNs has been very low at less than 4%. Over the period since inception 9 VHWS have been lost to the programme, 8 of whom were discharged by their VDCs for various misdemeanors mostly related to "Mis-management" of community funds. An additional 4 CHWs (Two VHW and 2TBAs) were lost because of death from natural causes. All but one of the above have now been replaced with trained CHWs.

3.5. Recommendations

Community participation will be enhanced most of all by the determined continuation and maintenance of the programme by the Government. In particular the maintenance of the drug supplies and the frequent supervision.

- ii) There is a need to strengthen the capabilities of the village development committees.

This could probably best be achieved by a combination of formal anthropo socio-logical research, locally organised operational research and organised

dialogue (workshops) with the VDCs.

- iii) The major dichotomy to address is that between the volunteerism of the CHWs and the willingness of individual villagers to pay voluntarily for the programme. This could probably best be overcome by an "Official" system of tax gathering or a village insurance scheme.

4. MANAGEMENT AND SUPERVISION

4.1. Management and Supervision at Central Level.

4.1.1. A Health Planning Unit has been created at The Ministry of Health to improve planning and implementation capacity. In addition to the task of detailed planning for the health sector, the Planning Unit is now also responsible for over-seeing the implementation of all development projects within the sector.

The Unit is presently constrained by shortage of trained personnel, despite the recent return of a national following overseas training. At this juncture there are two expatriates (UK) in the Unit and one more national still away on training. The post of statistician is still unfilled.

4.1.2. The Health Planning Committee under the Chairmanship of the Permanent Secretary Ministry of Health, meets monthly to determine broad policy issues as well as monitor implementation of programmes. Included in this Committee are representatives of the Ministries of Economic Planning and Finance, The Resident WHO Representative, The Health Planner, Director of Medical Services and other Senior Members of the Medical and Health Department.

Various Planning Groups operate at the level of the Directorate to undertake detailed planning for such matters as medium and long term Hospitals Development, medium and long term Basic Health Services Development, and medium and long term development of The Primary level services.



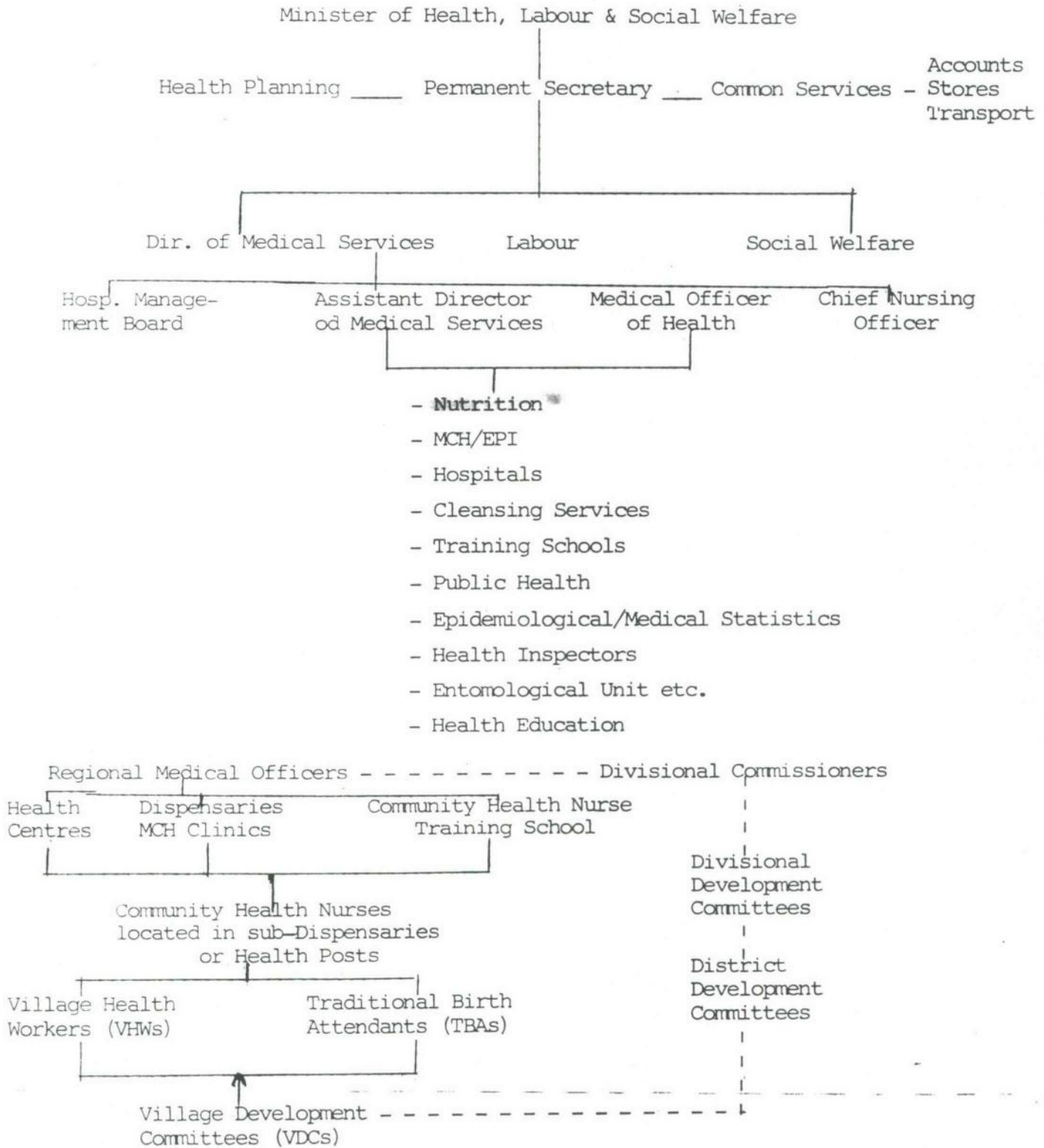
These groups include Heads of Units within department and hospitals, Regional Medical Officers, the WPC and a representative of the Ministry of Economic Planning.

Draft plans from these groups are refined through, the Health Planning Committee, the Ministry of Economic Planning and finally to the President's Office, before submission to Cabinet for formal adoption by government. As yet concluded drafts have not gone beyond the Ministry of Health.

4.1.3. Mechanisms of Programme Management at Central Level

- i) The Director of Medical Services is responsible for the implementation and management of all health programmes in the public sector. The Director of Medical Services discharges these responsibilities through a still rather intricate chain of command as illustrated in the following simplified Organization chart (Fig 4.1).

FIG. 4.1. SIMPLIFIED ORGANISATION CHART. MEDICAL AND HEALTH DEPARTMENT.  
THE GAMBIA 1984.



Various Committees and Working groups operate at the level of the Directorate to address specific programmes or issues, eg there are adhoc groups for MCH/EPI, CDD, TB/Leprosy, Malaria Control etc. These groups include clinical experts as well as experts from the Medical Research Council.

- ii) The Primary Health Care Working Party is by far the most important of these management groups, and comprises all heads of unit at the department, all Regional Medical Officers, PHC Training Unit, the Health Planner and the World Health Organization Programme Coordinator. Details of PHC implementation are determined at the monthly meetings of the PHCWP, whose minutes have now become the 'bible' of PHC implementation.

The value of these records will be enhanced by the separate recording of decisions to be filed as "Decisions of the PHCWP".

- iii) Meeting of Regional Medical Officers. This is a purely business meeting between all RMOs and the Director of Medical Services. These monthly meetings which take place the day before the main PHCWP affords RMOs the opportunity to resolve outstanding matters with the Director as well as to examine in more detail programmes, activities and proposals concerning the management of their respective regions. This has been a most useful and universally welcome innovation.

- iv) Central Specialised Units such as MCH/EPI, Epidemiology/Statistics, Community Health, Health Education and Nutrition based at Medical Headquarters plan and monitor specialised programme components within the integrated service structure.

In addition to such national functions these Units Collaborate with Regional Teams in the execution of regionally inspired activities such as surveys, inservice training or evaluation exercises.

Senior members of the directorate and specialised units undertake countrywide tours of varying regularity for both service and supervisory reasons. The review did not specifically investigate the frequency or perceived usefulness of such visits.

- v) Medical Headquarters Team Meeting. All heads of Central Units meet together with the Director for sharing of information and coordination of their various activities. This group meets regularly every fortnight.

#### 4.2. Management and Supervision at Regional Level

Regional Health Teams: The Action Plan considered the creation of a health Management Team at each of the five administrative divisions in the country, two such DHT were to be fully operational by 1985/86.

The design for this level of administration was altered during the initial phase of implementation as a result of anticipated constraints of financial resources and dearth of trained manpower.

The country was divided into three health Administrative Regions: Western, Central and Eastern. While this strategy allowed for early commencement of programme implementation, it suffers two very obvious disadvantages viz:

- a) The RHTs have each to contend with two separate divisional administrations to fit into the existing central government administrative machinery.
- b) Both the area of responsibility and volume of work are significantly increased in all regions, necessitating inconvenient and expensive river crossing.

All three Regional Teams are now fully operational,

All three Regional Teams are now fully operational, with Central and Eastern Regional Teams operating from planned Regional Offices, RHT Western operating from Medical Headquarters for the time being,

TABLE 4.1.

Regional Health Teams

Category	October 1981	October 1984	Currently In Training
RMO	1	3	1
RPHN	0	2	4
RPH Supt	1	3	-
R Store Keeper	0	2	-
Regional Office	0	2	(1 in preparation)

The review exercise revealed an impressive uniformity of response in questions relating to supervision at this level. The interstitial role of the CHN Supervisors comes over clearly, together with the common use of mechanisms such as RHT trekking, monthly joint meetings of RHT and CHN Supervisors and two-way communication. The responses leave no doubt that this part of the system operates as designed.

The review exercise however revealed a serious defect in knowledge of and utilization of health service statistics in programme management. Despite the availability of a wealth of data at Regional Offices, it was not easy to extract basic management indices, nor did it appear that sharing of such information within the various members of the Regional Team was routine.

This major weakness which reappears throughout the system needs urgent resolution if activities are to be more clearly targeted at priority problems.

RHT Identified Problems:

- i) There was common expression of dissatisfaction with some aspects of RHT interaction with central management particularly with regard to:
  - a) Role of specialized units at Medical and Health Headquarters vis a vis staff and programme management at the regional level. Staff are still being posted to

or transferred from regions without adequate information to or consultation with Regional Teams.

Despite clear directives staff to a large extent still relate directly with headquarters rather than through their regional offices, thus magnifying the confusion and eroding RHT authority.

- b) The existing highly centralized system of financial control at the Ministry operates against effective regional management. In the absence of regionally administered project funds, activities are delayed or halted while central clearance and action are awaited. A flexible Regional Imprest Account system will go a longway towards minimizing these difficulties.
- c) Delays in Communication between the regions and the Centre can be eased through better linkage in transport management and a radio link, both of which are currently in the planning stage.
- d) The centralized nature of reward and disciplinary procedures is contrary to the objectives of regionalized management.
- e) Persisting problems with fuel allocation, transport maintenance and payment of salaries and allowances seriously hinder effective regional management.

- ii) Defects in logistical support system manifested by the unreliable transport system for movement of staff and delivery of supplies; the still not infrequent shortages of basic supplies; frustrating delays in processing and payment of salaries and allowances are all identified by RHTs as serious problems.
  
- iii) Health Manpower Shortages particularly at middle level frustrates improvement in the quality of services.

Most Health Centres and Dispensaries are grossly under staffed, a situation aggravated by too frequent staff redeployment. Poor conditions of service and living conditions are certainly not conducive to high staff moral and motivation.

- iv) Community Organization. While considerable RHT effort is devoted to Community organization and the establishment and support of VDCs, the review has identified a major need for managerial support at the community level.

Further in-depth studies have already been initiated with a view to developing a management training programme for VDCs and CHWs.

Overview. The review probed only fractions of the totality of health service operation at the regional level. However, it's findings do not significantly vary from subjective impressions gained over the last few years. The abiding impression is that



The Regional Health Teams have interpreted their raison d'etre as the furtherance of PHC at the level of village health services.

They have bent their energies to propagating and realising this concept in the face of manifold logistic and bureaucratic problems; Indeed they have succeeded beyond expectation in this task.

RHTs seem heavily preoccupied in establishing and operating the primary health services and much less so in the "fine - turning" of the system.

However they do not exercise close enough control over the pre - existing basic services. The doubt must be whether they can perform the larger tasks ahead, with their present constitution and staff.

4.4.1.

MANAGEMENT AND SUPERVISION AT THE INTERMEDIATE LEVEL

4.4.1. The Action Plan (3.1.1; 3.1.7) envisaged the development of unified health centre management through the development of Health Centre Superintendents. Health Centres in addition to their traditional functions, are expected to advise and assist CHNs in their role as trainees and supervisors of VHWS and TBAs. Health Centre based Health Inspectors were specifically expected to assist VDCs in the development and implementation of health related village projects and the promotion of environmental health.

The review revealed this level as the weakest link in the chain of health sector support to the PHC effort.

- i) The cadre of Health Centre Superintendent is not being developed.

At the ten Health Centres and dispensaries surveyed in this review the status of the Officer-in-charge varied from Staff-Nurse to Nursing Officer; indeed at this point in time not one of the Health Centres is headed by a Senior Nursing Officer.

- ii) Although all nine of the interviewed officers in-charge had been in position for 12 to 30 months, the wide range of experience and seniority did not favour uniformity of management.

- iii) Staffing pattern for similar health facilities varied from 8 to 19 indicating the need for a rationalization of purpose and a more logical distribution of manpower resources.

- iv) An analysis of the knowledge of PHC among staff members interviewed at this level in each health centre, revealed that the CHN is (as one would expect) most knowledgeable about PHC activities in each health centre area.

An evidently frail mechanism for information exchange amongst team members is reflected in the consistent lack of cohesion related to replies about frequency and content of team meetings.

It would appear that each team member has his/her full work load and is largely uninvolved and therefore ignorant of that of others.

Even those in-charge were not exempt from this information gap, few health centre staff (with the notable exception of CHNs) had the remotest idea of the number of CHWs or even Key-Villages in their catchment area.

v) Few of the health centre staff interviewed (again with the exception of CHNs and Enrolled Nurses) had written job-descriptions

vi) Even though 5 of the 9 centres report a written schedule of supervisory visits only 3 report making such visits to sub-dispensaries and peripheral health workers. Only in the newly created Western Region does there seem to be an adequate reporting system related to supervisory visits, with problem definition and solution mechanisms.

Most such visits are for purely technical services rather than for supportive supervision.

Indeed one person in-charge said "there was no time in the programme for supervision.

- vii) Facilities: 4 of the 5 health centres studied had workloads, far beyond those for which they were constructed or staffed. As a result there is congestion and lack of efficient patient flow. In some, running water and/or latrines were not available.

4.4.2

Involvement in Community Activities

- i) As a result of the relative non-involvement of this level in the PHC process there is little inter-sectoral activity being promoted at this level.

Conversely, Community involvement in the activities of the health centre/dispensary and its staff is very limited. These facilities are therefore seen by the communities purely as providers of service and not as a resource for the solution of community health problems.

- ii) Only 5 of the 10 centres studied in this review have been involved in Community sensitization programmes for PHC; a similar number being involved also in basic training of CHWs. Only 3 reported to have provided refresher training of health centre staff. A major opportunity for genuine involvement seems therefore to be being missed; a significant defect if this level is expected to be the referral and support focal point.
- iii) Only 1/3 of the persons in-charge knew of existing mechanisms for intersectoral co-operation in their areas.

- iv) This lack of involvement is further

demonstrated by staff attitude to CHWs.

Only 7 of the 10 centres see the CHWs, CHNs and RHTs as having very useful roles in PHC.

Some see the role of peripheral health workers only as extra pairs of hands in outreach clinics.

- v) 6 of the 9 centres reported consultation with the RHT. Most of the content related to the acquisition of equipment and supplies, though others included problem solving, PHC progress and problems at village level.

5 of the 6 centres reported having received one or more supervisory visits from RHT (3 on a monthly basis).

#### General Comment

It would appear from this review that national strategy for PHC has so far concentrated mostly on the development of the periphery and its support through the touring Regional Health Teams. Much less attention has been paid to the development of the potential of the intermediate health personnel as a major provider of guidance and support to peripheral health workers. Their use for technical support as first referral level and providers of clinical services is well established and accepted.

These services are presently overburdened by the large number of clients that could receive adequate attention at peripheral levels. A real triage and referral of problems would reduce this work load, allowing more time for more active involvement at this crucial link in the PHC chain.

Many of these structural weaknesses have been recognised by central and regional management and strategies developed to overcome them. It will nevertheless require gigantic efforts at re-training and sensitization to fully realize the potential at this level.

4.5. Management and Supervision at Peripheral Levels

4.5.1. Community Health Nurse Supervisors

3.1.5 of the Action Plan required the:

- i) establishment of a cadre of Community Health Nurse Supervisors who "will be directly responsible for supervision and in-service training of VHWS and TBAs, and will be located in or near the village they will supervise".

As indicated in Section 2.3.1(iii) above, this is being achieved.

In the course of this review 50% (19) of CHN supervisors (24% of all CHNs) were interviewed.

- ii) CHN Profile

This category of health workers is mainly recruited from the rural areas and is so far the only group that policy requires

deployment near area of origin.

CHNs undergo a formal course of training of 18 months duration at the CHN School located in the Central Region at Mansakonko.

In addition to the basic CHN curriculum an additional management module has now been incorporated into the course.

The main function of CHNs based at Key-Village sub-dispensaries is the direct support of a cluster of 4 to 8 PHC villages and includes community activities and technical support of VHW, TBAs and VDCs. The CHN is thus the first and main link between the community and the formal sector.

To facilitate this supervisory function each CHNs is supplied with a motor cycle for which a modest monthly maintenance allowance is paid by the Ministry of Health.

iii) The survey revealed that this level of the service structure was operating as designed:

All CHNs saw their primary role as being directly supportive of CHWs.

They saw their duties as:

- Supervision of VHW and TBA - 100%
- MCH Activities within their  
Communities - 80%
- Community Health Education - 50%
- Organization and participa-  
ting in VDC meeting - 60%

Other miscellaneous tasks such as planning and management of PHC activities.

- iv) All CHNs interviewed had written job-descriptions, and all but 1 visited each PHC village in their circuit at least once weekly. All but 1 used a written supervisory check-list for performance of their duties.

All reported regular completion of monthly statistical returns for submission to RHTs.

The regularity of CHN visits to circuit villages was confirmed by community and CHW interviews as well as the Gowers survey.

70% of CHNs interviewed reported being engaged in non-health development activities in their area, and 94% collaborated with non-health workers in health related activities.

- v) Few CHNs (20%) however included follow up of "at-risk" clients and none specifically listed in-service training of CHWs as a major function, this was perhaps because they considered it part of their supervisory functions stated above.

Perhaps the most obvious defect, as at other levels, is the inadequate use of health data in management, even though CHNs fared much better than others in this area.

"Community diagnosis", the basis for information and for real community involvement was stated to have occurred by only 15%



of respondents. There was no reported clear mechanism for problem identification and resolution within their circuits.

vi) Perceived problems of CHWs

- a) Many (58%) CHNs report irregular meetings of VDC, and indicated difficulties in persuading Committees to plan and implement specific health or health related activities. Other difficulties with VDCs included poor control of community funds, inadequate community mobilization and inadequate support for CHWs.
- b) The main stated difficulties with CHWs concerned the keeping of records (58%), inadequate feedback on referrals and poor motivation for home visiting.
- c) As expected the most dependable source of CHN support was the RHT (100%), with 65% reporting NO support from health centre/dispensary levels.

Problems encountered with RHT include lack of feed back, lack of regularity/punctuality of visits, problems connected with the maintenance of motor cycles and payment of claims.

Although most CHWs found such visits supportive, some felt regional officers do not address in depth problems of village motivation and methods of achieving change (Gowers 1983), but rather spend most of the time examining records, supplies and village funds.

The most consistent problem identified by CHNs concerned their mobility, with a poor system of payment of allowances high cost of motor-cycles and inadequate provisions for regular maintenance.

General Comments

CHN supervisors in the main perform their tasks adequately despite many constraints. There was no lack of clarity as to whom CHNs were responsible or responsible for.

There are indications of factors that may mitigate against their effective functioning as the first link between the community and the formal sector eg.

- The relative lack of experience of the group, only 35% being at their posts for over two years.
- Their relative youth (age range 22 to 27 years) does not readily engender confidence in a society where age is still closely associated with authority and wisdom. (Gowers 1984)
- Inadequancies in CHN basic training, CHN, themselves indicating additional training in planning and management as their most pressing need.

CHAPTER 5

5. LOGISTICS

With the decentralization of health management, the system of logistical support has also undergone similar change. Prior to PHC implementation each individual health unit had to periodically make specific journeys to the capital for collection of supplies, only to return a few weeks later for "supplementary orders". Such journeys were not always fruitful and most not worth the expense in time and fuel.

A system of periodic delivery to all Units is now in operation.

5.1. Drug Supply System

5.1.1. Central Level

The Central Medical Store located in Banjul is responsible for the procurement and initial distribution of all medical supplies.

Guidelines for orders are laid down by a Central Drugs Committee which provide the Chief Pharmacist with targets for detailed ordering. This same committee reviews the content of the inventory lists for the different levels of the health service.

In 1982 the entire drug supply system was revised through The Gambia Government/Africare Project.

While many of the achievements of this project are still being realised, major weaknesses have been revealed due mainly to deterioration in the level of management. A recent WHO Consultancy report (Battersby, January 1985) describes management as weak, and attributes this partly to "the fact that there is no adequate job description for the Chief

Storekeeper and The Chief Pharmacist. In addition, the Chief Store Keeper is responsible to the Permanent Secretary, whilst the Chief Pharmacist is responsible to the Director of Medical Services". Other areas of weak management were indicated by poor stock control, absence of security, inadequate supervision of clerical staff, the large number of existing vacancies in stores posts, the hoarding of condemned articles and inadequate consultation in placing of orders.

Such deficiencies in organization and management at the Central level are aggravated by the existing hard currency constraints, making forward ordering a hit or miss affair. In the 1983/84 financial year for example, stocks of most items were barely half the quantities required to meet the fixed stock levels, leading to frequent shortages and expensive and inefficient "emergency orders".

The supervisory functions of the Central Medical Stores have all but ceased, as far as the rural health units are concerned.

Discussions have been initiated between the Permanent Secretary, Director of Medical Services, Chief Pharmacist and Chief Storekeeper in order to resolve some of these major problems.

#### 5.1.2. Drug Supply at the Regional Level

It was planned that each of the three Regional Offices be equipped with a Regional Medical Store. The stores for the Central and Eastern Regions have already been constructed using funds provided by the Netherlands Government and Japan Shipbuilding Industry Foundation (JSIF) and are operational. A Regional Storekeeper has already been deployed to each of

these stores (at Mansakonko and at Bansang). Battersby reports that the Store at Mansakonko "is well organized and efficiently run," that at Bansang not being fully operational during the period of his consultancy.

Regional stores receive bulk supplies directly from Central Stores, the aim being to keep half-yearly stores at the Regions. Shortages at the central level have so far not permitted this.

Distribution trucks now on order should increase the efficiency of the intra-regional distribution networks.

#### 5.1.3. Drug Supply at the Intermediate Level

During the reorganization of the supply system (Africare-Gambia Government 1982-3), the practice of "quarterly supplies" for health centres and dispensaries was changed to two monthly supply periods, in order to shorten periods of shortage. Further, centres were to be supplied by delivery from Central Medical Stores (Western Region) or from the Regional Medical Stores (Central and Eastern), instead of each centre collecting from Central Medical Stores in Banjul as of old.

Stock levels for each of the 50 items on the health centre drugs inventory list have been set for each health unit depending on catchment size and disease incidence. At the end of each two-month cycle (supply dates vary within groups of units) stocks are ordered and supplied in the amounts required to bring each item back to its pre-determined stock level. In this way little used drugs are not overstocked to expire on shelves, and additional supplies can be ordered for much used drugs.

The PHC review confirms the earlier findings of Africare that the new system has brought about major improvements at the intermediate level, all respondents stating so.

The areas identified as being in need for further improvement include:

- a) More precision with delivery dated.
- b) Elimination of periodic shortages;
- c) Revision of stock-levels.

78% of the 9 health units reported that of the 50 drugs on the health centre supply list between 9 and 14 items were not supplied over the period immediately preceding this study. The same proportion reported between 4 and 14 items supplied in barely adequate quantities, implying the need for revision of stock levels fixed three years earlier, or that they are not being supplied the quantities they should be supplied.

Drugs most frequently reported as not supplied or not supplied in adequate amounts are shown in the following tables:

These findings indicate that despite the problems outlined above, essential supplies are reaching the units. All items listed in Table 5.1 except Chloroquin Injection are NOT being supplied to health centres as indicated in the remarks column.

TABLE 5.1.

Drugs Not Supplied

(N = 9)

Item	No	%	Remarks
Oral Contraceptives	6	86	Not all Centres currently giving F/P Services
Dapsone 50mg	7	100	Dapsone is currently supplied directly to Leprosy Control Officers and not to Health Centres as such
Dapsone 100mg	7	100	Dapsone is currently supplied directly to Leprosy Control Officers and not to Health Centres
Niclosamide 50mg	6	86	Out of stock centrally. Tape worm not major public health problem in The Gambia
Chloroquin Injection 50mg/2mls	7	100	Out of stock. Parental therapy discouraged in children. Other dosage available

Percentages in 5.1 and 5.2 refer to proportions of health facilities reporting absence or shortage of specific items.

The supervisory mechanism developed for the system has also suffered recently because of fuel and transport difficulties.

A system has now been evolved whereby more accurate projection and procurement of stocks is effected, items categorised into "vital", "essential" and "others", so that priority is assigned to items that must first be secured in adequate amounts before others, rather than ordering inadequate quantities of all items. The rather long CMS inventory list is also being progressively reduced.

In collaboration with the West African Pharmaceutical Federation a workshop was recently organised for heads of health units on "The use and Abuse of Drugs", and the national inservice training programme is to organise sessions on therapeutics. A pamphlet on "The Safe Use of Drugs" has recently been produced and widely distributed by The Health Education Unit, but it is appreciated that much still needs to be done in the area of public and professional education on the effective use of drugs.

The Survey showed that all units studied had the essential equipment to carry out the work expected of them.

#### 5.1.4. Supplies at the Peripheral Level

In as much as the Village Health Services (VHS) form an integral part of the national health system, it was decided at the initial stages of implementation to keep VHS stocks separate from general supplies. It was thought crucial that VHS, have their own supply system and not be exposed to poaching by



TABLE 5.2 Drugs Supplied in Barely Adequate Quantities

Item	No	%	Remarks
Asprin	3	43	Genuine need for revision of stock levels
Cough Syrup	5	71	Same
Paracetamol	3	43	Same
Choloroquine	3	43	Probable overuse , No shortage of oral preparations
Crystalline Penicillin	3	43	probable overuse . Oral penicillin and other antibiotics available

The survey however did show that all 9 units had an adequate and continual supply of most of the essential items on their list, and that at only 2 of the 9 units were there any expired stocks.

Comment

Management has for sometime been aware of the above difficulties mainly occasioned by inadequate stocks at central stores and transportation difficulties. It is also known that the situation is aggravated by poor prescribing habits and some illegal disposal of supplies. Delays have also been occasioned by responsible officers sending requisitions late and/or incompletely filled.

hospitals and intermediate level health units.

VHSs therefore continue to be supplied directly from Regional Stores and not through their supervisory health centres or sub-dispensaries. Each key-village Community Health Nurse Supervisor however is closely involved in drawing up replenishment orders and keeping stock, working with each VHW and VDC.

Each VHW purchases directly from his Regional Stores (CMS in the case of the Western Region) using a purchase order countersigned by his CHN Supervisor. Quantities of items purchasable at any one time are closely controlled taking into account size of village, pattern of VHW returns and likely expiry of stocks at the village health post. All cash collected from sales to VHPs is paid into a central account for replenishment of stocks for the programme, through a revolving fund maintained distinct from Ministry of Health Accounts.

Stocks of items for VHS, while carrying the same item numbers as identical stocks for the rest of the health service, are distinguishable by the prefix "P" and shelved separately at both central and regional levels. Items may only be diverted from these stocks at the express permission of the Director or his Assistant - an exceptional occurrence still!

As a result shortages are least experienced at the VHP level, even though the review survey showed 63% of VHW indicating having had to turn patients away for lack of drugs. (Shortages were observed in only 8% of VHSs in 1983: Gowers).

Even though VHPs stock a number of items, 27% of VDC members indicated some drug shortages, though none could specify which. Many VDC members indicated the need for a wider range of drugs.

TABLE 5.3. Frequency of Use of VHP Stock Items

VHP SUPPLIES	FREQUENCY OF USE (RANK ORDER)
Aspirin	1
Chloroquine	2
Penicillin	3
Eye Ointment	4
Senokot	5
Aludrox	6
Piperazine	Infrequently used
Benzyl Benzoate	Infrequently used
Gentian Violet	Infrequently used
Acriflavine	Infrequently used

In 36% of PHC villages studied, the VHP was the only source of drug supplies, while for some items, 36% had alternative sources eg village shop, traders or neighbouring mission clinic.

Comment

The existing supply system does favour the village health services and ensures the regular availability of essential supplies at affordable costs. There is need to periodically review the VHP stock of items in order to meet real needs as a number of items seem to be under utilized. Central Stores must ensure that adequate stocks are maintained to eliminate the periodic shortages that still occur.

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As the programme expands geographically, the long distances that VHWs have to travel to reach Regional Stores will need to be addressed, even though this was not indicated as a hardship.

## 5.2: Transport and Fuel

The high coverage that the public sector health services have been able to achieve is largely due to MOBILITY. In 1982 the fleet of vehicles under the Department amounted to 130, today less than 50% of these are on the road.

### Vehicle Needs

Because of national economic difficulties allocations for replacement of vehicles have all but ceased over the past three or more years. What new vehicles there have been, have been provided by projects or external donors. This has the disadvantage that the policy of standardisation could not be maintained, and the fleet currently comprises of a mixture of Landrovers, Peugeots, Toyota Twin-Cabs and Land Cruisers, Nissan Twin Cabs, Suzuki Jeeps, VWs and even Mercedes Benz Ambulances.

The entire Ministry of Health currently has only 1 large truck for country wide distribution of supplies and movement of staff on transfer. This vehicle, because of age, gross overuse and poor maintenance, is as much off the road as on.

### 5.2.2. Vehicle Maintenance

The Central Public Works Department is ordinarily responsible for maintenance of all government vehicles, a task it has been unable to meet over the past 5 years or more.

The Ministry has over this period "operated" a modest minor maintenance capability in a shed within the premises of Medical and Health Headquarters. The organization of this facility has left much to be desired as there is no system of stocking of spares. It is poorly financed and does not operate a system of preventive maintenance of the fleet. The practice of cannibalization of broken-down vehicles to keep others on the road has contributed to the present poor strength of the fleet.

ACTION

A plan has been developed to ensure a dependable fleet of service vehicles which the critical life-line of the entire health delivery system.

The design for a purpose-built mechanical workshop to be constructed within the headquarters of the Regional Health Team (Western) is nearing completion. Funds have been set aside from the Netherlands/JSIF grants for its construction and equipment. Through the UK funded CCCD Project a Transport Manager/Engineer will be provided to assist reorganize the entire Ministry of Health Fleet. The outline of a management plan for a pool system at the central level has already been evolved.

The Regional Headquarters at both Bansang and Mansakonko already have a small maintenance workshop each. Expert advice is being sought with a view to determining a more appropriate selection of vehicles, taking into account conditions of certain major donors.

5.2.3. Fuel

Provisions are made annually in the Ministry of Health Budget for the operation and maintenance of vehicles. Currently 75% of this vote is allocated for fuel, leaving only 25% for the maintenance of the vehicles. These proportions will need modification if a viable

maintenance programme is to be sustained.

Fuel allocations have been worked out for each vehicle on a fortnightly supply basis.

As in the former system of drug supplies, centres have to collect their fortnightly allocations from the various PWD divisional depots, consuming in some instances as much as 50% of their allocation in the process. This wasteful system has recently been modified by the provision of fuel holding facilities at the regional offices. In the Central Region where this system already partially operates, a recent study by the Regional Medical Officer indicates that current allocations are more than sufficient to maintain the services, provided that:

- a) Vehicles are kept properly maintained and therefore efficient in fuel use
- b) That a strict control/supervisory system is maintained with a monthly check on fuel consumption against authorized log-book entries.

Recently buffer stocks of petrol and kerosene have been issued to regional offices to help smoothen the supply-line which, as in the case of drugs, is frequently disrupted by shortages at the central level.

The seriousness of this problem is illustrated by the fact that in 1983/84 35% of scheduled MCH/EPI outreach clinics were not held because of lack of fuel or vehicle breakdown, similarly for supervisory visits, personnel transfers, distribution of supplies and patient evacuation. This resulted amongst other things in a significant drop in EPI coverage.

#### 5.2.4 Motorcycles

Some key personnel such as Community Health Nurses, Health Inspectors and Leprosy/TB Control Officers are provided with motorbicycles for the execution of their duties. These motor bicycles whether purchased from local funds or donated are issued to officers on a repayable loan basis. It is believed that this system of officer ownership will favour better care of the machines.

Repayments are deducted at source on a monthly basis, these amounts going into a revolving fund which helps finance the purchasing of additional bikes, spare parts etc. The system of late has caused hardship in that while the costs of purchase and operation have rapidly escalated (local cost of Honda 70 motor cycle from D1,700 to nearly D4,000 within three years) the monthly allowance payable to these officers has remained at a maximum of D40.00 per month. The inadequacy of allowances and frequent delays in their payment were identified as two of the major problems of CHN supervisors.

There is evidence that these difficulties are already adversely affecting PHC supervision. In addition to the resolution of administrative bottlenecks within the system, there is currently a field trial of 8 UNICEF provided Peugeot Mobilettes, which might reduce the cost to officers.

#### 5.3. Equipment and other supplies also follow the system of decentralized distribution.

While the review survey showed that all centres studied have all the essential equipment required for the performance of their duties, there is evidence



of breakdown in the system of updating of inventory lists and their periodic auditing, resulting in loss of security of supplies.

5.4. Communications

Difficulties and long delays in communication between field stations and their support units continue to hinder efficient service operation. HRG/CUR 1 aimed to address these difficulties through a short wave radio network, regrettably funding has still not been secured.

However a recently (1984) developed World Bank energy project, promises to install solar powered telephones at the health centres. The possible benefits of an appropriate radio link network still seem most attractive eg reduction of need for travelling, leading to better transport and fuel use; regular consultation; wider possibility for emergency patient evacuation; more effective management etc.

5.5. Physical Infrastructure

Many centres were found to be inappropriate for the functions performed. The older centres having been constructed for a person to person type of encounter now prove grossly inappropriate for logical flow-lines in an integrated service structure. Over-crowding and confusion are therefore common.

Many centres were without running water or adequate sanitary facilities for either staff or patients.

Few centres have electric power and those that have do so on a most undependable basis. For example, the 4 health centres recently constructed though designed to operate with electricity now barely have power 2 hours a day because of high operating costs of the

generators.

ACTION

The persisting high cost of fuel has necessitated a major re-think in this area. The World Bank Health Sector Energy Project mentioned earlier aims at providing appropriate solar packages to provide:

- a) Limited lighting facilities
- b) Refrigeration for EPI
- c) Pre heated water for sterilization and other uses.

HRG/CRU 1 Rev 2 highlights the needs in development of physical facilities at the intermediate level while the UNCDP PHC Project is already addressing the needs of the more peripheral units.

CHAPTER 6

INFORMATION SYSTEM

6.1. DESIGN

The health information system has been redesigned over the last few years so that it is simple to use, is manageable and provides relevant information at all levels.

At the PHC Village level reporting is by tallying against pictures of the common diseases. (Fig 6.1 and 6.2).

At the HC/Dispensary level and hospital out-patients a tally sheet is used with 32 illnesses broken down by whether the people are under or over 5 years of age. (Fig 6.3).

Reportable (communicable) diseases are tallied against that general heading and then reported in detail on a separate form (Annex 1). The reportable diseases are listed on the back of this form.

Other forms are the MCH/EPI vaccination tally form (Annex 2) and the MCH clinic visit form (Annex 3).

At the end of each month the tally sheets for the month are collected together and the totals extracted and filled in on the monthly report forms (Annexes 4,5,6).

At the end of each month each of the 39 reporting units sends its returns to its Regional Health Team Office. The material, some of it collated, is then sent to the Epidemiology and Statistics Unit. Each quarter this unit makes a National Report which is transmitted back to the Regional Health Teams. At

Fig. 6.1

# PHC VILLAGE HEALTH WORKERS RECORDING FORM

NAME \_\_\_\_\_ VILLAGE \_\_\_\_\_ DATE \_\_\_\_\_

Outpatients seen



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0000	0000	0000	0000	0000	0000	0000
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malnourished child



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child with tetanus



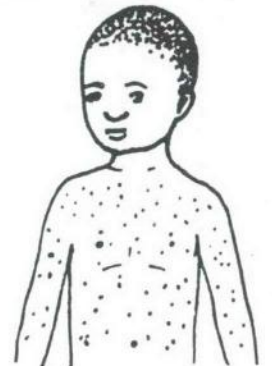
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child with whooping cough



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child with measles



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eye infection



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chest infection in child



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child with diarrhoea







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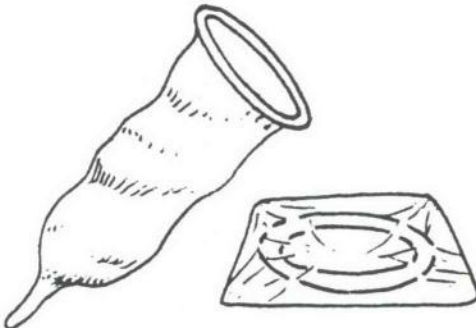
child with malaria



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<p>Pregnant woman with malaria</p>  <p>0000 0000 0000 0000  0000 0000 0000 0000  0000 0000 0000 0000  0000 0000 0000 0000  0000 0000 0000 0000</p>	<p>Adult with malaria</p>  <p>0000 0000 0000 0000  0000 0000 0000 0000  0000 0000 0000 0000  0000 0000 0000 0000</p>	<p>chest infection in adult</p>  <p>0000 0000 0000 0000  0000 0000 0000 0000  0000 0000 0000 0000  0000 0000 0000 0000</p>	<p>Deaths</p>  <p>0000 0000 0000 0000  0000 0000 0000 0000  0000 0000 0000 0000  0000 0000 0000 0000</p>
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Use of Contraceptives  
CONDOM



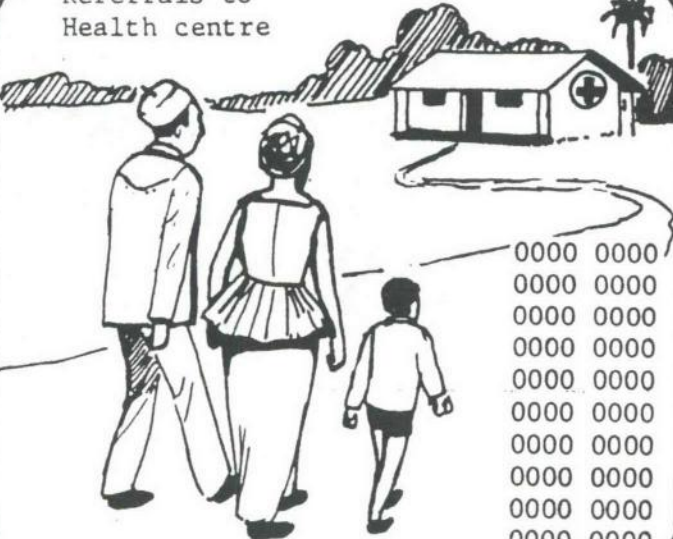
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Family planning motivation




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Referrals to Health centre



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Compound visits



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# TRADITIONAL BIRTH ATTENDANT RECORDING FORM

PHC

NAME \_\_\_\_\_ VILLAGE \_\_\_\_\_ DATE \_\_\_\_\_






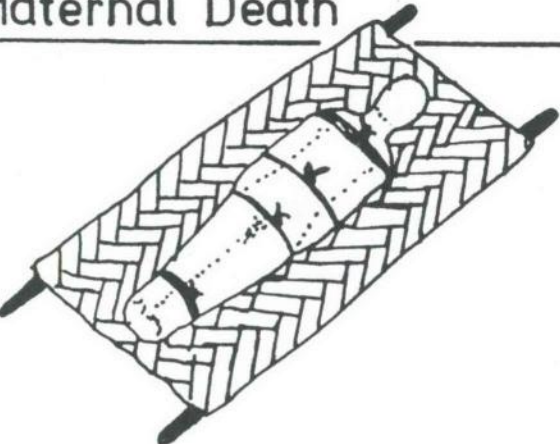
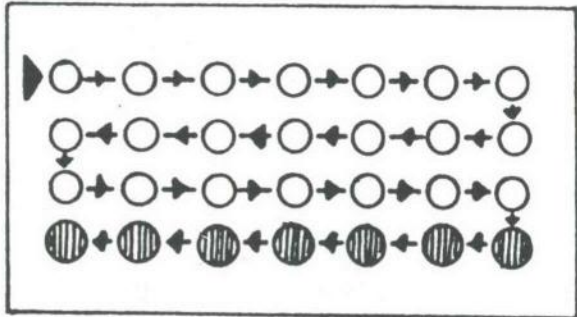

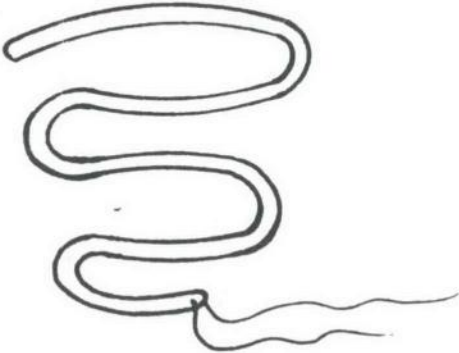



Antenatal Care	Births	Neonatal Tetanus
 <p>00000    00000    00000    00000 00000    00000    00000    00000</p>	 <p>00000    00000    00000    00000 00000    00000    00000    00000</p>	 <p>00000    00000 00000    00000</p>

Fig. 6.2

Stillborn	Infant Death	Maternal Death
 <p>00000    00000 00000    00000</p>	 <p>00000    00000 00000    00000</p>	 <p>00000    00000 00000    00000</p>

Pills	Depo Provera Injections	I. U. D.
 <p> 00000 00000 00000 00000  00000 00000 00000 00000 </p>	 <p> 00000 00000 00000 00000  00000 00000 00000 00000 </p>	 <p> 00000 00000 00000 00000  00000 00000 00000 00000 </p>

Referrals	Family Planning Motivation	Postnatal Care
 <p> 00000 00000 00000 00000  00000 00000 00000 00000  00000 00000 00000 00000 </p>	 <p> 00000 00000 00000 00000  00000 00000 00000 00000  00000 00000 00000 00000 </p>	 <p> 00000 00000 00000 00000  00000 00000 00000 00000  00000 00000 00000 00000 </p>

		CONDITIONS		5 years and above		CASES SEEN		Under 5 years			
HEAD	1.	Eye disorders	00000	00000	00000	00000	00000	00000	00000	00000	00000
	2.	Ear, nose, throat disorders	00000	00000	00000	00000	00000	00000	00000	00000	00000
	3.	Mouth, teeth, gum disorders	00000	00000	00000	00000	00000	00000	00000	00000	00000
CHEST	4.	Upper respiratory tract infections	00000	00000	00000	00000	00000	00000	00000	00000	00000
	5.	Pneumonia bronchitis	00000	00000	00000	00000	00000	00000	00000	00000	00000
	6.	Hypertension	00000	00000	00000	00000	00000	00000	00000	00000	00000
	7.	Heart disorders	00000	00000	00000	00000	00000	00000	00000	00000	00000
ABDOMEN	8.	Diarrhoea, dysentery	00000	00000	00000	00000	00000	00000	00000	00000	00000
	9.	Peptic ulcer, other abdominal pain	00000	00000	00000	00000	00000	00000	00000	00000	00000
	10.	Worms, other intestinal parasites	00000	00000	00000	00000	00000	00000	00000	00000	00000
	11.	Urinary tract disorders	00000	00000	00000	00000	00000	00000	00000	00000	00000
	12.	Hernia, hydrocoele, haemorrhoids	00000	00000	00000	00000	00000	00000	00000	00000	00000
OBSTETRIC- GYNAECOLOGIC	13.	Normal delivery	00000	00000	00000	00000	00000	00000	00000	00000	00000
	14.	Complicated delivery	00000	00000	00000	00000	00000	00000	00000	00000	00000
	15.	Abortion	00000	00000	00000	00000	00000	00000	00000	00000	00000
	16.	Pre-eclampsia, eclampsia	00000	00000	00000	00000	00000	00000	00000	00000	00000
	17.	Other gynaecologic/obstetric disorders*	00000	00000	00000	00000	00000	00000	00000	00000	00000
CONNECTIVE TISSUE	18.	Muscle and joint pains and disorders	00000	00000	00000	00000	00000	00000	00000	00000	00000
	19.	Trauma: fractures, wounds, burns, etc.	00000	00000	00000	00000	00000	00000	00000	00000	00000
SKIN	20.	Skin disorders	00000	00000	00000	00000	00000	00000	00000	00000	00000
NERVOUS SYSTEM	21.	Epilepsy, other neurologic conditions	00000	00000	00000	00000	00000	00000	00000	00000	00000
	22.	Mental disorders	00000	00000	00000	00000	00000	00000	00000	00000	00000
GENERAL AND OTHER	23.	Reportable diseases**	00000	00000	00000	00000	00000	00000	00000	00000	00000
	24.	Malaria, clinical	00000	00000	00000	00000	00000	00000	00000	00000	00000
	25.	Anaemia	00000	00000	00000	00000	00000	00000	00000	00000	00000
	26.	Malnutrition	00000	00000	00000	00000	00000	00000	00000	00000	00000
	27.	Dehydration (moderate to severe)	00000	00000	00000	00000	00000	00000	00000	00000	00000
	28.	Other known conditions*	00000	00000	00000	00000	00000	00000	00000	00000	00000
	29.	No pathology	00000	00000	00000	00000	00000	00000	00000	00000	00000
<b>TOTAL NEW CASES</b>											
	30.	Reattendances	00000	00000	00000	00000	00000	00000	00000	00000	00000
	31.	Admissions	00000	00000	00000	00000	00000	00000	00000	00000	00000
	32.	Referrals	00000	00000	00000	00000	00000	00000	00000	00000	00000

\* Other conditions may be recorded on the reverse side of this form.

\*\* Details to be reported on the Reportable Diseases Form.



OTHER CONDITIONS DIAGNOSED

DIAGNOSIS

NUMBER OF CASES

1.	_____	_____
2.	_____	_____
3.	_____	_____
4.	_____	_____
5.	_____	_____
6.	_____	_____
7.	_____	_____
8.	_____	_____
9.	_____	_____
10.	_____	_____
11.	_____	_____
12.	_____	_____
13.	_____	_____
14.	_____	_____
15.	_____	_____
16.	_____	_____
17.	_____	_____
18.	_____	_____
19.	_____	_____
20.	_____	_____

the end of each year an Annual Report of all the statistics is produced.

6.2. Evaluation

In general the evaluation PHC Survey 1984 (Gowers 1983) has shown that

although information is available centrally it is not being made available for planning or management at any other level.

Health Centres had very little knowledge of their "target" populations, immunization levels, disease incidences, maternal deaths or maternal emergencies. 6/9 Centres could not give figures for children seen in the last year. This is because records are not kept and displayed at the health facilities. Gowers comments "In practice very few records were being kept at the Key-Villages. These poor results not only reflect the immature state of the programme, but also a lack of appreciation of the value of records as a management tool at both the CHN and RHT levels".

There was very little evidence that data generated for PHC Villages was systematically being discussed with VDCs and CHWs let alone the communities in general.

The RMOs each had a map of their region on display showing health facilities and PHC Villages. Otherwise the RMOs did not appear to be utilizing any routine health data for their health service management and all had great difficulty in finding data related to such things as vital rates, disease incidence and population coverage. The sharing of information within each level was also found to be inadequate, as in the absence of the RMO few of the Regional Team members could easily trace data details.

6.3. Recommendations

As the PHC System and the RHT Management are now in place the RHT should be supplied with regular feedback of data from the Statistics Unit. This information should be tabulated or graphed for display at the relevant Units and used as a management tool to give direction to the efforts of the health workers.

CHAPTER 7

TRAINING AND HEALTH MANPOWER

7.1. THE MANPOWER SITUATION:

- 7.1.1. There is consensus that the development of health manpower has not kept pace with the rapid expansion in health facilities and activities over the past few years. As a consequence staffing patterns for the various levels of the public health system seem to follow no uniformity.

While the integrated team concept is a relatively new introduction to the system, revision of job descriptions and training curricular have both lagged behind service integration, leading to a situation where some cadres are overworked while others are underutilized. In general staff are expected to shoulder responsibilities for which they have not been adequately trained.

- 7.1.1. There is some agreement that the existing balance between trained and untrained personnel is unsatisfactory. The Shipp Report (1982) drew attention to two areas of disproportion in the Ministry of Health budgetary allocations. Firstly, the excessive share of labour services relative to materials, and secondly, the excessive share of unskilled labour relative to trained health workers.

Despite recent efforts to correct these imbalances, this unfavourable pattern still remains, with 64.2% and 35.8% of total health budget (1984/85) being allocated to labour and materials respectively.

There is excessive share of unskilled labour relative to trained Health Workers

Of the 1985 funded posts in the 1984/85 Approved Estimates only 37.4% account for all categories of trained personnel.

While over the recent past the major constraint on manpower supply was the scarcity of trained recruits (large numbers of unfilled but fully funded posts), in the medium and long term perspective the effective constraint on public sector demand will be the ability to fund additional posts.

#### 7.1.3. Health Manpower Plan

With the completion of the draft plans for development of the public health services, an inventory of health personnel has been compiled and work started on the production of Health Manpower Plan. This plan will seek to address and correct the imbalances outlined under 7.1.2. in addition to providing national staffing patterns for the various tiers of the health services. Following on the earlier preliminary studies by SHIPP, the plan seeks to bring realism and relevance into national health manpower development.

Tables 7.1 and 7.2 below give a summary picture of the present situation and the trend that has already been initiated with the revision of the budget format and staff redistribution.

TABLE 7.1.

Establishment by Subhead

Year	1981/82	1982/83	1983/85	1984/85
Ministry	96	100	102	93
Transport	82	82	82	76
Directorate	26	27	56	61
Hospital Management Board	7	7	26	76
RVH	926	893	693	637
Bansang	80	80	137	125
Regional Office	-	-	13	16
Health Centres	88	88	368	359
Dispensaries	40	40	91	109
Community Health	272	289	95	63
MCH/EPI	7	9	11	11
Vector Control	35	35	36	35
Nurse Training	13	13	13	14
MRC	6	6	6	3
Cleansing	83	18	18	15
Social Welfare	25	24	28	28
Labour	18	19	19	20
	1935	1730	1794	1691

TABLE 7.2. Breakdown: Establishment Figures by Staff  
Category 1984/85

Category	Establishment	Fully Funded	In Post
Doctors/ Dentists	59	44	40
Health Inspector	65	65	59
State Required Nurses	252	249	216
State Enrolled Nurses	47	47	34
Community Health Nurses	104	104	104
Other Trained Staff	<u>92</u>	<u>84</u>	<u>31</u>
Subtotal Trained	619	593	531
Other Staff	<u>1,009</u>	<u>992</u>	
	<u>1,628</u>	<u>1,585</u>	

As already mentioned in Chapter 3 there were as at February 1985:

230 Trained VHWS

241 Trained TBAs

distributed in 230 villages throughout the country.

## 7.2. Training

7.2.1. There are four basic courses provided in The Gambia giving entry to the health professions, these are:

- i) State Registered Nurse
- ii) Public Health Inspectors
- iii) State Enrolled Nurse
- iv) Community Health Nurse

A heterogeneous group of trained staff are all currently (and for the foreseeable future) trained overseas. The group includes Laboratory Technologists, Theatre Technicians, Nurse Anaesthetists, Pharmacy Technicians, Radiographers etc, in addition to Doctors and Dentists.

A large group of Nurse Attendants and Community Nurse Attendants currently bear a significant part of the routine nursing services at both hospital and health centre levels. This category receives no formal course of training except on the job. Nurse Attendants also form the pool of recruits for the CHN and SEN programmes provided that they show the required educational standards for entry into the training schools.

Though originally introduced as a stop-gap measure, the nurse attendant cadre now looks likely to stay.

#### 7.2.2. Doctors and Dentists

There is no training institution within The Gambia which offers undergraduate training for these cadres. Individuals currently study abroad; either privately or with Ministry of Health aid. There does now exist within the specialist units of the RVH an intern registration programme for junior doctors who have studied overseas. Currently all postgraduate medical training is undertaken overseas.



A manpower plan for medical practitioners does not exist. There is (currently) a heavy reliance on expatriate medical officers supplied under a variety of technical cooperation programmes; notably the UK. The last few years has seen an increase in short term consultants arranged through the West African Health Community. There is a need to address the problem of selection, training and employment of future junior doctors to increase self-reliance of the health service.

Over the past 6 years training in Community Health Administration have taken priority for postgraduate training. 9 Officers have completed the courses.

7.2.3. Nurses

Nursing cadres within The Gambia can be conveniently categorised in three groups: State Registered Nurses, State Enrolled Nurses, and Community Health Nurses.

a) State Registered Nurses

These are trained on a 3 year course at the School of Nursing and Midwifery. Originally the School was under the auspices of the Ministry of Health but now part of the Gambia College.

After 18 months as a SRN, Nurses can undertake a one year Midwifery course at the same institution. A recent development has been the introduction of men onto the Midwifery course.

Recently the Nursing School has had a general programme intake of two classes every three years, averaging 30 to 40 students. It is anticipated to have an annual intake. The attrition rate, both on the course and within the first two years of service has been historically high; and the current success rate of graduation from the School is approximately 63%.

The Midwifery programme is increasing its annual intake to 20, and its success rate is 87% with very low attrition post qualification.

There are currently on-going plans for curriculum development, more clinical supervision, and the possibility of selected post-graduate clinical courses for nursing staff in this cadre.

b) State Enrolled Nurses

The State Enrolled Nurse category was started in April 1977 to augment the number of nurses. The School is situated within the Royal Victoria Hospital, but a new site is being developed at Bansang Hospital, the first phase of which is complete. The course is now two years old but as yet, has not established a yearly intake. Since 1977 there have been 5 intakes and the average graduation success rate has been 68%. Unlike SRNs, SEN's can be posted to any health institution. The School is directly under the control of the Ministry of Health.

Due to the shortage of Nurse Midwives, a one year SEN Midwifery course was started in October 1983. 15 students were selected, including two males. All graduated.

There is a need to provide further training for many of the nurse trainers currently working at the SEN School. Since its establishment the quality and standard of Professional nursing care administered by this cadre has been consistently high.

c) Community Health Nurses

These nurses are being trained in the provinces. It is an 18 month course based at Mansakonko. The usual intake is 35 students. This cadre of nursing staff was specifically inaugurated to supplement the manpower needs of the PHC programme and the expansion of MCH services.

Community Health Nurses can become supervisors of Village Health Workers based at a Key Primary Health Care Village or be attached to a health centre or dispensary and responsible for the usual MCH - EPI services and trekking.

7.2.4. Health Inspectors/Community Health Officers

Health Inspectors are currently trained on a 3 year diploma course at the Gambia College School of Public Health. Like the School of Nursing it is a part of Gambia College, students receiving stipends. Over the last few years there has been a general intake of two classes every three years. There is an average 65% graduation success rate, but in recent years, the cadre has suffered from high attrition rates.

7.2.5. Training the Trainers

The intensification of local training has led to a need to provide adequate trained trainers. Candidates currently follow courses in Ghana, Nigeria, the United Kingdom and USA. Technical Assistance arrangements through such organization as the UK/ODA and VSO, Canadian CUSO and US Peace Corps are assisting nationals in our various training programmes.

CHW Trainers have undergone the WHO Training Course for TBA and VHW Trainees in Lagos and the Liverpool Training of Trainers Course, the rest having been trained locally.

CHAPTER 8

PUBLIC HEALTH SECTOR FINANCE

8.1. RESOURCE FLOWS

In the period since the adoption of the PHC Action Plan, the health sector share of total Government expenditure has been relatively stable (See Table 1 and Table 4). The additional resources required to implement the Action Plan have come from three sources:

- i) relative shifts in the share of increasing total health expenditure
- ii) external aid, especially for capital investment and initial operating expenditures; and
- iii) the contributions of village communities

The pattern of use of resources provided through the Government's recurrent and development budgets is shown in Tables 2, 3, 5 and 6. The most significant trend is the relatively faster growth of expenditures on basic health services (including the infrastructive for village health services) compared with hospital, so that over time the share of the former has increased. A related development is the deployment of additional resources to administration (particularly the strengthening of support units at Medical Headquarters, building maintenance and medical stores) and to training (both basic training of Enrolled Nurses and Community Health Nurses, and in service training of all cadres). The deployment of resources under the direct control of the Ministry of Health has therefore been responsive to the new policy direction.

External aid resources for the health sector are partially reflected in the development budget, and partially excluded from it. In general, capital investment is so reflected, and most resource flows in the form of technical assistance personnel, supplies and equipment, and training expenditure are omitted. Thus the contribution of external grants and loans to development expenditure 1979 to 1984 shown in Table 8.5 (D7.5m or 72% of the total) considerably understates the total value of external aid.

In the absence of a comprehensive account of the value of aid flows (much of which reach The Gambia in kind rather than in cash) it is impossible to quantify the understatement. It is clear that a large proportion of donor support has been applied to PHC, and it is equally clear that a large proportion of PHC total expenditure has been incurred by donors. Donors finance has been applied particularly to construction (hospitals, health centres, village health post and regional offices); training; management and logistic support (especially drug storage and distribution) MCH/EPI/FP/CDD/TB/Leprosy outreach programmes, and technical assistance personnel attached to both central management and field services.

The contribution of village communities in cash and in kind have been vital to the success of village health services. The two main expenditures at the local level are the purchase of drugs and the support for the Community Health Workers. After the receipt of the initial stock of drugs as a gift the total cost of replenishment falls on the village through the purchase of drugs at prices intended to yield a surplus for use in community health programmes.

The village health worker is remunerated in various ways at local option: in cash, by the proceeds of local taxation or communal enterprises, or by labour services provided by the villagers. The traditional birth attendant is rewarded by customary payments from her patients (which may these days include cash). In most villages (all those which did not already have a sub-dispensary) accommodation had been provided for the village health worker either by new construction or the allocation of an existing building.

The UNCDF project Primary Health Care Facilities has ~~began~~ to assist village communities on construction of sub-dispensaries through a system of aided self-help. The villagers provide locally available raw materials and labour services, the project provides imported materials and craftsmen. The value of the village contribution is more than 20% of the monetary cost of the project. All these resources are mobilised by the villages, working through a Village Development Committee. The only external support to services at this level is a subsidy of D120 per annum paid to each VDC for use at its discretion. It is therefore the case that village health services are almost self-financing, which helps to explain their negligible impact on the Government budget.

The substantial contribution to the cost of services made by villagers through the village Health Services has prompted calls for an equivalent contribution to be made by those with access to higher level services. A graduated fee system for general out-patient services has now been introduced on a national basis; however, because the fees charged pass to central revenue, they do not increase the total resources available for the provision of services.

It has been remarked that there is a lack of comprehensive information on the finance of the health sector. The resource flows reflected in the Government budget are only a part of the total donated to the organised public services, neither external aid flows nor village contributions are fully documented. Moreover, no information at all is collected on the finance of non-government health services (which are significant in this context for indicating the potential for user contributions to public services). A survey of health sector finance on the lines recommended by WHO would be highly desirable input to future planning.

#### 8.2. The Budgetary System and Primary Health Care

In the letter from the Regional Director proposing the review of Primary Health Care, the penultimate paragraph stated: "One of the critical areas which is repeatedly being brought to the forefront is the difficulty of the budgeting system to reflect accurately where the resources go, how much are in support of PHC. Frequently the budgeting systems were inherited from the past and are not relevant to the primary health care approach. I understand that The Gambia was among the few countries that was in the process of introducing a new budgeting system. Due to the extreme importance of this area to other countries I would be particularly grateful if The Gambia could document the experience in this area. This information would provide a valuable input to the countries participating in this activity, as well as others in our Region".

In the face of such high expectations, it is a little daunting to confront the reality of that experience. There have of course been significant changes in budget format, and even more significant changes in the use of real resources. Perhaps the most



significant development was the adoption of a functional classification within each head of expenditure, even though this present format still does not easily reveal the total use of public resources towards the objectives of primary health care.

Part of the difficulty lies in the definition of primary health care itself. If it is defined broadly to include all measures promoting better health, it becomes very difficult to identify the borderline round the expenditures by the Ministry of Agriculture on nutrition, the Ministry of Water Resources on drinking water supplies, or the Ministry of Education on functional literacy, to say nothing of expenditures by NGOs and private households. Certainly the budgets of other Ministries do not disclose a clear distinction between health promoting and other expenditures. Even if PHC is defined narrowly as an activity of the Ministry of Health, there is still a problem of identifying the boundary. Direct expenditure by the Ministry on village health services is very small, and corresponds to no specific item in the recurrent budget. However, there is an alternative view that would equate PHC with all non-hospital services (other than some highly specific services like urban vector control). Even using this definition, there would be major difficulties of allocating overhead expenditure on administration, training and research between PHC and non-PHC categories. The heart of the problem is that there is no clear and consistently applied concept of PHC so that expenditures can be unequivocally designated as included in or excluded from PHC.

Most discussion of the budget format has focussed on the refinement of the functional classification of expenditure effected through the recurrent budget of

the Ministry of Health. The Vote or Head of Expenditure is divided into 17 Sub-Heads in 1984/85, each corresponding to a function or area of activity (See Table 8.7). Sub-Heads 3 to 14 relate to services under the direct control of the Director of Medical Services. It has been customary to omit from discussion the Departments of Labour, Social Welfare (and Prisons, which was once part of the portfolio of the Minister) and for many purposes the urban Cleansing Service shown at Sub-Head 15, but to include in full Sub-Heads 1 and 2 which relate to the Ministry.

Each Sub-Head is divided into budget lines which are coded by the object of expenditure, eg OIO is salaries, 155 is patients' food etc. These budget lines can be reassembled into two broad categories, Personal Emoluments and Other Charges. There is a long tradition of presenting more detail in the Estimates of Expenditure on Personal Emoluments than on Other Charges. Many of the Sub-Heads are further divided into Divisions in the section Details of Establishment eg Sub-Head 03 Medical and Health Department Headquarters has four Divisions:

- 1) Directorate
- 2) Maintenance Unit
- 3) WHO Service Strengthening Programme
- 4) Health Education.

However, because there is no corresponding division of the Other Charges component of the Sub-Head, it is not clear how much of each budget line is intended for Health Education, for example. A similar difficulty affects other Sub-Heads, especially 07, 08 and 09 which are divided on a regional basis.

The amount of detail shown in the Printed Estimates has progressively increased over time, as measured by the increase in budget lines and especially by the increase in budget functional divisions. The major reform (which applied to all Ministries) took place between 1979/80 and 1980/81. Prior to that point,

the Head was divided into 5 sections, of which 1 related to the Medical and Health Department, which in turn was broken into 10 functional sub-sections (for PEs but not OCs). This Ministry section was divided into 4 to 6 sub-sections. Since then, the Estimates have been presented in the current format shown in Table 8.7. An extra Sub-Head, 07, was introduced in 1983/84 to accommodate the newly created Regional Offices, and the number of divisions shown under Details of Establishment has increased from 7 to 24.

A similar reform has taken place in the presentation of Estimates of Development Expenditure. Up to 1980/81, health projects were part of the Social Services or Social Infrastructure Head, and were simply listed under a Sub-Head for Health. Since 1981/82, the current format has been used, under which there is a Head for Development Expenditure by the Ministry of Health, Labour and Social Welfare, with six functional divisions: Hospitals and specialised units; Health centres and Dispensaries; Other Health Care (which includes a project "Support for Primary Health Care"); Labour; Prisons; and Support services (which includes the construction of premises for Regional Health Teams). The present functional classification of the development budget does not therefore correspond to this for the recurrent budget, but the two can be assimilated. Within each functional division, each project has an item number, and each item may have several budget lines reflecting either the object of expenditure (buildings, equipment, vehicles) or the course of funds.

How effective is the current budget format as part of the management information system? Does it "reflect accurately where the resources go, how much

are in support of PHC?" The broad answers to these questions must be yes, in relation to uses of the Ministry of Health budget, and no, in relation to uses of total public resources in pursuit of the broader concept of PHC. As suggested above, the latter problem is partly one of definitions.

Even in relation to the use of Ministry of Health resources, there are some problems. It is not possible to disaggregate the resources applied to basic health services (health centres and dispensaries) from those applied to village services in the recurrent budget. It is not possible to determine from the printed Estimates the amount spent on specific services: for example, there is a Sub-Head for MCH/EPI, but this shows only certain costs associated with the headquarters support units, but not the costs of field staff and operations. The reason for this is that at the periphery staff and equipment are multifunctional - the same vehicle that transports the MCH trekking team also may be used for general outpatient clinics, referral of patients, and movements of drugs and supplies.

Nevertheless, it is possible to classify expenditure according to broad function, and a time series analysis shows quite clearly how incremental resources have been shifted into the priority areas of basic health services and village health services and their support system, (see Table 8.1 to 8.6) with a little ingenuity it is now possible to extract the regional distribution of direct expenditure, (see Table 8.8 and there is no doubt that the share going to the periphery has increased over time, although it is not possible to construct a formal time series.

TABLE 8.1.

## Health's Share of National Resources - Government

## Recurrent Budget

	Approved Estimate 1979/80	Actual Expendi- ture 1980/81	Actual Expendi- ture 1981/82	Actual Expendi- ture 1982/83	Approved Estimate 1983/84	Approved Estimate 1984/85
1) MHL SW	8,295,050	10,178,259	12,020,181	11,866,088	14,041,910	14,507,990
2) Sub-Heads 1-14	6,290,210	8,208,741	7,893,314	8,458,924	10,590,730	11,063,610
Sub-Heads 4-14	5,278,710	6,694,474	6,529,537	6,909,461	8,792,120	9,054,410
Cleansing Service	1,280,130	1,209,820	3,128,521	3,187,443	3,138,480	3,133,530
3) Sub-Heads 1-15	7,570,340	9,418,561	11,021,835	11,646,367	13,731,090	14,197,440
5) TOTAL	91,251,468	91,698,334	137,268,189	129,562,724	164,994,230	180,912,320
6) TOTAL LESS Defence and Debt Service	86,538,467	87,404,545	128,738,664	104,664,470	133,653,580	132,311,820
1) As % of (5)	9.09	11.10	8.76	9.16	8.68	8.02
1) As % of (6)	9.58	11.64	9.34	11.34	10.71	10.96
2) As % of (5)	6.89	8.95	5.75	6.53	6.42	6.12
3) As % of (6)	7.27	9.39	6.13	8.08	7.92	8.36
3) As % of (6)	8.75	10.78	8.56	11.13	10.27	10.73
3) As % of (5)	8.30	10.27	8.03	8.99	8.32	7.85

The present recurrent budget format could be further refined, especially by the adoption of the same division of existing Sub-Heads for other charges as already exists for Personal Emoluments. This would in effect create additional Sub-Heads, and has been resisted by the Ministry of Finance on these grounds. It would also be possible to consolidate some Sub-Heads: the Ministry of Health proposed a scheme to merge the existing Sub-Heads 07, 08 and 09 which deal with the Regional Offices, Health Centres, and Dispensaries and Sub-Dispensaries respectively, and then to divide them on a Regional basis. The logic of this proposal was that it would bring about the coincidence of managerial and financial responsibility - each Regional Medical Officer would have a clear statement of the manpower and financial resources available for the provision of non-hospital services in his region. However, the view was taken by the Ministry of Finance that for the time being there should be no further amendments to the budget format.

Notes on Table 8.1 Health's Share of National Resources

1. This table is concerned only with recurrent expenditure. However, since it is entirely provided from domestic sources, it may be regarded as best expressing government priorities.
2. The share of total recurrent expenditure allocated to the Ministry of Health (row (1) divided by row (5)) shows a substantial fall over time. This should not necessarily be treated as evidence of a lower priority for health, See Notes 3 and 4 below.
3. The sharp increase in debt service charges debited to the recurrent budget distorts all inter-temporal comparisons of sectoral allocations. Furthermore, the events of July 1981 have prompted a level of expenditure on defence not originally intended. After subtracting debt service charges and defence expenditure from the total, the share of the Ministry shows no consistent trend (row (1)  $\div$  (6)).
4. The composition of the Ministerial portfolio has changed over time, and the cleansing service has been put out to contract. To isolate expenditure for personal health services on a consistent basis, row (2) gives expenditure on services now encompassed by Sub-heads 1 to 14. This amount is a declining share of total recurrent expenditure (row (2)  $\div$  row (5)) but there is no clear trend in the share of total expenditure less debt service and defence costs (row (2)  $\div$  row (6)).
5. The cleansing service is a part of the health service, although no longer directly administered. Total health expenditure including the cleansing services is shown in row (3). Once again, health so defined takes a declining share of total recurrent expenditure (row (3)  $\div$  row (5)) but its share of sectoral allocations

TABLE 8.2. Shares of the Health Budget (Dalasis) Government  
Recurrent Expenditure

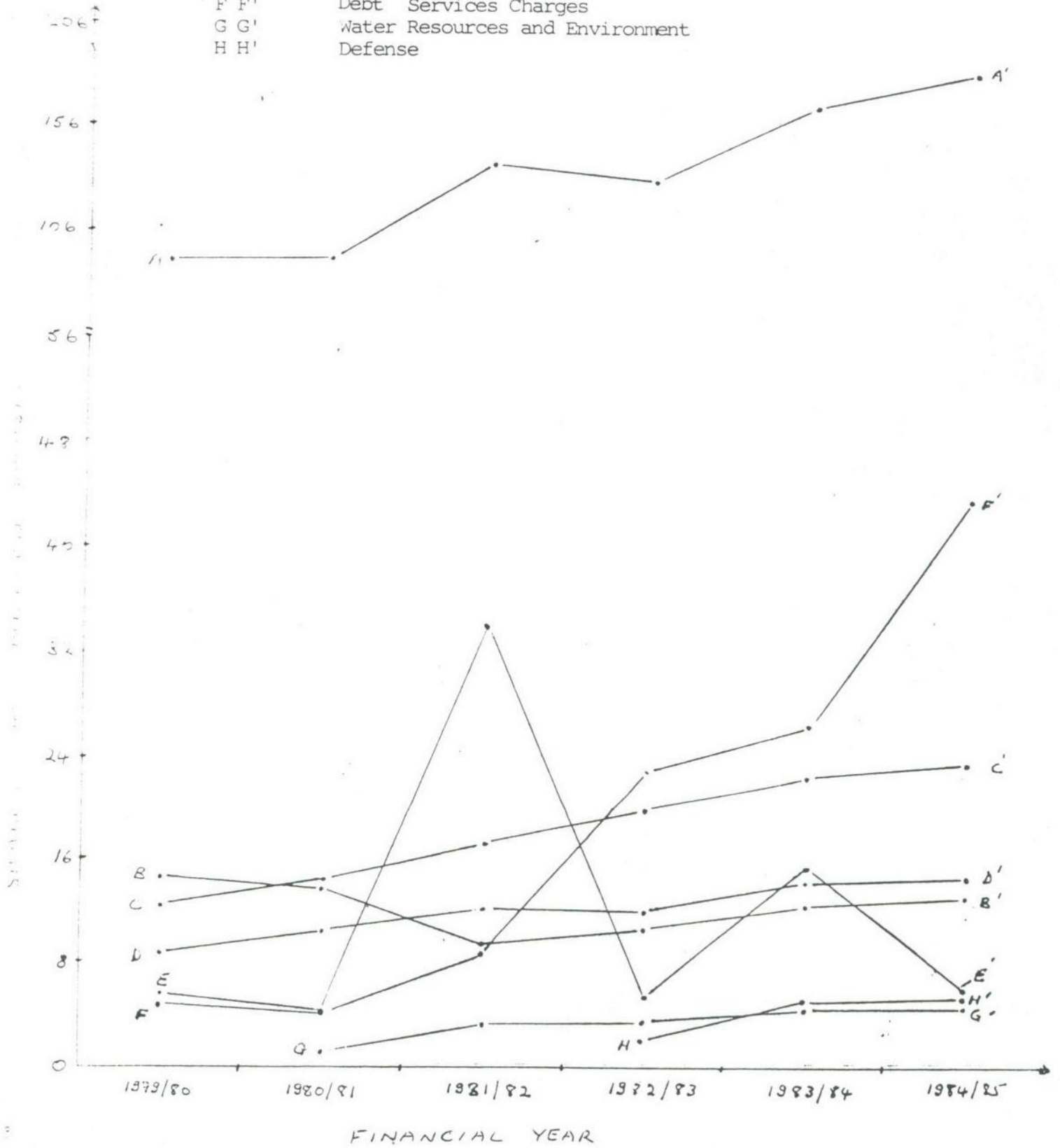
Sub-heads	Approved Estimate 1979/80	Actuals 1980/81	Actuals 1981/82	Actuals 1982/83	Approved Estimate 1983/84	Approved Estimate 1984/85
1-3	1,011,500	1,514,267	1,363,777	1,549,463	1,798,610	2,009,200
4-6 )	4,207,910	4,085,383	3,800,430	4,094,934	4,931,980	4,916,010
7-9 )		1,062,887	1,100,008	978,215	2,371,860	2,740,900
10-12	935,670	1,443,944	1,487,340	1,651,133	1,160,160	1,070,010
13,14	135,130	102,260	141,759	185,179	330,000	327,790
15	1,280,130	1,209,820	3,128,521	3,187,443	3,138,480	3,133,530
1-14	6,290,210	8,208,741	7,893,314	8,458,924	10,592,610	11,063,610
1-15	7,570,340	9,418,561	11,021,835	11,646,367	13,731,090	14,197,440

Subheads 1-3 Administration (Ministry, Transport, Medical and Health Department Headquarters); 4-6 Hospitals (hospital Management Board, RVH, Bansang); 7-9 Basic Health Services (Regional Offices, Health Centres, Dispensaries and Sub-dispensaries); 10-12 Special Services (Community Health, MCH/EPI, Vector Control) 13,14 Research and Training (Nurses Training, MRC/GG Research) 15 Cleansing Service.



SHARE OF VARIOUS SELECTED GOVERNMENT ACTIVITIES IN TOTAL RECURRENT BUDGET, 1979/80 - 1984/85.

- A A' - Total Recurrent Budget
- B B' - Agriculture
- C C' - Education, Youth Sports & Culture
- D D' - Health Labour & Social Welfare
- E E' - Miscellaneous Services
- F F' - Debt Services Charges
- G G' - Water Resources and Environment
- H H' - Defense



Notes on Tables 8.2 and 8.3, Shares of the  
Health Budget

1. Total recurrent expenditure on the Ministry of Health, Labour and Social Welfare is shown in Table 1, and its distribution in the first section of Table 3. Comparisons are affected by the inclusion of the Prisons Service within the ministerial portfolio until 1981/82, and by the transfer of the cleansing service to a private contractor from 1981/82.
2. The low proportion of expenditure on research and training throughout the period reflects the fact that the costs of the School Nursing and the School of Public Health (other than stipends to students) are excluded from the health budget, but are shown under the Ministry of Education (Gambia College).
3. The second section of Table 3 shows shares of total health expenditure; trends are confused by the transfer of the cleansing service and its increased cost from 1981/82.
4. The apparently high cost of administration includes the personnel cost of transport for all branches of the service, the costs of building maintenance in 1984/85, the costs of students stipends throughout, and the costs of treatment overseas. The pure administrative overhead is therefore much smaller than appears.
5. The level of expenditure on hospitals has increased in real terms, but at a slower rate than other services, so that its share has fallen over time. Some care is needed in interpreting this shift, because the actual use of resources does not always correspond with the budgetary sub-head. In earlier years, some staff shown on the establishment of RVH were actually posted out to health centres, while conversely the

actual consumption of drugs and dressings by RVH has probably always exceeded the notional level of expenditure.

6. The increase over time in the share of total resources going to basic health services (defined as health centres, dispensaries and the Regional Health Teams) is genuine, and reflects the commitment to redistribution. Expenditure on village health services cannot be isolated.
  
7. The decline in the share of specialised services mainly affects the health inspectorate, and reflects two trends: a substantial reduction in expenditure on health labourers (considered to be of dubious value), and the retraining, redesignation and reassignment to administrative support services and basic health services of large numbers of health inspectors.

TABLE 8.3

Percentage Shares of the Health Budget  
Government Recurrent Expenditure

		1979/80	1980/81	1981/82	1982/83	1983/84	1984/85
SHARES OF TOTAL MINISTRY EXPENDITURE (HEAD 20)							
1-3	Administration	12.19	14.88	11.34	13.06	12.81	13.85
4-6	Hospitals	50.73	40.14	31.62	34.51	35.12	33.88
7-9	Basic Health Services		10.44	9.15	8.24	16.89	18.89
10-12	Specialised Services	11.28	14.19	12.37	13.91	8.26	7.38
13,14	Research + Training	1.63	1.00	1.18	1.56	2.35	2.26
15	Cleansing	15.43	11.89	26.03	26.86	22.35	21.60
16,17	Labour & Social Welfare						
	+ Prisons to 1981/82	8.74	7.46	8.31	1.85	2.21	2.14
SHARES OF TOTAL HEALTH EXPENDITURE (SUB-HEADS 1-15)							
1-3	Administration	13.36	16.08	12.37	12.83	13.10	14.15
4-6	Hospitals	55.58	43.38	34.48	35.16	35.92	34.63
7-9	Basic Health Services						
10-12	Specialised Services	12.36	15.33	13.49	14.18	8.45	7.54
13,14	Research + Training	1.78	1.09	1.29	1.59	2.40	2.31
15	Cleansing	16.91	12.85	28.38	27.37	22.86	22.07
SHARES OF PERSONAL HEALTH SERVICES (SUB-HEADS 1-14)							
1-3	Administration	16.08	18.45	17.28	18.32	16.98	18.16
4-6	Hospitals	66.90	49.77	48.15	48.41	46.56	44.43
7-9	Basic Health Services		12.95	13.94	11.56	22.39	24.77

TABLE 8.3 (Conts)

		1979/80	1980/81	1981/82	1982/83	1983/84	1984/85
10-12	Specialised Services	14.87	17.59	18.84	19.52	10.95	9.67
13,14	Research + Training	2.15	1.25	1.80	2.19	3.12	2.96
SHARES OF ALLOCABLE EXPENDITURE (SUB-HEADS 4-14)							
4-6	Hospitals )	79.71	61.03	58.20	59.26	56.08	54.29
7-9	Basic Health Services )		15.88	16.85	14.16	26.97	30.27
10-12	Specialised Services	17.73	21.57	22.78	23.90	13.19	11.82
13,14	Research + Training	2.56	1.53	2.16	2.68	3.75	3.62

SHARES OF EXPENDITURE ITEMS IN TOTAL MINISTRY OF HEALTH LABOUR & SOCIAL WELFARE BUDGET.

- A A' - Hospitals
- B B' - Administration
- C C' - Specialized Services
- D D' - Cleansing
- E E' - Basic Health Services
- F F' - Labour & Social Welfare
- G G' - Research & Training

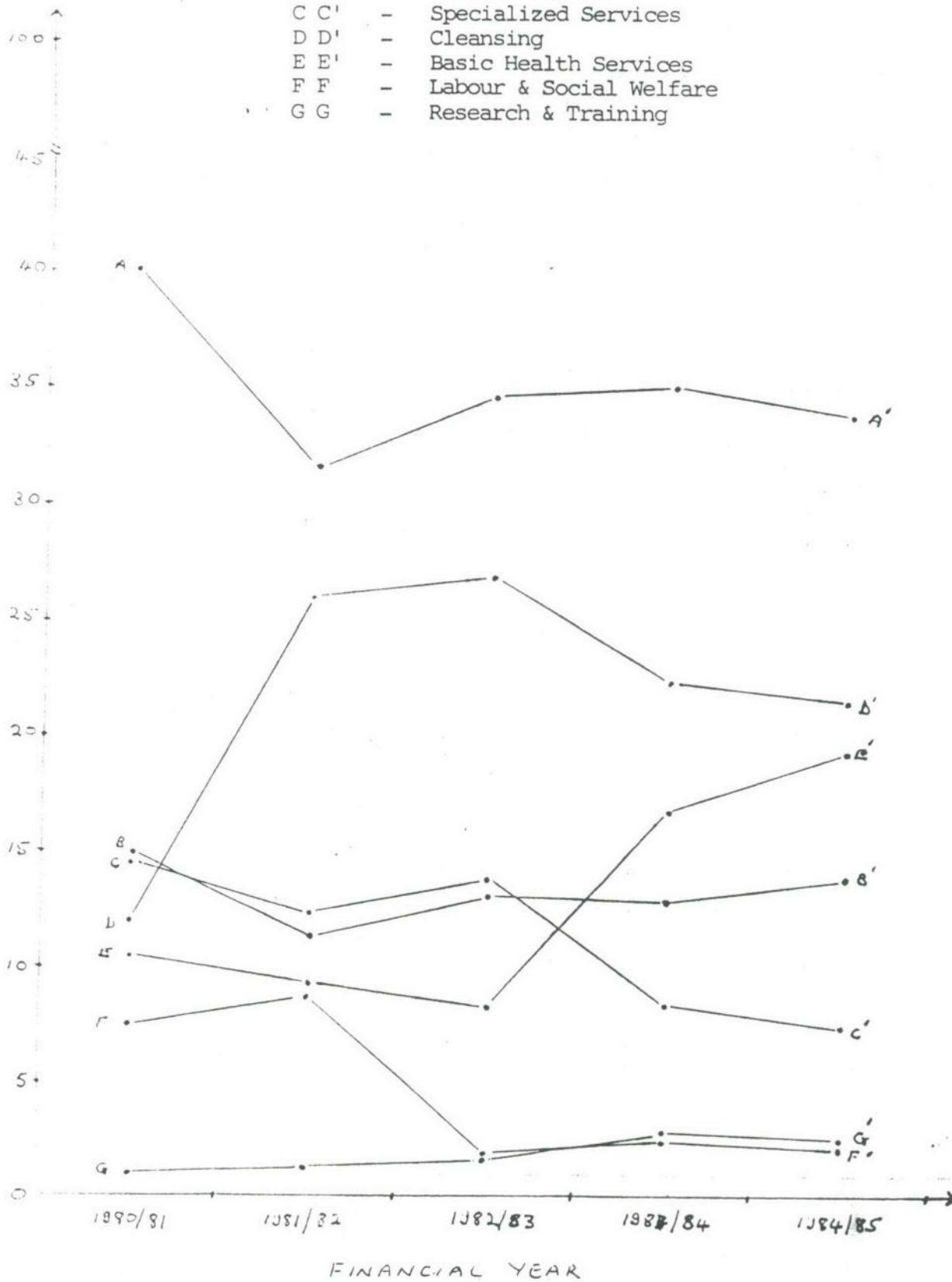


TABLE 8.4

Health's Share of National Resources -  
Government Development Budget

	1979 Actuals	1980/81 Actuals	1981/82 Actuals	1982/83 Actuals	1983/84 Revised Estimate	1984/85 Approved Estimate
1) MHL SW	1,133,746	1,856,132	2,438,237	3,274,893	3,153,000	6,704,000
2) Health only of which	1,102,586	1,788,550	2,384,271	3,107,117	3,113,000	6,704,000
3) Funded by GLF	707,962	495,934	1,036,866	463,323	300,000	375,000
4) Total Develo- ment of which	65,234,552	69,830,765	68,804,860	43,770,659	75,152,000	154,889,000
5) Funded by GLF	18,701,133	23,830,000	23,699,957	15,793,959	10,530,000	12,250,000
6) Row (1) ÷ Row (4) as a percentage	1.74	2.66	3.54	7.48	4.20	4.33
7) Row (2) ÷ Row (4) as a percentage	1.69	2.56	3.47	7.10	4.14	4.33
8) Row 3 ÷ Row (5) as a percentage	3.79	2.08	4.37	2.93	2.85	3.06

TABLE 8.5.

Health Sector Development Expenditure 1979/80

- 1984/85

	1979/80 Per- liminary Actuals	1980/81 Actuals	1981/82 Actuals	1982/83 Actuals	1983/84 Provisional Actuals	Total 79/80-83/84	1984/85 Approve Estimate
<b>A. Hospitals</b>							
i) RVH	230,429	82,295	19,783	29,990	35,000		3,000,0
ii) Bansang		896,810	1,439,644	813,482	100,000		50,0
iii) Other	20,919	15,341	32,328	6,753			
<b>TOTAL HOSPITALS</b>	<b>251,348</b>	<b>994,446</b>	<b>1,491,755</b>	<b>850,225</b>	<b>135,000</b>	<b>3,722,774</b>	<b>3,050,0</b>
<b>B. Health Centres</b>							
i) Serrekunda	21,000			41,620			600,0
ii) Kiang Karantaba	200,000	527,311	140,007	130,000			
iii) Kudang			700,000	237,143			
iv) Farafenni				1,000,000	325,000		
v) Kaur				450,000	800,000		
vi) Gunjur							320,0
vii) Minor Works	190,341	40,163		36,120			25,0
viii) MCH Centres	394,624	226,630	36,773		140,000		
<b>TOTAL HCS</b>	<b>805,965</b>	<b>794,104</b>	<b>876,780</b>	<b>1,894,883</b>	<b>1,265,000</b>	<b>5,636,732</b>	<b>945,0</b>



TABLE 8.5 Contd

	1979 Per- liminary Actuals	1980/81 Actuals	1981/82 Actuals	1982/83 Actuals	1983/84 Provisional Actuals	Total 79/80-83/84	1984/85 Approved Estimate
<b>C. Primary Health Care</b>							
i) Support for PHC		15,736	22,120	60,000			50,000
ii) Regional Offices			294,870	110,000			1,136,000
iii) Health Posts (UNCDF)			44,975	465,000			1,523,000
TOTAL PHC		15,736	361,965	635,000	1,012,701		2,709,000
<b>D. Other</b>	45,273		44	40,000	85,317		
TOTAL HEALTH	1,102,586	1,788,550	2,384,271	3,107,117	2,075,000	10,457,524	6,704,000
Financed by External Grants	394,624	786,938	647,405	1,142,984	715,000	3,686,951	6,329,000
External Loans		505,678	700,000	1,500,810	1,100,000	3,806,488	
Local Funds	707,962	495,934	1,036,866	463,323	260,000	2,964,085	375,000

Notes on Tables 8.4. and 8.5 Development Expenditure

1. The source for Tables 4 and 5, is the annual Estimates of Development Expenditure.
2. Figures up to 1982/83 are not really comparable with those for 1983/84 and 1984/85. The latter are sums available, which are generally much higher than actual expenditures realised, owing to delays in project execution.
3. No clear time trends emerge in examining shares of national resources: both numerator and denominator values are influenced by the timing of a few large projects. Generally, health claims a smaller share of development than of recurrent resources; this is basically a reflection of the fact that health is a less capital intensive sector than transport infrastructure, which absorbed a large part of national resources over the period.
4. In Table 5, the categories within Head 57 have been rearranged and do not correspond to the format of the printed Estimates.
5. In Table 5, the category Other understates expenditure for training purposes. The costs of construction of the SEN School, Bansang, two training hostels at Bwiam and Kerewan, and improvements to the School of Nursing in Banjul were financed as a part of the World Bank Education Project under the control of the Ministry of Education, and consequently do not appear in this table.

TABLE 8.6

Shares of the Personal Health Services Budget 1979/80  
Recurrent and Development Expenditure Combined

	1979/80	1980/81	1981/82	1982/83	1983/84	1979/80-83/84	1984
ADMINISTRATION							
Recurrent	1,011,500	1,514,267	1,363,777	1,549,463	1,798,610		2,00
Development	45,273			44	40,000		
TOTAL	1,056,773	1,514,267	1,363,777	1,549,507	1,838,610	7,322,934	2,00
HOSPITALS							
Recurrent	4,207,910*	4,085,383	3,800,430	4,094,934	4,931,980		4,91
Development	251,348	994,446	1,491,755	850,225	135,000		3,05
TOTAL	4,459,258	5,079,829	5,292,185	4,945,159	5,066,980	24,843,411	7,96
BASIC HEALTH AND PHC							
Recurrent	*	1,062,887	1,100,008	978,215	2,371,860		2,74
Development	805,965	794,104	892,516	2,256,848	1,900,000		3,65
TOTAL	805,965	1,856,991	1,992,524	3,235,063	4,271,860	12,162,403	6,39
SPECIALISED SERVICES							
Recurrent	935,670	1,443,944	1,487,340	1,651,133	1,160,160		1,07
Development							
TOTAL	935,670	1,443,944	1,487,340	1,651,133	1,160,160	6,678,247	1,07

TABLE 8.6 Contd

	1979/80	1980/81	1981/82	1982/83	1983/84	1979/80-83/84	1984/85
RESEARCH AND TRAINING							
Recurrent	135,130	102,260	141,759	185,179	330,000		327,790
Development							
TOTAL	135,130	102,260	141,759	185,179	330,000	894,328	327,790
TOTAL							
Recurrent	6,290,210	8,208,741	7,893,314	8,458,924	10,592,610		11,063,610
Development	1,102,586	1,788,550	2,384,271	3,107,117	2,075,000		6,704,000
TOTAL	7,392,796	9,997,291	10,277,585	11,566,041	12,667,610	51,901,323	17,767,610

NB This table is derived from Tables 2 and 5, which should be consulted for sources and notes on interpretation

\*Recurrent budgeted format did not permit distinction between hospitals and basic health services in 1979/80.

TABLE 8.7.

Summary of Head 20 - Ministry of Health, Labour  
and Social Welfare - 1984/85 Approved Estimates

Sub-Head Division	Personal Emoluments D	Other Charges D	Total D
01 Ministry	438,580	368,400	806,980
1. Office of the Minister	129,900		
2. Accounts	158,410		
3. Stores	120,820		
4. Planning Unit	29,450		
02 Transport	298,700	12,000	310,700
03 Medical & Health Headquarters	305,040	586,480	891,520
1. Directorate	149,750		
2. Maintenance Unit	119,150		
3. WHO	1,080		
4. Health Education	35,060		
04 Hospital Management Board	69,300	5,200	74,500
05 Royal Victoria Hospital	3,000,240	826,240	3,826,480
1. General Medicine	267,430		

TABLE 8.7. Contd

Sub-Head Division	Personal Emoluments D	Other Charges D	Total D
2. Specialist Units	1,073,280		
3. General Nursing	1,167,050		
4. Support Services	492,480		
06 Bansang Hospital	545,780	469,250	1,015,030
07 Regional Offices	135,010	96,000	231,010
1. Western Region	47,240		
2. Central Region	38,540		
3. Eastern Region	49,230		
08 Health Centres	1,308,750	598,500	1,907,250
1. Western Region	471,610		
2. Central Region	363,970		
3. Eastern Region	473,170		
09 Dispensaries and Sub-Dispensaries	358,340	244,000	602,340
1. Western Region	140,390		
2. Central	97,420		
3. Eastern Region	120,530		

TABLE 8.7 Contd

Sub-Head Division	Personal Emoluments	Other Charges	Total
	D	D	D
10 Community Health	349,590	416,500	766,090
1. Health Inspectorate	204,990		
2. Epidemiology Unit	48,600		
3. Leprosy/TB Control	96,000		
11 MCH/EPI Unit	84,590	75,000	159,590
12 Vector Control	108,510	35,820	144,330
13 Nurses Training	68,660	225,010	259,980
14 MRC/GG Research	34,970	32,840	67,810
15 Cleansing Service	61,740	3,071,790	3,133,530
16 Social Welfare	140,160	56,340	196,500
17 Labour	103,480	10,870	114,350
TOTAL HEAD 20	7,411,440	7,095,550	14,507,990

TABLE 8.7 Contd

Sub-Head Division	Personal Emoluments D	Other Charges D	Total D
Sub-Heads 1 - 14	7,106,060.	3,956,550	11,063,610
Sub-Heads 3 - 14	6,368,780	3,576,150	9,945,930

- Notes: 1. Personal Emoluments are further divided in the printed Estimates into Salaries and various Allowances.
2. Other Charges are divided into many object categories, eg for Health Centres that are budget lines for: Wages of Hospital Labour, Travelling Expenses, Uniforms, Patients Food, Drugs and Dressings, Other Medical Stores, Health Materials (MCH), Miscellaneous Office Expenses, Operation and Maintenance of Vehicles, Operation of Generators and pumps, Purchase of Additional Equipment, Replacement of Equipment.



TABLE 8.8. Estimated Geographical Distribution of Ministry of Health,  
Labour and Social Welfare Recurrent Expenditure 1984/85

	Banjul/KSM	Remainder Western Region	Central Region	Eastern Region	Total
A. <u>DIRECTLY ALLOCABLE</u>					
Sub Head 04	74,500				
05	3,826,480				
06				1,015,030	
07		80,830	65,944	84,236	
08		687,280	530,416	689,554	
09		235,984	163,755	202,601	
Sub Total	3,900,980	1,004,094	760,115	1,991,421	7,656,610
% Expenditure	50.9	13.1	9.9	26.0	100.0
% Population		64.0			
Including Sub Head 15, Cleansing Service	21.6	27.0	16.7	34.7	100.0
Expenditure	7,034,510	1,004,094	760,115	1,991,421	10,790,140
% Expenditure	65.2	9.3.	7.0	18.5	100.0
		74.5			

	Banjul/KSM	Reminder Western Region	Central Region	Eastern Region	Total
<b>B. OVERHEAD EXPENDITURE</b>					
Sub Head 01	806,980				
02	67,111	83,889	51,887	107,813	
03	891,520				
10	165,745	206,844	127,937	265,833	
11	159,590				
12	144,330				
13	129,990		129,990		
14	67,810				
Sub Total	2,433,076	290,733	309,814	373,646	3,407,269
Total Expenditure 1-15	9,467,586	1,294,827	1,069,929	2,365,067	14,197,409

Tables to Table 8

1. In distributing expenditure between regions for Sub Heads 07, 08 and 09, it was assumed that the distribution of Other Charges was proportional to that for Personal Emoluments.
2. The distribution of Sub Heads 02 (Transport) and 01 (Community Health) was assumed to be prorata with population.
3. The SEN School in Banjul and the CHN School in Mansakonko was assumed to be fully equally;
4. The table shows where expenditure was incurred. It is not necessarily the case that the beneficiaries are confined to the location indicated; this is apparent for overhead expenditure, but even for directly allocable expenditure, due to patient referral (especially to hospitals) and incomplete correspondence between financial provision and services provided, the distribution of benefits may be wider than shown. However, the overall distribution is thought to be sufficiently accurate to justify the implicit comparison with the distribution of population.

9.1 CURATIVE SERVICES

Since one of the basic functions of the health sector is to treat illness when it occurs, in order to minimize suffering, disability and premature death, effort has been and is being made to improve both the quality and coverage of treatment facilities and services. In terms of coverage, there has been definite progress in this endeavor since 1980 when the PHC Action Plan was launched; but the position with regard to quality is not so clear.

9.1.1 ORGANIZATION AND COVERAGE

The vast majority of the population depends on the public health sector for their curative care needs. However, a few other agencies are also providing medical treatment in the country. These other agencies include traditional healers and herbalists who are to be found in almost all localities, especially in rural villages. There was little use recorded of traditional healers during the PHC Review Survey, but VDCs reported that most villages had active traditional healers.

For the modern health care system, the main other treatment contributors are the Medical Research Council (MRC), the Missions, and the Private Practitioners. MRC has a 40-bed hospital providing general in patient and outpatient care at Fajara, while the MRC field station at Keneba offers a general dispensary service to the surrounding village communities.

There are three main mission groups involved in providing varying patterns of health care, which often include a degree of curative care. The Missions concerned are the World Evangelical Crusade (WEC), the Methodists and the Ahmadiyya Muslim Mission. WEC operates a 16-bed health centre at Sibanor, Western Division; an out-patient MCH clinic at Pipeline Road (Kombo Saint Mary); 2 dispensaries in the Western Division, and one sub-dispensary at Kundong Maria in the Lower River Division.

The Methodists have a dispensary at Marakissa and sub-dispensaries at Sifoe and Jiboro in the Western Division and a dispensary at Nema-kunku in North Bank Division. The Ahmadiyya Muslim Mission operates clinics at Basse, Kaur, Farafenni and Njawara, and it has recently built a small hospital at Talinding Kunjang (Banjul's suburb).

About 11 Gambian medical doctors including 5 with specialist qualifications have Private Practice in Banjul and its suburbs. Two small hospitals, one in Serrekunda and the other in Banjulinding, are also privately owned and run. There is one private dental clinic operated by a Gambian Dentist in Banjul; while 2 out of 3 qualified Gambian Pharmacists are also in the private sector operating pharmacies in Banjul. There were in 1982 altogether 9 licensed pharmacies in Banjul plus-an-unknown number of unlicensed distributors of pharmaceuticals in the capital as is well as upriver. New licensing under the New Medicinal Products Act is currently being processed.

#### 9.1.2 PUBLIC HEALTH SECTOR

Curative care in the public sector is delivered through a pyramid of health units, starting from Community-based village health services at the bottom, through sub-dispensaries, dispensaries and health centres which serve as the first referral or intermediate level, to 2 hospitals at the top. The numbers of these Units in 1980 and 1984 are compared in the table given below.

TABLE 9.1

#### HEALTH FACILITIES IN THE PUBLIC SECTOR

TREATMENT FACILITIES OF THE PUBLIC HEALTH SECTOR 1980 AND 1984 (BEFORE AND AFTER PHC)		
	NO. IN 1980	NO. IN 1984
Village Health Services	-	230
Sub-dispensaries	55	63
Dispensaries	15	14
Health Centres	15	16
Hospital	2	2

The comparison shows very clearly that the main impact of the PHC programme on treatment facilities has been in the creation of a new village-level tier of units, the VHS. The development has meant that coverage is now expanded very substantially.

- 9.1.3 VILLAGE LEVEL. The curative function of a VHS is executed by a VHW. Each VHW is taught to diagnose and treat the common diseases (conditions) afflicting his Community with 12 medicaments

LIST OF CONDITIONS (DISEASES) DIAGNOSED  
AND TREATED BY VHWS

1. Malaria
2. Diarrhoea
3. Worms
4. Scabies
5. Measles
6. Colds
7. Chest Infection
8. Aches and Pains
9. Abdominal Pain
10. Constipation
11. Eye Infection
12. Wounds
13. Accidents

LIST OF MEDICAMENTS SUPPLIED TO A VHS  
TO BE PRESCRIBED BY A VHW

1. Chloroquine Tablets
2. Chloroquine Syrup
3. Penicillin Tablets
4. Penicillin Syrup
5. ORS (Home-Mix)
6. Aspirin
7. Aludrox
8. Piperazine
9. Senokot
10. Benzyl Benzoate
11. Acriflavine

The initial supply of medicaments for a VHS is provided free of charge by MHD, but thereafter the VDC concerned is responsible for buying replenishments, at cost, from the regional medical stores of MHD. The Circuit CHN is supposed to help the VDC in preparing the papers for replenishment. Drugs prescribed by the VHW are paid for at a fixed price (D0.06 per tablet or teaspoonful) and the proceeds are utilized by the VDC in meeting the costs of running the VHS including the costs of replenishing medicaments and remunerating the VHW.

On the question of drug availability in VHSs, the Review seems to have recorded an ambiguous finding. 63% of the VHWs interviewed said drug supply was a problem, but it was not clear whether this was due to VDC mismanagement or to non-availability in the regional stores. 6 out of 27 CHNs said there were problems in village drug supply, but this was due to inefficient VDCs. The medicament most used by VHWs were aspirin, anti-malarials, penicillin tablets, tetracycline eye ointment, and senokot. There seemed to be little use of piperazine, benzyl benzoate, and gentian violet.

The VHW-operated curative service, being at the community level, is both an opportunity and (as yet) an undetermined risk. The opportunity lies in bringing modern medicine to almost home-level and thus making it very accessible. Timely treatment regimens at home or near-home, even if simple, are an undoubted boom in the management of dangerous childhood malaria, diarrhoea, and acute respiratory infection in remote and underserved rural areas.

The advantage is also equally easily seen in long-term drug-treatments of such chronic diseases as leprosy, tuberculosis, and schistosomiasis. The risk to be determined will be the extent of incorrect diagnoses by community health workers, who have received only a minimum of technical training, and who have to work almost alone in villages. The quality of care is one point that awaits further elucidation. The field study was not designed to address this issue directly. But so far no one has shown that there is a serious 'by-pass' of VHSs and if anything the Review (see below) indicated good

use being made of these services, and most of the VHWS knew the correct dosage of penicillin tablets for adults.

From the point of view of village communities, the benefits of a VHS were seen as reduction in travel frequency to the nearest health facility for treatment and also as reduction in expenditure for purchase of medicaments during illness. The household survey in particular showed that for episodes of sickness during the previous month 75% of patients in non-PHC villages were taken to hospital, health centre, or dispensary compared with 29% in PHC villages. Conversely, 49% of patients in PHC villages utilized a VHW or TBA for their illness during the previous month compared with 5% in Non-PHC villages. There was little use recorded of Traditional Healers though the VDCs reported that most villages had active traditional healers. There is at present no formal integration between PHC and the traditional healer's system. One third of the villages surveyed had alternative sources of medicaments, through shops and traders.

- 9.1.4 The intermediate level (basic health services) consists of health centres and dispensaries which often have satellite sub-dispensaries.

GEOGRAPHICAL DISTRIBUTION OF GOVERNMENT  
HEALTH UNITS ON 31 DECEMBER 1984

TABLE 9.2

DIVISION OR LOCAL GOVT. AREA	HOSPps	H. Cs	DISPs.	SUB-DISPs.	VHSS.
BANJUL	1		2 (a)		-
KOMBO ST. MARY	(4)*	2	3 (b)	4	-
WESTERN DIVISION		3 (1)	(3)	13	4
LOWER RIVER DIVISION		2	-	8 (1)	38
MACCARTHY ISLAND DIVISION 1	1	3	5	15	71
UPPER RIVER DIVISION		3	3	12	-
NORTH BANK DIVISION		3	4 (1)	11	70
TOTAL	2 (4)	16 (1)	17 (5)	63 (3)	

Figures in brackets denote mission units.

Brackets with an asterisk indicate 4 non-government hospitals in Kombo Saint Mary:

- (a) Both units are MCH clinics
- (b) Includes 1 bedded MCH centre and 1 mission MCH clinic.

The basic health services are operated by the Ministry of Health but receive referrals from CHWs, thus occupying a strategic link between the community and the Ministry of Health systems. However in the past the need to concentrate effort on the development of the VHSS meant less attention being given to health centres and dispensaries. The field study highlighted the following weaknesses at the units:

Staff unsure of their role in PHC development and therefore not going out of their way to facilitate the process, including the handling of referrals



- : No job description available except those of  
CHNs and SENs,
- : Wide variety of staffing patterns of units  
a cause of some uncertainty about function  
and quality.
- : About 50% of Units reported insufficient  
drug supply.
- : Decrease of outpatient load due to VHSs  
not clearly demonstrated.

A new policy aimed at consolidating the basic health services and improving their physical facilities is being refined. The idea is to avoid creating additional recurrent expenditure commitments while at the same time ensuring provision of better equipment and physical facilities for existing units. In addition a new medical fee policy was implemented in 1984. Each outpatient registering for outpatient treatment at a government health unit is now charged a modest registration fee. The charge is graduated upwards from sub-dispensary to Royal Victoria Hospital. Referrals, including referrals from a VHS, are not charged by the receiving unit.

By 1984 four of the new health centres had been constructed and were being operated by teams of staff headed by two Chinese Medical Officers each. The four health centres are Karantaba, Kudang, Farafenni, and Kaur. These improvements constitute a major attempt towards improving quality of care at this level. Most of the other health centres and dispensaries are not only poor in structure and equipment, but are also inadequately staffed. An inservice training programme for all health centre/dispensary workers was started a few years ago and is still being continued as another major effort to improve quality. The training programme is aimed not only at upgrading skills but also at giving PHC related re-orientation in order to remedy some of the weaknesses which were highlighted by the Review

9.1.5 HOSPITALS. There are only two government hospitals in the country: Royal Victoria Hospital (RVH), Banjul with about 283 beds in 1984 and Bansang Hospital with 70 beds. In addition, the 40-bed MRC Hospital at Fajara offers a general outpatient and inpatient service on the same pattern as the RVH. The PHC review did not have specific questionnaires on hospital services.

However, the situations in the RVH and Bansang Hospital were reviewed in 1983 when a hospital planning committee was preparing long-term plans on the two hospital. The findings were far from being encouraging. Apart from structural defects and chronic shortages of supplies, there was insufficiency of space. Nevertheless, the policy guidelines which have been formulated on hospital development limit hospital growth to 380 beds for RVH and 200 beds for Bansang Hospital by the year 2000. This restraint is intended to permit a bigger allocation of available resources to PHC and/or non-hospital branches of the system.

The planned sized of the two hospitals will in turn limit the level and extent of new medical technology that could be developed in the national hospitals. One problem that loomed large over the past few years was that of recruiting and holding specialist staff at the RVH. Most Gambian specialists sooner or later find their way into the more lucrative private practice, and external recruitment is well-nigh impossible without a sponsor or an inducement. So the future of specialists staffing, and therefore that of the level of specialist care, at the main national hospital remain somewhat uncertain.

Despite these difficulties it is gratifying to note that the hospitals are already organizationally and functionally starting to get involved in the implementation of the PHC Action Plan, especially with regard to measures to improve the quality of treatment at the peripheral level. For example in 1984 hospital based specialists instituted improvements in the treatment of malnutrition in health centres and treatment of chronic.

diarrhoea in all basic health units. This role should be vigorously strengthened, even in the face of shortage of medical officers and transport at the hospitals.

9.1.6 Problems and Recommendations

i) Village Health Services

- There are few checks on the quality of the diagnoses and treatments.

To examine the question in more detail requires a survey of patients attended to by the CHWs to match complaint and treatment to diagnosed condition.

- There may be a problem with the drug supplies for VHWS

The RHTs should check all PHC supplies in their Regions to see whether in fact there are shortages. If shortages verified then an investigation should be conducted to find the cause(s).

- It was noted that traditional healers are not integrated into the system.

As at present there is no policy of integrating traditional healers although one or two "traditional psychiatrists" are encouraged by the department.

ii) Basic Health Services

- Staff were not fully oriented towards P.H.C. There is an acknowledged need for greater understanding by the intermediate level staff of the village health services. Seminars and workshop are proposed.

- No job descriptions were available except for CHNs & SENS

The development of appropriate job descriptions for all cadres should be undertaken in order to facilitate better management and more efficient running of the services.

- Staffing patterns at the health units did not match the work loads being performed.

An exercise should be conducted to nationalise the staffing patterns.

- Some drug shortages were observed.

Greater attention to more efficient management of the drug procurement and distribution system is required.

(iii) HOSPITAL

- Specialists and staff at the hospitals have insufficient understanding of the PHC programme.

As with the basic health services a programme of Workshops and seminars is needed.

9.2. MATERNAL AND CHILD HEALTH SERVICES

9.2.1. Structure of MCH services.

Since the first national Development Plan, MCH has remained Government's topmost priority in health development in The Gambia. The national MCH/FP programme thus predates PHC implementation.

High programmes coverage has been maintained through a network of fixed and mobile Clinics scattered throughout the country.

TABLE 9.3

DISTRIBUTION OF GOVT. M.C.H. CLINICS 1984.

REGION	CLINICS	SATTELITE CLINICS	TOTAL
WESTERN	7	26	33
CENTRAL	4	21	35
EASTERN	11	40	54
NATIONAL TOTAL	22	87	122

The W.E.C. Mission also operates 8 MCH Clinics with very close collaboration with the Medical & Health Department, giving a total of 130 Clinics in all

Programme guidelines were developed by a Central MCH Committee and coordinated by the Central MCH Unit headed by the MCH Coordinator.

Clinics are held regularly at all major health units, the latter also providing mobile teams to operate a number of outreach clinics at outlying dispensaries and sub-dispensaries.. MCH activity which earlier had been the exclusive responsibility of Nurse-Midwives and CHN's, is now operated as an integrated health Centre activity with the involvement of Health Inspectors, Male Nurses (Dresser/Dispensers) and Nurse attendants.

The high incidence of attendance at delivery by trained health workers (Midwife or trained TBA) was confirmed by the earlier Eggens and Gowers reports, in many PHC villages all deliveries being supervised.

Most of the TBAs within the PHC programme had been practising traditional midwifery for over 10 years, had been resident in their villages all their lives, mostly illiterate, and of an average age of 55 years (Gowers).

Each TBA averages 3 - 5 deliveries per month, with an average abnormal delivery rate of 1.5%. Births in the village remembered by TBA but not delivered by her were small. Where figures have been quoted it is evident that TBAs deliver the vast majority of mothers (Western 93%; Central 91% and Eastern 93.5%)

1984 Annual statistics of TBA returns from PHC villages show

Total delivery by TBAs 5562

Stillbirths 178

Maternal deaths Data collection starts 1985

Equally impressive were the findings than 70.7% of mothers delivered by the TBAs had been seen antenatally at least 3 times by the TBA, and that 98% of women delivered by TBAs received postnatal visits during the first week. TBAs report being accompanied by CHNs on their visits and the household survey indicated 48% home (postnatal) visit by the circuit CHN.

Of cases referred by TBA for complications of pregnancy and childbirth the following were the commonest:-

Bleeding	-	29.6%
Fever/Vomiting	-	14.8%
Swelling of feet	-	14.8%
Neonatal Problems	-	
Primigranida	-	

"Fits and swelling" are reported as conditions that cause most concern to TBAs, APH and PPH coming next. Preliminary data from the PHC study area indicate that intrapartum and postpartum haemorrhage are the premier causes of maternal mortality.

26% of TBAs interviewed had no cause to refer anyone over the three months preceeding the survey.

Despite the high level of contact with MCH workers, a substantial number of index children were found not to have been weighed or examined at birth.

TBAs state some problems with mothers' reluctance to participate in antenatal care, the reason offered being

- Ignorance on the part of mothers
- Too busy at home or on the farm
- Afraid of clinic staff and injections
- Lack of cooperation of husbands

Another major difficulty experienced by TBAs is related to timely transportation for emergency referrals. Seventy per cent respondents indicated that the responsibility for transportation rested with husband or family, no one reporting that this should be a community responsibility.

Preliminary findings from the MRC PHC study area indicate the need for urgent mechanisms for

- (a) Appropriate first aid intervention at the TBA and CHN levels.
- (b) Better intervention procedures at the Health Centre Level, particularly for PPH management.
- (c) An appropriate village level ambulance system.

#### 9.2.3. AT-RISK STRATEGY.

With the current large numbers of attendance at MCH clinics it is disappointing that appropriate use of the At-Risk Strategy is not being observed, even though all but one of the Midwives interviewed reported keeping an at-risk register. Despite the existence of such a register, few could state the number of mothers and children on the register and only one

visited registered clients at home. Indeed few Midwives could recall the number of maternal deaths in their area over the past 12 months.

Here again CHNs fared much better in that 68% of them had at-risk registers in operation, though only a few acted on them appropriately, e.g. 62% of them having entered less than 10 items over the preceding 6 month period.

Midwives and Community Health Nurses however had good knowledge of at-risk selection criteria and of appropriate intervention measures.

The failure of use of this strategy is reflected by the large numbers of mothers being referred during labour in all regions.

Perhaps the greatest deficiency revealed by the review is the breakdown in the linkage at the health centre level, particularly detrimental to MCH support. The lack of involvement with the village services seen in other programme areas is again reflected in MCH activities.

#### 9.2.4. FAMILY PLANNING.

Government Policy as stated in the Second FYDP categorically supports family planning and population control. Indeed the plan goes into some detail about family planning and child spacing, assigning responsibility for the necessary services to The Medical and Health Department and the Gambia Family Planning Association. Intersectoral activity in this field is envisaged through public education and motivation by extension workers such as teachers, agriculture- non-formal education and community development personnel. A memorandum



of cooperation exists between Gambia Family Planning Association (GFPA) and The Department of Health.

Up to now there have been a limited number of service outlets available, but a programme has now been developed to extend service countrywide, and already VHW, TBAs and CHNs, the main first level motivators, have a F/P component in their respective training programmes.

By Mid 1985, after appropriate retraining, the Community based distribution programme will be launched. In this programme education and motivation will commence at TBA level and initiation of contraceptive practice at Key-Village subdispensary level, thereafter replenishment will be by TBA/VHW. Selected Health Centres will join hospitals for the insertion of IUCDs and other F/P support services.

At this point in time contraceptive prevalence in The Gambia is very low despite the high levels of reported activity in this field (nearly all TBAs and CHN involved in motivation). A F/P KAP study is scheduled for late March 1985, in preparation for a Mass Media educational campaign on F/P and child spacing.

To ensure coordination in this field a UNFPA supported inter-sectoral (Womens Bureau, Information, GFPA and Education) health project is currently in the stages of formulation. This project will aim at not only maximizing access to the MCH group, but also to extend family health education to schools and adolescent groups.

### 9.3 EXPANDED PROGRAMME OF IMMUNIZATION.

The expanded programme of immunization (EPI) is one of The Gambia's well-documented success stories. Prevention of child-hood infections through vaccination of infants and expectant mothers has in fact been an integral part of public health practice in the country for decades. The smallpox and measles vaccination campaign of the late sixties and early seventies gave this activity an added impetus. In May 1979 a national immunization plan, EPI., was started with the overall objective of making immunization services available to all the target children and pregnant women by the year 1990.

#### 9.3.1. ORGANIZATION.

EPI is therefore slightly older than the PHC Action Plan and was initially operated as a vertical programme. In 1981 immunization activity was integrated into the countrywide network of fixed and mobile MCH clinics operated by field MCH nursing staff.

Although vaccinations are now delivered as part of the MCH service, a central EPI Unit has been retained in the Office of the DMS to provide administrative, logistical, and training support for immunisation work. The functions of the Unit are not only to manage EPI but also to procure vaccines and other immunisation supplies and to maintain cold chain and other equipment.

At the peripheral level, immunisation is administered through 22 - fixed MCH centres and 87 mobile MCH clinics (1984). EPI is still not well-integrated operationally with the functions of VHSs although CHWs participate in promoting immunization and encouraging mothers to take their children to clinics.

Vaccinations are also given on demand to intending international travellers at the Medical and Health Department Headquarters. At the same time, mass vaccinations are carried out from time to time to prevent epidemic (e.g. cerebrospinal meningitis in 1983) and yellow fever in 1978). Regional Health Teams are increasingly assuming responsibility for their regions, and this

includes EPI. The standard immunization schedule is

- BCG : At birth or as soon as possible after birth.
- DPT : 3 doses at monthly intervals starting at 2 months
- OPV : 3 doses at monthly intervals starting at 2 months.
- Measles : At 9 months
- Yellow Fever : At 9 months

9.3.2. ACHIEVEMENTS.

The level of immunization coverage is high. According to annual cluster surveys and other evaluation, the rate of fully-immunized children was 48% in 1984, compared with 27%, 45%, 68.2% and 45.5% in 1980, 1981, 1982 and 1983, respectively. Immunization Data according to antigen are:

TABLE 9.5  
NATIONAL IMMUNIZATION COVERAGE.

	1979	1982	1983	1984
DPT 3	40%	79.5%	61.6%	81.7
POLIO 3	6%	75.9%	70.3%	86.9
MEASLES	42%	70.9%	70.3%	79.3
BCG	N/A	96.8	94.7	97.7
FULLY IMMUNIZED CHILDREN	N/A	68.2%	48.5	55.4

A significant feature of The Gambian MCH/EPI is a high level of support shown by the mothers. This fact was underlined in November 1982 when a joint national-international evaluation team found that infant-welfare-card possession and retention was over 90%, and most mothers attended clinics frequently.

However, mothers understanding and knowledge of different immunizations seem less satisfactory. In November 1982 56.6% of the Mothers did not know why their infant received shots, and more than 90% did not know the appropriate age for measles.

In the 1984 PHC Review only 50% of mothers in PHC villages and 38% in non-PHC villages knew one of the vaccines.

BCG was the vaccine best known. The need for community education in this area is obvious,

Logistics support presents bigger problems. The MCH-EPI services depend heavily on three major resources: Kerosene, transport and petrol but these are scarce. The 1982 evaluation found that there were serious constraints with regard to fuel supply and maintenance of vehicles. These constraints have persisted and led to cancellation of about one-third of the mobile services in 1983 which in turn resulted in a reduction of the rate of fully immunized children from a high 68.2% in 1982 to 48.5% in 1983. It is planned to improve vehicle maintenance facilities through provision of a work shop, spare parts, and training of drivers and mechanics. Steps taken in 1983 and 1984 to keep buffer stocks of fuel and ensure better supervision of its distribution seem to have ameliorated the situation; but there is still need for a more lasting solution.

A number of flaws were also revealed by the Review in EPI operational management at the intermediate level.

- Only one health centre could site its area's EPI target for 1983.
- Only 3 health centres could quote figures for full immunization in their areas.
- Temperatures were not being kept up to date.
- 2 centres were recorded as holding expired vaccine.

9.3.3. IDENTIFIED EPI PROBLEMS.

- Policy : (i) Ways of integrating EPI with VHS have yet to be found.
- (ii) A permanent solution to the bottleneck of transport and fuel has yet to be realised.
- (iii) Health Education of mothers to improve their knowledge of immunization is required.

Intermediate : In-service training required to improve managerial acumen and responsibility at this level is currently being conducted.

9.4 CONTROL OF DIARRHOEAL DISEASES

9.4.1 DIARRHOEA - A MAJOR HEALTH PROBLEM

Through the years 1981 - 1983 diarrhoea accounted for nearly 7% of all out-patient attendances in Government Health Clinics, consistently featuring amongst the top four disease conditions encountered.

Of the 30,000 odd cases of diarrhoea seen annually (out of an average annual total OPD attendance of 500,000) 73% of cases were children under 5 years of age. In 1983 diarrhoea was the cause of 15% of all under 5s consultations in MCHs Clinics. MRC studies in Bakau give a diarrhoea prevalence of 16 - 20% amongst sick children.

The Mass Media project field investigations produced two-week prevalence rates of 26 - 34% for the rainy season and 10% - 18% in the dry season all data referring to children under 5.

While mortality resulting from diarrhoea is much less understood, statistics of the Paediatric Unit of the Royal Victoria Hospital indicate that diarrhoea accounted for about 9% of total admissions and carried a mortality of nearly 25%. (1981)

The longitudinal field studies of The Mass Media Project gave a diarrhoea mortality rate of 23.2% in under-5s in Rural Gambia (1982).

Preliminary data from the PHC study area confirm the importance of childhood diarrhoea, in that chronic diarrhoea/malnutrition ranked third in the list of causes of death in childhood after the neonatal period. Indeed when chronic diarrhoea is combined with acute diarrhoea only acute respiratory infections kill more children!

As is the case with many childhood diseases in The Gambia, diarrhoea shows marked seasonality, with peaks in the rainy season (mainly bacterial) and again in the "winter" months of the dry season (predominantly rotavirus). In nearly 60% of cases however the aetiology of diarrhoea

in children still remains obscure.

9.4.2 C.D.D. PROGRAMME

In 1982 a National C.D.D. Programme was formulated with WHO assistance. A CDD Committee was constituted including MRC representation, and a National Coordinator for the programme designated. The CDD Committee developed a plan of implementation for the programme and produced a diarrhoea manual "The Health Workers' Manual for The Management of Diarrhoea".

The completion of CDD programme formulation coincided with the start of the USAID funded project "Mass Media For Infant Health", in which oral rehydration was to be extended into every home using modern social marketing techniques. The results from this very successful project have been reported elsewhere.

9.4.3 OBJECTIVES AND STRATEGIES

Briefly the objectives of the programme are to reduce to a minimum the morbidity and mortality rates due to diarrhoea amongst children under five years of age.

The strategies adopted have been:-

- (a) Widespread use of oral rehydration both in the home and by the health services.
- (b) A major effort in health education, using Mass Media, health workers, and village volunteers (Red Flag Women) to create awareness of oral rehydration as a means of treatment of diarrhoea and the preventive value of nutrition practices, personal hygiene and sanitation.
- (c) A programme for improved water use and cleanliness through the Water Sanitation Working Group.
- (d) Operational and Biomedical research to define the epidemiology of diarrhoea in the country and to solve operational problems

9.4.4 DELIVERY OF C.D.D. SERVICES

Through the USAID funded Mass Media for Infant Health Project (1981 - 84) Gambian mothers have been taught to mix and administer Water/Sugar/Salt solution to children with diarrhoea; to recognise when to take the child for medical care; to give food during the diarrhoea episode; to practise personal and compound sanitation.

All health units have been issued with ORS packets and the nurses have been taught to use them.

9.4.5 EVALUATION

The MMIH Project conducted a survey of 800 randomly selected mothers and their children in 20 selected villages.

It was found that:-

- 66% of mothers knew about Water/Sugar/Salt solution.
- 66% of these knew the correct quantities for making the solution.
- 90% of those who knew about WSS knew it should be given at first sign of diarrhoea.
- Proportion of women administering WSS increased 450% over the period of the campaign.

However, there was confusion about the action of the solution; 75% said it stops diarrhoea and only 5% said it was for dehydration.

In the PHC Review 1984:-

- 75% of mothers in PHC villages mentioned ORS to treat their child's diarrhoea compared to 44% in Non-PHC villages.

Only 3/27 VHWS thought diarrhoea a frequent problem. Few people remembered to continue solid



foods and breast feeding during the treatment of diarrhoea, and only 3% consult the "Red Flag Women", many preferring VHW (22%) and Health Centre 50% when the need arises.

On the whole people saw diarrhoea as a problem and know how to prevent dehydration by using home mix of ORS.

- 90% of mothers in PHC villages take action when their child gets diarrhoea compared to 70% in Non-PHC villages, it is disappointing that even in PHC Villages 10% do nothing when their children have diarrhoea.

However, knowledge of how to prevent diarrhoea was very sparse. 50% of PHC mothers did not know a single way of preventing diarrhoea compared to 68% in Non-PHC villages. Of those who did, methods most mentioned were food hygiene or personal hygiene.

At the health centre level there was no clear information about the numbers treated for diarrhoea, though all centres had ORS packets in stock. Those which had a health inspector reported several diarrhoea disease control measures. (eg. protecting water sources, constructing latrines, licensing food premises, disposal of faeces and refuse).

The health inspectors had no clear responsibilities or guidelines for a wells/latrines programme and there were no models built for the villagers to copy.

#### 9.4.6 RECOMMENDATIONS

The needs of C.D.D. in The Gambia are to:-

- Maintain supplies of rehydration and training materials.
- Continue the programme of in-service training.
- Reinforce community knowledge and practices relating to diarrhoea.
- Re-establish the research activity of monitoring the KA of the target population.
- Provide guidelines for health inspectors activities in prevention of diarrhoea.

- Provide model wells and latrines at health centres.
- Develop research into improving the CDD programme.
- Improve the use of available data on diarrhoeal diseases.

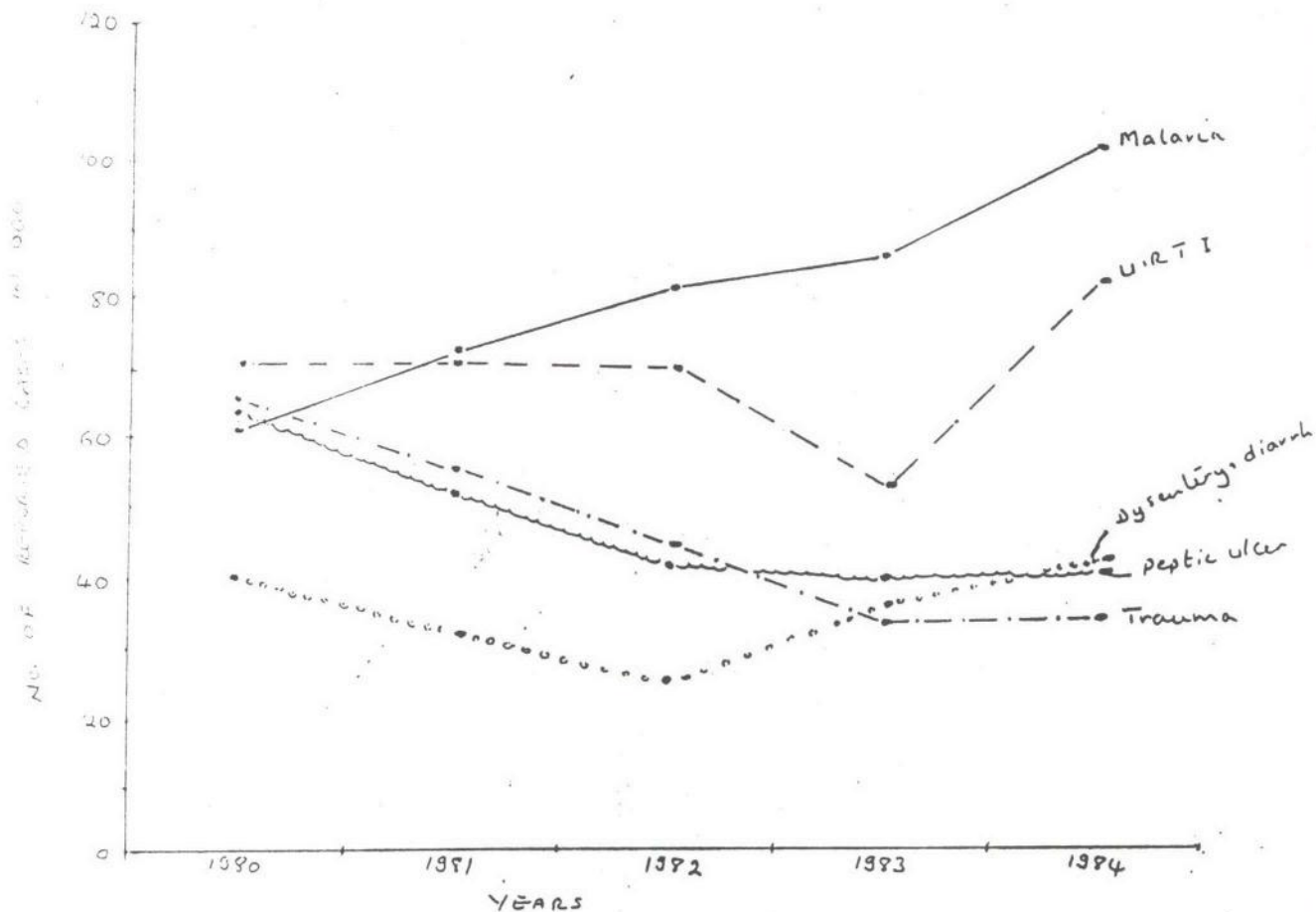
9.5 MALARIA

9.5.1 MALARIA A MAJOR HEALTH PROBLEM

There is malaria transmission in The Gambia throughout the year, but with marked seasonal variation. The rains start around June and end around October and malaria transmission rises throughout this period to a peak in October. Although other forms are present p.falciparum is the predominant parasite.

From the 1984 statistics for out-patient attendances at facilities (except RVH) it can be seen that clinical malaria was the most commonly diagnosed illness.

FIG.9 MAIN CATEGORIES OF O.P.D. CONSULTATIONS 1984



The predominance of malaria as the cause of morbidity is also shown by an analysis of 44,396 VHW consultations in Eastern Region where malaria was ranked first at 31%.

9.5.2 MALARIA CONTROL

All health workers including VHWs and TBAs are trained in the treatment and prevention of malaria.

Malaria is usually diagnosed clinically and treated presumptively with chloroquine at all levels of the health care system.

A longitudinal PHC Monitoring and evaluation study has been organised for 14 PHC villages in the North Bank Division of Central Region. The study is being conducted on behalf of Government by The British Medical Research Council and has amongst its objectives the assessment of the health impact of the PHC programme and in particular to study the best methods of controlling malaria within the context of P.H.C.

Pre-intervention data collection was from April 82 - March '83. Preliminary results from the pre intervention studies show that

after the neonatal period malaria was second only to acute respiratory tract infections as a cause of death in children.

Post intervention data collection was started in April 1984 and initial results are presently being analysed. Early impressions are that changes have occurred in the health status of the children in the P.H.C. groups compared to the control groups.

In addition to their regular duties VHWS and TBAs in the Farafenni study area were trained to administer fortnightly chemoprophylaxis to children under the age of five years and pregnant women.

As nearly all VHWS and TBAs are illiterate difficulties were experienced in devising a method by which anti-malarials and placebo could be given reliably to the correct individual and records of drug administration obtained. A system employing matching arabic numerals on health cards and registers was devised and is working very successfully.

The Medical Research Council also assists by monitoring parasites for drug resistance to chloroquine and pyrimethamine.

So far there has been no indication of resistance to the antimalarials commonly in use in The Gambia. Appropriate preventive measures to reduce mosquito breeding and to lessen man/mosquito contact are taught to all levels of health workers. In the urban area insecticides and larvicides are used, mainly to reduce mosquitoes as a biting nuisance.

VHWs and TBAs motivate communities to cut grass, fill in or drain pools and to destroy potential mosquito breeding sites in their compounds.

They also advocate the use of bed nets, burning incense and wearing of limb covering garments at night in order to reduce man/mosquito contact.

9.5.3 REVIEW FINDINGS

At all levels malaria was considered an important health problem, both VDCs and VHWS see it as a priority problem with 70% of the latter reporting it as the most frequent disease seen by them.

Of households surveyed 75% had had a member suffering from malaria in the last six months, and in at least 80% of these appropriate treatment had been received irrespective of whether PHC or Non PHC village.

In PHC villages there has been an obvious shift from HC/Dispensary care for malaria to VHW (Table 9.5.1)

TABLE 9.7

<u>Source of Treatment for Malaria (%)</u>		
<u>Source</u>	<u>PHC</u>	<u>Non PHC</u>
Traditional Healer	2.0	4.9
VHW	71.3	4.9
HC/Dispensary	29.0	74.8
Other	5.2	23.1
Number of Respondents	307	143

(Proportions not mutually exclusive; patients having consulted more than one source in instances.)

There are indicators from the M.R.C. PHC-Studies that bed nets may be protective as there are lower parasite and spleen rates amongst bed net users as compared to non-users. Further research in this area is in an advanced stage of formulation with WHO collaboration. The study will evaluate the effectiveness of permethrin impregnated bed nets for malaria control.

9.5.4 RECOMMENDATIONS.

In general it is felt that the present malaria control strategy of early presumptive treatment with chloroquine, whilst examining the efficiency of mass chemoprophylaxis for at-risk groups is an appropriate one.

It is recommended that preventive measures currently being advocated be continued whilst evaluation of local practices such as the burning of incense and herbs is undertaken.

In view of the rapid spread of chloroquine resistance in Africa it is necessary to establish a more formal clinic based system of detecting possible parasite resistance to chloroquine.

A code of practice should be established and taught to all health workers and alternative drugs for curative care be made available.

Reference: MRC Laboratories, The Gambia. Progress Report 1983 - 1984.

## 9.6 WATER AND SANITATION

### 9.6.1 ORGANISATION

There is a strong cadre of 65 trained environmental health officers (health inspectors) many of whom are posted to health centres and some dispensaries throughout the country. The health inspectors bear the major responsibility in the health department for Sanitation and water supplies although all other cadres have training in environmental hygiene. The V.H.W.s in particular spend the larger part of their training on such matters. They learn to construct pit latrines using local materials; improve wells by ensuring that each well is fenced and has a parapet, apron, cover and pulley system; construct a village garbage pit; organise street and compound cleaning exercises. They also learn about the importance of these activities and to give health talks on water handling and use; disposal of faces; food hygiene etc

The Physical provision of improved wells and other water supplies is the responsibility of the Ministry of Water Resources and the Environment who have fully equipped well digging teams.

The Social aspect of the provision and proper use of water is provided through an inter-sectoral working group (Water & Sanitation Working Group) comprising The Ministry of Economic Planning & Industrial Development, The departments of Community Development, Health, Education, Water Resources, Agriculture and Non-Formal Education; other members being from The Women's Bureau and NGOs such as CARRITAS and The UNDI

### 9.6.2 EVALUATION

In the PHC Review (1984) all health inspectors at the health centres reported activities in the area of water and sanitation and community action program

with the CHNs and VHWs.

The VDCs stated that environmental health was important in improving village health. This is reflected in CHN responses indicating that high priority was given in health education sessions to the provision of safe water supplies and the construction, use and maintenance of latrines. It is also reflected in the activities of the VHWs. All except one VHW were carrying out activities in this field with the VDC. Cleaning the village, cleaning wells and building latrines were the most commonly mentioned. Another survey (Gowers 1983) showed that preventive activities in PHC villages ranged on average from: 38% of villages conducting well protection exercises to 67% involved in street cleaning.

The same study looking at VDC decisions and consequent actions found approximately 50% of decisions were implemented. It also showed an apparent prioritisation of activities by giving the rank order for frequency of implemented decisions. These were:-

Transport of patients	1
Replenishing drugs	2=
Building health posts	2=
VHW Remuneration	4
Digging wells	5=
Refuse collection	5=
Well rehabilitation	7
Building latrines	8
Collecting money	9
TBA remuneration	10
CHW supervision	11

The PHC survey 1984 showed there is still a long way to go in the provision of safe water and adequate latrines, but that there was great potential in that already an additional 30% of house-holds (PHC) and 16% (Non PHC) had latrines, albeit inadequate. The Mass Media studies showed that 3 out of 4 house-holds surveyed had latrines



although use of such latrines was predominantly an adult practice.

TABLE 9.9

PERCENTAGE OF PEOPLE WITH ENVIRONMENTAL HEALTH FACILITIES

ITEM	PHC % (range)	NON PHC % (range)
Safe drinking water	31 (18-43)	15 (6-26)
Enough water	42	
Good quality water	26	
Proper latrine	33 (27-41)	23 (20-27)
Proper garbage disposal	34 (22-62)	23 (9-39)

Many of the existing latrines were found to be insanitary. Several PHC villages (40%) were imposing fines on owners who allowed their animals to roam freely in the village.

The high rating of Non-PHC villages in the Eastern Region in water and sanitation may be a reflection of the Water/Sanitation Working Group's activities in this region where the programme was piloted.

9.6.3 RECOMMENDATIONS.

1. A specific programme of activities needs to be formulated for the health inspectors regarding Water and Sanitation.
2. Part of this programme should be construction of model latrines and wells at health centres and dispensaries.
3. CHNs need to be trained in the construction techniques needed for improvement of wells and construction of latrines.
4. Further health education messages should be developed

for use of the VHWS/TBAs and staff at other levels.

5. Immediate extension of the Water/Sanitation Working Group's activities nationwide.

9.7. Nutrition

9.7.1. Policy Considerations

- i) Government policy in Agriculture and Natural Resources has the objectives of increasing output and incomes, diversification of the sector, reduction of import outlays, increase in export earnings, improvement in land and water use and protection of the environment.

Programmes to be developed include activities in the following sub-sectors:

- ± Crops
- Livestocks
- Forestry
- Fisheries
- Water Resources

- ii) The PHC Action Plan put forward 4 strategies for food and nutrition:

a) Mobilization of Village Communities for increased food production.

b) Promotion of proper nutrition education, emphasizing:

- use of locally available foods
- early detection of Protein-Energy-Malnutrition (PEM)
- improving year round supplies in the villages.

c) Increased efforts in food preservation and storage.

- d) Encouragement of Communities to build appropriate day nurseries for children of mothers working in the fields.

While there continue to be activities in all these areas, there is as yet no systematic coordination of these various activities to ensure maximum impact. Nutritional problems still continue to exert negative effects on the health status of the population particularly mothers and children, much aggravated by the existing drought situation in the sub-region.

#### 9.7.2. Food Production

The major objective of governments development efforts in agriculture is to enhance the income of the farmer and in the process also improve the diet of the population.

- i) Major projects aimed at national self-sufficiency in the major food crop - rice, are being implemented or developed. Producer prices for both cash and food crops have been increased to offer better incentives for production. Extension services, farming inputs and producer credit facilities are being strengthened through cooperative societies, major projects like the Jahally-Pacharr Rice Development Scheme and through the recently created Agricultural Development Bank. Produce handling and storage facilities have been expanded through the GPMB Modernization scheme.

The regional project for the development of the Gambia River Basin will extend land development potential through control of salinity advance along the river. This project is hoped to provide an additional 24,000 hectares of land for irrigated rice development.

The second phase of the Agricultural Development Project (ADP-11) aims at increasing output of the main cash crop, groundnuts, and for the further development of upland cereals. This project will benefit most of Gambia's farmers by increasing both income and available food.

Smaller community projects in the form of village gardens, oil seeds schemes and vegetable gardens are being propagated through the Department of Community Development, Women's Bureau and by NGOs such as CRS, Action Aid and Caritas.

In order to ensure equitable distribution of basic food items such as rice, a system of distribution by area quotas has been developed with distribution outlets through Cooperative Societies and private licensed dealers. Price Control mechanisms have also been introduced by central government for basic food items.

ii) Animal Husbandry

The livestock development project of the Department of Animal Health and Production operates extension services including immunization against prevalent animal diseases and for the development of the Ndama breed. Cattle Owners Cooperatives have been formed and a Marketing Board incorporated to foster trade in meat for local consumption.

Cattle watering points form a significant part of the rural water supply development programme of government.

iii) Fisheries

The Ministry of Agriculture's Department of Fisheries operates a major development project on artisanal fishing (Artisanal Fishery's -III) through which ice-plants, storage facilities and mechanical and advisory services are offered to local fishermen. These developments have facilitated movement of produce throughout the country.

The Industrial Fisheries Project aims at increasing output of fish and shrimps for both domestic needs and export.

9.7.3. Nutrition Activities

i) Nutrition Status

With the prominence of malnutrition within the epidemiological profile of the Country, various surveillance and intervention programmes have been developed both within the national health system and by organisations such as CRS, Education and Community Development departments.

However, there is as yet no evidence of an improvement in the nutritional status of the population especially the MCH target groups.

Physical inspection of growth charts belonging to index children in the household survey confirmed the near 90% national Card-holding rate. Spot inspection of growth charts also show regular weight recording. It is evident however that appropriate intervention

thereafter is not the rule, as shown by the percentage distribution of arm circumference measurement of these same children, showing no significant difference between PHC and non PHC villages.

TABLE 9.10 ARM Circumference Distribution by Region  
(PHC Review 1984)

Arm Band	All Regions		Western		Central		Eastern	
	PHC	Non-PHC	PHC	Non-PHC	PHC	Non-PHC	PHC	Non-PHC
Green	61.3	64.8	66.3	83.3	65.5	50.0	50.6	70.6
Yellow	29.8	32.0	29.2	16.7	23.9	46.4	38.3	23.5
Red	8.9	3.2	4.5	0.0	10.6	3.6	11.1	5.9
No of Children	282	125	89	36	113	56	80	33

Similar results were obtained by the Nutrition Unit survey of 28 PHC Villages during the community surveillance field trials.

TABLE 9.11 Arm Circumference Distribution (Nutrition Unit  
in PHC Villages 1984)

Arm Band	All Regions %	Western %	Central %	Eastern %
Green	74.1.	67.3	80	75
Yellow	21.1	26.4	17	20
Red	4.7	6.2	3	5
No of Children	4,941	3,865	592	484

The review also indicated inappropriate intervention by MCH Staff when a child with severe/moderate malnutrition was identified.

Action varied between:

- Admit or refer if severe
- Recommend high protein diet
- Prescribe Multivite + Iron
- Enter in At-Risk Register
- Visit at home for Health Education
- Refer to CRS Programme or give milk powder.

Records of severely malnourished children admitted to Hospital confirm the finding that children are observed and regularly weighed while they progressively deteriorate.

This problem is not a new finding, a revision of the surveillance/intervention procedures was already on field trial at the time of the review. This new system aims to initiate action at the home and community level, and reverts to the original version of the Action Plan in which CHWs and CHNs were to play a major role in close collaboration with the Community.

Contrary to earlier beliefs, the trials within the Western Region indicate that in general VHWs can read the scale and interpret the growth chart, despite high rates of illiteracy. The system is currently being extended to all circuits with training of CHNs by ~~staff~~ of the nutrition unit.

The direct involvement of VDCs and Community members promises a more rational and effective intervention strategy.



In support of this community based surveillance/ intervention programme, Health Centres (5 initially) are being developed for first level referral of severely malnourished or refractory cases, with clearly written management protocols. Supplies and equipment for this have already been secured.

ii) Nutrition Research

There is already available a wealth of local information through research activities of the MRC DUNN Nutrition Unit. A major aspect of the CCCD Project nutrition component involves operational research for the field application of MRC findings on mother and child nutrition supplementation.

Nutrition Education

Nutrition education particularly as this relates to breast feeding and early weaning practices was a major part of the CDD Mass Media Campaign.

While breast feeding continues to be the universal practice, its propagation remains a major pre-occupation of all MCH Workers.

The following table may be an early indication of the possible role of CHNs and CHWs in nutrition education, PHC village mothers showing a higher proportion of early introduction of solid food than in non-PHC villages. The differences were statistically significant.

TABLE 9.12 Introduction of Solid Food in Infants Diet

	All Region		Western		Central		Eastern	
	PHC	Non PHC	PHC	Non PHC	PHC	Non PHC	PHC	Non PHC
% on solid food by 6 months of age	74.1.	52.0	74.2	58.3	79.6	60.7	66.3	30.3
Total No of Children	282	125	89	36	113	56	80	33

Comment

Some of the actions and plans in train for improvement of the nutritional status of children and mothers have already been outlined above. The subject cannot however be complete without:

- a) Significant improvement in the conditions under which Gambian women live, being over-burdened with too many and too frequent pregnancies, too much and too heavy manual work both at home and in the farm, and with a low rate of literacy.
- b) The simultaneous application of disease control programmes with any nutrition intervention activity.

9.8. Health Education

9.8.1. Development of Health Education Unit

In appreciation of the importance of Community awareness and knowledge of prevailing health problems and methods of preventing them, the PHC Action Plan asked for the establishment of a Health Education Unit within the Medical and Health Department.

In 1981 the nucleus of such a Unit was established with technical assistance from the United Kingdom ODA. The Unit has since grown with the addition of nationals who have all completed appropriate overseas training in Health Education.

This period also saw the initiation of a USAID sponsored Mass Media Project for Infant Health through which social marketing techniques were to be applied for the popularization of the use of oral rehydration for the management of diarrhoeal dehydration.

An important aspect of this project was the institutionalization of the Mass Media methodology into the routine activities of the Health Education Unit, including monitoring and evaluation methodologies. The experiences gained from this project are now being applied to the formulation of similar activities in family planning 1985/86 and nutrition 1986/87.

9.8.2. Health Education Activities

i) Propagation of Health Education Techniques

One of the most important activities of the Health Education Unit is training of other health workers, school teachers and students

in appropriate health education techniques. This Unit organises and participates in the training of student nurses and health inspectors, in various in-service training programmes not only for health personnel and teachers, but the public in general through the non-formal education programme under the auspices of Water and Sanitation Working Group. Members of the Unit were involved in the development of CHW training curricula and actively participate in the VHW and TBA training.

ii) Development of Health Education Material

The Health Education Unit services all programme areas within the Department of Health by assisting units develop, test, produce and disseminate appropriate health education packages. Various posters and pamphlets have been produced, as well as films (both video and cine) and large poster boards for display in public areas on such topics and breast feeding and accident prevention.

In collaboration with Curriculum Development Unit of the Ministry of Education, the Health Education Unit has contributed towards the development of the primary school science curriculum, the production of health resource materials for schools and is currently assisting with the development of a school health education resource book for use by teachers.

iii) Regular Radio Programme

In collaboration with the Department of Information and Broadcasting, the Unit produces a weekly health programme over the national radio station in the major local languages.

This collaborative effort has produced programmes two of which have won international awards over the past three years, one on the ORS campaign and the other on PHC and Community involvement.

iv) Newsletter

The Unit also produces the Departmental newsletter which is regularly published every other month.

9.8.3. Findings of the Review

The review field survey showed that all categories of health workers see health education as an important aspect of their duties.

- All CHNs and health centre staff indicate being involved in group and individual health education activities
- 96% of VHWs and 47% of CHN supervisors were active in this field, with VHWs indicating a targetted approach for subjects depending on the type of audience eg.

For VDC and Youth Groups - Environmental sanitation water supply and water protection

Women's Groups - Nutrition and care of the pregnant woman

These findings are supported by the household survey which showed that 38% of households in the PHC villages reported home visits by VHWs in the preceeding 2 month period. Possible results of health education activities may be inferred from such findings as:

- Earlier introduction of solids into weaning foods in PHV villages (Table 9.12) with similar patterns being seen in such areas as CDD, EPI, and water/sanitation activities.
- The pre and post intervention studies related to the Mass Media Project both showed health personnel as by far the predominant source for information on diarrhoea control and ORS.
- Health Education posters were found to be on display in most centres and VH Posts.

However few details were available on actual activities or their planning and it seemed that such activities were generally rather than specifically aimed at solving particular identified problems.

A major limitation of the Health Education Unit's activities was found to be the lack of transport for field activities and distribution of materials. The same constraint led to inadequate exposure at the village level from which unit staff can learn first hand from the communities and CHWs and develop skills under real life situations. Despite the excellent results of the Mass Media Project, it was felt that more attention be given to alternative methods of health education in view of the very low literary rates, only 7% of mothers being able to read a simple fact "BREAST MILK IS BEST FOR BABY", written in English, Arabic and Mandinka.

#### 9.8.4 Recommendations

1. Provision of transport and adequate fuel supply to enable the Health Education Unit, 6 undertake more field work.
2. Provide more resources for development of Health Education materials.

3. Development of planned health education activities targetted to specific id-ntified problems, preferably with a measurable outcome.
4. Explanation of alternative methods of health education (eg songs, drama, story telling).

9.9. RESEARCH.

Although there was no questionnaire on research included in the 1984 Review, it is an important feature of the national health care system that it gets substantial benefits from the results of research being carried out in the country by the Medical Research Council (MRC) Laboratories at Fajara near Banjul, and at Keneba in the provinces. MRC has conducted biomedical research in The Gambia for over three decades.

However, in the past much of the work undertaken by MRC was not directly or immediately relevant to expressed and perceived objectives of the national health services. There was little coordination between MRC activities and the programmes operated by the Ministry of Health. The situation is now tangibly changed and collaboration is taking place in areas such as

- (a) Programme underway or planned at MHD's initiatives:
  - Primary health care.
  - Malaria chemoprophylaxis using PHC for delivery.
  - Aetiology, management, and prevention of diarrhoea in infants and young children.
  - Vaccination and other control measures against epidemic meningococcal meningitis.
- (b) Programmes initiated by MRC but of interest to MHD:
  - Supplementary feeding for pregnant women.
  - Prevalence and pattern of local childhood malnutrition.
  - Control of Schistosomiasis.
  - Types and prevalences of sexually transmitted diseases..
  - Vaccination for control of primary hepatic carcinoma.
  - Oral measles vaccination.
  - Rotavirus vaccine trial.
- (c) Programmes suggested by MHD for future MRC research.
  - Aetiology and management of local pattern of acute respiratory infections.

The infrastructure of MRC in The Gambia is quite substantial, in terms of personnel and facilities, and this has been extended in the last few years to incorporate two new field stations, one at Farafenni and one at Basse.



The complexity and rising costs of modern health research have stifled attempts for national capability in many developing countries, including big and relatively well-gifted third world countries. Far from being daunted The Gambia has over the course of the past few years decided to develop its own Health Research Unit (HRU). This Unit is being established within MHD with the help of MRC and WHO (TDR). Already a training programme for three Gambian research workers is being implemented. It is anticipated that the initial thrust of HRU will be in the fields of epidemiological and health service research to complement such biomedical work as is being done by MRC.

But it may be sometime before HRU's contribution can produce an impact on the health problems of the country. MHD will therefore continue to strengthen its collaboration with MRC.. The Joint MRC/Gambia Government Committee and the Joint MRC/Gambia Ethical Committee constitute the present mechanisms for this collaboration and appear adequate, while the fortnightly evening seminars held at MRC, Fajara are also an invaluable mechanism for local dissemination of research results. On the other hand, there have been only weak and poor links with health research carried out in surrounding Senegal. This is unfortunate because the two countries belong to the same ecological environment.

Conclusion: It has been observed that a national health care system without an effective research support is like a hospital without a laboratory. The Gambia is fortunate in having the solid back-up of MRC. There is a need to continue to cultivate this support while also trying to establish some degree of national research capability. There is also a need to find methods of establishing effective communication between Gambian and Senegalese health research programmes. Perhaps WHO could help in this endeavour.

CHAPTER 10 - IDENTIFIED MAJOR NEEDS AND RECOMMENDATIONS

3. COMMUNITY PARTICIPATION

Problem - There is a need to strengthen the capabilities of the Village Development Committees.

- Action
- Management training programme
  - Government to ensure the maintenance of drug supplies and supervision
  - Formal anthroposociological research
  - Locally organised operational research
  - Organised dialogue with the VDCs.

4. MANAGEMENT AND SUPERVISION

Problem - Health information system fails to feed back information to the periphery and the service fails to utilise health statistics for programme management.

- Action
- Computerisation of the Central Statistics section to enable rapid collation, printing and distribution of statistics.
  - Cadres to be trained in the display and utilisation of data at each level of the system.

4.2 REGIONAL LEVEL

Problem - Areas of ambiguity in relationships between the Regional Offices and the Central Units within the Directorate of Health.

- Action
- A Management review should be undertaken with clarification of roles and responsibilities in the troublesome areas.

Problem - Regional management overstretched.

- Action
- Review of regional management system and adapt to meet changing needs.

Problem - Over centralised financial control.

Action - Regional imprest account system to be introduced.  
Decentralization of Central Government Administration.

Problem - Communications delays,

Action - Radio communications and better transport management.

#### 4.4 INTERMEDIATE LEVEL

Problem - Weakness in linkages to intermediate level and lack of orientation of health staff to Primary Health Care.

Action - Health Centre Dispensary staff to be trained and orientated towards providing support to village health services.

Problem - Staffing patterns not commensurate with work loads.

Action - Rationalization of staffing patterns at intermediate level centres to match the work loads.

#### 4.5 MANAGEMENT AND SUPERVISION AT PERIPHERAL LEVEL

Problem - C.H.Ns lack mobility.

Action - Need improvement in system for payment of motor cycle allowances and provision of regular maintenance.

#### 5. LOGISTICS

Problem - Some drug items out of stock or stock levels low.

Action - Prioritisation of ordering  
- Improved transport for drugs  
- Revision of stock levels for units

Problem - Shortage of functioning vehicles and fuel.

Action - Employment of a Transport Manager (CCCD)  
- Provision of maintenance facilities (HRG)  
- Training of maintenance mechanics (CCCD)  
- Purchase of fuel efficient vehicles  
- Enforcement of proper use of log books and other management controls.

Problem - Difficulties and long delays in communication.

Action - Procurement of a radio communications network for field units.

Problem - Many health facilities without water or electricity.

Action - World Bank Solar Energy Project to provide each unit with a "Solar" package.

6. INFORMATION SYSTEM

As per Chapter 4

7. TRAINING AND HEALTH MANPOWER

Problem - Excess proportion of unskilled manpower in the service.

Action - Completion of Health Manpower Development Plan.

8. PUBLIC HEALTH SECTOR FINANCE

Problem - Inadequate financing of the health sector.

Action - Survey of health sector finance  
- Mobilization of additional local resources through appropriate cost recovery mechanisms.

Problem - Inability to attribute expenditure to specific service levels or programme areas.

Action - Further refinement of the budget format to meet new needs of Primary Health Care.

#### 9.1 CURATIVE SERVICES

Problem - Defeciencies in service quality.

Action - Review/development of job descriptions for all cadres and revision of training curricula.  
Development of standard management protocols for commonest diseases encountered (CCCD)

Problem - Staff unsure of their role in PHC development and support.

Action - Re-orientation and re-training of staff particularly at Health Centre level.

Problem - No formal integration of Traditional Medicine into PHC system.

Action - Initiate dialogue with traditional healers with a view to more formal collaboration.

Problem - Overload of referral system.

Action - Development of an adequate triage system.

Problem - Persisting problems with inadequate medical supplies.

Action - As in logistics section.

Problem - Staffing patterns at health units do not reflect work load.

Action - Rationalization of staffing patterns at eachlevel.

Problem - Inadequate involvement of higher levels of the curative system in the PHC Programme.

Action - Strengthen interest and participation of senior hospital personnel in PHC activities.

## 9.2 MATERNAL AND CHILD HEALTH SERVICES

Problem - Inadequate understanding and application of the "At-risk" strategy.

Action - Development and application of an appropriate strategy.

Problem - High maternal and neonatal mortality rates despite high antenatal and intrapartum coverage.

Action - Devise appropriate selection of "At-risk" cases.

- Devise appropriate intervention measures at Health Centre level for such conditions as APH, PRH and Eclampsia.

- Introduce a reliable and appropriate village 'ambulance' system.

Problem - Low contraceptive use prevalence.

Action - Implement national Family Planning services.

## 9.3 E.P.I.

Problem - E.P.I. not fully integrated with VHS.

Action - Devise ways of effecting integration.

Problem - Transport and fuel still major bottlenecks.

Action - As in logistics.

Problem - Mothers' knowledge of vaccine still poor.

Action - Intensify information sharing with communities, particularly with mothers on E.P.I. and other programmes.

9.4 CONTROL OF DIARRHOEAL DISEASE

Problem - Mothers had little idea of how to prevent diarrhoea.

Action - Strengthen health education efforts to improve community knowledge, attitudes and practices regarding diarrhoea.

Problem - Health Inspectors had no clear responsibilities on guidelines for a well/latrine programme.

Action - Develop of well/latrine programme using the skills of the health inspectors.

9.5 MALARIA

Problem - There is a need to monitor for any chloroquine resistance!

Action - Establish the necessary training to alert staff to the clinical signs of resistance and the action which should be taken if it is suspected.

9.6 WATER AND SANITATION

Problem - As per 9.4 Control of Diarrhoeal Diseases.

Problem - Need for integrated health education.

Action - Development of further health education messages and integration through the Water Sanitation Working Group.

9.7 NUTRITION

Problem - High proportion of children with weight cards but no evidence of improvement in nutritional status.

Action - Training and supervision of MCH staff to make the appropriate intervention when problems are detected.

Direct involvement of V.D.Cs and Community members in managing malnutrition in their communities.

Problem - Conditions under which Gambian women live.

Action - Intersectoral strategies are needed to reduce the burden of too many pregnancies, too much and too heavy manual work and low rate of literacy.

9.8 HEALTH EDUCATION.

Problem - Staff not getting out to the village level and not developing alternative methods of health education.

Action - Provision of transport and fuel to the unit (C.C.C.D) orientation of staff to develop alternative health education methods (songs, drama, story telling).

9.9 RESEARCH

Problem - Weak and poor links with health research in Senegal.

Action - Request international assistance (WHO) to develop an ongoing collaborative dialogue between the medical research units and the Medical & Health Departments in both Countries.



ANNEXES

<u>TITLE</u>	<u>ANNEXE NUMBER</u>
Reportable diseases monthly return	1
MCH/EPI Vaccination tally form	2
MCH Clinic tally Form Antenatal visit	3
MCH Infant Welfare Tally form	3
Primary Health Care! Community Health Nurse Monthly Report Form	4
Out Patient Return	5
MCH Monthly Return	6



DETAILED REPORT ON DEATHS

<u>Village</u>	<u>Name</u>	<u>Sex</u>	<u>Age</u>	<u>Cause of Death</u>	Did death occur at at Health Centre of Hospital <u>Yes/No</u>
NJABA KUNDA	KEBBANDINGIO TRAWALLY	M	AD	UNKNOWN	AT HOME
MINTEH KUNDA	—	—	—	—	—
MARONG KUNDA	BEJEKU MARONG	M	AD	UNKNOWN (Bui few months illness)	AT HOME
NAWLERU	KADY SAHO	F	AD	UNKNOWN	" "
KERR PAIEH	—	—	—	—	—

PREVENTIVE HEALTH ACTIVITIES

Name of Villages: Number of:	Key Village	Other Villages				Totals
	<u>NJABA KUNDA</u>	<u>MINTEH KUNDA</u>	<u>MARONG KUNDA</u>	<u>NAWLERU</u>	<u>KERR PAIEH</u>	<u>FIVE</u>
1. Compound visits	16	—	30	5	—	51
2. Wells Improved/Constructed	—	—	1 (IMPROVED)	—	—	1
3. Waste Disposal Improved/Constructed	—	—	—	—	—	—
4. Latrines Improved/Constructed	2 CONSTRUCTED	—	—	—	—	2

STATION \_\_\_\_\_

OUT-PATIENT RETURN

MONTH \_\_\_\_\_ 198 \_\_\_\_\_

CONDITIONS	UNDER FIVE			FIVE AND ABOVE			TOTALS
	IWC	OPD	TOTAL	ANC	OPD	TOTAL	
HEAD							
1. Eye disorders							
2. Ear, Nose, throat disorders							
3. Mouth, teeth, gum disorders							
CHEST							
4. Upper respiratory tract infections							
5. Pneumonia, bronchitis							
6. Hypertension							
7. Heart disorders							
ABDOMEN							
8. Diarrhoea, dysentery							
9. Peptic ulcer, other abdominal pain							
10. Worms, other intestinal parasites							
11. Urinary tract disorders							
12. Hernia, hydrocoele, haemorrhoids							
OBSTETRIC- GYNAECOLOGIC							
13. Normal delivery							
14. Complicated delivery							
15. Abortion							
16. Pre-eclampsia, eclampsia							
17. Other gynaecologic/obstetric disorders*							
CONNECTIVE TISSUE							
18. Muscle and joint pains and disorders							
19. Trauma: fractures, wounds, burns, etc.							
SKIN							
20. Skin disorders							
NERVOUS SYSTEM							
21. Epilepsy and other neurologic conditions							
22. Mental disorders							
GENERAL AND OTHER							
23. Communicable diseases**							
24. Malaria, clinical							
25. Anaemia							
26. Malnutrition							
27. Dehydration (moderate to severe)							
28. Other known conditions*							
29. No pathology							
TOTAL NEW CASES							
30. Reattendances							
31. Admissions							
32. Referrals							

\* Other known conditions may be recorded on the reverse side of this form.

\*\* Details of most communicable diseases must be reported on the Reportable Diseases Forms.

Officer in charge of station \_\_\_\_\_ Checked by RMO \_\_\_\_\_

STATION \_\_\_\_\_

DATE \_\_\_\_\_

MCH TEAM \_\_\_\_\_

TEAM LEADER \_\_\_\_\_

MCH/EPI VACCINATION TALLY FORM  
TARGET AGE GROUPS TO BE VACCINATED:

BCG:	Children born between _____ and _____
SPT, Polio:	Children born between _____ and _____
Measles, YF:	Children born between _____ and _____

BCG  
 Lot No. \_\_\_\_\_  
 0000 0000  
 0000 0000  
 0000 0000  
 0000 0000  
 0000 0000

TOTALS

BCG \_\_\_\_\_

DPT  
 Lot No. \_\_\_\_\_  
 DPT 1      DPT 2      DPT 3      Booster  
 0000 0000    0000 0000    0000 0000    0000  
 0000 0000    0000 0000    0000 0000    0000  
 0000 0000    0000 0000    0000 0000    0000  
 0000 0000    0000 0000    0000 0000    0000  
 0000 0000    0000 0000    0000 0000    0000

DPT 1 \_\_\_\_\_  
 DPT 2 \_\_\_\_\_  
 DPT 3 \_\_\_\_\_  
 DPT B \_\_\_\_\_

Polio  
 Lot No. \_\_\_\_\_  
 Polio 1      Polio 2      Polio 3      Booster  
 0000 0000    0000 0000    0000 0000    0000  
 0000 0000    0000 0000    0000 0000    0000  
 0000 0000    0000 0000    0000 0000    0000  
 0000 0000    0000 0000    0000 0000    0000  
 0000 0000    0000 0000    0000 0000    0000

Polio 1 \_\_\_\_\_  
 Polio 2 \_\_\_\_\_  
 Polio 3 \_\_\_\_\_  
 Polio B \_\_\_\_\_

Measles  
 Lot No. \_\_\_\_\_  
 0000 0000  
 0000 0000  
 0000 0000  
 0000 0000  
 0000 0000

Measles \_\_\_\_\_

Yellow Fever  
 Lot No. \_\_\_\_\_  
 0000 0000  
 0000 0000  
 0000 0000  
 0000 0000  
 0000 0000

Y Fever \_\_\_\_\_

TOTAL VACCINATIONS OF CHILDREN \_\_\_\_\_

Tetanus  
 Toxoid  
 Lot No. \_\_\_\_\_  
 TT 1      TT 2      Booster  
 0000 0000    0000 0000    0000 0000  
 0000 0000    0000 0000    0000 0000  
 0000 0000    0000 0000    0000 0000  
 0000 0000    0000 0000    0000 0000  
 0000 0000    0000 0000    0000 0000

TT 1 \_\_\_\_\_  
 TT 2 \_\_\_\_\_  
 TT B \_\_\_\_\_

TOTAL VACCINATIONS OF WOMEN \_\_\_\_\_

STATION \_\_\_\_\_

DATE \_\_\_\_\_

MCH TEAM \_\_\_\_\_

## MCH INFANT WELFARE CLINIC TALLY FORM

TEAM LEADER \_\_\_\_\_

CHILDREN WEIGHED (Assign every child to one group)									TOTALS	
<u>Old Attendances</u>	0000	0000	0000	0000	0000	0000	0000	0000	0000	_____
	0000	0000	0000	0000	0000	0000	0000	0000	0000	_____
	0000	0000	0000	0000	0000	0000	0000	0000	0000	_____
	0000	0000	0000	0000	0000	0000	0000	0000	0000	_____
	0000	0000	0000	0000	0000	0000	0000	0000	0000	_____
<u>New Attendances</u>	0000	0000	0000	0000	0000	0000	0000	0000	0000	_____
	0000	0000	0000	0000	0000	0000	0000	0000	0000	_____
<u>PROBLEMS NOTED:</u>										
<u>"At Risk":</u> Below 80% of standard weight for age Weight loss on last two visits	0000	0000	0000	0000	0000	0000	0000	0000	0000	_____
	0000	0000	0000	0000	0000	0000	0000	0000	0000	_____
	0000	0000	0000	0000	0000	0000	0000	0000	0000	_____
<u>CONDITIONS DIAGNOSED (Assign every child to one)</u>									TOTALS	
Well child (no pathology)	0000	0000	0000	0000	0000	0000	0000	0000	0000	_____
	0000	0000	0000	0000	0000	0000	0000	0000	0000	_____
	0000	0000	0000	0000	0000	0000	0000	0000	0000	_____
	0000	0000	0000	0000	0000	0000	0000	0000	0000	_____
Upper respiratory tract infection	0000	0000	0000	0000	0000	0000	0000	0000	0000	_____
Diarrhoea, gastroenteritis, vomiting, etc.	0000	0000	0000	0000	0000	0000	0000	0000	0000	_____
Fever, headache, other pain	0000	0000	0000	0000	0000	0000	0000	0000	0000	_____
Skin rash, sores, etc.	0000	0000	0000	0000	0000	0000	0000	0000	0000	_____
Other conditions (details on back )	0000	0000	0000	0000	0000	0000	0000	0000	0000	_____
<u>SPECIFIC CONDITIONS DIAGNOSED:</u>										
Malaria, clinical	0000	0000	0000	0000	0000	0000	0000	0000	0000	_____
	0000	0000	0000	0000	0000	0000	0000	0000	0000	_____
Dehydration, moderate to severe	0000	0000	0000	0000	0000	0000	0000	0000	0000	_____
Communicable diseases*	0000	0000	0000	0000	0000	0000	0000	0000	0000	_____
<u>REFERRALS</u>	0000	0000	0000	0000	0000	0000	0000	0000	0000	_____

\*Details of certain communicable diseases are to be reported on the appropriate case report forms.

MCH TEAM \_\_\_\_\_

M C H M O N T H L Y R E T U R N

MONTH \_\_\_\_\_ 198 \_\_\_\_\_

<p><b>INFANT WELFARE CLINICS</b></p> <p><u>Vaccinations given:</u></p> <p>BCG _____</p> <p>DPT 1 _____</p> <p>DPT 2 _____</p> <p>DPT 3 _____</p> <p>DPT B _____</p> <p>Polio 1 _____</p> <p>Polio 2 _____</p> <p>Polio 3 _____</p> <p>Polio B _____</p> <p>Measles _____</p> <p>Y. fever _____</p> <p>Number of 'at risk' children weighed _____</p> <p>Number of home visits made _____</p> <p>Number of referrals _____</p>	<p><b>ANTENATAL CLINICS</b></p> <p><u>Vaccinations given:</u></p> <p>TT 1 _____</p> <p>TT 2 _____</p> <p>TT 3/B _____</p> <p>Deliveries:</p> <p>At the centre</p> <p style="padding-left: 20px;">Live _____</p> <p style="padding-left: 20px;">Stillbirths _____</p> <p>Outside the centre</p> <p style="padding-left: 20px;">Live _____</p> <p style="padding-left: 20px;">Stillbirths _____</p> <p>Number of referrals _____</p>	<p><b>VACCINE INVENTORY</b></p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;"><u>Vaccine</u></th> <th style="text-align: center;"><u>Balance at 1st of month</u></th> <th style="text-align: center;"><u>Received during month</u></th> <th style="text-align: center;"><u>Balance at end of month</u></th> </tr> </thead> <tbody> <tr> <td>BCG</td> <td style="text-align: center;">_____ doses</td> <td style="text-align: center;">_____ doses</td> <td style="text-align: center;">_____ doses</td> </tr> <tr> <td>DPT</td> <td style="text-align: center;">_____ doses</td> <td style="text-align: center;">_____ doses</td> <td style="text-align: center;">_____ doses</td> </tr> <tr> <td>Polio</td> <td style="text-align: center;">_____ doses</td> <td style="text-align: center;">_____ doses</td> <td style="text-align: center;">_____ doses</td> </tr> <tr> <td>Measles</td> <td style="text-align: center;">_____ doses</td> <td style="text-align: center;">_____ doses</td> <td style="text-align: center;">_____ doses</td> </tr> <tr> <td>Y. fever</td> <td style="text-align: center;">_____ doses</td> <td style="text-align: center;">_____ doses</td> <td style="text-align: center;">_____ doses</td> </tr> <tr> <td>Tet. Tox.</td> <td style="text-align: center;">_____ doses</td> <td style="text-align: center;">_____ doses</td> <td style="text-align: center;">_____ doses</td> </tr> </tbody> </table> <p><b>COLD CHAIN</b></p> <p>Number of days temperature was recorded _____</p> <p>Number of days temperature exceeded 10 C. _____</p> <p><b>KEROSENE:</b> Gallons in drum at end of month _____ gal.</p>	<u>Vaccine</u>	<u>Balance at 1st of month</u>	<u>Received during month</u>	<u>Balance at end of month</u>	BCG	_____ doses	_____ doses	_____ doses	DPT	_____ doses	_____ doses	_____ doses	Polio	_____ doses	_____ doses	_____ doses	Measles	_____ doses	_____ doses	_____ doses	Y. fever	_____ doses	_____ doses	_____ doses	Tet. Tox.	_____ doses	_____ doses	_____ doses																							
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