SIDA Evaluation Report, Health Sector, Zambia

1989/3

NO SHORT CUTS TO HEALTH

An evaluation of SIDA Health Sector Support to Zambia 1979–1988

By S. Dahlgren, V. Diwan, K. Eduards, A. Gunnarsson,
L-K. J. Mwansa, R.S. Patel, O.S. Saasa, T.K. Sinyangwe

SIDA

This report is the result of two evaluation missions to Zambia in May and September 1988. In addition, in June-August 1988 a compilation of field research on health care in rural areas was carried out, as well as an analysis of data on the use of drugs.

The evaluation team consisted of Mr S Dahlgren, SIDA, as tead leader, Messrs V Diwan, K Eduards, A Gunnarsson, L-K Mwanza, R S Patel, O S Saasa and T K Sinyangwe. Ms M Nordenfelt, SIDA, took part as resource person.

The views and interpretations expressed in this report are those of the authors and should not be attributed to the Swedish International Development Authority, SIDA.

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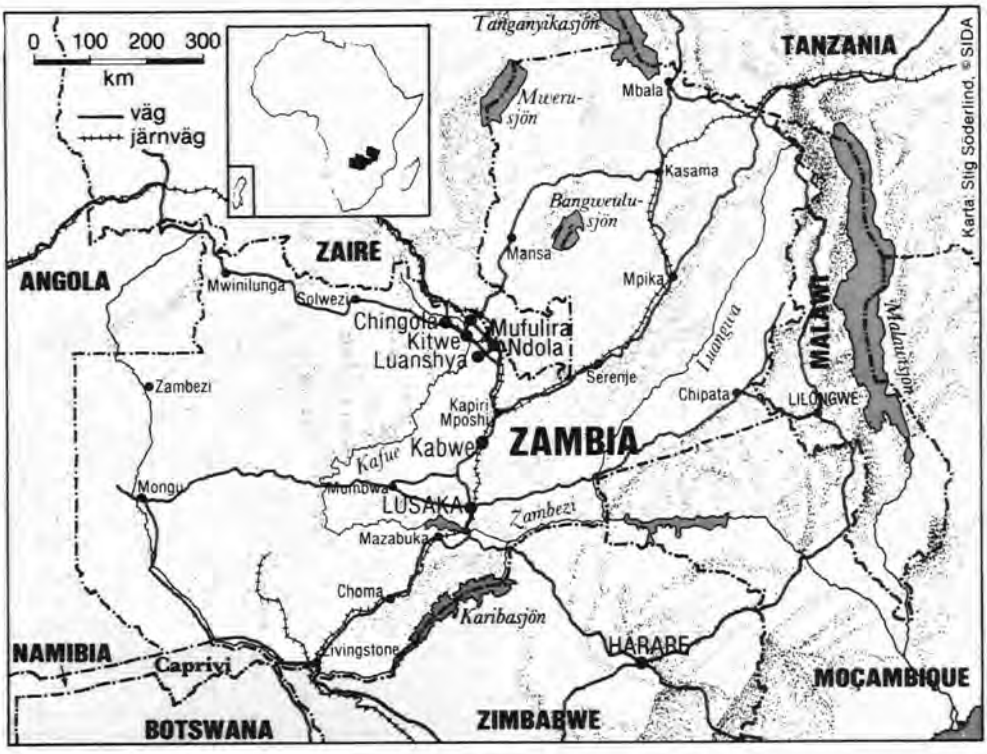
Stockholm 1989

ZAMBIA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MOÇAMBIQUE
Capriyi
BOTSWANA
ZIMBABWE
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Health Sector Support, Zambia

List of Abbreviations

CDD	Control of diarrhoeal diseases
CHW	Community health worker
CMAZ	Cristian Medical Association of Zambia
CO	Clinical officer
DDMS	Deputy Director of Medical Services
DGIS	Directorate-General for International Co-operation (the Netherlands)
DMO	District Medical Officer
DMS	Director of Medical Services
EDP	Essential Drugs Programme
FNDP	Fourth National Development Plan
GDP	Gross domestic product
GRZ	Government of the Republic of Zambia
HA	Health assistant
HCFER	Health care financing and expenditure review
HIU	Health Information Unit (in the Ministry of Health)
HSSP	SIDA Health Sector Support Programme
IBRD	the World Bank
IRDP	Integrated rural development programme
IMF	International Monetary Fund
INDP	Interim National Development Plan (1 July 1987 - 31 Dec 1988)
K	Zambian Kwacha
KAP	Knowledge, attitude and practice study
MCH	Mother and child health care
MD	Medical Doctor
MoF	Ministry of Finance
MoH	Ministry of Health

MoW	Ministry of Works
MSD	Mechanical Service Department (Ministry of Works)
MSL	Medical Stores Ltd
NCDP	National Commission for Development Planning
NFNC	National Food and Nutrition Commission
NGO	Non-govermental organisation
NNSP	National Nutrition Surveillance Programme
NRDC	National Resource Development College
ODA	Overseas Development Agency (UK)
ORS	Oral rehydration solution
P&D	Planning and Development (department in the Ministry of Health)
PHC	Primary Health Care
PMO	Provincial Medical Officer
PS	Permanent Secretary
PU	Planning Unit (in the Ministry of Health)
RHC	Rural health centre
SEK	Swedish Kronor
SIDA	Swedish International Development Authority
STD	Sexually transmitted disease
TAP	Technical assistance personnel
TBA	Traditional birth attendant
TNDP	Third National Development Plan (1980-84)
UCI	Universal child immunisation
UNIP	United National Independence Party
UNZA	University of Zambia
UTH	University Teaching Hospital (in Lusaka)
VHC	Village health committee
VIAK	(Swedish engineering consultancy firm)
WHO	World Health Organisation

Executive Summary

The present health sector support agreement between Zambia and Sweden covers the period 1986-88. A new agreement will be entered into from 1989. This evaluation was carried out as a basis for the new agreement.

The evaluation comprised three phases, and has been carried out by a joint GRZ/SIDA team in May (phase I) and September 1988 (phase III). Phase II was a compilation (in June-August 1988) of field research on health care in rural areas and an analysis of data on the use of drugs.

Preliminary findings from the first phase were summarised in an interim report, which is incorporated in the present final report.

The Swedish support to the health sector in Zambia started in the early 1970's, first with volunteers, and later with personnel support to the training of nurses and midwives. It was from 1979 organised as a health sector support programme (HSSP). The present programmes under HSSP are:

- construction and upgrading of rural health centres,
- primary health care training,
- health planning, including health information
- transport,
- nutrition surveillance,
- essential drugs,
- AIDS.

The evaluation covers the whole period 1979-1988. Several of the individual programmes have been evaluated during this period. The last comprehensive evaluation of the HSSP was carried out in 1983.

Health information

A revision of the system seems necessary and the present form of support seems appropriate in order to make it more efficient.

AIDS

The effectiveness will to a large extent depend on the capability for receiving support and on donor co-ordination.

Chapter 1
Introduction

Background

The Swedish support to the health sector in Zambia started in the early 1970's, first with midwives as SIDA volunteers to provincial and district hospitals, and some years later with personnel support to the training of nurses and midwives. In 1979 an agreement on the construction of a post basic school of nursing was signed.

The Swedish assistance was from 1979 organised as a health sector support programme (HSSP). The two on-going programmes, the Nurse Tutor Programme and Post Basic School of Nursing, were included in the HSSP.

The present health sector agreement between Zambia and Sweden covers the period 1986-88. A new agreement will be entered into from 1989. This evaluation is carried out as a basis for the new agreement.

The evaluation covers the whole period 1979-1987. However, several of the individual programmes have been evaluated during this period. The last comprehensive evaluation of the HSSP was carried out in 1983.
Under the HSSP, SIDA directs assistance to the following programmes:

Health Planning

SIDA has continued to provide personnel and financial support to the Planning Unit of the MoH which was established in 1979. The Planning Unit's main aims include formulating policies and plans for the development of the entire health sector in Zambia. It is also responsible for facilitating the implementation and monitoring of such plans and policies.

PHC Training

SIDA support in this area was initiated in 1981. Its primary objective is now the training of CHWs and provision of transport and other equipment for CHWs. It includes the training of existing staff and education of staff from relevant sectors, including party workers and community leaders. SIDA previous support to the training of clinical officers and post-basic school of nursing was completed in 1986.

Essential Drugs Programme (EDP)

Under this programme which started in 1985, SIDA's aim is to improve the supply and use of drugs at RHCs and by CHWs through a new distribution system with pre-packed drug kits.

Additionally, SIDA, under this programme, is involved in refresher training of health workers, in strengthening planning and management at all levels, and through information on proper drug use.

National Nutrition Surveillance Programme (NNSP)

In this area, SIDA support is directed at building up a national nutrition surveillance system with the ultimate aim of alleviating problems of malnutrition in Zambia. It involves the assessment of the magnitude, severity, and distribution of nutritional problems and assistance in taking remedial measures.

Rural Health Centres

SIDA has from 1979 to 1988 supported the construction, rehabilitation and upgrading of RHCs, as well as acquisition of equipment and furniture and the supply of clean water to its supported RHCs. A RHC maintenance programme is planned to replace the construction and upgrading activities.

Transport Programme

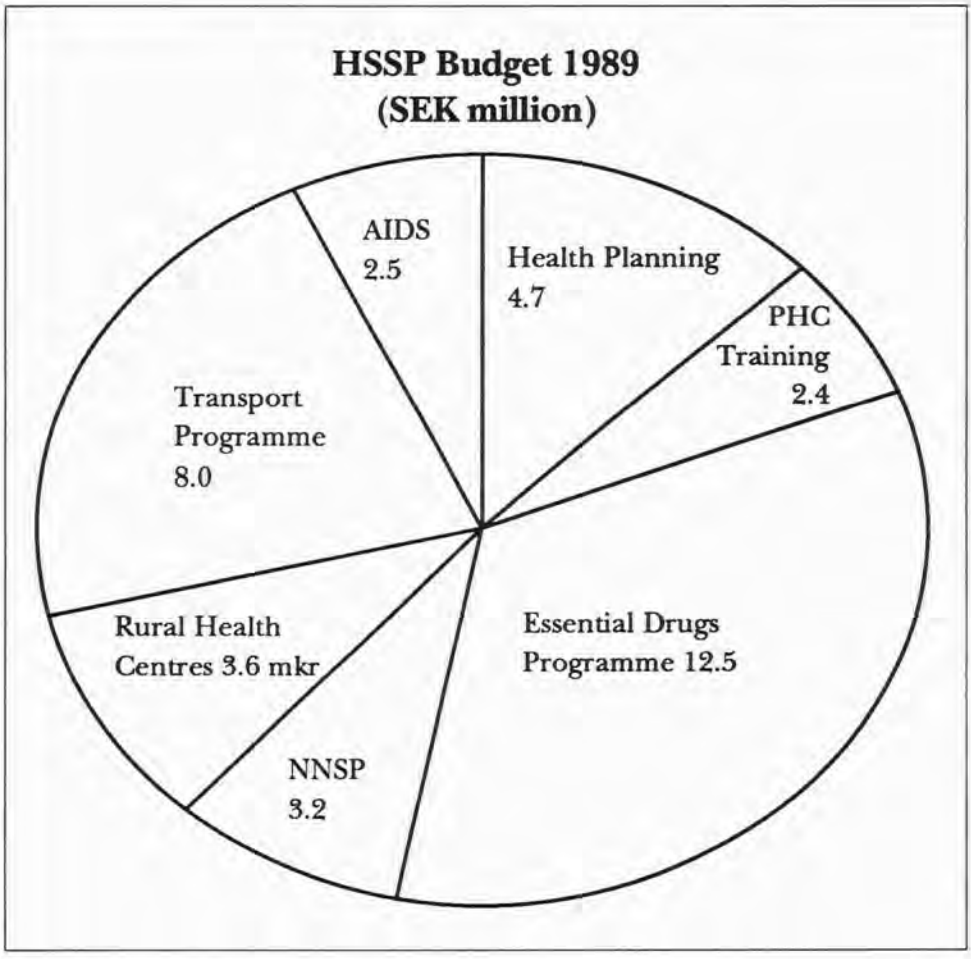
The SIDA supported Transport Programme in the MoH started in 1979 with the aim of improving the general transport situation in the country with regard to the basic health services in rural areas. It includes the establishment of a central workshop and spare parts store in Lusaka, workshops in each region, a spare parts supply system, a maintenance administration system and training of staff.

AIDS

The Acquired Immuno-Deficiency Syndrome (AIDS) has been recognised by the government as a major public health problem in Zambia. Accordingly, an AIDS Task Force and a National AIDS Surveillance Committee have been formed in December 1985. SIDA is since 1988 involved in all these initiatives through financial and technical support.

Health Information

SIDA supports the Health Information Unit at the MoH Headquarters in the area of improving data collection and processing, by sponsoring a Health Information Planner.



Objectives of the Swedish health sector support

In SIDA's administration the *project support memorandum* (in Swedish "insatspromemoria") has a prominent place as the basic document for the Board of Directors' decisions on SIDA's activities in a specific country. In that document both the long term objectives and the short term targets are specified as well as the resources which the Swedish government is prepared to contribute. The main points in the memorandum form the principal content of the *Specific Agreement* on support to an individual programme. It is, in principle, against goals and targets in that document the project performance should be evaluated. However, agreement documents are seldom specific enough to give guidance for evaluation.

An agreement is made more precise through plans of operation, budgets and at the annual review discussions. In the case of HSSP there exists virtually no plans of operation, and although the annual review documents have been helpful for follow-up, the sector support objectives were, in practice, to be found in the project support memoranda.

The objectives of the Swedish support to the Zambian health sector were first expressed in the project support memorandum 1979 as follows:

> "The overall objective for the Swedish support is to develop the basic health system in rural areas with priority to neglected areas. The sector goal is to create preconditions for effective basic health care in accordance to Zambia's plan for primary health care."
>
> "Project goals are to support the health planning function at the Ministry, to upgrade rural health centres in four provinces, to build new rural health centres in three other provinces, to train rural health centre staff, to train various types of staff for the primary health care strategy, to create an effective transport system, and to create a system for nutrition surveillance"

The project support memorandum from 1985 stated the same overall objective. The project goals were almost the same as in 1979, but "various types of staff" was specified as "to strengthen the training of nurse tutors". It also had one new project goal added: "to create a system for effective distribution of drugs".

The 1987 memorandum again had the same overall objective. No specific project goal or production targets were mentioned, presumably as it covers only an one-year extension of the previous three-year agreement.

These objectives and goals have two characteristics that should be pointed out. One is that they are not quantified (with one exception, the number of health centres in the programme). The other, and more important, is that the immediate aim of the SIDA support is not expressed in terms of improving the health of Zambia's people, bringing down mortality rates or the like. These goals are implicit and should, it is understood, be taken care of by the effective implementation of Zambia's health care policy. SIDA's role is stated to make it easier for the government of Zambia to implement its primary health care policy as it is expressed in the document "Health by the People" from 1981, which is still valid.

Naturally, the evaluation has also to take such implicit goals into consideration. It is, however, difficult to measure the HSSP's performance against general health indicators, both because they change only slowly and because it is not easy to establish a direct relationship between health and changes in the health care system.

The lack of quantification or, in SIDA's terminology, "production targets" of the goals SIDA's support is presumed to achieve, makes it difficult to assess the outcome of a specific programme in relation to plans or input. Also the accounting systems on both the Swedish and the Zambian sides are not very well suited to finding out with accuracy how much money has been spent on the various HSSP subprogrammes. We have, as far as possible, tried to establish the amount of resources spent over the years on each subprogramme. The figures for this are summarised at the beginning of the chapter dealing with each specific programme.

The problem of cost-efficiency, which the team felt should be discussed for certain programmes, has been dealt with in a roundabout way, e.g. by comparing existing manpower and suggested capacity or by making comparisons to similar programmes in neighbouring countries.

The objectives of the evaluation

The terms of reference for the evaluation (appendix 1) states that the objectives are

- to analyse the impact and the present effectiveness of the health programmes and SIDA's support;

- to discuss the implications of various alternatives for future SIDA support to the health sector;
- to make recommendations for future SIDA support to health development in Zambia, based on the findings of the present evaluation, on the Zambian health policy and the Swedish policy for development co-operation.

The terms of reference also says that the evaluation shall cover all health sector support programmes from SIDA, except the AIDS programme, which started only recently. The evaluation team has understood this to mean that the plan for the AIDS programme should be considered when recommendations on the future support are made, but that there is so far hardly any SIDA-supported activities in this programme to evaluate. The situation is similar for the health information part of the health planning programme.

Not included in the terms of reference are the three programmes which were terminated during 1985 and 1986. For the sake of completeness the resources spent on these are summarised in appendix 5.

The evaluation method and organisation

The evaluation was carried out in three phases. The first phase - in May 1988 - was a general review of the subprogrammes, based on interviews in Zambia and on written sources. Although covering all SIDA supported subprogrammes, it put special emphasis on the review of health planning and on the essential drugs programme.

Phase II was a compilation and analysis of available field research on health care in rural areas. The objective was to study the functions of health services at rural household and village levels, e.g. the coverage and utilisation of RHCs, the role of CHWs etc, with the aim of providing a basis for a better understanding of the possible consequences for the ultimate target group of the SIDA supported programmes. This was carried out by a local consultant. Also, during the same period (June-August 1988) a compilation and analysis of data on the use of drugs and prescription habits at the RHCs was made by the essential drugs programme and the PHC unit at the MoH. The terms of reference for these tasks were decided by the evaluation team.

Phase III took place in September 1988, in order to make it possible to submit the final evaluation report before the next SIDA/GRZ annual review

of HSSP in November 1988. In this phase the findings from phase II were taken into consideration. Also supplementary information concerning the various subprogrammes was included in the evaluation. In this phase special emphasis was put on analysing the possible consequences of the present economic crisis in Zambia for HSSP.

The terms of reference for the evaluation were drafted during the HSSP annual review in Lusaka in November 1987. The draft was later revised after discussions at SIDA in Stockholm. The final version was agreed upon in connection to the actual start of the evaluation at the beginning of May 1988 in Lusaka.

The evaluation is a joint GRZ/SIDA exercise. Apart from being a logical consequence of the principles in the HSSP agreement it made it easier to obtain accurate information from both Zambian and Swedish sources compared to using an all-Swedish team.
The members of the team were:

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Senior Evaluation Officer, SIDA, Stockholm,

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Karolinska Institutet, Stockholm,

Mr. K. Eduards,
consultant, development economist, Stockholm (phase III only),

Mr. A. Gunnarsson,
consultant, Stockholm, formerly Senior Health Planner (phase I only),

Dr. L-K. J. Mwansa,
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University of Zambia, Lusaka

Dr. R.S. Patel,
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Dr. O.S. Saasa,
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University of Zambia, Lusaka

Dr. T.K. Sinyangwe,
Primary Health Care Specialist, Ministry of Health, Lusaka.
Resource person:
Ms. M. Nordenfelt,
Senior Programme Officer (Health), SIDA, Stockholm

The bases for the first phase of the evaluation are written sources and interviews. The written material is in the form of consultancy reports from evaluations and follow-up studies or assessments of new parts of subprogrammes, annual reviews, internal SIDA memoranda and economic reports, GRZ policy documents etc.

The evaluation exercise started with extensive briefings by members of the staffs related to each subprogramme. The briefings were given to the whole team. They were followed up by individual team members through interviews with one or two members of staff related to the programmes. Interviews were also carried out in Lusaka with representatives of GRZ agencies or other donors to the health sector (see list of interviewed persons, appendix 2).

In order to obtain information from the implementation level a four-day field trip for the whole team was made to the Eastern province. The team visited PMO, the General Hospital (pharmacy and wards) and the provincial workshop in Chipata, the DMOs and district hospitals in Petauke and Katete, and six rural health centres of different sizes.

The results of the two tasks in phase II (section 1.4) were summarised in separate reports. The main data from the study on drugs use is included in chapter 6 of the present report. A summary section of the report on field studies on community health workers and rural health centres is attached to the present report as appendix 4.

In phase III follow-up meetings were held with the staff of all the HSSP subprogrammes. Interviews were held to obtain information for the discussion on the consequences of the economic crisis (chapter 2), and several team meetings were held to discuss final conclusions and recommendations of the evaluation.

Previous studies

As preparation for the work of the evaluation team three studies have been carried out on a consultancy basis by two of the team members in Lusaka. The

first study, written by Dr. Saasa and submitted in October 1987, discusses the changing preconditions for carrying out the national health sector policies in a period of economic crisis.

The other two studies, written by Dr. Saasa and Dr. Mwansa respectively and submitted in April 1988, are compilations of relevant documents for the HSSP and conclusions are drawn concerning each subprogramme on the basis of the conclusions and recommendations of the reports reviewed. Parts of these reports are incorporated in the present report.

The interim report

An interim report was submitted in June 1988 summarising the findings from the first phase of the evaluation and giving tentative conclusions and recommendations. It was made partly to facilitate for the Ministry of Health and SIDA to enter into a dialogue concerning the next three-year agreement before the evaluation was finalised in October 1988 and partly to create an opportunity for making corrections and amendments. Although large parts of the interim report are included in the present report the two reports should not be considered identical in content. The evaluation team's final conclusions and recommendations are in the present report.

Chapter 2

The Current Economic Crisis in Zambia, Health Sector Development and Prospects

Profile of the economic crisis in Zambia

During the first ten years of independence in Zambia, the economy showed remarkable level of progress with output and employment growth rates greatly sustained while real wages in the formal sector increased considerably. However, the post-1975 period tells a different story. From a generally healthy balance of payments position, the economy began to deteriorate due mainly to the decline in copper export receipts. Meanwhile the dependence on copper exports continued despite the fact that copper production declined from 33% to 15% of GDP over the 1970-83 period.

Several macro-economic consequences of these developments became evident during the post-1974 period. For instance, GDP remained static while domestic income declined by 30% over the 1970-1983 period. Population growth, at an average of 3.3% per annum, further contributed to the drastic reduction of the country's real per capita income. Meanwhile, the country's debt burden escalated to unbearable proportions and the situation was made worse by a substantial reduction in external loan disbursements.

The unsatisfactory economic performance of the Third National Development Plan (TNDP) (1980-84) revealed this poor economic record. The TNDP actual growth rate of only 0.06% was well below the anticipated rate of 4.8% per annum. Explanatory factors identified include the decline in

After 1975 the Zambian economy began to deteriorate from a generally healthy balance of payment situation. The debt burden escalated to unbearable proportions.
Photo: Per L-B Nilsson, SIDA Photo Archives

investment levels and volume of imports as a result of foreign exchange constraints. Actual aggregate investment was only 15% as opposed to the planned target of 29% of the GDP over the plan period. Furthermore, only 62% of the planned imports level was realised, mainly covering the raw materials needed in the import-intensive manufacturing sector. Capital goods imports were restricted to rehabilitation requirements of the mining and industrial sectors, resulting in the absence of adequate new investments in the economy.

Against the above background, the economic performance of all the principal sectors of the economy – mining, agriculture, construction, transport and communications – was well below the planned targets. With regard to the strategic mining industry, the cost of copper production has continued to escalate during 1980s, resulting in declining output record. The agricultural sector, similarly, registered little growth, partly due to drought and partly as a result of the general economic difficulties.

The manufacturing sector, with its high import content, has been adversely affected by foreign exchange problems, resulting in capacity underutilisation. Although during the 1980-84 plan period, the manufacturing sector accounted for over 16% of total fixed investment and consumed a very large share of foreign exchange, its value added increased by only 1.7% per annum, contrary to the TNDP target of 8%. Although the sector grew by 8% in 1985 (against the 1984 level), its value added remained static in 1986.

To attain the much recognised changes in the economy amidst the above poor economic record, GRZ embarked upon far-reaching economic reforms in 1984. These included:

(a) a 40% real depreciation of the Zambian Kwacha over the two year period ending July 1985;
(b) a cut-down on government spending (including a reduction of government expenditure on consumer subsidies); and
(c) selective public service recruitment freeze.

The TNDP economic problems forced Zambia to move closer to the IMF for balance of payments support. But to gain access to IMF resources, a package of stringent economic reforms and a structural adjustment programme had to be effected.

During the 1985-87 period, these reforms included the introduction of the foreign exchange auctioning system in early October 1985 which was responsible for a severe devaluation of the Kwacha by 955% between October 1985 and April 1986. This precipitated an accelerated domestic inflation rate (from 20% in 1984 to 60% in 1986) which, in turn, affected investment and employment growth.

The other reform measures under the IMF/World Bank-sponsored economic reforms were the decontrol of prices; upward adjustment of interest rates; wage freeze; and restriction of government expenditure, the latter basically intended to reduce the huge government budget deficit. However, despite budgetary cut-backs in line with the new reform measures,the budget deficit increased from K262 million in 1984 to K405 million in 1985 and further to K2,992 million in 1986. The government argued that the external debt service payments which amounted to K2,740 million in 1986 was the major factor contributing to the government budget deficit due to the massive depreciation of the Kwacha.

Overall, the government concluded that:

(a) foreign exchange auctioning which compounded the devaluation of the Kwacha neither discouraged imports nor encouraged exports due to the structural rigidities of the Zambian economy;
(b) decontrol of prices did not improve the profitability and viability of enterprises because of the high inflation rate;
(c) the decontrol and upward adjustment of interest rates adversely affected production by making borrowing prohibitive;
(d) decontrol of imports made the economy more import-dependent than before; and
(e) restrictions on government expenditure in a bid to reduce the budget deficit actually lead to reduction in social welfare services.

Against the above background, the government decided to cancel the IMF restructuring programme in May 1987 and introduced its 'New Economic Recovery Programme'. To implement this new approach, the Interim National Development Plan (INDP), to run over the July 1987 to December 1988 period, was initiated to temporarily replace the Fourth National Development Plan. The INDP's stipulated objectives include the following:

(a) to release resources for development by compressing non-essential and luxury imports and limiting debt service payments to only 10% of the net export earnings after the foreign exchange required to import the named strategic requirements is deducted;
(b) increasing capacity utilisation in enterprises producing basic essential and exportable goods;
(c) to control inflation;
(d) to improve enterprise profitability and reinvestment of profits in enterprises utilising local raw materials;
(e) to diversify exports by promoting non-traditional exports;
(f) to increase employment opportunities; and
(g) to reduce subsidies gradually and target them to the needy.

So far, however, the INDP has lacked major breakthroughs. Real GDP growth stayed at -0.2% during 1987, with consumer prices increasing by 58%. Copper production sank to its lowest recorded quantity since 1984 during the first quarter of 1988, particularly unfortunate as world market copper prices 1987 and 1988 have experienced a 100% increase over average 1984-1986 prices. Thanks to exceptionally favourable rains during 1988 a record maize

crop is within reach, making a GDP growth of approximately 2% possible. Other parameters, including inflation, would seem to stay at 1987 levels also during 1988.

The poor economic performance combined with growing arrears in debt-servicing – USD 100M on World Bank and USD 600M on IMF credits respectively – make an early settlement with the World Bank and the IMF concerning economic adjustment policies and extended credit facilities likely. This may be affected by the political situation after the elections in Zambia at the end of October 1988.

Effects of the crisis on the health sector

Since independence in 1964, Zambia has made substantial strides in the provision of health facilities. Over the 1964-81 period, for example, hospital and health care beds doubled, making Zambia one of the countries in Sub-Saharan Africa with the highest figures of hospital beds per 1,000 population.

Tables A and B (in appendix 6) give statistical data on the state of affairs, including 1987-1991 projections.

One observable prominent feature of these tables is the existing disparities between provinces in the distribution of health facilities, with the urban areas receiving a disproportionately large share. Partly due to the pattern of population concentration and partly reflecting political policy choices, Central, Northern and Western provinces have been underserved in the area of hospital and/or health centres. Using the beds as an indicator of the distribution pattern in health services, rural areas come out worst with only 1.7 beds per 1,000 population as opposed to urban areas with an average of 5.8 beds per 1,000 population.

The problems associated with the above rural-urban bias include the phenomenally high morbidity and mortality rates among children in the country. Especially in the case of rural areas and the disadvantaged urban communities (particularly in shanties), the leading causes of morbidity in the under 14 year olds are respiratory illness; diarrheas; malaria; fever; eye and skin diseases; and malnutrition/anaemias.

As can be seen from above, high morbidity and mortality rates in Zambia arise from preventable causes. Specifically, infant mortality rates are higher for rural than for urban areas. But within the urban areas themselves,

significant variations in infant mortality rate have been recorded, with squatter compounds registering, on average, three times the infant mortality rate of the low density areas.

The rate of infant mortality appears to be related to at least three major variables, namely: (a) the mother's education; (b) the father's occupation/financial status; and (c) the place of residence. With regard to (c) above, it was discovered that there is a higher percentage of diarrhea cases in urban areas than in rural clusters, suggesting that certain factors in some parts of urban areas (e.g. shanties) such as poor housing conditions, inadequate sanitation facilities; poor water supply, etc. put children at risk.

With regard to malnutrition, the situation seems to have been worsened by:

(a) the inadequate purchasing power among the rural and urban underprivileged communities;
(b) the ignorance about proper diet which is due to poor education among the mothers; and
(c) declining staple food production.

The low level of child immunisation is also worsening the condition of children in Zambia. With regard to the expanded and co-ordinated programme of immunisation, a lot of ground is yet to be covered. In 1984, while 82% of children in Zambia made at least one contact with immunisation services, the population of fully immunized children under 2 years of age was only 35%. Moreover, a higher percentage of children do not complete their immunisation courses due to, inter alia, poor follow-up procedures and ignorance of the importance of such preventive services on the part of the parents.

With regard to the disadvantaged condition of women, it is realised that although many mothers in Zambia today are examined by health workers during their pregnancies, most of them deliver at home unattended by trained personnel. It was reported in 1984 that the percentage of deliveries conducted in health institutions varied from only 20% in Western Province to 62% in Lusaka Province, with a national average of 35%.

Post-natal attendance by mothers, similarly, is generally poor, ranging from 5% in Western Province to 34% in the Copperbelt. Moreover, only 0.06% of pregnant women receive the essential tetanus toxoid (dose II) in Northern Province, compared to 46% in Lusaka.

Overall, the conventional health service approach, with its emphasis on curative medicine rather than striving towards preventive approaches to health care, thus becomes questionable in a country like Zambia. The relatively high dependence on complex and expensive technology and highly trained medical personnel meant that during the current period of economic hardship, the government health system became adversely affected since the needed inputs were scarce.

Particularly hit under the on-going economic crisis are the rural communities which have continued to consume a much lower proportion of the health care budget. In 1981, for example, it was established that Lusaka and the Copperbelt, which jointly had only 30% of the country's population, consumed approximately 60% of the total national health expenditure, thus leaving 70% of the population living in rural areas with only 40%. In per capita terms, the 1978 figures showed that the per capita government health expenditure was K9 in urban areas and only K5.50 for the rural populations.

The high population growth rate in Zambia, presently at 3.3% per annum, has necessitated additional resources. The other related feature of the Zambian demographic situation is the explosive growth of the urban population. According to government figures the urban population continuously expanded from 20.5% in 1963 to 29.4% in 1969 and to 43% in 1980. This represented average annual growth rates of 8.9% and 6.9% for the 1963 to 1969 and 1969 to 1980 periods, respectively. Such a high rate of population growth in urban areas has placed a functional strain on the urban health services at a time when the country is unable to meet the expanded demand.

The other related problem that results partially from the current economic crisis refers to drug supply and distribution in Zambia. Although government expenditure on drugs had risen from K6.2 million in 1972 to K15.5 million in 1984, the ever-rising cost of medicines makes it difficult to provide an adequate service. The import-intensive pharmaceutical industry in Zambia has also failed to satisfy the national demand amidst foreign exchange scarcity. The absence of a comprehensive drug policy or drug legislation in Zambia has also complicated the drug problem. At present, the government has not presented lists of drugs for utilisation at different levels of the national health system. Thus, one notes that supply management and logistic aspects related to drugs need to be improved. Moreover, there are no well defined policies and strategies for drugs with respect to demand estima-

tes, procurement, urban-rural distribution, quality and storage facilities, and inventory control and management.

Against the above background, several operational problems have been witnessed in the provision of health services. The upgrading and construction of rural health centres, for example, has slowed down mainly due to lack of transport and finance (including problems in acquiring materials and equipment). During the 1986/87 HSSP Review Mission, it was discovered that construction work at some of the ten health centres that was started as early as 1984 was still going on, with only four to five of the ten expected to be completed by the end of 1987.

With regard to the RHC rehabilitation programme, government delays in the operationalisation of the decentralisation policy will negatively affect the implementation of the present plan. Moreover, the availability of local funds for preventive maintenance cannot be guaranteed given the current economic difficulties in the country. Even worse, the availability of materials in adequate proportions on the local market is presently uncertain as a result of the severe foreign exchange difficulties. The present shortage of well-trained manpower to undertake the rehabilitation and maintenance programme for RHCs as well as serious lack of serviceable vehicles delays the effective implementation of the programme.

The country's health manpower requirements has also been adversely affected by the on-going economic crisis. The number of medical doctors in the country has declined over the years. The 1987 ODA Report, 'Health Sector Review, Zambia', found that the establishment for doctors in the country is 978 posts, but the vacancy rate is 61% and rising. Moreover, it was revealed that only 13% of the posts were filled by Zambian doctors. Since 1964, about 270 doctors received their training locally and abroad and yet only 167 still work within the public sector.

Table 1 shows a progressive increase in the number of vacant posts for doctors over the 1981-85 period. The ODA report on non-doctor health personnel reveals the following features vis-a-vis the health sector supply-demand profile as of 1987:

- there is a potential surplus of enrolled nursing staff considering that about 580 nurses and midwives graduate from the existing training schools annually;
- midwives and registered nurses are in short supply; and

- there is a surplus in the output of clinical officers (psychiatry) in proportion to the country's demand for general clinical officers.

The main causes of the problems in the health sector analysed above include financing and resource utilisation patterns. The real per capita budgetary allocations to the health sector have declined considerably. The expenditure patterns of the health sector are shown in Table 2 (absolute figures) and Diagram 1 (percentage distribution). One important observation is that although actual expenditure for the Ministry of Health (MoH), at current prices, has increased from K76.4 million in 1984 to K236.5 million in 1986, real expenditure (i.e.at constant prices) had actually declined during that period. By 1985, for instance, the health sector's real per capita expenditure had dropped by 48% on the 1974 levels. As for the health sector's capital (development) expenditure, the allocations have drastically fallen from approximately K11 million in 1982 to about K3 million in 1984.

TABLE 1
Staffing levels of doctors 1981 - 1985

Year	Establish-ment	Zambian	Non-Zambian	Vacancies
1981	808	62	577	169
1982	808	79	586	143
1983	830	92	584	154
1984	830	88	531	211
1985	850	103	491	256

Source: UNDP (1966) Restructuring and Development in Zambia..., p 151

DIAGRAM 1

Type of total actual expenditure for MoH 1981-1986. (percentage distribution)

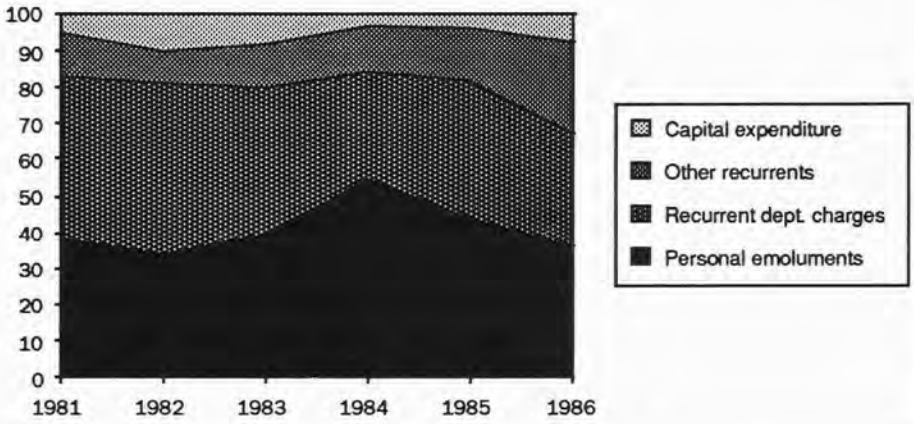


TABLE 2

Type of total actual expenditure for MoH 1981-1986. (K million)

Expenditure	1981	1982	1983	1984	1985	1986
Personal emoluments	29,7	40,6	43,2	62,0	64,3	86,0
Recurrent dept. charges	34,0	55,6	44,3	33,5	52,3	72,7
Other recurrents	9,0	10,2	12,8	14,0	20,0	60,5
Capital expenditure	3,7	11,1	8,1	2,9	5,2	17,3
TOTAL	76,4	117,5	108,4	112,4	141,8	236,5

Source: GRZ, Financial Reports, 1981-1986
(and calculations by Oliver S Saasa)

A substantial portion of the health sector's expenditure is provided through technical cooperation. Table C (in appendix 6) gives a summary of externally-financed technical cooperation to Zambia for 1985 and shows that the health sector received a total of USD 6.6 million or 7% of total technical assistance to Zambia in that year. It is worth noting that while the above figure is substantial, the health sector's share of total externally financed technical assistance had declined by 50% over the 1981 figure.

Against the preceding analysis of the problems in the health sector, it is evident that new policy directions had to be sought vis-a-vis government and donor responses to the crisis.

Government and SIDA responses

The Zambian government's response to the crippling effects of the economic crisis on the health sector has primarily assumed the form of a redefinition of its policies and priorities in this area. These changes could best be identified through the examination of the TNDP and the on-going INDP. The main objectives of the TNDP in the field of health sector development are reflected in the following stipulated goals:

- development of basic health care services in rural areas, priority being given to those places where no such facilities exist;
- attainment of a marked degree of 'Zambianisation' through an expanded programme of training and distribution of health workers;
- movement towards complete integration and expansion of preventive and curative services;
- provision of health protection to mothers, infants and other vulnerable categories;
- decentralisation of basic health services; and
- nutritional well-being of the population.

Due to the earlier disappointment with the curative approaches to health care, the government introduced a new approach: Primary Health Care (PHC). This strategy was initiated by the government and adopted by the ruling Party, UNIP, in August 1981 as the nucleus of Zambia's health system and has been upheld in the current INDP.

PHC, as policy strategy, focusses on the preventive approach to the provi-

sion of health services. Government priority accorded to PHC is confirmed in Table 3, which shows that the 1987 budget allocation for PHC has been increased by over 500%.

TABLE 3
Investment in the health sector in INDP and 1987 GRZ budget (K '000)

Programme /project	1987 budget allocation	INDP provision GRZ	INDP funding Foreign	Donor agency
Priority A				
PHC, incl NNSP	3,693	18,693	15,000	3,693 SIDA
National Drug Organisation system	5,000	5,000	–	10,976 SIDA
Hospitals and stations improvements	0,900	1,990	1,990	– –
Rural Health Centres	3,562	15,562	12,000	3,562 SIDA
Subtotal	13,155	41,245	28,990	18,231
Priority B + C				
Transport system	6,900	6,900	–	6,900 SIDA
Other projects	12,917	17,265	14,120	2,845 Belgium
Subtotal	19,817	24,165	14,120	9,745
GRAND TOTAL	32,972	65,410	43,110	27,976

Source: GRZ, Interim National Development Plan July 1987-December 1988, p 68
Note: The SIDA figures have been corrected according to SIDA budget sources

Essentially, PHC entails health care made universally accessible to individuals and families in the country by means acceptable to them and through their full participation and at a cost that the community can afford. Special attention within the PHC concept is being given to the more vulnerable groups, mainly in the rural and peri-urban areas. In its operation, PHC focusses on the provision of the following health-related services:

- health education;
- promotion of adequate nutrition and food supply;
- promotion and maintenance of a safe water supply and basic sanitation;
- maternal and child care services, including family planning;
- immunisation;
- prevention and control of locally endemic diseases;
- promotion of mental health; and
- treatment of common diseases and injuries.

In the above respect, strong community organisation is perceived to be an important prerequisite for the successful realisation of PHC. It is also recognised in the national health care policy that the decentralisation of health services should include the strengthening of managerial capability, gradual removal major operational and technical constraints and assuring adequate health infrastructure in accordance with development and recurrent budget resources, including a rational allocation of external inputs.

The reorganised UNIP structure during the TNDP has been perceived by the MoH as suitable for PHC community organisation. In such an organisational set-up, the following features are observable:

- the Section Committee is the basic unit for people's PHC participation;
- the Health Centre and its villages form a Primary Health Care Unit (PHCU);
- the RHC's primary responsibility is to manage and deliver PHC as well as supervising PHCUs;
- the Zonal Health Centre serves the whole zone (i.e. a part of the district), supervises all RHCs within the zone and acts as health centre for its catchment area; and
- the District Hospital serves the whole district, supervises all RHCs within its own catchment area and Community Health Workers (CHWs).

Despite the above-analysed government policy re-orientations, there are

several outstanding problems of PHC approach to realising health for all by the year 2000. The following are quite prominent:

- inadequate drug supply at all levels;
- inadequate and unreliable health information system;
- over-centralisation of ministerial functions, especially in financial matters, despite the explicit policy of decentralisation in the PHC concept. As a result, the PHC idea of community participation has not been realised;
- lack of transport for RHC staff and CHWs;
- lack of co-ordination and cooperation between the relevant sectors that are expected to jointly fulfil the PHC programme;
- shortage of trained manpower compounded by high wastage rate of trained CHWs;
- poor management and planning capacities at all levels of the health care system;
- inadequate budgetary allocations; and
- inappropriate use of resources, both financial and human.

On the one hand this last item reflects the imbalance between capital and recurrent expenditure, with the former receiving a disproportionately smaller share. On the other hand, professionally qualified and experienced medical doctors have been appointed, especially at the MoH headquarters, in management positions. The wisdom behind this government decision should be questioned not only on grounds of wastage of experienced human resource – in view of the current shortage of doctors in the country, as earlier demonstrated – but also on whether, as administrators, they are professionally equipped to tackle the intricate policy and planning issues of sectoral development which, traditionally, is the field of specially trained economic and social planners.

In the areas of cost recovery vis-a-vis the current economic crisis, the government has made several decisions. According to the INDP, the earlier suspended cost-recovery measures would be reintroduced as supplementary financing mechanism. The University Teaching Hospital (UTH), which is now a parastatal institution, has been identified as the pioneer in this exercise and it is now expected to generate its own financial resources. Medical fees for other hospitals were effected as from 19 September 1988 and cover such areas as consultations, hospital boarding costs on admission, surgical opera-

tions, X-ray and routine medical examinations, etc. However, the levels are low and it is doubtful if these fees can effectively contribute to the ministry's budget (see also section 2.5.2 below).

Other planned cost-recovery programmes include:

- health insurance to cover households of government employees and other groups in the formal sector;
- voluntary contributions by private companies;
- encouraging private enterprises to extend health services to their respective employees;
- self-help projects; and
- planned distribution of private practice.

Lastly, in line with rationalisation in the use of scarce resources, GRZ is working towards the mobilisation of operating resources to key programmes of maintenance, repair, rehabilitation, and replacement of capital structures to ensure maximum capacity utilisation of existing facilities. Accordingly, this re-orientation will receive priority in financial resource allocations in order to avoid accelerated structural decay in the health care system. The coming revised Fourth National Development Plan is more than earlier plans directed at the consolidation of the present health infrastructure. Consequently, the development of new capital outlays has been kept at a minimum and confined mainly to those settlements without access to basic health services. It has, though, a few heavy items of investments. The possible consequences of this is discussed in section 2.5.1 below.

SIDA support to the health sector in Zambia is comparatively significant. In 1979, a three year Health Sector Support Programme (HSSP) was signed between the government and SIDA. Within the overall framework of a policy aiming at the creation of preconditions for PHC services in rural areas, SIDA has, through HSSP, directed its assistance to the under-served regions.

In the present HSSP agreement the main areas of SIDA assistance to Zambia are support to the educational sector under the Educational Sector Support Programme (ESSP); assistance to the agricultural sector under the Agricultural Sector Support Programme (ASSP); and of current concern, support through the HSSP.

As has been stated above (cf. 1.1 and 1.2) the thrust of SIDA's intervention during the 80's has been in support of the government's PHC policy in line with Zambian overriding priorities. In the following parts of the report

individual programmes are assessed separately. Table 4 below shows SIDA's HSSP budget for 1986-1988.

Donor coordination

The overall coordination of all donor-funded activities at the national level is the responsibility of the National Commission for Development Planning (NCDP). It is the signatory to the agreements on behalf of the government. NCDP also monitors the progress of donor-assisted projects through quarterly reports from the individual implementing ministries while the Ministry of Finance has the responsibility for all aspects of managing the funds involved. The Ministry of Finance and NCDP, thus, work closely and, indeed, fall under one minister.

At the level of the MoH, there is no single body which coordinates the activities of all donors, although the department headed by Deputy Director of Medical Services oversees the negotiations and agreements with individual donors. Once an agreement is reached, individual units involved in the implementation process coordinate closely with the donor through the appropriate committees (e.g. GRZ/WHO, GRZ/UNICEF, GRZ/WHO/UNFPA, GRZ/SIDA).

In the areas of PHC, the National Primary Health Care Development Committee has been operating for a number of years now. In addition to representation from related ministries, it has membership from CMAZ, WHO, UNICEF and PRITECH. The National Primary Health Care Coordinator coordinates all PHC activities within the department under the chairmanship of Deputy Director of Medical Services (PHC). All four Deputy Directors of Medical Services (i.e. Planning and Development, Medical Care Administration; PHC, and Decentralisation) and the Deputy Permanent Secretary report the activities of each department at the Senior Staff Meeting under the chairmanship of the Permanent Secretary of MoH.

A list of donor supported activities is provided in appendix 3.

TABLE 4
Health Sector Support Programme
Budget 1986–1988 (SEK '000)

PROGRAMME	1986			1987			1988			1986-88		
	Local	Foreign	Total	Local	Foreign	Total	Local	Foreign	Total*	Local	Foreign	Total*
Health Planning	547	2 746	3 293	769	2 833	3 602	2 468	2 386	4 854	3 784	7 965	11 749
PHC training	882	1 840	2 722	1 254	351	1 605	1 285	275	1 560	3 421	2 466	5 887
Essential drugs	433	7 123	7 556	69	10 907	10 976	735	8 532	9 267	1 237	26 562	27 799
Nutrition surveill.	420	1 350	1 770	360	1 728	2 088	505	1 389	1 894	1 285	4 467	5 752
RHC (on-going)	1 680	2 950	4 630	1 780	1 782	3 562	1 120	732	1 852	4 580	5 464	10 044
RHC (maintenance)	0	0	0	0	0	0	500	500	1 000	500	500	1 000
Transport	1 840	4 160	6 000	2 020	4 911	6 931	2 525	6 021	8 546	6 385	15 092	21 477
AIDS	0	0	0	0	0	0	340	1 970	2 310	340	1 970	2 310
SUBTOTAL	5 802	20 169	25 971	6 252	22 512	28 764	9 478	21 805	31 283	21 532	64 486	86 018
MATS	468	106	574	0	0	0	0	0	0	468	106	574
PBSN	0	0	0	0	0	0	0	0	0	0	0	0
Nurse tutor	48	738	786	0	0	0	0	0	0	48	738	786
GRAND TOTAL	6 318	21 013	27 331	6 252	22 512	28 764	9 478	21 805	31 283	22 048	65 330	87 378

* Excluding SEK 717 000 unallocated for 1988

Economic prospects for the 90's and their implications for the health sector

Economic prospects for the nineties are bleak. Already in 1989 GDP will probably fall, possibly rather substantially, as the copper market returns to surplus for the first time in four years, pressing world market copper prices, and as Zambian agriculture returns to normal rainfall. If further economic reforms are not undertaken and foreign balance of payments support still remains immobilised, economic observers expect the nineties to be a decade of protracted economic decline in real terms.

Even with further reforms and a resumption of foreign financial support, a sustained real growth in GDP per capita will be difficult to attain, given the high rate of population growth, 3.3 % per annum. Assuming an early resumption of negotiations with the IMF and the World Bank after the forthcoming elections and assuming a positive outcome, it would seem realistic to expect at least a few years' delay before sustained real growth is established. As population is moving ahead at the pace just mentioned, GDP annual real growth will have to exceed 3.3 % in order to catch up. It would not seem realistic to expect such a growth level on a sustained basis until the latter part of the decade.

The net outcome for the nineties of the above assumptions and deductions is an initial, possibly heavy, decline in real GDP per capita followed by stagnation or possibly a slow growth towards the end of the decade, i.e. an average decline of real GDP per capita over the whole ten year period. A more optimistic scenario, assuming e.g. a decline in the growth of population, improving terms-of-trade or a massive influx of foreign aid, could result in a more or less static real GDP per capita. An average real growth in GDP per capita over the decade seems out of reach, given the present parameter values of the Zambian economy.

Over the period 1970-1985 real GDP per capita according to official statistics sank from K 305 to K 190, all in 1970 prices, i.e. by 38%. 1986-88 have seen a further deterioration of approximately 8.0%, bringing real GDP per capita to around 57% of its 1970 level. Against the background of the above assumptions, it could easily slip under the 50% level by the year 2000, but would probably stay within the range of 50 to 60% of the 1970 level.

This discouraging scenario presents options for government decision-making for the health sector which insist on due attention. One concerns the

type and timing of investment, another the choice of strategy for the development of the health sector. The point of departure is the assumption that over the next decade government allocations to the health sector in real terms will somewhat lag behind or just keep up with the population growth.

The TNDP and the INDP contained proposals for investment, which may be reiterated in the coming Fourth National Plan, the FNDP. Indications are that e.g. a second 200 bed hospital in Lusaka will be suggested at a total capital cost of a approximately K 50 million, alongside new equipment for the Flying Doctors' Services at more than K 140 million. Also lesser investments may be of interest in this context, e.g. a proposed radiotherapy unit at the UTH at K 3 million.

What should be borne in mind when deciding about investments is their implications for the recurrent budget. The relation between recurrent and capital expenditure has changed drastically in the health sector over the last twenty years. If during the First NDP, 1966-70, recurrent expenditure was 2.6 times that of capital, it was more than 15 times higher during the TNDP, 1980-84. Present reports talk of a continuing and, indeed, exacerbating cost crisis, citing cases where in provinces and districts the annual allocation of funds is exhausted when salaries and food have been catered for. In this perspective it becomes imperative to consider fully the implications for the recurrent budget of proposed investments. Most probably there will not be room for more recurrent costs during the nineties than that which is required for present activities. The inclusion of new items will therefore presume the termination of others. If, ex ante, candidates for termination are difficult to identify, the MoH is probably well advised to defer further capital investment projects, which would produce significant demands on the recurrent budget. Instead of e.g. building a new 200 bed hospital it would seem a superior option to upgrade or somewhat expand a larger number of provincial or even district hospitals to attain the same effect.

Logically, the argument should be extended to include also present projects or activities. If on-going programmes are analysed in the perspective of a worsening cost squeeze, it may well be found that some specific activities will not survive until the end of the decade – albeit a separate project, a department within a hospital or perhaps a specific activity – because they will finally undergo such cuts in recurrent budget that they in effect become inoperative. In such cases it is, of course, good economy to adapt them or,

possibly, terminate them at an early stage rather than later, when additional resources have been consumed to little avail.

The argument can also be put in the following way – a worsening cost squeeze within the MoH overall area of responsibility will not allow all present activities to survive. Identifying and adjusting, as early as possible, those that will not, should make resources available which could be used for other activities instead, whose survival thereby would become safer.

An objection that this is not an easy operation must evidently be granted, but the only valid response to this objection is that the cost to society can only be higher if strategic decisions are deferred, allowing time and the cost squeeze to terminate projects instead.

The GRZ has adopted the Primary Health Care (PHC) policy as the main weapon in its battle for an improved health standard amongst the population, seeing it as the most cost-efficient way towards that goal. The implementation of PHC, however, lags behind plans, lacking sufficient support from key groups in the health establishment. This delay in reorienting fully the operations of the MoH causes losses to society, which would be difficult to defend in normal circumstances, but which become unacceptable in the light of the present economic crisis. It would seem that the crisis actually provides irrefutable argument for an accelerated implementation of the PHC policy, thus actually providing a blessing in disguise. Potentially this is certainly true, but it requires not only overriding policy decisions, but also adequate measures of PHC implementation and management. So far these have not fully been up to requirements. The on-going and continuing economic crisis makes it an interest beyond the MoH, i.e. of society at large, that this be achieved.

Apart from the deferral of costly investment in curative services advocated above and the accelerated PHC implementation argued here, the introduction of charges and fees for services is an instrument which can support the reorientation needed. The efforts in this direction being introduced at present in Zambia has a level of fees that seems far too low to even be able to cover the costs, much less provide a contribution to the budget. Considerably higher levels should be considered, perhaps within the range of K 20-50, not an unreasonable level for perhaps the majority of UTH's present clientele.

Other strategic requirements emanating from the economic crisis concern the focus of management and the need for maintenance. The role of

provinces and districts emerges as more important than previously, given the larger incidence of diseases and the lower level of services in the rural areas. The responsibilities of PMO and DMO staff should be expanded and the necessary delegation of power and resources should be secured, allowing a real decentralisation of planning and management to take place.

The need for maintenance, finally, stands out in stark clarity against the background of the economic crisis. The acquisition of new assets will become more and more difficult, particularly as regards major items like large buildings or expensive equipment. Logically, this increases the importance of maintaining what has already been acquired. Improved maintenance and repair at all levels of MoH activities is a valuable option for the extension of the lifetime of assets and for their more efficient utilisation.

The economic crisis does not only present the government with new requirements for the nineties, it also calls for a more stringent orientation of donor responses to development needs.

The Swedish-Zambian HSSP at present comprises six different items, excluding the recently added AIDS programme. It is encouraging to see, as is elaborated on in the following chapters of the present evaluation report, that these are basically well in line with the requirements of the nineties. Health planning, PHC training, health information, nutrition surveillance and AIDS-related activities are all software inputs in support of PHC. The transport programme and the essential drugs programme provide both software and hardware, which are important for PHC implementation. The rural health centres, finally, can actually be regarded as the backbone of rural PHC operations and are in that respect also in line with the overall orientation advocated here. They are also, however, vulnerable in the perspective of increasing penury of financial resources. Present discussions concerning the transformation of this terminating programme into one for the maintenance and repair of facilities would seem to be a top priority in that respect.

Summarising, the team finds the present HSSP mainly in line with the demands of the nineties, as these can be assumed as of today. Essential items which should be considered for further strengthening are the planning, the management and the maintenance functions within the MoH area of responsibility.

Chapter 3
Health Planning

Introductory remarks

SIDA support under the general heading of Planning includes manpower planning and health information as well as RHC development. The last two will be considered in the respective chapters dealing with those programmes. In the descriptive part of this chapter, extensive use has been made of existing documentation whenever it seems appropriate to sum up an issue under consideration.

It has not been possible to cover all relevant aspects of the development cooperation in the area of planning, e.g. the question of the effectiveness of scholarship funding will require attention.

General data on the Planning and Development Unit

"The government decided to establish Planning and Development Units in all its ministries in 1979, as a general measure to improve their activities and functions in the following operational areas:

- preparation of strategic plans, programme co-ordination, and project implementation,
- project formulation and evaluation, monitoring of progress and initiation of corrective action in case of problems,
- data processing,
- donor liaison, and
- liaison with the National Commission for Development Planning (NCDP).

The Planning Unit at the MoH headquarters was established in 1979 with a view to formulate policies and plans for the development of

> the health sector as well as to facilitate implementation of such plans and monitor their evaluation."
> (Saasa 1988 p. 58).

The PU has presented statements of objectives in the "1985 Annual Report on the activities of the sub-programme on Health Planning" and in a similar document in 1986. They have been closely translated into an outline of major functions/responsibilities under the headings of

- integration of health sector planning,
- (development and provision of) health planning expertise,
- (development and provision of) health information services,
- health project planning, implementation and evaluation,
- health manpower development and utilisation,
- health research,
- management of the PU.

These statements – which were of course not elaborated at the time when development cooperation in the area of planning started – have apparently not received explicit confirmation from a higher administrative level in the MoH. It would therefore be rash to interpret them in terms of definite commitments. In fact, there seem to be no terms of reference that *clearly* define the role of the PU. This question has been broached repeatedly in the joint GRZ/SIDA Annual Reviews. The following statement in the 1985 Annual Review, Appendix 8, still appears to have validity:

> "As stated by previous missions it is also important that there should be a further strengthening of the Unit in terms of clarification of its role as a co-ordinating body within the ministry. It should function as a clearly defined and unified entity rather than in the manner of fragmented ad hoc activities which have been a feature up to present time."

The PU presently is headed by a Deputy Director of Medical Services (P&D), who reports to the DMS and the PS.

The unit contains three sections below and is also responsible for international donor co-ordination:

- Planning and Development
- Manpower Planning
- Health Information.

The activities of the two first sections form the subject matter of this chapter.

The policy of decentralisation

A policy of decentralisation is set out in the Local Administration Act of 1980 and Amendment of November 1986. The chief aim is to transfer decision making and planning for local development from the central government and the provinces to the district level and below.

Implementation of this policy will among many other things require much improvement of managerial and planning skills and of tools of management available at the district level. Some of the major efforts of the PU should be seen in this general perspective as well as in terms of more immediate benefits. The chief features of this policy may be outlined as follows.

Instead of adopting a process of decentralisation within existing structures, the government has chosen a radically new departure by creating District Councils with policy-making and executive functions. The Councils thus will at that level take over the roles and responsibilities of defined ministries, the MoH being one of those. The Ministry of Decentralisation carries responsibility for co-ordination of the District Councils and Provincial Councils.

The decentralisation process touches on many major issues, such as financing, responsibility for employment and conditions of service, and creating a new administrative infrastructure. The intention is that districts should ultimately be financially self-sufficient. Obviously, implementation will have to proceed by steps and will be realised in total only in a rather long time perspective. Apparently there is no fixed time schedule.

The provincial health authorities will be concerned with matters of provincial or national importance, such as provincial hospitals and training centres serving entire provinces or the whole country. District hospitals have also been defined as coming into this category of national projects, which are to be funded from the MoH budget.

The HQs of the general provincial administration have established Planning Units, which are, however, not organised by sector.

District development will thus be guided by plans prepared by each district. The plans will be up-dated and form a basis for district budget estimates in accordance with ceilings determined by MoF.

The MoH budget will include HQ and provincial activities, national projects and national health programmes. For the time being it will also include recurrent expenditure for district and local health services, to the

extent the districts cannot generate the funds required. The Ministry will also have an allocation of capital funds that can be used for district level projects, with a view to improving coverage in under-served areas.

Although the focal point of district planning will shift from the DMO's office to the Council, the PU functions at this level will basically remain the same, those of providing guidelines, advice and resource staff.

At a more general level, monitoring of progress, programme planning and co-ordination, will remain the chief functions. An aim at standardisation will be pursued. District projects will have to be articulated with the manpower aspect. The PU will also be in a position to direct donor attention to under-served areas.

Finally, it will be noted that decentralisation has so far only involved some clinics handed over to Urban District Councils. It must be pointed out that the decentralisation policy lags well behind original plans, and the economic crisis will probably make its implementation even slower. The PU will for some considerable time mostly be dealing with the earlier administrative structure.

The 1985 Medical Services Act granted parastatal status to GRZ hospitals, beginning with the University Teaching Hospital in Lusaka. In respect of other hospitals the process has not yet come underway.

The Planning and Development Section: Related Issues

The national staff consists of one Senior Health Planner with MSc in Health Planning, and one Health Planner now on leave for MA studies and due to return late 1988.

The post of Senior Health Planner was established only in 1987, when the officer had worked in that capacity for several years. No post is established for the other officer.

The PU has repeatedly requested strengthening by the establishment of additional posts.

In a document June 1987 addressed to IBRD – "Plans and Budgets for the First Family Health Project of Zambia" – the MoH proposed one post of Chief Health Planner, one Principal Health Planner and three Health Planners. Since this project is being held in abeyance and apparently has little likeli-

hood of materialising in the near future, nothing has come of the proposal.

A SIDA seconded Health Planner arrived in 1980, and with intervals this post - more recently Health Planner/Economist - has been filled up to June 1988. A sucessor is planned to be recruited. A PHC evaluator was seconded 1985-86. A Senior Health Planner/Deputy Head of the PU arrived early 1986. His contract expires in January 1989.

In the absence of specific terms of reference, and given the very limited manpower assigned to planning, the section has had to respond to immediate necessities rather than conduct planning on the broad lines suggested by the PU itself.

Obviously, first priority has for long periods been given to the preparation of the national development plans. An annual task is the preparation of the Budgeting Plan and of the draft capital expenditure estimate, which will thereupon be passed to the Accounts Department under the Deputy PS to be consolidated with the recurrent expenditure estimate prepared by that department.

Otherwise, activities will largely be determined by such instructions or requests as will from time to time be presented from other quarters.

In the joint GRZ/SIDA Annual Reviews, emphasis has repeatedly been given to e.g. the following areas/aspects:

- priority to PHC,
- equitable distribution of resources,
- district health services plans
- guide-lines for decentralisation,
- health information system,
- manpower planning,
- improvement of managerial and planning skills at the provincial and district levels,
- financial management and the budget system.

Some of these issues have been addressed in defined projects, partly to be presented in the following. The two SIDA-seconded officers have chiefly directed their activities to the management and the budget system issues.

A Management Training Programme was launched in 1982 with support from WHO, Dutch Aid and SIDA. It was tied to consultants and expatriate staff, and was discontinued when they left.

A new *Management Development Programme* (MDP) started early 1987 with

the aim of strengthening management teams at all levels. Apart from immediate benefits, it was also seen to support efforts to decentralise health administration.

The training is conducted at a series of workshops/seminars, generally of three days duration and increasingly with a standardised work schedule. The training is principally oriented to solving practical problems. Topics to be addressed are performance at different levels, MBO (management by objectives), planning of work, transport management, delegation, resolving of conflicts, etc. The workshops also offer a means of presenting and discussing policy matters and programmes/projects such as the Health Care Financing and Expenditure Review, the Planning and Budget Review, and manpower planning.

The workshops will be repeated at 3-6 monthly intervals. A chief feature is the preparation of plans of action for the time period up to the following workshop, and subsequent review of their realisation.

MoH HQ staff is responsible for conducting workshops at the national and provincial level, provincial staff for district workshops.

A wider participation of staff from different levels is sought in order to match the concept of management teams.

A series of seminars at the national, provincial and district level has been held. The plan for 1988 foresees a total of 158 workshops.

WHO also has offered support to management training. The proposal is being studied by the MoH with a view to supplementing the efforts and capacity of the MDP and avoiding having two separate programmes.

Another resource in the management area is the National Institute of Public Administration, which has established a Health Department, directed chiefly at presenting and explaining the general administrative framework and procedures. Courses are being offered to doctors, nurses and health administrators. In a perspective of 3-4 years it is hoped that the Department will be strengthened in the area of management training and that a routine can be established of sending e.g. administrators and DMOs to attend courses.

It has been recognised that one of the principal constraints on effective planning and budgeting for the health sector concerns the structure of accounts. The budget categories presently being used by the central government are related neither to management units nor specific operational areas.

Even the major priority area, PHC, has no distinguishable budget (Saasa 1988 p. 80).

As a result of these budgetary problems, it is very difficult for the MoH effectively to perform its assigned function, through its PU, of resource allocation, monitoring of effectiveness and efficiency, and evaluation of output and impact. Related to this deficiency is the absence of reconciliation of planned capital expenditure and projected recurrent costs (Saasa 1988, p. 63)

It has also been observed that in the present situation, where long-term planning is difficult, the one year budget becomes in fact the most important planning document and planning exercise carried out in the MoH. Its importance has increased dramatically. The emphasis should shift from accounting and control to planning and budgeting.

The *Planning and Budgeting Review* has now reached the stage where a new budget format has been presented, awaiting the approval of NCDP and the MoF. This format solves the problems mentioned above. It is intended to show expenditure by activity and also – wherever possible – to relate expenditure to production as measured by simple indicators.

The MoF and NCDP have been kept fully briefed on the project. It is therefore hoped that approval will be given. If not, it is apparently within MoH discretion to use the format internally. Aggregation of expenditure data to tally with the current schedule of accounts is considered not to offer major difficulties.

A plan of action has been adopted for the implementation of this new system.

The system will have important organisational implications. It has been proposed that a Budget Committee and a Budget Group be established.

The Budget Committee, to be chaired by the PS, will decide on guide-lines, take final decisions on important matters, and negotiate on the budget proposal to the Budget Office of MoF.

The proposed Budget Group will on a permanent basis carry out the practical budgetary work and form a co-ordinating body for the budgeting exercises. The DDMS (P&D) as head of the PU is proposed as chairman. Among others, the Assistant Secretary (Finance), the Senior Health Planner and the Senior Personnel Officer will be members. Thus, some co-ordination between PU and the Accounts Department would be established.

Against the background of the economic crisis, much importance must be attached to the *Health Care Financing and Expenditure Review* (HCFER). The aim is to formulate recommendations for modifying present patterns of expenditure and financing to enable the government better to meet its health services objectives within the limit set by overall financial constraints and make it possible to prepare a financial master plan (Annual Review 1987, p. 11). For a more detailed presentation of objectives the reader is referred to Annual Review 1987, p. 10-11.

The project started with preparatory work in 1986 and is headed by the national Senior Health Planner. Progress will depend on the response to data collection now under way.

Knowledge of the way funds have been used in relation to priorities should be used in budgeting and in the preparation of the next five-year plan and generally in the direction of activities.

In 1980-82, a Country Health Planning exercise was conducted with the assistance of WHO and Dutch Aid. This created some awareness of the need for planning and provided a starting point for district health planning based on data and assessments of demographic information, priority disease problems, facilities and projects for up-grading, coverage and distances, etc.

The plans provided an input to the draft FNDP. The aim is to update this information annually or at least every two years. Some funds are available for the purpose.

The Manpower Planning Section: Related Issues

The Section, established in 1983, is currently manned by two officers on secondment from the Directorate of Manpower Development and Training (under the Cabinet Office).

In 1983, the MoH requested SIDA to provide a manpower planner to conduct a specific manpower planning study.

The study commenced in mid 1985 upon the arrival of a SIDA seconded manpower planner. In broad terms, the objectives were:

- to create a manpower planning system within the MoH.
- to review and reorganise the system of personnel budgeting.
- to prepare a long term manpower plan.

A final report was submitted in May, 1987. It addresses, among other things, questions of manpower information, methodology, establishment

register, staffing levels and ratios, present staffing imbalances and proposals to remedy the situation. The following major findings and corresponding recommendations may be noted:

- the forecast staff situation 1991 for doctors shows continued critical shortage. Training of specialists should be given highest priority, intake at UNZA should be increased, active recruitment of expatriate doctors on a systematic voluntary scheme should be pursued, compulsory rural service should be considered as a precondition for post-graduate training;
- among paramedicals, Clinical Officers will present the greatest shortage. The training capacity should be extended, post-basic training should be instituted for various new specialities;
- balance or oversupply is forecast for some staff categories, notably nursing manpower. In some cases, training capacity should be reduced.

The study recognises that not all proposed interventions are within the MoH area of responsibility. The Health Manpower Development Committee of the Ministry should be given overall responsibility for implementation of a proposed plan of action and prepare requests as required. The manpower section of the PU should be the working secretariate of the Committee.

The report has been approved as a basis for continued activities. Those which fall under the MoH are under way. Some of them, however, will require considerable lead time, such as changing the training intake.

The chief task of the manpower planning section in this respect is updating the of the Establishment Register. This work is well advanced, and computer processing has started.

The Health Manpower Development Committee operates under the chairmanship of the DMS. There is also a Manpower Development Committee at the national level.

Previous assessments of MoH planning and management

To the extent the following notes address the question of management they are not necessarily of relevance to the functions of PU. This will depend on where within MoH headquarters ultimate responsibility for the improvement of management will rest. Currently, the PU through the Management Development Programme can be identified with that function.

Areas where earlier assessments – in view of later developments – appear to have little bearing on the present situation will be noted only in passing.

Griffiths (1986) noted that the objectives that are officially presented for the health sector are expressed in very general terms and give little guidance on the preferred allocation of funds and other resources. A similar concern was expressed by O'Dwyer (1986) and by Saasa (1988).

Griffiths, however, noted that the strategies adopted are consistent with the objectives and priorities stated, although the accounting system does not allow evaluation with any degree of reliability.

The absence of a coherent health service plan has been commented on by Griffiths and Saasa.

Again in the context of the Planning and Budgeting Review it has been observed that it is presently not possible to plan for the long term. Planning and budgeting on an annual basis is the only relevant time period for the near future.

With reference to the Management Development Programme it might be noted that various studies have commented on the fact that decisions at the MoH are highly centralised, which gives senior officials little time to address major policy issues and questions of co-ordination (IBRD report 1984 as quoted by Saasa 1988, Griffiths (1986) and O'Dwyer (1986).

In the two latter sources, and in Saasa (1987) a note of warning has been sounded against pursuing the policy of decentralisation until strategic planning and planning capacity at the provincial and district levels can be improved.

A substantial strengthening of the PU has been advocated by various studies quoted above and also proposed by the MoH in connection with the Family Health Project. Since the proposals have their background in differing contexts it would apparently not serve any purpose to give details.

At the budget workshop held in Lusaka in March, 1988 differing views were expressed as to the focal point of MoH planning up to the present, whether it be the Accounts Department or the PU. However, it was stated that the PU had a co-ordinative function in respect of budgeting.

The documentation available contains several comments and recommendations concerning the accounts system and its implications for steering resource allocation, monitoring and follow-up, as well as concerning manpower planning. In all fundamentals, the Planning and Budgeting

Review and the Manpower Planning Study seem to resolve such questions in terms of methodology.

The SIDA assistance to the PU was briefly commented on in the 1983 "Health Sector Support to Zambia" evaluation report, thus at an early stage of this cooperation effort. It was found that the inputs from Sweden so far had made an important contribution to widen the bottle-neck constituted by inadequate planning capacity and capability, especially in regard to planning for PHC. However, resources were not sufficient, problems were evident in the transfer of knowledge, the staff had at times been overloaded with work, and counterpart arrangements were not satisfactory. The implementation of decentralised planning and improved management practices would require a continued and strengthened input of resources.

More recently, some concern has been voiced in respect of the more lasting effect of the SIDA contribution. Griffiths (1986) states that the benefit of the SIDA team, both in teaching Zambian counterparts and in improving PU functions, will be largely wasted unless urgent corrective measures are taken to staff and use the PU's considerable potential appropriately. O'Dwyer (1986) also finds it doubtful whether the full potential benefits have been realised. The technical assistance staff are used solely in a support capacity, and their expertise is narrowly directed.

Observations

A fundamental question concerns the definition of PU functions. For lack of explicit terms of reference there can be no rational assessment of volume of work and skills required, nor can any realistic plan of action be worked out. The head of the PU then can exercise no real control of activities.

The lack of definition also affects a proper utilisation of technical assistance staff. Specific job descriptions are likely to reflect a spurious precision when their basis in the organisation framework is poorly defined.

A crucial aspect of the present situation is that top management has only vague notions of what is required from the PU in order to improve decision-making, which is after all the rationale for planning.

The situation thus invites misunderstanding and will almost unavoidably cause dissatisfaction among top managers and frustration among the PU staff.

Three parallell measures are recommended here – to define the PU's function, to relocate it within MoH and to adjust its management profile.

Firstly, terms of reference or other authoritative statements must not only define the PU's functions but also address issues of co-ordination, and in particular the respective responsibilities of PU and the Accounts Department. This also will remove potential sources of conflict within the proposed Budget Group.

It may be noted that the existing division of responsibilities in conjunction with time constraints make it impossible to work out the recurrent expenditure implications of capital budget projects. Obviously, there should exist a firm linkage between capital expenditure/recurrent expenditure requirements and future commitments/availability of real resources, particularly manpower.

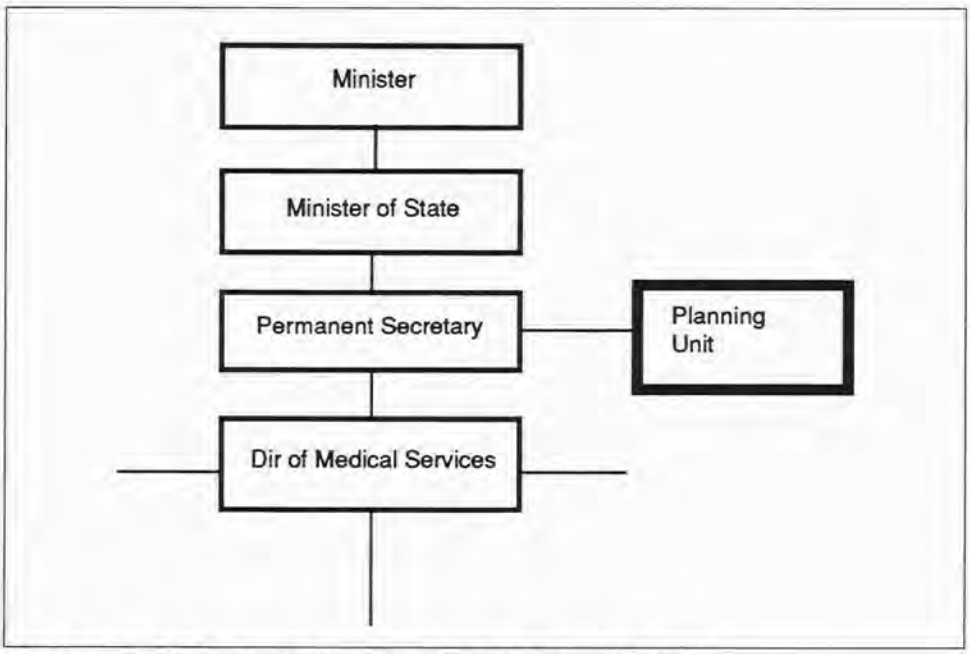
Similarly, top management should decide about responsibility for management development. This issue is here mentioned separately because the function according to experience requires easy access to the PS.

Secondly, the location of the PU within the Ministry should be reconsidered. The unit is expected to perform a staff function for the top management of the Ministry, i.a. providing the quantitative and qualitative information required for decision-making, performing ministerial planning functions and strengthening planning at lower levels, and ascertaining that medium and long term health sector planning at the inter-ministerial and the inter-departmental levels is effectively co-ordinated and integrated.

By nature such staff functions belong close to the top management, the classical location of a planning unit in a ministry being directly under the control of the permanent secretary in order to co-ordinate and service all other units, but, naturally, not in a line position. The relocation of the PU to a staff position directly under the PS would in the case of the MoH also seem to be the optimal choice (see fig below).

Not only would thereby top management get direct access to a valuable instrument, also the PU would enhance its impact working through the offices of the PS.

Thirdly, a MoH planning unit should be headed by an officer having the necessary training and/or experience in health planning/health management. Particularly in view of the present scarcity of medical doctors in Zambia, it would seem to be a misuse of human resources to use a MD post to head the PU.



MoH with the PU relocated to a position directly under the PS.

It is recommended that this post be relocated where there is a specific need for medical competence and that the profile of the head of the PU be defined in terms of health planner, health economist or similar.

Questions related to goal achievement and effectiveness of SIDA technical assistance in the Planning and Development Section may be viewed from a few different perspectives:

- in relation to objectives
- in relation to job descriptions
- in relation to tasks fulfilled

If first we attempt to relate technical assistance achievements to general objectives we are faced with the difficulty that these objectives are implied rather than explicitly stated. The national Senior Health Planner has clearly expressed the view that the SIDA efforts have been misdirected in so far as the aim was to assist in establishing an all-round viable planning function. However, it has at the same time been stated that there is now national capacity and competence (given some training) to take on the central planning functions.

In this assessment one cannot disregard the question of counterparts or corresponding arrangements. In the absence of counterparts –commented on during the entire span of this cooperation effort – there has indeed been little potential for transfer of knowledge, skills and experience.

This again is a rather common finding, and the problem should preferably be addressed in terms of policy rather than post-hoc assessments. To the extent a transfer of knowledge is seen to be an essential component this should be spelled out in operational terms in the job description; and it should be ascertained that posts exist or will be established and that there is a reasonable career structure within the professional area in question. Even so, it must be recognised that the position of counterpart may for various reasons hold little attraction.

When relating job descriptions to actual deployment it will become obvious that the SIDA staff have devoted much of their efforts to their individual areas of competence, giving secondary attention to other areas defined in the job descriptions. Since some divergence from job descriptions is a rather universal finding it seems worthwhile to identify causes from a structural rather than individual point of departure.

- A job description often will depict tasks guided by distinct objectives and given reasonable resources to achieve them. Activities accordingly are listed in a well ordered sequence from A to Z. The technical assistance person then will find that there is little substance/response/potential corresponding to the activities listed. He will find himself operating in a vacuum.
- The creation of a technical assistance post at times represents the wishes of a donor agency rather than the felt needs of the national agencies. The technical assistance person then will find that he does not fit naturally into the actual scheme of things.
- Given a vague job description, and meeting little response, the technical assistance person in his efforts to make himself useful will turn to areas where his competence may be used to advantage.

Those are general observations, to a greater or lesser degree applicable in the Zambian situation. The salient point is that job descriptions should be prepared with more thought to the preconditions and the administrative environment that may determine an outcome according to plans. In this particular case, the PU operating with no terms of reference and the capacity

virtually limited to one, although highly competent planner, it might have been conjectured that an extensive listing of duties was less than realistic. Adhering to the job description would have meant spreading the capacity so thin on the ground as to become indistinguishable.

At the same time, departure from the terms of the job descriptions will obviously cause dissatisfaction in the officers' expecting relief in their burdens, a situation much to be avoided.

In view of the difficult overall situation of the PU, and in particular the gross imbalance between capacity and perceived responsibilities, the PU and its technical assistance staff have inevitably had to concentrate their efforts to some high priority tasks. Under such conditions, an emphasis on management training and restructuring of the budget system is well justified. It can also be regarded as at least implicitly endorsed in the plans of action approved at the 1986 and 1987 Annual Reviews. These areas are of fundamental importance, and a significant improvement is a precondition for successful development of PHC and implementation of the policy of decentralisation.

The Management Development Programme basically represents a sound approach, being guided by Zambian realities and avoiding the fallacy of trying to impose foreign patterns of management.

During the field trip to Eastern Province the evaluation team could notice, however impressionistically, encouraging results in terms of activities being guided by plans of action, speedier procedures etc. On admittedly very limited evidence one might query whether the input available at district level workshops is satisfactory. The indication might be that MoH HQ staff inputs should at the present stage support the provincial team to a larger extent.

The Management Development Programme is expected to be established on a permanent basis. The way this should be done is open to discussion. Continued SIDA assistance seems indicated, possibly more specifically geared towards this programme than at present. Apart from the training activities, however, there would seem to be a need for qualified management expertise, possibly in a consultancy form, to look into the possibilities of further increasing efficiency in management also on the top level of the MoH.

The conclusion of the Planning and Budgeting Review, which has involved the SIDA Health Planner/Economist, offers a potential for decisive improvement of planning/budgeting/monitoring. Development in the near future will depend on the response by NCDP and MoF. In the case of approval, or

if the MoH decides to use the proposed system internally, one can foresee a period of intensive information and training efforts. It is essential that impetus not be lost.

Until a successor to the Health Planner/Economist has been recruited, SIDA should, if requested, be prepared to take immediate action to cover the interval by extended consultant support.

The job description of the contract technical assistance person should be reviewed, since the main thrust should be towards implementation of the new budget structure. If the PU obtains specific terms of reference the question might be viewed in this wider framework. However, having in mind the healthy determination to look towards self-sufficiency reflected in statements above, the indications are that the time has come to phase out general-purpose technical assistance but support some project-specific function. The sharing of the post with the Accounting Section, but ascertaining the linkage with the PU in terms of planning and budgeting, is recommended.

The Planning and Budgeting Review is interlinked with the HCFER project, which should receive further support along present lines until completion.

The aims and the scope of SIDA support to the Manpower Planning Section were well defined and clearly stated. The final report of the Manpower Planning Study conducted under the SIDA seconded manpower planner represents by any professional or practical standard a major achievement. It also offers workable suggestions for sustaining the results. However, crucial questions remain.

One concerns the fundamental assumptions underlying the report, which will, of course, change when and as the future resource framework of the MoH is more clearly defined in the light of the restrictions produced by the economic crisis. Based thereupon, trimmed indicative planning and indicative manpower plans will produce revised manpower requirements.

Secondly, generally speaking, the introduction of a new system is highly vulnerable until the implementation process has gained considerable momentum. SIDA should be prepared to offer consultant support on requests based on precise briefs, but also to follow-up on the issue within its dialogue with the MoH.

A final observation concerns not only health planning projects but also a number of other activities, whether supported by SIDA or not.

Provincial, district and local staff are target groups of a number of training activities. In total, such activities claim a considerable amount of health staff time, to the short term detriment of health services. In small institutions, plans of action are liable to be upset.

It appears that much could be gained if such, currently partly disjointed, activities were co-ordinated and brought into an orderly time sequence. This would also justify the deployment of didactic expertise. It is suggested that this question would merit consideration in a wider context.

Conclusions and recommendations

Irrespective of the question of SIDA support, it is essential for its efficient functioning that the PU be given a clearly defined mandate, that it be relocated to a staff position directly under the PS and that its head be defined as a health planner, health economist or similar.

The professional cadre of the PU will clearly be underdimensioned even upon the return of the Health Planner presently abroad for training. On the other hand, sufficient skills in health planning procedures will be represented in the PU. The basic problem is how to increase quantity rather than to raise quality. The first option might be to continue to offer scholarships for training on the basis of a plan that identifies training needs in precise terms and offers a smooth phasing over time. This should not exclude contract technical assistance if requested. In such cases, the measures advocated under 3.8.1 should be seen as a prerequisite; the job description should be more specific and less extensive; a plan of action should be presented: and any possible training component should be defined and also prepared in detail. The sharing of the post as Health Planner/Economist with the Accounts Section should be considered.

The SIDA support so far can in practice be identified with specific projects that should be institutionalised as permanently on-going activities or otherwise incorporated into set administrative practices:

- management training
- adoption of a new budget system
- manpower planning

The HCFER project might come into this category. In these cases, sustainability is now the chief issue. SIDA and the MoH should jointly, and as a matter

of priority, identify constraints and attempt to remove them. Continuity is of crucial importance. SIDA should be prepared to respond rapidly to requests for well specified consultant services, as well for the implementation of the programmes discussed here as for other inputs required in the area of Health Planning and Management.

Summary of SIDA Programme Support

Health Planning Programme (started in 1979)

Disbursements up to July 1, 1988 SEK 13.6 million

Funds spent on

- reviews on e.g. Planning and Budgeting, Health Care Financing and Expenditure, District Plans
- purchase of teaching aids, literature etc for seminars
- seminars/workshops in the Management Development Programme (7 at national, 18 at provincial and 33 at district level); Manpower Planning Programme and Development Plans
- purchase of equipment for Planning & Development Department
- study tours, short courses abroad (7)
- sholarships (2)
- purchase of 1 programme vehicle
- consultancy services
- technical personnel

Architect/Architect Planner	73	manmonths*
Transport Planner	55	manmonths**
Health Planner	81	manmonths
Senior Health Planner	30	manmonths
Manpower Planner	26	manmonths
Primary Health Care Evaluator	18	manmonths
Health Information Planner	2	manmonths

* from 1985 under the RHC programme

** from September 1985 under the transport programme

Chapter 4

Primary Health Care Training

Background and scope of SIDA's activities

The means for implementing the primary health care policy in rural areas are rural health centres (RHC) and community health workers (CHW). Under the PHC programme SIDA has since 1981 provided the funds for training and retraining of community health workers.

Included in the programme has also been seminars for officers from other sectors and from the party organisation, seminars for newly recruited staff, the information bulletin *Bwino* and bicycles for the CHWs. Before the essential drugs programme started also drugs kits came under this programme. These activities have been fully financed by SIDA. The funds form part of the GRZ recurrent budget for the provinces and have covered expenses for training such as travel and accommodation for participants, salary for trainers etc.

For this programme the evaluation has concentrated on the CHWs and their training.

The community health worker (CHW)

CHWs are volunteer workers elected or selected by a community to carry out day-to-day PHC activities. A CHW should be chosen on the basis of the following criteria

- must be a motivated man or woman respected and trusted by the community;
- have a minimum age of 25 years;
- must be well established in the community;

- should be prepared to work on a voluntary basis;
- ability to read and write is preferred.

The CHW should primarily carry out preventive health care activities, trying to promote measures to avoid illnesses rather than curing them. A CWH are expected to:

- give guidance on how to increase food production and improve nutrition;
- promote basic sanitation and maintenance of community sources of safe drinking water;
- detect a risk group e.g. malnourished children;
- conduct regular home visits and guidance on the prevention of common illnesses;
- give first aid treatment;
- diagnose and treat minor ailments and refer serious cases to the health centres;
- safely maintain and dispense some basic treatment;
- organise the community to cooperate with health centre staff in conducting community visits e.g. for immunisation and growth monitoring;
- collect and maintain simple community data.

The CHWs are trained for a six week period. The courses are normally divided into two or three parts to enable the participants to carry out duties at home that cannot wait. Responsible for the training is the PHC co-ordinator at the district office, and he or she is often also the main teacher.

Formerly all training was arranged at the district centre. Experience showed that this was ineffective since the courses were too far removed from the participants' normal surroundings. Also, there was a risk that no natural contact with the nearest health centre would be established. During the last two or three years the courses have more and more been carried out at a RHC near the participants' home villages.

The target is to train ten new CHWs in each district every year. However, no training has been carried out during 1988 because SIDA and the MoH agreed 1987 to suspense training for one year in order to give time for consolidating the already trained CHWs. The target of around 570 new CHWs per year remains as there seems to be no apparent reason to change that.

There are also retraining courses for CHWs. These are normally five days with 20-30 participants and one is arranged each year in every district . The retraining courses are said to work fairly well.

The PHC secretariat at the MoH feels that much experience has been gained from the first years of CHW training. This is being utilised in changing the training to better fit the CHWs and their working environment. In a recent circular the PHC secretariat advised that future courses should put emphasis on training at the RHC rather than at the district centre, on leaving the classroom style of teaching for a more participation oriented method, and on promoting an intersectoral approach, using teachers from other sectors.

Concern has been raised about the large volume of curriculum content that has to be learnt within a six week period. The problem is whether this adequately provides for the CHW to effectively acquire functional competence as well as confidence. Further, some observers have suggested that functional operation of CHWs could be narrowed both in terms and scope and responsibilities so that they focus more intensively on a few activities only.

In all, almost 4,000 CHWs have been trained. Out of these around 3,000 are considered to be active. The national average drop out rate is 25%, but it varies considerably between provinces (see table D in appendix 6).

The figures for districts show even bigger differences, the highest being 83% and two districts reporting no drop outs. Five districts report a drop out rate of more than 70% while 42 districts have a drop out rate lower than 30%. (There are 44 rural and 14 urban districts in Zambia. The figures in table D refer to all districts.)

The size of the individual CHW's catchment areas differ. They are supposed to serve around 500 people. A rough estimation, assuming that the rural population is about 4 million, gives 8,000 CHWs for covering the whole rural Zambia. Further assuming that the present drop out rate of 25% prevails and that the previous training volume of around 500 new CHWs per year can be kept up, it can be estimated that a nationwide rural area coverage of CHWs cannot be reached before the turn of the century.

The relevance and effectiveness of the CHW

In order to find out about the relevance and effectiveness of the CHW a study on existing research reports was carried out during phase II of the evaluation (see appendix 6 and 9). The consultant making this study has himself been deeply engaged in research on PHC in rural areas. He summarises his findings as follows:

"This analytic/critical review of the reports, articles and research on CHWs/RHCs has revealed that there is a fair amount of information available on the overall situation of PHC and CHWs in Zambia. However, the majority of the studies focus on quantitative aspects and socio demographic characteristics. In spite of the diversity of approaches all of the studies identify four basic constraints to effective CHW functioning:

- lack of drugs/equipment,
- lack of adequate supervision,
- lack of community support, and
- lack of transport."

"All of these relate to the CHWs supportive system. Other factors which determine CHWs ability to function include quality/duration of training, age/sex of CHW, size of catchment area, quality/motivation and attitude of RHC staff toward PHC/CHWs, and relationship of CHW with local political leaders. There are, in addition, factors which affect individual CHW performance such as personal motivation."

"Of all the constraints noted the most important is lack of supervision because it relates directly to lack of motivation, performance quality, and high attrition rate. It is therefore crucial that regular and sufficient supervision is given a high priority at all levels (between province - RHC and RHC and CHW)."

"While the amount of information on CHWs in Zambia is good there are still many questions which remain unanswered. For example: How does CHW training relate to his/her performance, how does it relate to community expectations, have areas with active CHWs affected RHCs, what can HAs do to enhance CHWs performance? Is there a quality difference between male/female CHW functioning? What creative solutions can/should be developed to increase community support?"

Problems

The current figures indicates that one quarter of the trained CHWs is being lost. The report on PHC/CHW field studies summarises the situation as follows:

> "There is generally increasing evidence that drop out rates are increasing due to a variety of factors such as transport problems, lack of drugs, community support and general deteriorating economic conditions which has hindered health care functioning at all levels."

It is known that there is a higher drop out rate among younger CHWs and among female CHWs. The solution is suggested to be better supervision and contact with the RHC, a more thorough preparation of the community, e g by creating a village health committee, and a more careful selection process.

This problem may be said to be outside the scope of the evaluation since it concerns Zambian health care policy and not HSSP. However, existing evidence suggests that there must, for practical reasons, be a balance between the CHWs curative and preventive work. Without knowledge and means to cure at least some acute illnesses the CHW will lack credibility in his community, when providing education about sanitation, immunisation and the like. The much debated question about providing the CHWs with drugs can be answered with the same arguments, and the conclusion is that the CHW should have access to some basic drugs.

It has been said that male CHWs in some areas have difficulties in performing their duties since women are reluctant to listen to them on matters which are related to female problems. The PHC/CHW overview of field studies says:

> "While there is data available from other countries on such questions as the difference between male and female CHWs, (e.g. India, Philippines, Indonesia) and CHW training/com-munity expectations the information from Zambia is very sparse. A few sources as mission annual reports, IRDP CHW training experiences and specific programme reviews (UCI, CDD, MCH) mention male/female differences in CHW functioning such as preference for males on decision making committees (VHC), difficulty of male CHWs in treating female patients and vice versa, differential drop out rates and difficulty experienced by female CHWs in travelling to distant villages in their catchment areas."

The problem warrants some consideration. At present approximately 20% of the CHWs are female. If women are getting less help and advice because of the uneven male-female ratio in the number of CHWs action should be taken to stimulate the recruitment of female CHWs.

SIDA has funded purchase of several hundred bicycles to the CHWs. The

precise number is not known. The bicycles were, however, of low quality and are reported to have soon broken down. Also, there are difficulties in obtaining spareparts. CHWs should have facilities for mobility. Of those trained in 1986, 20 percent of CHWs, the majority being women, did not have bicycles.

Conclusions

It is evident that the performance of the CHWs is not entirely satisfactory. On the other hand, it seems that there is fairly good evidence about the causes. It also seems that it is possible to remedy the situation.

Provided they function well the CHWs are important components in the implementation of PHC and are a cost-efficient way of promoting better health. They should therefore continue to be trained and retrained.

Findings from field studies indicate that availability of drugs is a means for CHWs to establish credibility in the community. Our conclusion is that CHWs should have access to a limited number of drugs and other material as in the CHW kits. The risk for a bias towards curative activities should be minimised through retraining and supervision.

This programme differs from the other programmes under the HHSP insofar as SIDA provides funds for running costs for an established, on-going activity. The common denominator with the other HSSP subprogrammes is that they are directed at building up systems for various health care related activities.

It is the feeling of the evaluation team that initial CHW training could adequately be handled by GRZ. For continuity of the programme the obvious alternative should be addressed – the transition from total SIDA support of CHW training to gradual take-over of the programme by the government. The PHC training does not require foreign exchange or expatriate man-power components. Resources can be mobilised locally.

Given the present government budget constraints the SIDA support to PHC should remain, but SIDA's assistance should be directed towards strengthening supervision, retraining and logistical requirements to provide support to CHWs operations at the community level.

Recommendations

It is recommended

- that SIDA continue to support CHW training but a gradual take-over by the government is advised;
- that the SIDA support is redirected to strengthening supervision of CHWs, for example by funding the training of CHW trainers and supervisors (PHC co-ordinators);
- that SIDA be prepared to support follow-up studies on the performance of CHWs;
- that the possible consequences of the uneven male-female CHW ratio is looked into and, if necessary, SIDA should be prepared to support efforts to recruit and train female CHWs or an increased number of TBAs;
- that SIDA should continue and expand the support to the information and involvement of sectors and agencies other than health, on the importance of PHC.

Summary of SIDA Programme Support

Primary Health Care Training (started in 1979)

Disbursements up to July 1, 1988 SEK 14.8M

Funds spent on

- intersectoral seminars (63 at provincial and 406 at district level)
- training of approximately 4,000 CHWs
- refresher courses for 232 CHWs
- purchase of drug kits for CHWs (now included in Essential Drugs Programme)
- purchase of bicycles and spares
- purchase of stationery for CHWs
- printing of *Burino* – a publication of PHC-information (33 issues on general PHC and 8 special issues on e.g. nutrition, AIDS)
- nurse tutor seminar (1) (This activity was transferred from Nurse Tutor Programme, which was finalised in 1986)

Chapter 5

Transport Programme

Origin and early development

Following the recommendations of an appraisal mission, Transport was included in the 1979/82 agreement on sector support to PHC. The purpose of the co-operation efforts was to implement a programme which improved the general transport situation with particular reference to basic health services in rural areas.

The MoH at that time had received much support from WHO and UNICEF in providing vehicles. UNICEF had in principle accepted a proposal for establishing one central and one provincial workshop to be administered by the Ministry as viable for financial support. (This and other proposals also included maintenance workshops for medical equipment; not further considered in this chapter). However, no donors came forth and there was no significant progress. UNICEF was also prepared to second a technician for a training programme for drivers.

The 1979 situation can be illustrated by the following data: out of a total MoH fleet of 428 vehicles, 119 were in running condition, 181 stranded but repairable, and 128 irreparable.

By mid-1980, a SIDA-seconded transport planner arrived to work as an adviser in the Planning Unit (PU) of the Ministry. His function was to prepare proposals addressing constraints/problems already identified, such as

- standardisation of vehicles
- a possible creation of departmental repair workshops
- replacement policy
- spare parts organisation
- control of misuse and thefts.

The options open to the MoH are limited by one major policy consideration. The Mechanical Service Department of MoW is the central governmental agency for vehicle maintenance and repair. Posts as vehicle mechanics will be found only in the MSD establishment. The question to what extent a ministry can be seen to have authority to deal with maintenance of its own vehicle fleet is not very clear. The Cabinet Office has not accepted a proposal to the effect that MoH should assume full responsibility for its vehicles.

In 1980, 1981 and 1982 various plans for SIDA support were presented. At the 1981 Annual Review it was decided that funds could be released for a pilot project workshop, for procurement of spare parts and for training, using existing facilities and manpower.

In 1982, agreement was reached on a plan of action, with the following chief components:

- a structure of management with clear areas of responsibility,
- the establishment of a central Transport Unit (located at the "Old Medical Stores") with three sections directly under a Chief Transport Officer, viz. a service station, a central spare parts store, and a training centre,
- at the provincial level the pilot project workshop should be completed during 1982, and seven additional stations should be constructed over a period of two years,
- a system of co-ordination between the MoH and MSD should be established,
- spare parts should be imported to supply the MSD for repair of MoH vehicles,
- training programmes for transport officers, mechanics and drivers to be established,
- the central level should be supported by SIDA technical assistance personnel during a period of 2-3 years, the provincial level by volunteers during an introductory period.

Since then, this plan of action (originally a three-year plan) has partly determined the frame-work for the co-operation, with some modifications based on recommendations from consultancy studies briefly presented below, although one can notice an increasing ambition to attain self-sufficiency.

An evaluation in 1983 (i.e. within a year of the adoption of the plan of action that marks the beginning of any substantial SIDA support to the transport programme) noted that

- progress was slow, partly due to the complexities of co-operation between MSD and MoH,
- the concepts for maintenance and repair appeared sound and achievable,
- the programme had as yet had no actual impact but could be expected to go a long way to increase transport capacity and to save foreign exchange,
- there was a need for staff supervision/co-ordination and planning capacity at MoH HQ,
- there was a need for counterpart staff.

In 1985, the transport function was studied by a consultant (VIAK AB, Transport Review Mission). The study analysed the reasons for the continuing shortfall of operating vehicles against the minimum required. Not unexpectedly, the study identified a backlog of maintenance and vehicle replacement as the chief reasons. Some procedures, especially relating to procurement, had also hampered attempts to alleviate the shortage of spare parts and equipment. The consultants concluded that the Ministry must aim at self-sufficiency in respect to reaching a minimum level of transport to meet the most pressing demands.

The VIAK study was followed up by a consultant acting as a short-term transport planner. In his final report (August 1986) he noted in particular

- the need for counterparts to be appointed to ensure Zambianisation
- the need to streamline procurement procedures
- the need for a properly co-ordinated and funded vehicle replacement programme

Review of some programme components and issues: Development, present status and observations

The Lusaka vehicle service centre (VSC) started operations as early as 1984. It was reported that workshop and storage facilities were adequate, tools and workshop equipment, however, rudimentary. Rehabilitation of broken-down vehicles had been initiated.

Work continued in 1985 - with an interruption caused by a robbery - but problems were reported concerning the provision of spare parts. This problem, and others related to lack of staff and equipment, were also recorded in 1986, and in total the centre was considered not to be functioning satisfactorily.

In 1987 rehabilitation of vehicles was said to have started. Problems concerning the procedures for local procurement continued. No Zambian counterparts had as yet been appointed.

The information above has been culled from the Annual Review documents. A more detailed, and somewhat gloomier, picture is presented in the final report of the Chief Transport Officer 1988.

The Chief Transport Officer has also proposed an extension of the VSC in order to have the workshop divided into four sections and to organise work more efficiently. Also, the spareparts store would be given adequate space.

The first provincial service station to be established under this programme was the one at Chipata, originally conceived as a pilot project. Civil works were completed in 1983, but equipment had not been installed.

In 1984, two provincial service stations were reported to be in operation (Chipata and Solwezi) and three more under construction. The MoH had found it impractical to await the evaluation of the pilot scheme (the possibility had been foreseen in the 1982 Annual Review). In 1985 all these five stations were operational or about to be. In 1986 construction had started on the three remaining provincial service station projects although progress was slow. Lack of staff and equipment had been found to cause problems. The 1987 position was largely the same.

The SIDA-seconded staff has comprised Transport Planner, Chief Transport Officer, Chief Training Officer and Chief Storekeeper. The post as Chief Transport Officer and Chief Storekeeper have now been combined. This post and the post of Chief Training Officer are filled. The Chief Training Officer in reality assumed the duties of the Chief Transport Officer in the interval up to August 1986.

The Zambian staff at the Lusaka Unit currently consists of 18 mechanics (they are mostly listed as drivers in the MoH Establishment Register) and 7 staff members for administration and stores, one of them acting as workshop superintendent with administrative functions including liaison with MSD.

Apart from the question of counterparts the priority staff requirement at the workshop is a technician qualified to provide on the job training for the mechanics.

The staff at a provincial workshop will generally include one foreman/mechanic, three mechanics/helpers and one storeman. In a few cases, Japanese volunteers will augment staffing and provide training.

The concept of preventive maintenance is increasingly being applied. Control is exercised by means of a system of documentation (vehicle record card and job card; see illustrations below) for each MoH vehicle. However, activities at the VSC extend over major repairs including rehabilitation.

About 100 vehicles/month now pass through this unit (up from 60/month in 1986). This includes vehicles sent in from the provinces (faulty engines, gear boxes etc.).

The aim is that provincial service stations should also be given capacity to undertake increasingly more difficult tasks, based on a system of exchange of components. The chief limiting factor at all levels obviously is mechanical competence.

During the field trip of the evaluation team a visit was paid to the work-shop at Chipata. It was confirmed that a scheme of preventive maintenance had been introduced, each vehicle being scheduled for maintenance on a specific day each month. The workshop largely operates according to the guide-lines from the Lusaka unit, to some extent, however, undertaking more complicated repairs as competence increases. Spare parts supply is now considered to be acceptable.

The responsibility of the Chipata workshop is strictly limited to the 18 vehicles under the control of PMO/DMOs. This should be viewed against the staffing:

- 1 foreman/mechanic
- 2 mechanics/helpers
- 1 cleaner on a daily pay basis

At the 1983 Annual Review it was noted that the plan then presented to some extent differed from the one previously envisaged. It would comprise Swedish contributions not only to basic maintenance of MoH vehicles but also to rehabilitation of all repairable vehicles, and would introduce repair works to be done by MoH itself.

As is evident from what has been said above, development has continued along the lines defined in 1983. Even if this apparently is tacitly accepted by MSD, there remains a potential risk of a major set-back in the programme. It seems imperative that this question should be resolved unequivocally.

In the 1985 Annual Review it was agreed that a policy of fleet standardisation should be pursued to ensure the use of suitable vehicles particularly in the rural areas and to simplify maintenance and spare parts stock

holding. In 1986 it was noted that SIDA could provide spare parts only in accordance with such standardisation.

This policy has been accepted by MoH and among some donor agencies. However, arguments have been raised also in favour of a less strict application. UNICEF, bound by regulations on international tendering, has been able to supply 64 Suzuki, 4WD vehicles, including a provision of spare parts at 15% of the vehicle costs, instead of possibly one third of that number if adhering to the vehicle types approved, viz. Landrover, Toyota LandCruiser and VW Combi.

As the Suzuki is new to the country, it is still not possible to ascertain the average cost per kilometer over the vehicle's total lifetime. A statistical comparative study for vehicles bought, e.g. since 1984, would provide valuable information for the MoH.

The workshop also undertakes minor repairs of other types of vehicles. Spare parts are purchased locally if available but are not imported.

The standardisation has, as expected, facilitated rational stock-keeping. A contributing factor is that the earlier cumbersome and time-consuming procedures for purchasing spare parts have been simplified. Funds are released for direct importation, and a standing imprest for 10,000 kwacha has been issued for local purchases. The stocks as a result have been reduced to four months' consumption.

The training component of the programme was insignificant until the Chief Training Officer in the latter part of 1986 was released from his temporary duties as acting Chief Transport Officer.

The target groups of the training activities are mechanics, drivers, transport officers and, more occasionally, other staff categories with duties related to transport. The method preferred is on-the-job training. Didactic material has been prepared.

Frequent transfers of staff has meant that the planning horizon is narrow. The lack of technicians seriously limits the possibilities for practical training of mechanics.

During the 1985 Annual Review it was noted that line management responsibility for the transport function falls under the Administrative Department of the Ministry HQ and under the PMOs in their respective provinces.

The 1985 Transport Review Mission considered it essential that there

VEHICLE RECORD CARD

Province ..... District ..... Program ..... Registration No. .....
Make ..... Model ..... Year ..... Body Style .....
Chassis No ..... Engine No. ..... Gear Box No. ..... Drive .....
Tyre Size ..... Elec. System Voltage ..... Special Equipment .....

Date	Km	Job Card No.	Service	Engine	Electric	Clutch Transm.	Brakes	Steering Suspension	Wheels/ Hubs Frame	Body	Extras

MINISTRY OF HEALTH
JOB CARD

No. 5000

PROVINCE:

DATE:	REG. NO.:	TYPE:
KM	CHASSI NO.:	ENGINE NO.:

ALLOCATION:

			DESCRIPTION OF WORK			LABOUR

Left: Control is exercised by means of a system of documentation (vehicle record card and job card) for each MoH vehicle.
Above: The interior of one of the MoH's vehicles.
Photo: Maria Nordenfelt, SIDA Photo Archives

should be a clear-cut *operational* post within the administrative structure heading a more developed transport unit. It was suggested that a Zambian Operations Officer should be appointed as a full counterpart to the expatriate Chief Transport Officer and eventually take over full management responsibility as Transport Manager. The Transport Unit's duties should include the provision of specialist advice on transport matters to the PU.

So far, no steps have apparently been taken in line with that recommendation (the Chief Transport Officer reports to the DDMS (P&D) in matters requiring higher-level decisions). It may be argued that action to such effect would serve to fill an obvious gap in the management structure and significantly improve sustainability of the programme upon phasing out of SIDA technical assistance.

The data presented in section 5.2.2 indicates that the SIDA technical assistance reached full strength only in 1986, and also that there had

previously been some lack of continuity which could not be bridged by Zambian staff, since no counterparts had been appointed.

The impression is that the technical assistance personnel who arrived in 1985-1986 found it necessary to make a fresh start in terms of systems and procedures. During that initial phase there was felt to be little need for counterparts, but the question later on again became essential, although unresolved.

Earlier assessments of the probable life-span of SIDA support have been overtaken by such circumstances. The question should be addressed anew. Considerations in this respect might include the following questions:

- establishment of a permanent training capacity, in particular as regards mechanical competence and driving practices
- documentation and transfer of the systems worked out concerning workshop procedures, purchasing and stock-keeping
- creation of an adequate administrative structure for transport issues at HQ level
- possibly the foreign exchange issue.

This would entail first of all a rapid solution to the counterpart problem. Further it would seem desirable to re-state objectives, determine targets and formulate a plan of action defining commitments on either side and also explicitly defining a time schedule for phasing out.

An outline of the GRZ/MoH plan for vehicle replacement and expansion of the fleet would appear to be an essential input for defining relevant and realistic targets.

Conclusions and recommendations

In line with the GRZ overriding PHC orientation and in view of the present tendency of actual concentration of repair and rehabilitation resources to metropolitan vehicles the programme should be subject to a more conscious province and district orientation of its operations.

The entire programme is based on an exception from the GRZ policy that gives MSD overall responsibility for vehicle repair. The situation requires regularisation.

The programme can be seen to have two chief components:

- support towards the establishment of a physical infrastructure for vehicle maintenance, repair and rehabilitation and connected activities;
- support towards the development of systems, procedures and skills.

The physical infrastructure has largely been completed. The plans were devised at a stage when the exact functions of the workshops were still the subject of some discussion and uncertainty. The programme - mainly through the SIDA-seconded staff - has now settled for a level of ambition that is conceivably higher than originally envisaged. SIDA should be prepared to consider funding of limited additions to facilities and equipment, if demonstrably needed, to match the somewhat more extensive functions or capacity requirements now projected.

The systems and training components virtually started only in 1986. As regards workshops and spare parts stock-keeping, systems and procedures apparently have developed to the point where arrangements for handing over to counterpart staff are due or overdue. In the absence of counterparts, the continued work of the Chief Transport Officer and also the Chief Training Officer will increasingly assume the nature of gap-filling. This unsatisfactory situation requires serious consideration.

The training component will have to be viewed in a somewhat different time perspective. The objective - stated or not - should be to establish a more permanent training capacity, corresponding to quantifiable requirements. This process is hampered by the lack of locally employed technicians who could gradually assume teaching responsibilities.

In total, this "soft-ware" component should be guided by more distinct objectives, targets and time-scheduling. It is suggested that the continuation of the programme should be defined in a well specified plan of action, spelling out criteria for phasing out the SIDA technical assistance element.

Especially in view of the shortage of trained mechanics, the question of cost/efficiency merits attention. It should be possible, at least crudely, to relate staffing input to work output. The data from the Chipata workshop indicate that some productivity norms would be useful.

As today repairs are free of charge for the vehicle users there is a lack of short term economic incentives, which could further incite to regular maintenance. The introduction of budgetary guidance, where e.g. maintenance is free of charge but repairs will be debited for, should be considered as a supplementary instrument.

Summary of SIDA Programme Support

Transport Programme **started in 1979**

Disbursements up to July 1, 1988 SEK 25.3 M

Funds spent on

- construction of a Central Vehicle Workshop in Lusaka
- construction of 8 Provincial Service Stations
- purchase of equipment/tools for Workshop and Service Stations
- purchase of spareparts for vehicle repairs/rehabilitation
- purchase of 1 truck and trailer for programme use
- purchase of 2 other programme vehicles
- training/training equipment
- consultancy services
- technical personnel *

Chief Transport Officer	47 manmonths
Chief Storekeeper	40 manmonths
Chief Training Officer	33 manmonths

* Posts as Transport Planner accounted for under Health Planning Programme up to August 1985

Chapter 6

Essential Drugs Programme

Background

Provision of essential drugs is an integral part of the Zambian Primary Health Care (PHC) strategy. Drug cost is also a major recurrent expenditure in the health care budget. Approximately 70% of the medical supplies, including drugs, to government and church hospitals and Rural Health Centres (RHCs) in Zambia are provided by Medical Stores Limited (MSL), a wholly government owned company under the Ministry of Health. Approximately 75% of all medical supplies are imported. MSL delivers drugs directly to all hospitals which in turn supply health centres in their areas, except certain urban clinics and RHCs in Lusaka province and some mission hospitals, which use their own transport to collect drugs from the MSL.

There is an urban-rural as well as an hospital-RHC bias regarding distribution of drugs and other health care services in Zambia. Shortage of drugs at the national level further increases this bias. The supply of drugs by the MSL to the rural hospitals has often been irregular. The irregular and partial delivery of the ordered drugs is compounded by the lack of transportation at the district level and has severely affected the availability of drugs and supplies to RHCs.

To improve drug supply system, particularly for Rural Health Services, the Essential Drugs Programme (EDP) was included in the agreement in SIDA's Health Sector Support Programme to Zambia 1985. Prior to this agreement a preparatory study was carried out in 1982 to identify problems in the drug supply system in Zambia. Recommendations of personnel assistance were made to improve administration, utilisation and distribution of drugs. A

more detailed review of the drug supply system was carried out in 1984. This review identified the serious problem of shortage of essential drugs, particularly in RHCs. It suggested that the shortage was due to weaknesses in procurement and supply planning, distribution and transport, prescribing and usage of drugs. It was suggested by the review team that a new supply and distribution system was needed and the management and planning capacity at all level of health care needed to be strengthened.It also pointed out the need for refresher courses for prescribers and public information for proper drug usage.

The SIDA support to the drug programme started with the recruitment of a pharmacist, a physician and an economist. The pharmacist took over his duties in April 1985. The overall aim of this programme is to improve the supply and use of drugs at RHC and by Community Health Workers (CHWs). The principle components of the programme include:

- a new distribution system with pre-packed drug kits for RHCs and CHWs,
- refresher training of the health workers,
- strengthening of the of planning and management at all level of care,
- public information on proper drug usage.

The EDP is under the Director of Pharmaceutical Services at the MoH. The present staffing comprises one Pharmacist (Expatriate), one Pharmacist (Zambian), one Physician (Expatriate), one Clinical Officer (Zambian) and Zambian administrative staff.

Drug policy and EDP

According to the WHO "Guide-lines for Developing National Drug Policies" a comprehensive drug policy should include aspects of legislation and regulation, price control, choice and supply of drugs, quality assurance, drug misuse and abuse, self-medication and health education etc. At present a comprehensive drug policy is lacking in Zambia.

A national formulary first introduced in 1981 was revised in 1986. The formulary indicates the list of drugs which could be ordered by each level of health care and worker. There is a National Formulary Committee responsible for the drug list for different level of health care.

The list is, however, not always adhered to, which complicates stock keeping and raises drug cost. The health providers and drug importers, other

than the government and MSL, do not always follow the national drug formulary. This is also true of drugs donated to hospitals from overseas.

There are five major producer of drugs in Zambia including the MSL. The MSL now produces two essential drugs – Chloroquine and Paracetamol – and has capacity to produce Acetyl Salicylic Acid, Folic Acid, Ferous Sulphate, Magnesium Trisylicate and Ephidrine. It is reported that MSL will be able to supply these drugs in large quantities in the near future.

The current import policy allows *finished* drugs *without* customs duty. On the other hand importation of raw material is subject to customs duty. Exceptions to this rule are made. MSL and some other companies are allowed to import raw material for essential drugs without duty.

There are Hospital Drug Committees in the major hospitals but they are not functioning satisfactorily. This problem has been recognised by the MoH. During informal discussions with doctors at the University Teaching Hospital (UTH) interest has been expressed in revitalising the drug committee to promote regular supply and rational use of drugs.

The existing Standard Treatment Guide-lines for health workers at RHCs are not adequate. There are suggested standard treatment guide-lines for some diseases such as T.B., Leprosy, Diarrhoea, Trypanosomiasis and sexually transmitted diseases. Such guide-lines are useful to promote rational drug use. Guide-lines could be prepared by consensus conferences involving prescribers, pharmacists and other related health workers.

A drug manual for health worker at RHCs is being prepared. Such a manual should contain information related to essential drugs, common diseases and their diagnosis and treatment. Special attention should be paid to the format of information for easy reading. A problem-oriented approach is suitable for improving the quality of diagnosis and treatment by health workers. The manual should also be assessed for its local usefulness and appropriateness.

Essential Drugs Programme (EDP)

At present at MoH level there are three full time staff, two expatriate (a Pharmacist and a Physician) and one Zambian (Principle Pharmacist). There is one part-time (25%) counterpart to the Physician (the Deputy Chief Clinical Officer at the MoH). There are also two supporting office staff.

The drugs programme has extended from three pilot districts to 22 (with six DGIC-districts in Western Province) covering approximately 50% of rural Zambia. Day-to-day administrative functions are carried out by the above staff. It is not cost-effective to use health personnel for this purpose, whose professional knowledge is much needed for training and education. Routine administrative and executive functions should be carried out by an Executive Officer (Zambian). The MoH had agreed to fill the post of Executive Officer by middle of 1988, but no such action has been taken so far.

The Pharmacist (Expatriate) has a Zambian counterpart and the process of training and transfer of knowledge to the counterpart is running satisfactorily. However, the counterpart to the Physician is only part-time (25%). For the purpose of sustainability and transfer of knowledge a full-time counterpart to Physician is suggested (the post of Physician will be called Physician/ Medical Adviser when a new person fills the post later). The counterpart would preferably be a medical doctor, alternatively a second clinical officer (full-time) with long experience could be appointed.

Apart from assisting the programme with medical advice the functions of the Physician include production of training material and training of health workers as well as drug information to the general public in the use of drugs. This is an overwhelming responsibility considering the number of programme districts. Also, there is a need to co-ordinate training of health workers in other PHC programmes. At present these programmes are not co-ordinated, which force the RHC staff away from the station for training several times during the year.

The evaluation team suggests that a new post of Training Co-ordinator is established to organise EDP training and head a Training Team. The post should be financed under the HSSP during the coming agreement period. The post will be useful not only for the EDP training but also for co-ordinating other PHC programme training (see also section 9.4). A Medical Doctor with teaching experience of PHC work would be well suited for this post. The Training Team should include the Training Co-ordinator assisted by a Pharmacist (Zambian) and one senior Clinical Officer (Zambian). The possibility of appointing a Zambian as Training Co-ordinator should be explored, otherwise an expatriate should be recruited.

The procurement and supply side of the EDP is running satisfactorily, and the new system has the potential to supply drugs to the whole of Zambia. The

system has also been adopted by MSL. To enhance the possibilities for sustainability of the new system on national scale it is necessary that a second Pharmacist (Zambian) is appointed.

The job description of the Physician/Medical Adviser needs to be re-defined to include training activities as major part of his/her duties and collaboration with the Training Co-ordinator in the preparation of training material if the latter post is established.

All drugs in the form of drug kits are procured from overseas. The first kits were bought through UNICEF from UNIPAC. The second procurement was made via restricted tender, supervised by MSL, from Equipment Charity Hospital Overseas (ECHO), in UK. The cost of the second procurement was lower due to competitive bidding. Local companies, who submitted tenders for the drug kits, were not competitive and more than twice as expensive.

The procurement of drugs from overseas needs to be continued until the stage when the production and supply capacity of the local producers is reasonable, reliable and the prices competitive. When conditions exist for local procurement of drugs, a stepwise decrease in the overseas procurement is advised. This will allow testing of the local supply capacity and will not disrupt the present supply system.

The drugs in the consignment of drug kits from UNIPAC were independently quality controlled and did not need extra measures at local level. For later consignments WHO's certificate of quality control is demanded before drugs are purchased. Furthermore, samples from each batch are sent to an independent laboratory for analysis.

There are sufficient quality control measures for drugs imported in the drug kits. If in the future drugs produced locally are purchased, similar quality control standards should be applied.

The estimation of RHC drug needs is done by a "morbidity method". There seems to be no significant variation in the disease pattern throughout the country. Neither are there any major seasonal variations except for malaria. The present drug kit contains 34 drugs and 22 sundries. It is considered to be sufficient to treat the 1,000 first attending patients and covers almost 100% of the diseases treated at an RHC. The content and the amount of the drugs and supplies are said to be adequate, except chloroquine during the malaria season and Aspirine. The drug list is established according to the recommendations of WHO and the National Formulary.

The staff at EDP headquarters has explained that as malaria is seasonal in parts of the country, the supply of chloroquine, during the year when malaria is not common, could be retained and used in months when malaria is more common. We suggest that occasional (at least annual) *morbidity surveys*, complemented by the routine morbidity information should be utilised to detect changes in the morbidity pattern and adjust appropriately the content and the amount of drugs in the drug kits.

Alternatives may be considered with respect to the number of drugs in the drug kits and supply of drugs to all districts in Zambia. At the moment 34 drugs are included in the drug kit and this will soon be supplied to 22 districts. If resources (financial and personnel) are not adequate to supply all drugs to all districts, an alternative may be considered with fewer drugs to all districts in Zambia. This is a technical as well as policy question and priority should be made in the light of PHC policy "health for all".

Drug kits are at present the most effective, safe and appropriate way to supply drugs to RHCs in Zambia. This is because the morbidity pattern is similar thorough out the country, and the drug kits are sturdy and prevent any pilferage on the way to RHCs. Hospitals are not allowed to "borrow" drugs from the kits. This ensures that the contents of the drug kits reach the RHCs intact and benefits the under-served rural population.

The MoH has accepted the principles of the essential drug concept and the supply of drugs in kit form positively. It has also started to supply drugs through MSL to urban clinics and out-patient departments (OPD) of hospitals in a similar way.

Transportation of drugs to districts and to RHCs is the key for success of the EDP. Regular, monthly schedules have been introduced from MSL to the districts. The lead time has been reduced from five to two months for drug deliveries to districts. Similarly, schedules for visits to RHCs are introduced at district level. The delivery of the drug kit is regular for most RHCs under the programme. Regular visits by district staff have also increased the communication between the district and the RHCs and has influenced other PHC activities (see below 6.3.4).

It should be mentioned that availability of transport for primary health care is a condition for introduction of the EDP programme to a district. The on-going transport programme supported by SIDA has been helpful to ensure functioning transport at the district level. Supply of fuel, a responsi-

bility of the provincial administration, may influence the delivery of drugs to RHCs even if functioning transport is available. It is suggested that clear priorities should be established at provincial and district level for allocation of fuel and use of PHC vehicles to ensure regular drug supply and other PHC activities.

Once the drug kit is delivered to the RHC, it is opened by the health worker in charge of the RHC in the presence of district staff, usually a District Pharmacy Technician. Measures are taken for proper storage conditions and security of the drugs. Routines are established to ensure return of overstocked drugs to districts after a period of three months.

Reports from studies looking at the prescribing at RHCs, evaluation by the staff of EDP and interviews with health workers at districts and RHCs have consistently suggested that there are several problems with drug prescribing at RHCs. There is considerable over use, under use and sometimes misuse of drugs. There are problems related to poly-pharmacy and low quality of clinical diagnosis.

There is too little information about prescribing habits among hospital-based clinical officers and whether the habits differ from those working at RHCs in districts inside or districts outside the EDP. The evaluation team initiated the collection of such information during the second phase of the evaluation. A limited survey conducted by the MoH and EDP shows no significant difference in prescribing between clinical officers working in RHCs and at hospitals when comparing districts with and without EDP. This information, though based on small sample size, suggests that the provision of drugs and training during EDP implementation has not influenced prescribing. The conclusions are that continuous training is needed to promote rational prescribing. The survey also suggests that prescribing was more rational if the clinical officer was newly qualified, further stressing the need for continuous training.

Training and education activities have taken place for staff at district and RHC levels in the form of seminars/workshops to improve prescribing by the health workers. The efficacy of these activities in influencing prescription habits is not known. We suggest that systematic evaluation of training and education and its effects on drug prescribing should be part of the training process.

There is very little systematic continuous education for staff at RHCs. The

clinical officers' training college (Chainama College of Health Sciences) conducted refresher courses last year for clinical officers and other health workers. There has also been seminars or workshops organised on an ad-hoc basis by individual PHC programmes. The usefulness of such training in influencing quality of health care is not known. There is often very little follow-up or evaluation of training.

There is also concern that recent uncoordinated training activities by different PHC programmes has kept health workers away from the RHC for long periods of time. The health workers at district and RHCs have also expressed resentment at such uncoordinated efforts. Regular supply of drugs to RHCs has increased the possibility of communication between staff at RHCs and districts. This op-portunity should be utilised for supervision as well as the training of RHC staff. EDP should help to develop horizontal linkage with various other PHC programmes in Zambia (see section 9.4). EDP also forms a logical entry point to PHC if a health-centred and not a drug-centred approach prevails.

Very little information is provided about the use of drugs at community level. In urban areas TV advertisement have been placed to inform the general public about the availability of essential drugs. These are expected to be followed by information about drug use.

Due to increased communication through the EDP, supplies in general to RHCs have improved and have influenced positively other PHC activities. This conclusion is based on interviews during our field trip and visits to some RHCs in connection with the evaluation.

However, the quality of supervision and training seems not to have improved. The time spent at RHCs by the district staff is not enough to discuss professional or staff problems in any meaningful way. Personal problems of staff such as housing, inter-staff relationships should be discussed at length and solved if possible. The importance of personal problems for their work was illustrated by the staff at one of the RHCs visited during the evaluation. The staff showed enthusiasm and willingness to work hard, but expressed dissatisfaction with their living situation. In their words: "How can we even talk about hygiene with our people when we are forced to live in such unsanitary condition without any toilet facilities. People laugh at us."

In general, attendance of patients at RHC has improved following the regular supply of drugs. Early reports had suggested that in some RHCs the

increase was mainly in adult male attendance, but information from one EDP district indicated that there is overall increase in the attendance of both male and female patients. The table below is from the minor study made in connection to this evaluation. It covers only one district, which was included in the EDP during 1986. Comparable information is not available from non-EDP districts. Recent information from a non-EDP district suggests no significant difference between male and female patients attending the RHCs.

After many discussions and consultations MoH has decided to provide drug kits for CHWs. Most of the CHWs received only one kit following their training. In line with the MoH policy SIDA has supported the provision of kits for CHWs in districts where EDP is functioning. Little information is available about the prescribing of the CHWs. One may expect more rational prescribing by CHWs if they attended refresher courses following the first training session.

TABLE 5
In-patient and out-patient attendance in an EDP district 1985-88

Year	Male		Female	
	0-14 years	>15 years	0-14 years	>15 years
Out-patients				
1985	41,837	37,490	42,661	41,883
1986	41,949	41,190	42,536	45,105
1987	76,262	75,260	77,726	81,314
In-patients				
1985	2,335	1,153	2,144	3,011
1986	2,507	1,275	2,297	3,161
1987	2,921	1,750	2,592	3,894

It is not clear how the regular supply of drugs to CHWs influences other PHC activities. It is logical to believe that provision of drugs will act as an entry point for PHC. These assumptions need to be proved so as not to promote a possibly wrong, drug-centred approach to health care. See also discussion in sections 4.4.2 and 4.5.

The present CHW drug kit contains six drugs (Aspirine, Chloroquine, Paracetamol, Tetracycline eye ointment, Oral Rehydration Salt and Gentian Violet) and some bandages, cotton wool and soap. Each kit is expected to last for two months. The kit is delivered with the RHC drug kit to the RHC to be collected by the CHWs.

The selection of a person as CHW tends to confirm a special status within the community. The status may further be influenced by the provision of drugs or other equipment such as a weighing scale, arm circumference tape etc. The effect of these things may be that they strengthen the CHW's role in the community and influences his/her functioning as a PHC worker. The drawback in the case of drugs, is that this emphasises the curative, and in the long run less important part of the work. It is reported that provision of drugs to CHWs increases their credibility to implement other PHC activities.

Supply of drugs is suggested to be one factor influencing the drop-out rate of CHWs. Supply of drugs is important, but other factors such as lack of supervision and lack of transport should not be ignored. There is a need to look more deeply in the activities of CHWs and compare those with regular supply of drugs and those without drugs. There are several unproven assumptions about providing drugs to CHWs who have very short training in the use of drugs. Continuous and watchful monitoring is needed to observe the effects of drugs in the community. Retraining and continuous education of CHWs are important to promote rational drug usage.

Essential Drugs Programme and MSL (urban clinics)

The MoH with MSL has initiated an essential drugs programme to supply drugs in kit to urban clinics and OPD of hospitals. This initiative should be encouraged as it supplements the other EDP. There is, however, concern about the lack of proper training of staff prior to implementation of the programme. For the success of the programme continuous education of health workers in the proper use of drugs should receive attention.

Essential Drugs Programme and other donor agencies

At present SIDA provides the major support to EDP. The Netherlands (DGIC) provide essential drugs for Western Province and these drug kits are similar to those in the SIDA supported EDP. Other donors may be consulted if necessary for possible participation in the programme. Apart from the provision of drug cost, training of health workers and information to the general public about use of drugs should be part of donor support to EDP. However, the evaluation team feels that it may become difficult for MoH to manage and efficiently co-ordinate multiple donors in this programme.

Expansion of EDP support by SIDA

During the inception of the EDP the main objective was to build a new management system for supply of drugs, particularly to RHCs. Due to the national economic crisis the procurement of drugs, which is heavily dependent on foreign exchange, was influenced greatly and SIDA has provided assistance in the purchase of drugs. The EDP expanded quicker than expected during 1987, involving major expenditure in drug cost. During 1985-87 the number of staff decreased. The present personnel situation is not adequate to allow a immediate large expansion in the coverage.

It is suggested that SIDA should concentrate its resources on supplying drug kits to districts presently covered and should promote rational use of drugs both by the health workers (continuous training) and the community (public education about use of drugs). The same should apply to the drug kits for CHWs. Exceptions can be made to include remote districts with poor communication and CHWs serving remote areas with no access to local health services.

TABLE 6

EDP supply of drugs, training responsibility and size of staff

Year	SIDA support for drug purchase No. of districts	EDP training responsibility No. of districts	EDP personnel
1986	3	3	4.25
1987	13	13	4.25
1988 (up to June)	16	22	3.25
1988 (from July)	16	22	2.25*

Source: SIDA

*In June 1988 the expatriate physician left the post

A possible plan for the transfer of drug costs to GRZ

At present approximately 50% of the rural districts are supplied with drugs by EDP supported by SIDA and DGIC. This heavy dependence on donors is not good for the long term sustainability of the programme. A plan should be worked out to transfer financial responsibility to GRZ in a phased manner. The supply of drugs included in the CHW drug kits could be the first step.

Possibilities should be explored about the drugs and supplies which are produced locally, now and in the future. Thought should be given to the possibility of a supplementary kit containing locally produced drugs and supplies. GRZ should take the responsibility for the cost of the supplementary kit. As the number and amount of locally produced drugs increases, the financial responsibility for drug costs could be transferred to GRZ. The cost of drugs produced locally in relation to those procured from overseas and the reliability of the supplies must be considered when decisions are made.

SIDA may support the procurement of raw materials to encourage local production of essential drugs. In this respect production capabilities of local producers other than MSL should be explored. The Christian Medical

Association of Zambia (CMAZ) which provide approximately 50% of the health care in rural Zambia, may also be contacted for any future plans for local production of drugs.

Cost recovery programme

At present there is no national cost recovery programme for drugs. Some cost recovery schemes are now under way. The details of these schemes and how they will affect the health care at the RHCs have not yet been fully worked out. The evaluation team is of the opinion that part of drug cost should also be recovered. If measures are introduced to recover drug cost in rural areas, per capita cost of providing essential drugs will need to be estimated.

Conclusions

- The MoH has fully accepted the principles of EDP and the MoH intends to supply essential drugs to the entire country.
- A comprehensive drug policy is lacking in Zambia. Progress has been made towards local production of essential drugs but there are still obstacles for the promotion of local production. There is very little community based information on the use of drugs.
- EDP supported by SIDA (and DGIC) is progressing satisfactorily and regular supply of essential drugs to RHCs has improved greatly. However, there remain problems of clinical diagnosis and use of drugs by the health workers. Public information on the use of drugs is also lacking.
- EDP will cover approximately 50% of rural districts by the end of 1988. Supply of essential drugs by MoH via MSL under an MSL initiated programme will further increase the coverage.
- SIDA together with DGIC are the major donor agencies supporting purchase of drugs. If needed, other donor agencies may be approached.
- The regularity in the supply of drugs tend to increase contacts between the district management staff and the RHCs.
- Continuing training in systematic and co-ordinated manner is necessary to improve quality of clinical diagnosis and health care in general. A training team is needed for EDP training and the co-ordination of various PHC training.

- The staff situation at the EDP headquarters is not satisfactory. The EDP has expanded quicker than expected during 1985-87, but the staff has decreased. For effective functioning and sustainability of the programme an Executive Officer (Zambian), a Pharmacist (Zambian) and a training team consisting of Training co-ordinator, senior Clinical Officer (Zambian) and a Pharmacist (Zambian) is needed.
- MSL at present provides up to 70% of medical supplies in Zambia. It produces two essential drugs locally . Plans for the transfer of drug cost to GRZ in phased manner should be made and in such plans the availability of locally produced drugs should be taken in consideration.

Recommendations

- GRZ should adopt a comprehensive drug policy. The policy should include aspects of drug production, procurement, supply, distribution and use.The policy should include the public (GRZ), mission, mine and private sectors of health care.
- GRZ should take steps to allow import of raw material for essential drugs without customs duties in order to support and enhance local production.
- SIDA should continue to support the EDP. Purchase of drug kits for RHCs and CHWs by SIDA is recommended for districts presently included in the programme. SIDA should support continuing training to improve drug use by health workers and public education in the drug usage.
- SIDA should explore the possibilities of increased local production of essential drugs in Zambia and support local production.
- A Pharmacist (Zambian) and a Medical Doctor or a Clinical officer (Zambian,counterpart to Expatriate Physician) should be appointed at MoH HQ level.
- A training team should be appointed composed of one Training co-ordinator (Medical Doctor, Zambian), one Pharmacist (Zambian) and one Clinical Officer (Zambian). SIDA should be prepared help to recruit an expatriate as Training co-ordinator during the coming agreement period if a qualified person is not locally available.
- SIDA and GRZ should plan transfer of drug cost to GRZ in a phased manner.
- MoH should appoint the executive officer at HQ level as previously agreed.

Summary of SIDA Programme Support

Essential Drugs Programme started in 1985

Disbursements up to July 1, 1988 SEK 18.3 M*

Funds spent on

- purchase of 6,030 drug kits for Rural Health Centres
- purchase of 9,500 drug kits for Community Health Workers
- purchase of 4 programme vehicles
- seminars (3 at national, 1 at provincial and 13 at district level)
- study tours abroad (3)
- evaluation tours in the country (3)
- consultancy services
- technical personnel

Pharmacist	36 manmonths
Physician	30 manmonths
Economist	24 manmonths

* Purchase of essential drugs for SEK 5.3M in 1982/83 and SEK 2.7M 1983/84 (financed outside this subprogramme but within HSSP) included in this figure. Purchase of basic drugs for SEK 5.6M during 1985/86 under import support programme is not included.

Chapter 7

Rural Health Centres

Background and scope of SIDA support

The summary of the background and development of the SIDA supported RHC programme in the following two sections is based on the evaluation prestudy (Saasa 1988, p 82).

The RHC programme was initiated 1979 with the main objective of improving rural health facilities through construction and upgrading of RHCs. These were selected on the basis of a study carried out with SIDA support in the late 1970s and formed part of a long term programme to construct 200 new RHCs by the year 2000.

In the Zambian request for HSSP it was stated that "the health centre network is the very backbone of the national health system and will play a vital role in the development of PHC in Zambia" and that theSIDA programme "should be seen as additional to provincial programmes for construction of RHCs".

In all, SIDA has agreed to support 79 RHCs. Initially, it was agreed to construct new RHCs in Northern, Western and Central Provinces only and to undertake upgrading in Eastern, Luapula and North Western Provinces. Also, it was agreed that maintenance is not included in the HSSP although some major repairs such as roof renewals could be carried out.

In the inventory carried out 1984 it was found that provision of water had not been included as a part of the RHC programme. In the 1985 Annual Review of HHSP, it was agreed that SIDA would support the purchase of equipment and furniture as well as the supply of clean water to those health centres financed by SIDA.

"The health centre network is the very backbone of the national health system".
A sick child is receiving help at the Myooye Rural Health Centre.
Photo: Brita Åsbrink, SIDA Photo Archives

The original programme for upgrading and construction will end in 1988 and will be replaced by a programme for maintenance and rehabilitation. The first part of this latter programme is planned as pilot studies in two districts.

Development of the upgrading and construction programme

Since the upgrading and construction began, it has been repeatedly reported that work is progressing very slowly and that workmanship is often poor. In the 1984 and 1985 Annual Review of HSSP, the Mission noted that PMO's offices have sometimes reported the completion of RHCs even when the workmanship was not satisfactory or the work not completed.

A pilot study was made in mid-1983 by Sten Lööf in order to analyse the reasons behind the slow progress. The conclusion was that a more compre-

hensive study was justified, covering all RHCs in the programme. This was undertaken by Jenkinson and PanArc and completed in June 1984.

The main findings in the Jenkinson-PanArc study were:

- Most provinces had no proper planning for the construction of rural health centres, resulting in ad hoc activities and sometimes wrong type of buildings.
- Unsatisfactory supply of clean water at many sites and this had "therefore become the single most serious problem at the health centres".
- The standard health centre types seemed to work well from a functional point of view.
- The standard staff house functional and technical designs were not very good; e.g. they were supposed to have WC and shower where it was unlikely that piped water would be provided, windows require large panes which are likely to break and difficult to replace, the kitchen is designed for an electric cooker, etc.
- The technical design of health centres showed many bad solutions; too long spans over the waiting area causing the ceiling to sag, water leaks where the roof and the highest wall meet since it is very difficult to seal this part without specially manufactured material, details which require a hammer drill if they were to be made properly, etc.

In the 1986 Annual Review of HSSP it was reported that progress continued to be slow and that the agreement in 1985, to the effect that construction should be completed during 1986, had not been fulfilled. In the 1987 Annual Review it was reported that at some ten centres that were started in 1984 construction work was still going on. The Mission anticipated that only four to five centres out of ten would be completed by the end of 1987. The 1987 Mission identified the following reasons for delays:

- shortage of transport;
- too many on-going construction sites simultaneously in the provinces which has made supervision difficult;
- poor financial accounting in the provinces leading to suspension of payments during 1987 thus causing further delays; and
- problems in acquisition of medical equipment for the health centres.

Seven provinces are currently being covered by the Water Supply Improvement Programme, including 54 locations. It is planned that in 1988 the programme will be completed in Luapula, Northern, Central and Eastern

TABLE 7
New and upgraded RHCs with SIDA support

Province	Projects started *before* April 1984	Projects started *after* April 1984	Total new/upgraded
Central	3	4	7
Luapula	10	6	16
Northern	5	4	9
North-Western	7	14	21
Eastern	9	0	9
Southern	13	0	13
Western	4	0	4
TOTAL	51	28	79

Provinces, while work in the remaining provinces, Western, Southern and North-Western started during 1987 and will continue during 1988.

In 1986, 70 upgraded RHCs needed additional equipment and furniture while 18 new RHCs need a full set-up of equipment and furniture. During 1987 and 1988 furniture and locally produced equipment was ordered and distributed. Three sets of solar power equipment have been acquired and will be tested during late 1988 and 1989.

Discussion

In retrospect it seems that the SIDA RHC programme turned out to be an unfortunate combination of a partly ill-conceived project, not properly followed up by competent personnel, which changed shape into a jumble of unfinished buildings without adequate facilities, and that plans to undertake maintenance were made almost out of sheer desperation with the situation.

It is only fair, however, to say that at least some centres have been built at reasonable cost and normal length of the period of construction. Also positive developments have continued since 1984-85 when the monitoring of the programme was strengthened.

The 1984 mission (Jenkinson and PanArc) gave rather severe critique on the functional and technical design of both health centres and staff houses. It seems that a thorough review of the standard drawings by an experienced architect should have already revealed many of the shortcomings when they were published in 1979. They were, it is assumed, actually made by professionals, but seemingly without enough consideration to the climatological, social and technological environment where the centres were going to be built.

The usual distinction of responsibilities between builder, contractor and supervisor/controller would perhaps not be entirely applicable in this case. Yet the differences in the roles can be used to discuss the blurred division of responsibilities that seems to have caused some of the troubles in the programme.

In most cases the builder commissions the actual construction of a building to a contractor. The progress and final building is inspected by a professional controller or supervisor, who, although working on behalf of the builder, should be independent, so his opinions are to be respected by both the builder and the contractor. Normally the builder does not have the necessary knowledge for designing a building and engages a consultant, e.g. an architect, to do this.

In the RHC programme the Ministry of Health is formally the builder, but also sometimes, through its provincial and district organisation, the contractor. Often an independent, private contractor was used. People from the provincial or districts levels of the Ministry inspect the on-going construction and the finished buildings as well. SIDA provides a Senior Architect/Building Co-ordinator who wears several hats, he is a consultant, to some extent a builder, and a supervisor since he is supposed to inspect the construction work and completed buildings. He is also a part-time construction manager and a logistics officer, ensuring supplies, especially imported goods. SIDA in itself has also a role. As the source for funds SIDA is partly a builder, too, and wants through the expatriate Building Co-ordinator to exercise some control and inspection. Thus both the Ministry and the Building Co-ordinator have roles which are in part conflicting. The Building Co-ordinator must furthermore decide whether he is a consultant for all the design knowledge that is needed in the MoH or just for the SIDA funded health centres.

The conflicting roles for the Senior Architect became most apparent

during the period 1981-85 when the expatriate then holding the post evidently saw himself primarily as an architect, i.e. as a consultant for the Ministry. He spent most of his time developing new designs for RHCs and staff houses. Consequently his roles as supervisor and construction manager were neglected. Many of the problems occurring during the period were related to this.

The Ministry's competence and capacity at provincial and district levels were, and are, limited. The double role as both contractor and inspector without sufficient professional knowledge was bound to create problems. In some provinces the staff also assumed the role of consultant and redesigned the buildings without discussions with the Ministry in Lusaka.

Several examples of design mistakes have been given above, in the summary of the consultants' reports. Possibly some mistakes could have been avoided at an early stage since there were two occasions, at a seminar 1980 and a workshop 1981, when the designs were discussed and recommendations for changes given. These recommendations seem not to have been implemented. The Senior Architect holding the post 1980-82 made new project briefs but it is not clear if these were generally adopted.

One fault, however, stands out as exceptional – the disregard of the problem of water. The selection in many cases of sites for RHCs without adequate water supply seems something of a mystery. Since the provision of clean water is a cornerstone in preventative health care one may doubt whether the essence of this idea actually had got through to decision makers in the local administration. The problem is not confined to some single cases, as can be seen in the consultant's report on this matter, but is found in most provinces included in the programme. The outcome may be seen as a consequence of badly defined roles and responsibilities, but also as a criticism of the Ministry's ability to promote the general idea of preventive health care. All the same, even if one accepts that health care to the general public means mainly the curing of diseases, ready access to water is essential.

Naturally problems with the implementation of the programme were expected. The general idea was presumably to offset some of these by using a professional architect. The standard drawings which were swiftly produced in 1979 were to be the main instrument for steering the construction and maintenance activities. However, the limited resources to spread the ideas of the designs and sound construction management, combined with the not

quite appropriate designs made the job difficult. It seems that in this situation the consultancy role was stressed, not the management and supervising part.

Apparently drawings are not enough. They must be part in a system, which can be operated with "remote control" from, in this case MoH, where there is enough professional knowledge to follow them.

At the time of writing it seems doubtful whether even perfectly adequate designs would have made it possible for one single person to successfully undertake all the tasks in the project. Perhaps the project started at the wrong end. Instead of beginning in Lusaka, the designs could have developed slowly, with the architect at one construction site after another, gaining experience about construction management in rural Zambia and then creating a "system" for steering where appropriate drawings were but one part.

The cost aspects have been discussed by consultants (see section 7.2) and it is concluded that the RHCs in many cases have been unnecessarily expensive. The main causes seem to be the drawn out time for the actual construction, inefficiency and, in some cases, disappearance of material.

Informal estimates by the present Building Co-ordinator indicates that EEC, which has funded some 20 RHCs of the LC1 type, has spent 60-70% of the cost of SIDA-funded RHCs and that the building time was also lower, an average of 1.5-2 years as compared to 2-3 years. EEC has had a different management approach with one expatriate volunteer as supervisor on each building site.

The Health Assistants (HA) and Provincial Health Inspectors (PHI) have some knowledge of building and construction included in their training. The task of HAs is the responsibility of preventative health care at the health centres, and they are expected only to take care of simple constructions like pit latrines and shelters, not to build rather complicated structures such as rural health centres and staff houses. The PHI has to know something about larger buildings since they have to judge buildings both from a security point of view and from a functional point of view in relation to health. However, one may suppose that their training does not include construction management or building costs estimates, which is necessary, especially when the best utilisation of scarce resources is essential. Although the construction of RHCs could be included in their duties after some additional training, it seems that the HAs and PHIs would be busy enough with their normal tasks.

There is no-one other than the expatriate Building Co-ordinator at the MoH with professional training in building design and construction. The post as Building Co-ordinator is thus of the "gap-filling" type. There are no plans at the moment to employ a Zambian with this background. We can therefore conclude that an effective and systematic transfer of knowledge has not occurred and will not, as it seems now, take place at the national level.

It can, of course, be debated whether MoH should have such competence. Ministry of Works has a division for health, but with limited capacity. The future transfer of responsibilities for building and maintenance to the district councils will hardly reduce, rather increase, the need for professional advice on building and construction matters. Possibly such competence should instead be within the Ministry of Decentralisation. With the massive number of health clinics (in total 883, out of which 642 rural) the maintenance and rehabilitation will continue and naturally never stop. Measures must therefore be taken to ensure an organisation, in the MoH or elsewhere, where proper advice can be given to the districts.

Conclusions

For the foreseeable future it is obvious that MoH has a great need of professional capacity in the field of building design and construction as well as maintenance and rehabilitation. However, steps must be taken to ensure an effective transfer of knowledge. Unfortunately, it seems impossible for economic reasons to use a local consultancy firm for these tasks.

The size of a nationwide rehabilitation and maintenance programme makes it impossible for SIDA to undertake this alone. At the same time such a programme is urgent, if not much investment in capital and work will be lost.

Recommendations

It is recommended

- that the present phase - building and rehabilitation - is finalised completely before the next phase starts;
- that the standard drawings are revised or at least the major doubtful solutions are documented and alternatives indicated in printed form so that provincial and district authorities can benefit from the experience;

- that the role of Building Co-ordinator should be discussed thoroughly, and a new job description written accordingly;
- that the Building Co-ordinator preferably should have the role defined as a consultant to the MoH and district councils on the design, construction and maintenance of RHCs;
- that the problem of transfer of knowledge and maintaining experience on building matters within the MoH is attended to;
- that the objectives of the two pilot district projects on maintenance should be clearly stated in a document so that the experiences can be systematically evaluated;
- that steps are taken to ensure that the pilot projects are documented in such a way that conclusions can be drawn which are applicable to other districts as well.

Summary of SIDA Programme Support

Rural Health Centre Programme started in 1979

Disbursements up to July 1, 1988 SEK 31.0 M

Funds spent on

- construction of 13 new Rural Health Centres
- upgrading of 66 Rural Health Centres (partly additions to existing)
- purchase of equipment/furniture for 50 Rural Health Centres
- water supply (new or improved) at approx 50 Rural Health Centres
- purchase of 9 trucks for programme use
- purchase of 3 other vehicles for programme use
- training seminars
- consultancy services
- technical personnel

  Building Co-ordinator 41 manmonths*

• Posts as Architect Planner/Architect accounted for under Health Planning Programme up to the end of 1984

Chapter 8

National Nutrition Surveillance Programme (NNSP)

Development of NNSP

As an intervention measure to alleviate the problems of malnutrition, a National Nutrition Surveillance Programme (NNSP) was initiated in 1981. The NNSP was formed as a joint effort between the Ministry of Health (MoH) as executing agency and the National Food and Nutrition Commission (NFNC) with an advisory role. The initial funding of NNSP came from UNICEF and from SIDA. Both agencies have continued to provide resources to support the programme. The phase I of NNSP was launched on the basis of the experiences gained during the two-year period (1979-80) of pilot testing of alternative methods and procedures. Phase II was expected to start in 1984 but due to various reasons has not yet started.

Several evaluations of NNSP have been made, both by SIDA and by GRZ. The recent evaluation by T Greiner 1986 and the report by M Kauppinen 1987 are noteworthy. In addition, the evaluation of NFNC by Greiner and others in 1988 is a critical document suggesting alternatives for the future of the NFNC.

The overall objective of NNSP, according to an early project report (Lindkvist 1981), is the alleviation of the problem of malnutrition in Zambia and in particular

- to assess the magnitude, severity and the distribution of nutrition problem throughout the country;
- to enable institutions, authorities and individuals at various levels to take appropriate actions within their areas of responsibility; and
- to enable the parties concerned to evaluate on a continuous basis, the effectiveness of any action.

The above objectives belong to phase I, which is further specified into the following goals and include the second phase of the programme (NNSP Evaluation Plan for 1983):

- all children below five years of age brought to Health Centres throughout the country should be provided with children's clinic cards and the parents should understand the significance of the card in relation to the child's growth performance and general well-being;
- all government health centres should be provided with the equipment necessary for growth monitoring and nutrition education activities, e.g. weighing scales, cooking utensils, bicycles for home visits etc;
- health centre personnel should understand and use the NNSP system in such a way that the information gathered will guide them to take appropriate action and evaluate the effectiveness of their action;
- all health centre personnel should start reporting age specific protein energy malnutrition (PEM) rates and growth performance data in relation to preventative and curative measures;
- the initiation of phase II of the programme will comprise two specific priorities:

  a) expansion of the NNSP to the community level through integration with the Primary Health Care programme and

  b) expansion of the NNSP to other sectors e.g. agriculture, community development, water development etc.

The primary target group of the NNSP is the children below the age of five. This approach excludes other equally vulnerable groups such as pregnant women and women of child bearing age.

The major thrust of NNSP activities following the objectives lie in the area of growth monitoring. Information is obtained from children's clinics. Weighing of children and plotting of the charts (see figure, "Children's Clinic Card") is done by RHC staff (clinical officers, nurses, midwives) but also by other RHC staff (indoor servants) who are usually trained for a very short time in this activity.

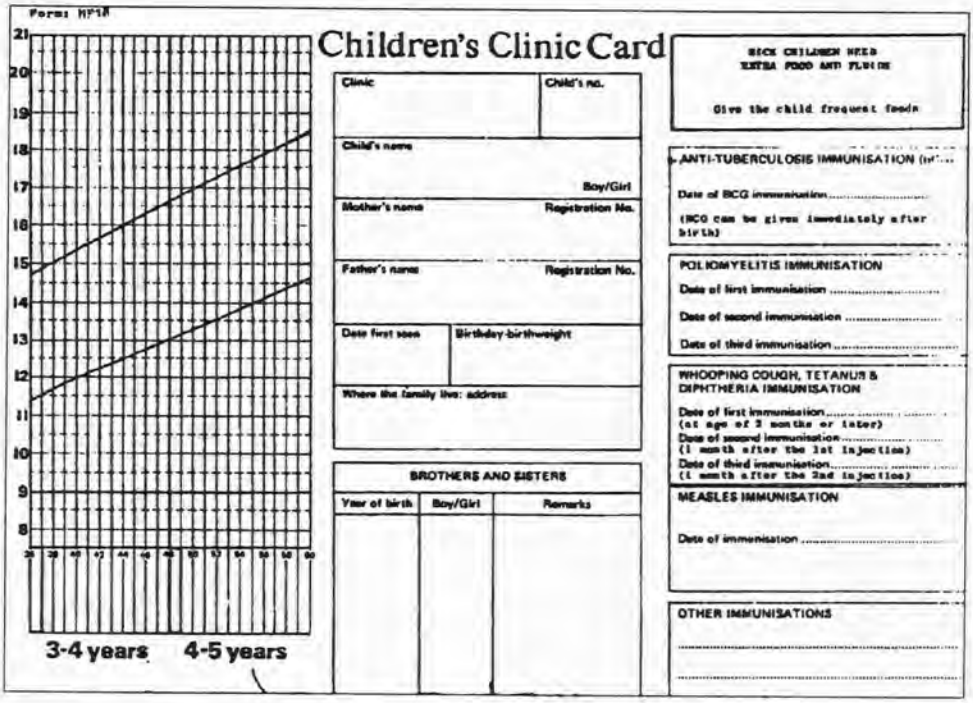
The data on growth monitoring is compiled on monthly return forms (see figure below) and sent to the district for further aggregation and onward transmission to the province. At the provincial level, information is analysed and sent to NNSP Headquarters in the nutrition unit of MoH.

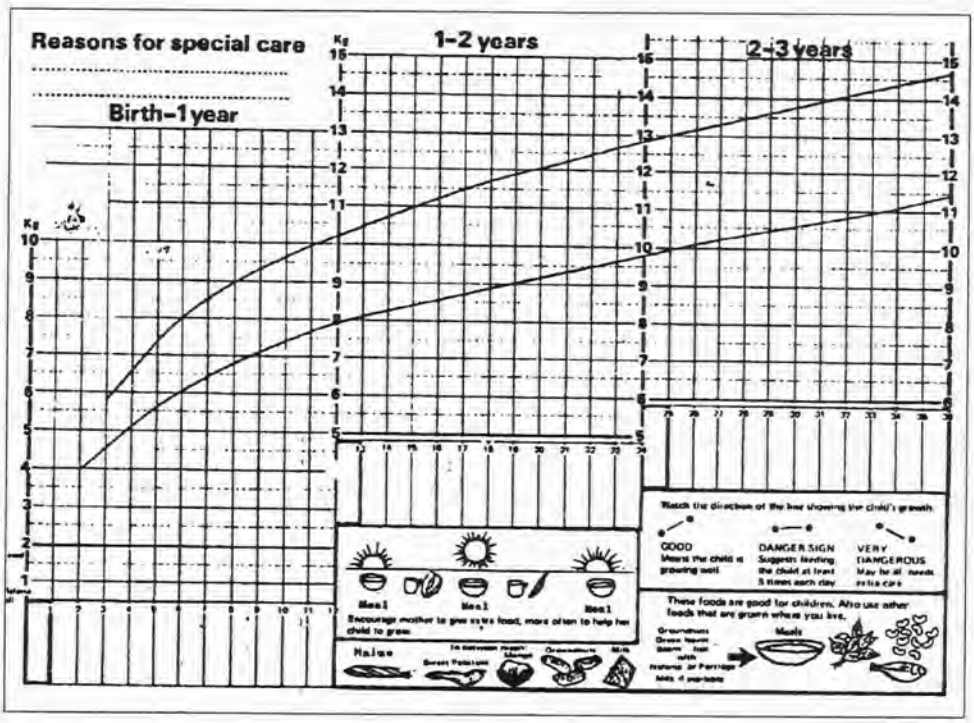
Other activities at health centres in variable degree include supple-

TABLE 8
Present and planned NNSP activities at various health care level and flow of NNSP data.

Health care level	NNSP activities
Health centres (850)*	Weighing of children Monthly compilation of data on monthly return form (MRF) to be sent to district level Education of parents on child's growth etc.
Districts (52)	Monthly aggregation of data f rom HCs and hospitals on MRF Forwarding the information to the provincial nutritionist
Provinces (9)	Monthly aggregation of data from districts Forwarding of data to national level Quarterly report on nutrition activities Use of data for planning, advocacy and intervention Training of district and RHC staff
National – MoH	Analysis of data Presentation of data and advocacy Training of provincial,district and RHC staff

* Growth monitoring activities are also carried out in children's clinics at the hospitals.


Form: NP18
Children's Clinic Card
Clinic
Child's no.
Child's name
Boy/Girl
Mother's name
Registration No.
Father's name
Registration No.
Date first seen
Birthday-birthweight
Where the family live: address
BROTHERS AND SISTERS
Year of birth
Boy/Girl
Remarks
SICK CHILDREN NEED EXTRA FOOD AND FLUIDS
Give the child frequent foods
ANTI-TUBERCULOSIS IMMUNISATION
Date of BCG immunisation
(BCG can be given immediately after birth)
POLIOMYELITIS IMMUNISATION
Date of first immunisation
Date of second immunisation
Date of third immunisation
WHOOPING COUGH, TETANUS & DIPHTHERIA IMMUNISATION
Date of first immunisation
(at age of 3 months or later)
Date of second immunisation
(1 month after the 1st injection)
Date of third immunisation
(1 month after the 2nd injection)
MEASLES IMMUNISATION
Date of immunisation
OTHER IMMUNISATIONS
3-4 years
4-5 years


Reasons for special care
Birth–1 year
1–2 years
2–3 years
Kg
Watch the direction of the line showing the child's growth
GOOD
Means the child is growing well
DANGER SIGN
Suggests feeding the child at least 5 times each day
VERY DANGEROUS
May be ill, needs extra care
Meal
Meal
Meal
Encourage mother to give extra food, more often to help her child to grow.
These foods are good for children. Also use other foods that are grown where you live.
Maize
Maize

CHILDREN'S CLINIC CARD

MONTHLY RETURN FORM

Left: The major thrust of NNSP activities following the objectives lie in the area of growth monitoring. Information is obtained from children's clinics.
Above left: The baby weighed 2960 gr. Photo: Brita Åsbrink, SIDA Photo Archives
Above right: The data on growth monitoring is compiled on monthly return forms.

mentary feeding, nutrition demonstration programmes, cooking, gardening and general health education on malnutrition. *Bwino* – a Zambian health care newsletter funded by SIDA is utilised to disseminate information on health including nutrition.

In phase II it is envisaged that programme activities will be extended to community level with the participation of Traditional Birth Attendants (TBAs) and Community Health Workers (CHWs). However there is need to carefully examine phase I before launching phase II throughout the nation and closely scrutinise type of interventions, programme objectives , political will etc.

The nutrition situation in Zambia

Malnutrition is a major public health problem in Zambia and indications are that this problem has been growing more severe in recent years.

Opinions tend to vary on whether or not malnutrition is worse in rural than urban areas. Available evidence from the NNSP suggests that malnutrition is worse in rural than in urban areas. But the current worsening economic situation, which has severely reduced the buying power of most people, has adversely affected the nutritional status even of the urban population.

An intersectoral national committee co-chaired by the government and UNICEF has been instituted to promote and spearhead intersectoral efforts. Basically, the committee consists of relevant government ministries and institutions related to nutrition activities. These include the ministries of Agriculture, Health, Social Development, General Education and Culture and also the United National Independence Party (UNIP), the National Food and Nutrition Commission (NFNC) and the World Food Programme.

The ministries and institutions receive information from the NNSP, which is supposed to be used for planning purposes and action programmes. It is however, not clear how well these various bodies co-operate or co-ordinate their activities.

The quality of NNSP data

Approximately 70% of Zambian population have access to health care within 12 km radius. However, not all children in the 0-5 age group and within the access zone of 12 km, attend the clinic for various reasons. Sick children are generally not included.

The information obtained suggests that growth monitoring data includes a higher proportion of children in the age group 0-1 year. Representation of children in 1-5 years is low. The representation of children is better in rural than the urban areas.

All health centres are expected to collect and transmit growth monitoring data, but not all the health centres are included due to late reporting and non-reporting from many health centres (table 9).

All the above factors influence the representativeness and limits the ability to generalise inferences based on the present growth monitoring data under NNSP. It can be concluded that the data in NNSP does not represent all

children under five year in Zambia. As has been suggested in previous reports (Kauppinen's report 1987) the assumptions about representativeness need to be tested utilising sentinel points and possibly this procedure should be integrated into the present NSSP.

The accuracy of growth monitoring data is influenced by many factors such as accurate recall of age, availability and functioning of weighing scales, observer reading and recording of weight, availability of proper forms for documentation and aggregation and transmission of information to higher level. All these factors to various degrees seem to influence data in the NNSP.

A survey between 1983-86 suggested that only about 50% of the health centres were able to record and report data accurately. Non-availability of weighing scales, children's clinic cards and return forms are reported.

At present the RHCs and districts mostly collect and transmit the data and no further use of the data is made at these levels. However, growth monitoring is used in some cases for intervention at individual child level.

With the posting of the provincial nutritionist in all the provinces the scope

TABLE 9
Percentage of Rural Health Centres reporting growth monitoring information during 1987

Province	Percentage of RHCs
Central	61%
Copperbelt	58%
Eastern	52%
Luapula	35%
Lusaka	75% (June-Dec 1987)
Northern	48%
North-Western	65%
Southern	77%
Western	57%

Source: NNSP staff

of the analysis has increased and comparative information is presented in some provinces for the different districts. Interpretation and proposing intervention strategies is more difficult considering the multifactorial nature of the nutrition problem. We do not know the skills of the provincial nutritionists in this area, but persons with such skills are available within the present NNSP (at MoH). Continuous upgrading of the skills in this field is necessary and is discussed below in section 8.6.3. The feed-back to provinces has improved, but to districts and RHCs it is almost non-existent.

The data is aggregated and analysed in administrative areas. The appropriateness of the aggregation in administrative units should be looked into critically so as to find more useful units for analysis.

The usefulness of this information is hampered if there are no clear strategies for intervention. Previous reports and interviews with national NNSP staff suggest that presently growth monitoring information is used for intervention only for few children as the weighing is seen as a data collection exercise by most rural health centre staff. This is also reflected by the systematic exclusion of sick children for weighing for whom the problem of malnutrition may be exacerbated due to infection.

At district and provincial level the data can be used for increasing nutrition awareness among health care workers and the general public and for promotion of the use of the nutritional information for planning and intervention. At present data is not used for such purposes. There are indications that with the active presence of a provincial nutritionist the data will be used for increasing awareness and promotion.

At the national level the data can be used to raise awareness about problem of malnutrition in the country and advocate the use of data in planning (more stratified data from district and provincial level can be used for planning). Such functions are now being carried out by the NNSP, although NNSP lack an appropriate forum to which the information may be channelled (for the role of NFNC in this connection, see section 8.5). Also aggregation of data in the provincial unit limits its usefulness at national level for selection of specific areas for interventions. The data cannot presently be used for evaluation of interventions in a meaningful way.

The present staff situation

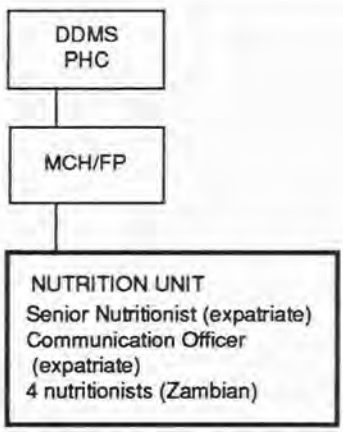
The staff of the nutrition unit is in a problematic position. The unit exists to administer two national programmes, funded from abroad. There are no established posts for nutritionists at the national level. At the same time the nutrition unit is expected to administer two national programmes which will need to continue for an indefinite period of time. The programme extends nationwide from the smallest health care unit to the headquarters level. Lack of established posts does not help to attract qualified nutritionists and creates frustration among those presently working in the unit, who see no future career structure for themselves.

To accord a proper place to nutrition among the health care services and to attract and retain qualified staff the MoH should provide established posts for the nutrition unit with a clearly demarcated career structure. It is strongly stressed that lack of established posts has also to some extent influenced the ability of SIDA assisted personnel to transfer knowledge and responsibility to Zambian staff.

The present staff at the nutrition unit is shown in the figure below.

Senior level staff members have to spend a large proportion of their time on routine administrative work. This is inefficient use of professionally trained staff. Responsibility for administrative and executive functions should be delegated to personnel with training and experience in this field. The nutrition unit staff share one and half rooms among themselves. The space is inadequate for the proper functioning of staff and it requires an immediate change.

The present staff situation at the nutrition unit



The National Food and Nutrition Commission (NFNC)

The NFNC was created in 1968 as a means to address nutrition problems in Zambia. After several years of development, NFNC stands as a parastatal company to the MoH and co-operates with relevant ministries and institutions involved in nutrition work including NNSP.

Essentially, NFNC is the national "Think Tank" on nutrition matters. From information available and interviews, NFNC maintains an advisory role to the NNSP. But this is not without difficulties. NFNC faces problems of lack of both human and material resources to effectively fulfil its advisory role of such a technical nature required by NNSP. The recent report by Greiner et al. ("An assessment of the Nutrition sector in Zambia and the role of the National Food and Nutrition Commission", 1988) offers some useful insights which indicate why NFNC has not adequately provided such a role. And because of such difficulties, it would probably be expecting too much from NFNC to aid NNSP in its daily endeavours.

Essentially, the relationship that exists between NFNC and NNSP needs to be strengthened. This among other things, assumes firstly making the NFNC a viable body to meet all its commitments. This would mean NFNC should have a sound financial base, strong organisation and necessary expertise which is said to be currently lacking.

Future SIDA support to NNSP

The NNSP was adopted in Zambia within a very short period after pilot testing. The methodology is rather sophisticated in comparison to many other developing countries. The quick transition of the pilot phase to the national level did not provide enough local experience to adjust and evaluate the methodology. As the programme progressed the procedures were also changed nationwide requiring retraining of the staff at all the levels (T Greiner: Evaluation 1986). This has influenced the quality of the data and hampered the progress towards representativeness.

SIDA support to NNSP started during 1980 and has mainly consisted of personnel assistance (Senior Nutritionist since 1981 and Nutrition Communication Officer since 1987), scholarships, study tours and short courses, training material, hard paper for children's clinic card and vehicles. The

scholarship programme has been successful and there are many trained nutritionists in Zambia.

Experience from many countries has shown that there is a danger that nutrition surveillance will not go beyond the data collection stage to the intervention and decision stages. It is easier to get data collection funded, and also those responsible for data collection are generally not involved in the analysis, i.e. transforming data into relevant information and have little to do with decision-making.

At present NNSP data is being collected from all health centres, including hospitals. This is costly and requires continuous efforts to monitor and guard data quality. Methods such as sentinel points for data collection have been used elsewhere for nutritional surveillance and for monitoring other PHC activities. However, as the growth monitoring may have possible benefits for individual children and also may raise awareness among health workers about nutrition such benefits should be considered when balancing the cost of the NNSP.

The NNSP has extended to a nationwide programme without proper establishment of posts and career structure within MoH. Extensive efforts have been made to promote growth monitoring at various health care level and to collect data. The procedures for measurement and recording are established but the quality (including representativeness) of the data, though improved over the years, is still questioned. There is trained staff in NNSP and functioning transport. A large number of health workers has been trained.

In the light of the above SIDA should continue to support the growth monitoring activities during the next agreement period.

Phase II of the NNSP should not start nationwide until quality and the analysis procedures for the *present* data has reached an acceptable level. Finally, while the idea of an integrated approach, contemplated to be used in phase II, is in principle seemingly appropriate, this too requires careful analysis of the linkages between and among the "team" members (agriculture, water and community development etc).

Effectiveness and appropriateness of nutrition surveillance using growth monitoring to improve nutritional status of the population has been questioned in several countries. Although mentioned briefly the cost of the present strategy under NNSP in relation to other possible methods, this evaluation team is not in a position to suggest alternatives to the present method of

collection of growth monitoring data or alternatives to the NNSP. The team suggests that expert opinion should be sought from persons within the region with wide experience of National Nutritional Surveillance systems in different African countries.

Since 1981 one SIDA funded expatriate is employed as senior nutritionist within NNSP. This post has helped in transferring the knowledge needed to Zambian nutritionists working in the nutrition unit. The training function of the NNSP and the nutrition unit can successfully be carried out by the present Zambian staff. One of the senior staff is considered competent for the analysis and interpretation of data, but external support is still needed in this area. It is suggested that SIDA should not provide personnel assistance to NNSP beyond the present contract period. Instead short term consultants should be employed periodically for training purpose. The areas of need for training include analysis routines and the interpretation of the data. Other training needs and how SIDA can support continuing education are discussed below in section 8.6.3.

A second SIDA funded expatriate – Nutrition Communication Officer – joined in 1987. There is no counterpart to this officer at present. However, a counterpart is expected to be provided in the near future. The officer is working on her own, but in collaboration with NFNC (and NRDC), and has little involvement in the present NNSP activities and the health education unit. The evaluation team regards close collaboration between the NNSP, the health education unit and the communication officer of importance.

The work of the Communications Officer presently includes mostly healthy children but as childhood infections radically influence the nutritional status of children and affect considerable numbers of children in Zambia, education material should also be produced to prevent malnutrition during infections. The least the health care system can do is to prevent deterioration in the nutritional status during illness; diarrhoea is a good example and appropriate for nutrition information.

SIDA should continue to support the post of Communications Officer for the present contract period (1987-89) and the MoH should post a counterpart for this officer. The need for continuation of this assistance after the present contract period should be decided when a counterpart has been posted.

The staff at the nutrition unit (NNSP) has proposed the need of a

computer for analysis of data. The monthly growth monitoring data at national level consists of nine forms one from each province with nine variables in three age groups and can be analysed using hand calculators. However, if NNSP staff intend to initiate investigations to improve quality (including representativeness) of the growth monitoring information, provision of a computer can be justified. The added advantages of a personal computer include word processing and production of graphics for presentation and advocacy . The need of computer facilities at NNSP should also be considered in relation to such facilities at the health information unit.

The NNSP staff and the provincial nutritionists are capable of fulfilling the training needs of health workers involved in growth monitoring activities. However, there is need to provide education opportunities for the trainers. The areas of priority for training expressed by NNSP staff include statistics, programme management and evaluation, planning, writing of research proposals, analysis and interpretation of nutrition data.

Conclusions

- Malnutrition is a major health problem in Zambia and has become worse in recent years.
- The NNSP is in phase I, collecting data on growth monitoring (weight for age) from children's clinics. Sick children are generally not included in the present growth monitoring data.
- The NNSP has developed recording and reporting procedures but the quality including representativeness of the data must be questioned.
- Some routines for analysis of the data at the national and provincial levels are developed.
- The majority of the HC staff consider growth monitoring as a data collection exercise. However, information from growth monitoring is used in some cases for intervention (education, supplementary feeding etc.) at individual child level.
- Data is not used for planning or advocacy at the RHC and district levels.
- The transfer of knowledge and responsibility to Zambian counterparts of the SIDA assisted personnel has been satisfactory in the case of senior nutritionist. The Communications Officer has no counterpart at present.
- Establishment and career structure at the national level in the nutrition

unit is most unsatisfactory considering that the NNSP is a nationwide programme. Lack of establishment and career structure hampers attracting and retaining qualified personnel.

Recommendations

- SIDA should continue to support the NNSP during the next agreement period.
- MoH should take action to include *all* children (under five years of age) coming to health centres or hospitals in the growth monitoring data.
- Phase II of the NNSP should not start at present. Analysis routines for Phase I growth monitoring data should be developed appropriate for the provinces and the national level and possible channels should be identified for presenting the information to various government departments.
- MoH should provide establishment and career structure for nutritionists in the nutrition unit.
- Evaluation of the quality including representativeness of the data should be carried out systematically by the NNSP in collaboration with academic institutes and with a view to taking necessary corrective measures.
- In view of the competence available at NNSP, SIDA personnel assistance to NNSP (Senior Nutritionist) should be terminated following the completion of the present contract term. The SIDA assisted post of Communcations Officer should continue for the present contract period and the need of this assistance be reviewed again when a counterpart is appointed.
- Short term consultants should be employed by SIDA to provide continuing education to senior level staff in specific fields such as development of the analysis routines and interpretation of the nutrition data. This process should start before the expiry of the present contract of the SIDA assisted post of senior nutritionist.
- Training needs of the staff at provincial and national level should receive due consideration. SIDA may provide scholarships both for short and long courses to national and provincial staff. Provincial staff should receive priority in the allocation of the scholarships.

Summary of SIDA Programme Support

National Nutrition Surveillance Programme started in 1981

Disbursements up to July 1, 1988 SEK 9.1M

Funds spent on

- study tours abroad (2)
- short courses abroad (6)
- degree scholarships (5)
- national survey (1)
- monitoring tours (3-4/year)
- national workshops (4 since 1985)
- purchase of bicycles
- purchase of equipment (e.g. scales, demonstration utensils, plastic bags for children's clinic cards)
- purchase of 3 programme vehicles
- production of information materials (e.g. growth promotion leaflets/booklets)
- consultancy services
- technical personnel

Nutritionist/Senior Nutritionist	78 manmonths
Nutrition Communication Specialist	10 manmonths

Chapter 9

Concluding Discussion

General conclusions

We conclude that generally the HSSP fulfils the role of supporting the government of Zambia in implementing its PHC policy. That conclusion is also valid, and perhaps even more so, in the light of the on-going economic crisis in Zambia. There are two main reasons for this: one is that, in spite of many financial and organisational problems, the PHC policy seems to reach the target group which is SIDA's main concern – the underprivileged, rural population; the other reason is that several of the HSSP programmes are directed at taking care of existing human or material resources instead of investing in programmes that will eventually require large parts of the MoH budget or presuppose financing from donors.

The performance of the various subprogrammes have been commented upon in the preceding chapters and specific recommendations have been given. We suggest several changes and that some extra efforts and resources are put into the subprogrammes, but it is suggested that the general composition and volume remain during the next period of agreement. This is said bearing in mind that the funds allocated to HSSP during the preceding two full agreement periods have never been fully utilised. There is thus a considerable "reserve" to be tapped before additional funds are required.

Recommendations with obvious consequences for the HSSP budget are the following.

We suggest that one TAP may be added to the EDP, provided that no suitable person can be found locally. Otherwise the SIDA supported posts are suggested to remain during the agreement period, but be phased out in most

programmes when the present contracts expire (most TAP have rather recently been recruited or renewed their contracts).

For the PHC training programme a gradual take-over by the govern-ment of the CHW training is suggested, but that the SIDA support is redirected to improved supervision and training of trainers.

For the NNSP a delay in expansion plans is strongly recommended and that the next years are used for consolidation.

In spite of being an obvious "gap-filling" post SIDA should continue, presumably for a long time, to support the Building Co-ordinator at the MoH. Great care should be taken to thoroughly evaluate the pilot projects before the next phase of the RHC programme is taken beyond the test phase

Since the AIDS situation is still so uncertain and since, at the moment, the capacity to absorb donor's assistance is so limited in Zambia, we prefer not to give any suggestion about expansion or alterations in the composition of the HSSP because of the AIDS programme. If changes occur they may come fast and require measures that are impossible to foresee now.

The development and interrelation of subprogrammes

As we pointed out in the introductory chapter the objectives of the Swedish assistance are to support the Zambian PHC policy, which was laid down at the beginning of the 80's. SIDA has agreed to support various components in the policy. The HSSP gives therefore a seemingly disparate picture. There are, however, two factors common to the different parts of HSSP. The first is that they can all be said to support the implementation of Zambia's PHC policy, rather than being part of the actual health care activities. The other is that the aim of most of the subprogrammes is to build up strategic supporting systems. From the latter there is one exception, the PHC training programme, where SIDA provides funds for running costs to an otherwise more or less developed routine activity.

The various programmes that are now under the HSSP are not there because of a strategic long-term plan to build up an integrated Health Sector Support Programme. As far as we can see there has been no initial intention that the subprogrammes should relate to each other in order to support or supplement another or several other SIDA sponsored subprogrammes. On the other hand we cannot see any disadvantages with the present system; the

various HSSP programmes apparently do not cause any hindrance or problems for other programmes.

The HSSP is an administrative concept, where different projects related to the health sector were given the same overall label and handled together in the agreements with Zambia, in annual reviews and in SIDA's budgeting and reporting procedures. The sector support label allows transfer of funds between projects and subprogrammes in one sector with much less bureaucratic complications than before. The outcome is said to be a greater flexibility in the use of resources and a smoother adaption to unplanned changes in running projects. This can only be beneficial to both parties involved.

We believe that it is not stretching things too far by saying that, although the parts of the HSSP may seem dispersed when looked upon from outside, they form an integrated part of the MoH. The risk that the HSSP creates major by-pass solutions and entities foreign to the ministry's organisation does not seem very great.

Less encouraging, on the other hand, is perhaps the small amount of integration between sectors. (Especially interesting since there are two other SIDA supported sector programmes in Zambia – the Education and the Agricultural Sector Programmes, the ESSP and the ASSP.) There are few areas where co-operation have started, the most notable is the NNSP, where intervention activities are to some extent co-ordinated with the educational and agricultural sectors. In the AIDS programme collaboration between sectors is an absolute necessity and is assumed in the Action Plan.

Perhaps the most "natural" intersectoral co-operation should occur on the community level, where efforts from many sectors converge. In the PHC training programme the CHW is an obvious target for promoting this, and as mentioned in chapter 4, the PHC secretariat at the MoH has advised more participation in the CHW training from e.g. agriculture. Under this programme several seminars have been held to spread information about PHC to the local UNIP organisation and to officers from other ministries at provincial and districts levels. We have been told that the MoH would also welcome more support from SIDA for such activities.

On the district level intersectoral cooperation relating to the HSSP is planned in one of the two maintenance pilot projects, where the District Council takes responsibility for repairing and maintaining both schools and health centres.

System-building and day-to-day activities

A major component in all subprogrammes is the transfer of knowledge. A related issue is sustainability, i.e. a programme's ability to continue without external support. An effective transfer of knowledge is a prerequisite for a sustainable project. Another prerequisite is a firmly established organisational structure that can be expected to last for a reasonable amount of time.

The problem of sustainability has been addressed in the chapter on each programme. One common problem for several of the subprogrammes is that they lack established posts in the Zambian administration. In the transport programme, for example, there are no posts at all at the management level and the few posts in the workshops are mostly labelled as drivers. In other programmes such as the NNSP the Zambian staff is seconded from other parts of the MoH.

This has drawbacks both at present, because the staff feels insecure, has no career structure and is often neglected when it comes to further training, and for the future because there is no guarantee that the programme will continue after SIDA support is withdrawn.

When it comes to the question of by-pass solutions and gap-filling, two common features that make sustainability difficult, we can conclude that in some programmes the SIDA supported TAP are gap-fillers, most notably the people in the transport programme and the building coordinator. In the other programmes the TAP role is mainly to provide transfer of knowledge. We cannot say that any of the programmes has an organisation which by-passes the Zambian administration, again with the possible exception of the transport programme.

Another problem in relation to sustainability and day-to-day activities is that most programmes lack a plan of operation, which specify work targets and which can be used as a basis for monitoring the development of a subprogramme. Here the plans and conditions for SIDA support to be phased out should be included.

Women and children

Since the PHC policy to a great extent, both through preventative and curative health care, is aimed at women and young children it is possible to argue that most of the SIDA supported subprogrammes are, by definition,

directly or indirectly targeted towards these groups. A success or a failure in any of these programmes would mean a benefit or a loss for women and children.

The transport and health planning programmes are, of course, only indirectly of importance in this respect, but there is no doubt that for instance a worsened transport situation would hit several RHC-related activities badly, and thus affect health care for women and children.

Although aimed at the whole rural population the building (and later the rehabilitation) of rural health centres is essential because a large part of the RHC-based health care is related to children (immunisation, growth monitoring etc).

Subprogrammes that can be considered as immediately beneficial for women and children are the essential drugs programme and, in the longer run, the nutrition surveillance programme.

The training of community health workers belongs in principle to this category. However, according to various reports, the fact that the majority of CHWs are male excludes them, for social and cultural reasons, from giving advise and help to women to the extent that would be desirable and otherwise possible. As suggested in chapter 4 a more decisive action to bring more women into community based health care would probably be beneficial to a large number of the women in the rural areas.

Continuing education

Many of the programmes included in the HSSP have conducted training and retraining seminar or workshops. This is true also for other PHC programmes (EPI, CDD etc). Most of the training has taken place in vertical manner with little horizontal co-ordination with other PHC programmes. These uncoordinated activities take the same health worker away from the working place several times during the year.

In all the programmes reviewed by the evaluation team, there seems to be a common need to update and renew the knowledge of health workers. This is also true for the trainers of health workers. The on-going management programme envisions need for refresher courses for managerial staff at various level of health care. The trainers of CHWs need to be continuously retrained. In NNSP both the supervisory staff and the health workers involved

in the collection and interpretation of information need refresher courses to maintain the quality of the data. In EDP rational prescribing needs to be promoted via regular reinforcement of the prescribing information.

To harmonise the horizontal linkage and co-ordination of training needs between various PHC programmes and to promote intersectoral co-ordination the evaluation team recommends the creation of a post as training co-ordinator. The post may initially lie within the EDP for practical reasons, but it could later grow out as a separate establishment encompassing the training needs of all the programmes. The post will require some degree of authority for co-ordination activity and a direct linkage and responsibility to the Director of Medical Service (DMS) – a vertical chain of command would be appropriate.

Recommendations

The evaluation team recommends

- that SIDA should continue to support the HSSP and that the volume for the coming agreement period should be about the same as during the preceding agreement period;
- that plans of operation should be made for the various parts of the programme, where operational targets for the period and, if applicable, the phasing out of TAP are specified;
- that efforts are made to ensure continuous education in the various programmes as discussed above and in the preceding chapters.

Appendix 1

Analysis of background document on CHWs/RHCs in Zambia

Compiled by

Dr. Paul J Freund
Zambia PRITECH representative
1988

Introduction

Since PHC was implemented in Zambia the MOH has trained 3340 CHWs, set up organizational structures at Central, Provincial and Distric levels and carried out several major evaluations of PHC. There has been an accumulating body of informations on CHWs and the nature of PHC activiies which has focused on constraints/problems affecting effective functioning of CHWs.

The vast majority of the data available is of a social survey nature and analyzes such aspects of drop out rates, availability of drugs/equipment, supvervision and socio-demographic characteristics of the CHWs. While this type of data is useful as a baseline measure there is an need to investigate the more qualitative aspects of CHW functioning. For example, how well are the CHWs doing in terms of community demands/expectations, are they fully prepared to deal with community demands, how do they deal with inadequate drugs, what is their relationship with RHC staff, particularly HAs? Some studies and on going research do touch on some of these questions when they discuss supervision, reasons for dropouts, community participation and

quality of training. However, few provide enough data to answer crucial questions relating to CHWs functioning in their work environment. The reason is of course due to the time and expense of carrying out studies of CHWs at the community level.

The GRZ/Unicef studies of the Impact of PHC in remote rural areas (Freund and Kalumba 1982 - 1986) were specifically designed to assess how the MOH's health programmes were reaching and functioning at the village and household level. These studies were longitudinal and intensive, requiring two week visits by a team of researchers at intervals of 4-6 months. They were also comparative because the areas selected were chosen to represent differing geographical/environmental areas within Zambia. The impact studies actually monitored the PHC implementation process such as how CHWs were chosen, their problems/interrelationship with local leaders and communities, as well as monitored disease morbidity/mortality in the selected communities over time.

This study was initiated by the GRZ/Unicef committee to help answer questions related to the PHC implementation process in rural areas and have proven to be very useful to the MOH. Results were regularly shared with the NPHCD committee, NGO-PHC committee, GRZ/Unicef Interministerial committee, Sida Health review teams, other researchers, NGOs and interested agencies. Fortunately, Unicef has agreed to continue these studies in other areas including an urban setting.

Some of the questions specifically addressed in the Impact studies related to CHWs include the CHW selection process and their subsequent ability to funcion, effect of availability of drugs on their work, the effect of a nearby RHC on CHWs and attitude of RHC staff to CHWs and PHC. While there is comparative data available from other countries on such questions as the difference between male and female CHEs (e.g. India, Philippines, Indonesia) and CHW training/community expectations the information from Zambia is very sparse A few sources such as mission annual reports, IRDP CHW training experiences and specific programme reviews (UCI, CDD, MCH) mention male/female differences in CHW functioning such as preference for males on decision making committees (VHC), difficulty of male CHWs in treating female patients and vice versa, differential drop out rates and difficulty experienced by female CHWs in travelling to distant villages in their catchment areas.

There is evidence that drop out rates are still high. The factors identified as contributory to high attrition include age, marital status, absence of functioning VHC, lack of community support, lack of supervision and insufficient drugs (Osborne, Herring, Tonnesen and MOH PHC reports). Some of these factors relate to the functioning of the RHC and ultimately to the resources of the MOH/Government (i.e. provision of transport, drugs and personnel), while others depend on the local community situation and some of the selection process itself.

General deteriorating economic conditions has hindered health care functioning at all levels and has constrained efforts of the MOH to provide drugs and transport particularly for RHCs and CHWs. However, it is possible with a minimum of cost to improve supervision through training, planning, use of checklists and intersectoral cooperation.

It is clear that, as the number of CHWs and TBAs trained grows, we should shift our concern from quantity to quality. For example, the CDD programme has an active training programme which has been underway since 1984 (i.e. training Provincial, District and RHC staff) and the CDD secretariat is now concerned with the quality of that training. An evaluation of diarrhoea case management at the HC level and nature/frequency of supervision between provincial/district, district/RHC and RHC/CHW is currently being carried out. Tje preliminary results based on a tour of Eastern province is that supervision is poor between the province and district and between RHC and CHWs. The major constraint is still lack of personnel and transport. There was, however, some good signs of RHC staff inviting CHWs to participate in under-five clinic days and other RHC outreach activities. This type of interaction should be encouraged.

One of the crucial issues repeatedly identified by all health sector reviews, World Bank reviews, programme reports and CHW studies is insufficient and inadequate supervision. Proper supervisory techniques/methods have to be taught at all levels and district/provincial health management teams must regard supervision as a priority. Increasing training courses is of little value unless the trainees are regularly monitored/supervised.

An area that needs more investigation is the relationship of HAs to CHWs because the information that is available is largely impressionistic. What is clear is that it is the HA who often has the responsibility of supervising CHWs. However, som REHCs do not have HAs (establishment post vacancies) and as a result no one is available to visit CHWs.

Another serious problem is poor reporting by CHWs (noted in the Isoka Project, Osborne, Herring et.al). As long as reporting is inadequate it will be extremely difficult to measure what an individual CHW has attained in terms of number of patients treated, sanitation activities undertaken, etc. In the absence of reporting procedures CHW's performance cannot be assessed. Some areas/projects have designed/implemented simple forms for CHEs (drugs used, cases treated, pit latrines dug, health education talks delivered, U-5s measured for nutrition status, and problems encountered). For example the Unicef Impact studies project used household-based reporting system which was linked to CHWs in Western/Northern provinces which seems to have potential for use in other areas.

The information in regard to CHW/RHC social/geographical coverage shows that there is great variablilty in the catchment areas of both CHWs/RHCs. Osborne in her study noted that a specific question on the catchment areas was not asked. Data from other sources and community-based studies indicate that CHW catchment aeras vary from one per village (e.g. Isoka project) to one per 15-20 widely dispersed villages (e.g.Freund/Kalumba Impact study). Future mail surveys of CHWs include specific questions on geographical range/villages served to enable the MOH to assess the catchment aea variability. In terms of social coverage there is no marked social differntials in access to RHCs on CHWs. However, there are many reports of CHWs being pressured to provide drugs/services for local political leaders/relatives/friends. Because of the chronic shortage of drugs by CHWs/RHCs many patients do not have effective access. Another problem is the reluctance of female patients to seek MCH services from male CHWs or male C.O.s. It is for this reason that more female CHWs need to be trained and a midwife should be available at RHCs.

General Conclusions/Recommendations

The analytical/critical review of the reports, articles and research on CHWs/RHCs has revealed that there is a fair amount of information available on the overall situation of PHC and CHWs in Zambia. However, the majority of the studies focus on quantitative aspects and socio demographic characteristics.

In spite of the diversity of approaches all of the studies identify four basic constraints to effective CHW functioning (1) lack of drugs/equipment (2)

lack of adequae supervision (3) lack of community support and (4) lack of transport. All of these relate to the CHW's supportive system. Other factors which determine the CHW's ability to function include quality/duration of training, age/sex of CHE size of catchment area, quality/motivation and attitude of RHC staff toward PHC/CHWs, and relationship of CHW with local political leaders. There are in addition, factors which affect individual CHW performance such as personal motivation.

Measuring CHW accomplishments will be difficult given the poor recording noted by most of the studies cited. This aspect should be given more attention in training curricula. It is particularly important to train RHC staff on the need for accurate record-keeping and to link CHW information systems to the RHC. RHC staff, especially the HA, should make use of the reports they receive from CHWs.

Of all the constraints noted the most important is lack of supervision because it relates directly to lack of motivation, performance quality, and high attrition rate. It is therefore crucial that regular and sufficient supervision is given a high priority at all levels (between province - RHC and RHC - CHW). Perhaps a system like that suggested for Western Province could be implemented in all provinces (i.e. a schedule for supervision visits, and series of supervision seminars).

Effective training at all levels from medical/nursing schools, clinical officer/health assistants to provincial/district level workshops is also essential to the success of PHC. The current evaluation of the clinical officer/health assistant curricula should yield some important recommendations on restructuring to producre a more relevant programme. Medical school and nursing schools curricula should also be evaluated in terms of the need to provide more emphasis on PHC issues. At the provincial/district levels managerial seminars should continue and more emphasis needs to be placed on how to carry out effective supervision. When CHW training programmes resume the need/importance of reporting should be stressed.

While the amount of information on CHWs in Zambia is good there are still many questions which remain unanswered. For example: How does CHW training relate to his/her performance? How does it relate to community expectations? Have areas with active CHWs affected RHCs? What can HAs do to enhance CHWs performance? Is there a quality difference between male/female CHW functioning? What creative solutions can/should be developed

to increase community support? The answers to these questions will require intensive community-based research. Although the nature of this type of research is expensive and time consuming the results should be rewarding and extremly useful to the MOH and donars involved in supporting PHC and other health programmes.

Zambia has successfully implemented a broad scale PHC programme, trained a large cadre of CHWs and carried out several evaluations of PHC, but the crucial issue at this stage is whether these efforts can be sustained, particularly in view of the present economic crisis and deteriorating service structure. I believe therefore that the type of research suggested above is vital.

Published studies

C. Osborne: Community Health Workers in Zambia - Msc. London School of Tropical Hygiene - 1985

B. Herring: The Community Health Worker and His supportive Systems MOH - Report, 1984

K. Tonnesen: Evaluation of PHC in Zambia 1986

PHC Annual Reports - Ministry of Health, Lusaka

MDH - Strengthening Performance of CHWs for PHC in Mumbwa and Mazubuka Districts - a project Proposal, 1985

Research in Process

Managerial Process in PHC - Peggy Chibuye - WHO fellow London School of Tropical Medicine and Hygiene (Supervisor Gill Walt)

The Strengthening of CHW Support Systems in Mumbwa/Mazabuka Districts.

K. Kalumba: GRZ/Unicef Impact Studies

The Isoka Project - 1984 - 1986

K. Kalumba, Phd University of Toronto, 1988: The Practice of Health Care Reform in Zambia

An Approach Toward an Equitable and Affordable Health Care Delivery System in a Developing Country: the Case of Zambia - Phd Brandeis, 1985

SIDA financed staff development and equipment to a Midwifery Teachers Diploma Course. A study tour and a seminar planned for 1986 were transferred to the PHC Training Programme in 1987 and the programme was terminated.

Nurse Tutor Programme started already in 1971 but was included in HSSP in 1979. Figures mentioned below refer to the period 1979-1986.

Disbursements up to December 31, 1986 SEK 10.7M
Funds spent on

- seminars
- teaching aids for a Midwifery Diploma Course
- staff development
- study tours abroad
- technical personnel
  nurse/midwifery tutors - 382 manmonths

Medical Assistats´Training School

The last payment (SEK 70,000) for this programme was made by SIDA in 1986 although the construction of the four hostels were not completed. Upgrading of three rural health centres included in the programme was omitted already in 1985. The programme was considered finalised at the Annual Review in 1986.

Medical Assistants' Training School started in 1979.
Disbursements up to December 31, 1986 SEK 10.2M
Funds spent on

- rehabilitation of hostels at Medical Assistants' Training School in Lusaka
- construction of 8 staff houses at the same school
- construction of 4 student hostels in four provinces
- purchase of furniture/equipment

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NO SHORT CUTS TO HEALTH

The Swedish Support to the health sector in Zambia started in the early 1970's. Since 1979 it has been organised as a health sector support programme (HSSP), comprising primary health care training, health planning and health information, transport, nutrition surveillance, distribution of essential drugs and AIDS-related activities.

This evaluation, in which all individual programmes have been scrutinised, covers the period 1979-1988. In general, the team concludes that the HSSP fulfils its role in supporting the government of Zambia to implement its primary health care policy.

At the same time, however, the evaluation emphasizes the need for continuing education in most programmes, and strongly recommends SIDA to support such efforts.

Sweden's bilateral development co-operation, handled by SIDA since 1965, comprises 17 programme countries: Angola, Bangladesh, Botswana,m Cape Verde, Ethiopia, Guinea-Bissau, India, Kenya, Laos, Lesotho, Mozambique, Nicaragua, Sri Lanka, Tanzania, Zambia, Zimbabwe and Vietnam.

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