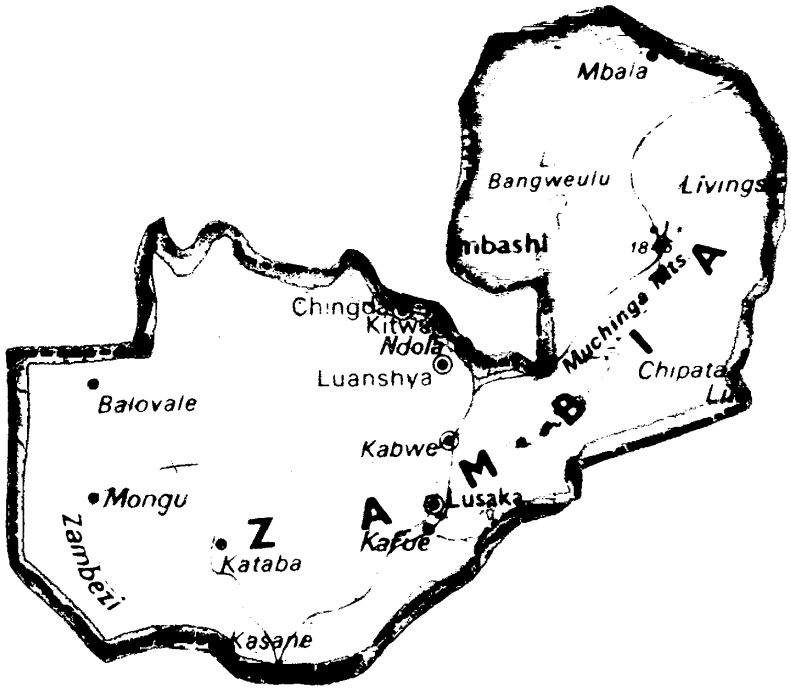
WORLD HEALTH ORGANISATION



Dr Robert J Maxwell

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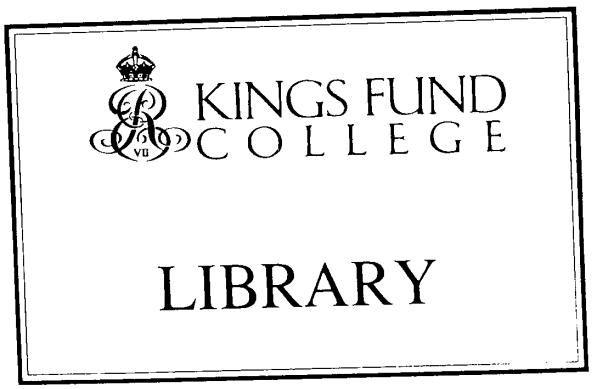


ZAMBIA'S HOSPITALS

by

Dr Robert J Maxwell

INTRODUCTION

1. The purpose of this mission was to advise on the development of a policy for hospitals at all levels, and an approach to implementation. Terms of reference are attached (Appendix A).

2. The writer visited Zambia from 27th February to 13th March 1994. After meetings with the Minister for Health, the Hon Michael Sata, the Permanent Secretary and other staff in the Ministry, he began visits to examples of all the major types of hospitals. His programme is attached (Appendix B). He was also able to meet representatives of a range of donor organisations which are currently supporting in a substantial way the Government's Health Reforms. The writer is grateful to all who helped him by giving their time so generously, and to Mr David Howells of WHO for meticulous and imaginative planning of the arrangements.

3. The terms of reference required that this report should take account of much work that has already been done. A list of reports read is enclosed (Appendices C1/C2/C3). In particular the writer had the benefit of a recent report by Dr Robin Stott and Mr Frank Inman, who visited a number of Zambian hospitals in late 1993, sponsored by WHO. Their

report gives a vivid impression of the depressing situation in some of the provincial hospitals. He was also fortunate to overlap with another WHO consultant, Dr Gunnar Holmgren, who had been studying the provincial role in relation to health, and heard Dr Holmgren's oral presentation at the Zambian Ministry, summarising his findings.

OVERVIEW OF THE PROBLEMS

4. The Minister, in a Ministerial Statement to the National Assembly (1), recently compared Zambia's health system to an ageing Cadillac, whose owners are not as wealthy as they were once, and who can no longer afford to maintain and operate it. The metaphor is apt, applying even more strongly to the hospital part of the health system than to the health system as a whole.

5. Not only has the vehicle seen better days, it is designed on too lavish a scale to be affordable from public funds. With 84 hospitals and a total of over 14,000 beds (2), Zambia has almost 2 hospital beds per thousand population, which is one of the highest figures in Africa. Supporting a hospital system on this scale is a continuing struggle for a relatively poor country. Many of the hospitals are in poor shape, with a chronic neglect of maintenenace expenditure for both buildings and equipment. When the writer visited the University

Teaching Hospital, the country's premiere medical institution, staff salaries were overdue because no monthly payment had been received from the Ministry of Finance. Obviously morale suffers under these circumstances, although in general people now feel that the situation is improving. From a low point in the late 80s, definite improvement can be seen in many of the hospitals, partly because more money has been spent, but even more because there is increased local autonomy and management initiative in tackling the problems. Despite all the difficulties, many staff - nursing, medical and support - are astonishingly resilient, cheerful and caring.

6. In health terms one has to face the fact that Zambia has in a number of ways gone backwards in recent years. A substantial part of the explanation is of course economic, combined with a population growth rate of 3 per cent per annum. Gross Domestic Product sank from Kwacha 438 per head in 1965 to 273 per head in 1990, a reduction of more than a third at constant prices (3). Turning to the health indices, immunisation rates have fallen to dangerously low levels of 40 per cent in some areas, from more than 80 per cent in 1988. Malnutrition has risen alarmingly and recently infant mortality actually rose from 79 to 107 deaths per thousand live births. One in 5 children die before their 5th birthday. As in many neighbouring countries, AIDS is a serious and growing problem, with over 250,000 people thought to be HIV positive (1). Associated with AIDS is a substantial rise in the incidence of TB and its resistance to treatment.

7. To these problems the hospitals have few effective remedies. Yet they currently absorb the lion's share of the health budget and are themselves seriously underfinanced. Money is needed to support primary health care policies, but extracting it from the hospitals runs the risk of turning a situation in the hospitals that is already barely tolerable into one that would be impossible to sustain.

THE HEALTH REFORMS

8. The driving theme of the health reforms is decentralisation. Like most big bureaucracies, Zambia's health services have been heavily overcentralised and bureaucratically run. The objective now is to pass as much responsibility as possible to the 61 Districts and encourage them to make their own choices about how best to use the available resources. Each District is to have its own appointed Board. Similarly each hospital is to have substantial management autonomy, under its own governing body. Along with decentralisation in the Reforms goes cost-sharing. From 1993, the Boards have been able to impose user charges and, at varing levels, they now do so. The Government is currently concerned about the apropriateness of charges, bearing in mind considerable evidence that, for people with low incomes, charges do have a substantial disincentive effect (4). This is not surprising - indeed a valid intention of cost-sharing is not only to increase

revenue, but to bring home to people some realisation of the cost of services. The problem is the differential impact of charges on the poor. Many people can afford to pay towards the cost of their care (5). The money raised by charges is of great value to a cash-poor public system, but there are some who simply cannot afford the relatively modest fees that have been introduced.

9. The general opinion of those whom I met, including donors, was that the Health Reform programme is going well. The Government and people of Zambia can be proud of the progress made. The Health sector is in the vanguard of public sector reform, and the changes are in many cases impressive, thanks to the hard work, determination and flair shown by people at many levels in the system.

10. Nevertheless it would probably be true to say that the general public are not yet convinced. Charges met with some resistance and the Government is therefore considering a different, prepaid approach, along insurance or mutual lines. It is also frequently said that it will not be possible to demonstrate improved health outcomes from the reforms. This view ought to be challenged, at least so far as intermediate outcomes are concerned. For example, granted the dramatic and dangerous falls since 1988 in immunisation rates among children, it should be within the power of District Health Boards to demonstrate substantial improvements in rates, without much delay. (To underline the point, the Mumbwa

District can already demonstrate such improvements). The CSO census information in Zambia is impressive, seems reliable and would provide an independent check. This is only one example. It is important for the politicians to have evidence like this to convince the nation that the Health Reforms are not simply fashionable, but are producing results.

HOSPITALS WITHIN THE CONTEXT OF THE HEALTH REFORMS

11. Zambia has developed a relatively comprehensive network of health centres (942 in 1990) and hospitals. Geographical access is good, with 63 per cent of households within 5 kms of a health facility and 87 per cent within 15 kms. But there is difficulty in sustaining this institutional network. The real trouble began with the accumulation of economic and political problems in the mid 1980s. The Government hospitals began to go downhill in a substantial way. At that time the Government of the day had no effective response. The combination of a highly centralised bureaucratic system of financial allocation and control, rigid personnel policies, a universal public expectation of free public services, and sharply declining public funding, together brought about a rapid downward spiral in hospital services. The most obvious outward signs were failure to repair or replace equipment, and neglect of buildings. In time, staff morale was also bound to be affected. By the time the MMD Government took over in late 1991, the state of the Government hospitals was grim. This

applied less to the Mission hospitals and to industry-owned hospitals. While they no doubt had their own financial problems, at least they were not so directly affected by the stultifying hand of Government bureaucracy and they could try to work out their own responses. In the rural areas in particular, the country owes a great debt to the Mission hospitals for maintaining the quantity and quality of services in a very difficult period.

12. The MMD Government has demonstrated its commitment to the Health Reforms by improved funding, and by transferring money to the District Health Boards and the hospitals rather than controlling all finance centrally. It has allowed much increased local autonomy, for example in the levying of charges, the development of "high cost" facilities where charges are considerably higher, and the local use of the money thus generated to start an upward spiral of improvement. When this happens, as at Kitwe Central Hospital, there is absolutely no doubt about the impact.

13. That does not mean that all the problems have been resolved, however. In particular:

(i) Underfunding remains a problem.

(ii) Far too much equipment is out of order, possibly beyond repair: of what remains, much is nearing the end of its useful life.

(iii) Some hospitals (and some services within hospitals) are seriously under-resourced relative to others doing similar work.

(iv) The system is still too centralised; for example, only about 20 per cent of the recurrent budget goes direct to the Health Boards. So far as the hospitals are concerned, personnel management is still highly centralised, much of it at the level of the Cabinet Office.

(v) Hospital and Health Board management is still extremely variable, from a minority who are showing what can be done as the more restrictive controls are lifted, to a majority who are somewhat uncertain what is expected of them, beyond keeping their organisation going.

(vi) There is an absurd situation over medical staffing, whereby Zambia loses a high proportion of its medical graduates because they are offered more money in other parts of Southern Africa, while the Government recruits expatriate replacements from countries like Zaire, Egypt, Bangladesh, Cuba, usually at rates substantially higher than it is willing

to pay its own graduates. The point at issue is not a lack of clinical skills in the doctors who are recruited. It is that to provide the leadership that the system needs, a critical mass of Zambians is required.

(vii) There is some ambiguity about the Government's primary health care strategy, in so far as it bears on the hospitals. (There is, incidentally, nothing unusual about this dilemma, which is currently echoed in many other countries around the world). The Government is pledged to switching money out of "tertiary services, specialist training and interventions that provide little gain for money spent" (1), into prevention and essential clinical services. But how can this be done without undermining the recovery of the major hospitals, which are just beginning to regain confidence in themselves and their future?

14. PRINCIPAL FINDINGS

While the writer has no direct personal experience of the situation in the Zambian hospitals in the late 80s, his strong impression is that there has been a marked recovery

since then. Just as nothing can be worse than a widespread opinion that a hospital system has gone badly downhill, so the sense that there is an upward momentum is an inspiration. That feeling is currently widespread in Zambia. The need is to maintain the momentum and build on the increasing confidence generated by the reforms.

15. THE DEVELOPMENT OF A POLICY FOR HOSPITALS
(Terms of Reference : Para 1)

The role of Zambia's hospitals has to be formulated within a national health strategy that is primary health care-led. Government spending has to give priority to measures like immunization, maternal and child health, and basic health services. Compared with hospitals, all these services are relatively cheap and they can bring big dividends in terms of results.

16. The hospitals' role must be within, and in support of, such a primary health care-led strategy. With few exceptions, the hospital should not be the first port of call for care, but should be accessed by referral from a health centre or similar point of first contact. The common congestion of outpatient clinics at the country's major hospitals is a direct result of the failure to differentiate primary and referral functions, and is an extremely wasteful use of medical resources.

17. As a referral facility, the basic building block of Zambia's hospital system should be the District hospital. Normally there should be one such hospital per District (i.e. 61 for the country), although in some cases, depending on population size and distribution, two or more may be appropriate. By agreement, the District hospital could be a Mission or Industrial Hospital: in other words, it does not have to be Government-owned and operated. Figure 1 suggests the minimum requirements for a District Hospital. Currently some District and Mission Hospitals are functioning with a single qualified physician - a situation that is unacceptable.

Physician/Surgeons working at this level need to be true generalists able to deal competently with a wide range of clinical problems, plus support services, plus management and public health. Special training ought to be available and professional recognition.

18. The links between the District Hospital and the District Health Boards' health centres and clinics are crucial. The hospital's role is one of supporting the health centres, not of duplicating any of their functions. Moreover it is essential that the hospital staff know what is going on in the health centres and in the communities which the health centres serve.

19. User charges have been widely introduced in recent years, both for basic "low cost" services and (where facilities have been upgraded) for "high cost" services. Provided that

charges are imposed or increased with due warning and explanation, they appear to be accepted both by patients and by staff, and they supply a local source of finance that is currently absolutely vital to raising standards and developing new services. There are however some provisos:

(i) Charges should be controlled within guidelines established by the Minister, since they need to be defensible at the national political level.

(ii) All monies collected should be recorded, banked in a separate bank account, and subject to audit.

(iii) Differences between "low cost" and "high cost" services should be no greater than can readily be justified by differences in the cost of provision. The aim should be to use the money raised to benefit <u>all</u> patients.

The opposite - i.e. that "high cost" patients get an unfair advantage by payment - would be quite wrong. Yet it can easily happen, and in some places appears to be happening.

(iv) Those who cannot afford to pay even modest charges should be exempt, after proper assessment.

20. Forms of prepayment are now under discussion, by which people will make regular monthly payments to cover the cost of charges

when they use services. Again, this seems a good idea, provided that the money paid in premiums is separately banked and held as "client monies" until used for the purposes intended.

21. Transferring funds direct to the District Health Boards is in principle correct. Obviously it is essential that the Government grant is paid regularly and promptly, otherwise the Boards and the hospitals are put in an impossible position. As Inman and Stott argue in their report, the Boards should "be given control of both pay and non-pay budgets, and be allowed to control the number of staff employed, their pay and conditions".(6) They should have the authority to reduce beds, and to switch funds from inpatient work to outpatients and home care, or from staff to equipment, if that is their judgement of the best way to use their limited resources to serve their patients and the community.

22. Every hospital needs to be well-managed. There is currently very marked variation among the hospitals, not only in resourcing but in the extent to which they are actively managed. Physicians, who are often put in the top management position in Zambian hospitals, are generally untrained for this responsibility and sometimes temperamentally unsuited to it. People can be excellent clinicians and yet have no clue about managing, which entails being quick to pick up "soft infomation" about morale and performance as well as hard data, being accessible and observant, being able to get things done, and having a sense of vision and strategy.

23. The question of the roles of Provincial and Central Hospitals, including UTH, is dealt with in the next section, before returning to some broader issues in the hospital system as a whole.

"PROBLEMS OF THE PROVINCIAL AND CENTRAL HOSPITALS (including UTH), their utilization and the appropriate use of their skills (Terms of Reference Paras 2 & 3)

24. Apart from the three Central Hospitals - UTH, Ndola and Kitwe - there are currently nine General or Provincial Hospitals. These twelve hospitals, together with some other special services such as the Flying Doctor Service, between them account for about 70 per cent of the total Governmental expenditure on health care.

25. The idea is that these hospitals should act as a second level of referral, in support of the District Hospitals. But this is not what actually happens. In the main, they are simply bigger hospitals which are based in the larger towns and they act as first referral hospitals for those who live within their (primarily urban) catchment areas. Even UTH, the country's leading medical institution, which by itself absorbs some 20 per cent of all Government health spending, is thought to draw 95 per cent of its in-patients from Lusaka, and (on survey) only 10 per cent had been referred from other institutions (7). "The teaching hospital functions as a general hospital for the city, not .... a national referral institution" (7).

26. On the basis of figures such as these there are no solid grounds for "top-slicing" the funds for any of these hospitals. Essentially they are fulfilling the function of a hospital at the first referral level, just as a District Hospital does in a rural community in a relatively small town, albeit their volume of work and staffing levels can be higher because of the concentration of an urban population (Figure 2). In so far as this is their function, all Zambia's hospitals should be treated the same - that is they should be funded by a capitation payment for the population that they serve.

27. To the extent that any hospital fulfills other functions and these functions are approved by the Minister, then it is appropriate to fund that specific purpose. Thus UTH should be funded for its medical teaching functions, and similarly Ndola and Kitwe for nurse training. Equally to the extent that other hospitals refer more complex cases to any other hospital - whether to a Central, Provincial, Mission or Industry-owned hospital - that referral should be recognised by funding. Probably the best ways to achieve this are:

(a) To require hospitals to record the cases that they refer and

(b) to carry out occasional spot checks in the larger hospitals on the basis of a random sample of patients in the hospital on a particular date, selected without prior warning. It would probably be wasteful and obstructive to require referring hospitals and/or the patient's home District to pay the bill at the receiving hospital. The alternative, on the basis of

spot checks of the type described, is to top-slice the funds required. Where that differs from what is done now is that the funds to be top-sliced would be relatively small and would be justifiable on the basis of the specific details of the patients who had actually been referred.

28. The Management Team at Kitwe Hospital, with considerable financial, practical and moral support from the Ministry, has clearly demonstrated what the reforms and good management can achieve. At UTH the process is more difficult, largely because of its size (1245 beds) and complexity, but also because of its political prominence. Part of the answer is to decentralise management within UTH - within hospital policies and approved expenditure and income budgets - so as to make the place more manageable.

29. If it is claimed that the large hospitals cannot be adequately financed on the basis of the capitated sums received for the population that they actually serve, plus earmarked funding for their referral functions and for national roles such as teaching, then the response should lie in a combination of increased efficiency, cost reduction and improved fee income. Exemption from fees will continue to be essential for the poorest patients, but most urban residents can afford to pay substantially more towards the cost of their care than can those who live in the rural areas.

30. As with the District Hospitals, so also with the large hospitals, their links with local health centres and clinics are absolutely vital to reducing hospitals congestion and misuse. One of the success stories of UTH is the reduction of normal deliveries there (reducing total deliveries from about 30,000 a year to 15,000) by strengthening the urban maternity clinics.(8)

"REVIEW EXISTING MANAGEMENT PROCESS FOR THE HOSPITAL SYSTEM AND MAKE RECOMMENDATIONS" (Terms of Reference Para. 4)

31. Hospitals are inevitably expensive. For what they do, they must be properly funded, and what is feasible for them to do has in part to be defined by the funds that are available. They deal with a relatively small proportion of the episodes of illness in any country. At the secondary referral level, the proportion is even smaller. For the bulk of health care, therefore, the priority must be financing activities at the District level, including the District hospitals and (in so far as their function is first contact care) the country's larger hospitals, including UTH.

32. The best way to allocate most of the Government funds available for health is on a capitation basis. If for 1994 the recurrent budget is 43.7 Billion Kwacha, the maximum available per head is roughly 5,000 Kwacha (say £5 or US$7.5). Whatever is deducted by top-slicing, e.g. for secondary referral, for the Flying Doctor Service and for central functions, reduces that sum pro-rata (See Figure 3).

33. As already argued above (paras 25 and 26) in Zambia the secondary referral function is quite limited. Most funds should therefore be allocated on the basis of population served, even if the money is in many cases passed direct to the hospitals, rather than via the District Health Boards. It ought to be a relatively easy calculation to decide which hospitals serve each District and in what proportions, so that hospital allocations can be "charged" to the appropriate District Budgets.

34. Since the geographical distribution of hospital beds in Zambia is by no means even (See Figure 4), the hospital expenditure that ought to be charged to each District is bound to be variable also, even after adjusting for differences in population size. (Figure 4 is, incidentally, based on beds in all types of hospitals, not in Government hospitals alone).

35. Where (on this basis) the total hospital expenditure for any District is higher than the District can afford, then there is a strong case for shrinking the hospital system in that District. Returning to the Minister's metaphor of the Zambian health system as an ageing Cadillac that the nation can no longer afford to run (1), it makes sense to do some reshaping of the hospitals into a leaner, more economical configuration - something more like a People's Car. Rationally the cuts should come where, relative to other parts of the country, the services are relatively lavish.

36. While there is nothing wrong in principle with some national top-slicing of the budget, to pay for national and supra-District services, the degree of top-slicing (currently approaching 80 per cent - see Figure 3 above) looks extremely high. In any event the onus of proof should lie on the advocates for type slicing to prove their case, rather than the reverse.

37. Apart from substantial geographical imbalances in hospital facilities and an over-reliance on financial top-slicing, there are also very marked differences in the resourcing levels of hospitals doing similar jobs, and in apparent hospital productivity. These differences are much less obvious than they would be with even the most rudimentary national data collection and comparative analysis - a deficiency that can readily be put right and should be corrected as a matter of urgency. Meanwhile Figure 5 is illustrative only, based on an earlier WHO Mission Report (9), Inman and Stott's report and statistics collected during the present visit. Very simple, selected statistics of this kind should be used as a pointer to which institutions are particularly hard-pressed (e.g. Mumbwa District Hospital in Figure 5) and/or where something is happening that calls for fuller study.

38. In their report (10), Inman and Stott also call for management capacity building in the hospitals and for hospital twinning arrangements. Both recommendations are supported. In

addition, the writer recommends building into Zambia's Quality Assurance Initiative a national programme of hospital standards review. This would require the formulation of specific criteria and standards for - example for a District Hospital - and a systematic process of peer-review against these standards. A hospital about to be audited would first review itself against the standards, and then receive a small team (e.g. physician, nurse, clinical officer, administrator) of people doing a similar job elsewhere, who would look, listen and report what they found to the Hospital Management Team. Extensive information is available on how arrangements such as this work in Australia, Canada, the UK and the USA. An alternative to this type of peer review would be an Inspection Team appointed by the Minister. There are pros and cons between the two approaches, the first being more developmental and the latter more the "eyes and ears" of the Minister to gauge what is actually happening to clinical standards in what should rapidly become a more decentralised system.

39. Something must be done to staunch the outflow of Zambian-trained doctors from the country. Over the past 25 years, 670 doctors have been trained in Zambia, but, of these, 80 per cent have emigrated (11). Of the remaining 20 per cent quite a high proportion are in the private sector, leaving a pitifully small number in the Government service. To condem this situation is not to be xenophobic. There are some

splendid expatriate physicians working in Government hospitals, but many of them will come for a few years only and then return home. For this and other reasons (language, culture inclination) the leadership of medicine in Zambia and the management of the health care system desperately need Zambians. The solution to this problem is almost entirely a matter of money, exacerbated by paying substantially more for expatriate doctors than the country is willing to pay its own physicians.

40. The hard work, cheerfulness and skill of many Zambian nurses is obvious and impressive. The writer is less able to judge the skill of clinical officers, but (as with nurses and doctors) the Zambian health system and the people of Zambia appear to be very well served by them.

41. Because of the sharp decline in health sector funding in the 1980s, estimated as a virtual halving in real terms of per capita expenditure (12) and because of rigidities in hospital staffing policies at that time, maintenance and repair expenditures virtually ceased. Most of the Government hospitals are in a poor state. Much equipment is out of action - some of it beyond repair - and much of what is working is on its last legs. Staff expectations have in many cases sunk so low that people have come to accept the situation as inevitable. This situation has to change. A start could be made by an objective appraisal of fabric and equipment -

perhaps best done for all the country's hospital, whatever their ownership, so that comparisons can be made. There should also be a place for resourceful engineering departments in the larger hospitals, though they will not be able to work miracles without access to spares. Hospital managements need to recognise that equipment and supply problems are a major constraint on performance in any system, and a chronic source of poor morale. Some switch in expenditure out of salaries into equipment and fabric is likely to be well justified in any system that has been as run down as the Zambian Government hospitals became in the late 1980s.

42. The Zambian Health System is heavily dependent on international donors for financial support, particularly for capital. In 1986, for example, 33 per cent of total health expenditure was donor-financed. Each donor has different interests and enthusiasms, although in general there is stronger support for primary health care initiatives than for the rehabilitation and development of hospital services. That donor support is as well coordinated and relevant as it is, is a tribute both to the donors and to those they deal with in the Ministry of Health. Clearly it will be important in the future that the donors understand how the hospitals fit into the strategy of the Health Reforms and that they are willing to maintain their support long-term.

RECOMMENDATIONS

1. Sustain the momentum of the Health Reforms in terms of transferring funding direct to the Districts and giving them as much autonomy as possible in how they spend it, including switching between staff and non-staff expenditure.

2. Develop the capacity of the District Hospitals, many of which are seriously under-resourced, along the lines shown in Figure 1 and ensure that these hospitals are closely linked to, and supportive of, the District Health Board's Health Centres and Clinics. Not all designated District Hospitals need be Government Hospitals.

3. Define the roles of all hospitals within a national health strategy that is primary health care-led. Functions are proposed for the urban General Hospitals (Figure 2) as well as for the District Hospitals (Figure 1).

4. Reduce congestion in the outpatient departments of the larger hospitals by strengthening the smaller hospitals and the health centres and by imposing substantial OPD charges in the larger hospitals, except when patients have been referred.

5. In the special case of Lusaka - which is overwhelmingly dependent on UTH for hospital care -radically strengthen the capacity of the health centres, e.g. by placing physicians in them. Also encourage private sector initiatives for those who can afford them.

6. Continue to collect charges, both for "low cost" and "high cost" services, within guidelines approved by the Minister. Ensure these monies are used to improve local services for everyone rather than to reduce Government spending or to improve services solely for "high cost" patients.

7. Experiment with prepayment schemes to cover user charges and ensure that the money is held for the purposes intended.

8. Select people for local leadership positions in health, whether they are physicians or not, on the basis of leadership qualities, and train them for the jobs that they are taking on.

9. Recognise that virtually all the hospitals, even the largest, fulfil mainly a District function. Referral from a District hospital to a Provincial or Central Hospital can be appropriate and important, but it applies to a relatively small proportion of cases. For their district functions all hospitals, whatever their size, should receive their budgets via the Health Boards concerned, or their budgets should be debited against the Health Boards allocations, whichever is procedurally simpler.

10. As AIDS and associated disease (e.g. TB) increase, strengthen community-based programmes to prevent the hospitals being overwhelmed.

11. Fund non-District functions (e.g. teaching, the blood transfusion service, secondary hospital referral) separately but ensure that these allocations are fully justified and represent value for money. Start from the assumption that all funding should to to Districts, except where the case for "top-slicing" is genuinely strong. (Figure 3)

12. To the extent that the hospital system is larger than Zambia can afford, shrink the system, particularly where a District has more than its fair share relative to others, either in terms of the distribution of facilities (Figure 4) or their cost.

13. Study the marked differences between hospitals doing similar jobs in their resourcing levels and in apparent hospital productivity (Figure 5). Improve national data collection and analysis for this purpose, but keep the indicators few and the analysis simple. It should be good enough to show which hospitals are especially hard-pressed and where something (good or bad) is going on that calls for fuller-study.

14. Strengthen management capacity in the hospitals and introduce twinning - with donor support - in the larger hospitals.

15. Consider, under the aegis of the Quality Assurance Initiative, a national programme of hospitals standards and either peer review or inspection, along the lines quite widely used in other countries.

16. Stem the outflow of Zambian-trained physicians.

17. Drastically improve equipment repair and maintenance, and the same for hospital buildings and health centres.

18. Continue to work hard on encouraging and coordinating the support of the donor community, including their support for hospitals, within the context of a national strategy that is primary health care-led.

Figure 1

MINIMUM REQUIREMENTS FOR A DISTRICT HOSPITAL

General Medicine	)	Establishment of at least
General Surgery	)	two physicians/surgeons
Obstetrics and Gynaecology	)	required to cover these
Paediatrics	)	adequately 24 hours a day*

Anaesthetics	)	
Radiology	)	At this level
Pathology (haematology	)	can be covered by
biochemistry	)	clinical officers
microbiology)	)	

24 hours a day
Trained Nursing Care

*To avoid any ambiguity, this is calling for a <u>total</u> establishment of at least two doctors, with a very wide combination of skills. Their specialism is generalism.

Figure 2

MINIMUM REQUIREMENTS FOR A GENERAL HOSPITAL FULFILLING FIRST REFERRAL LEVEL FUNCTIONS IN AN URBAN CENTRE

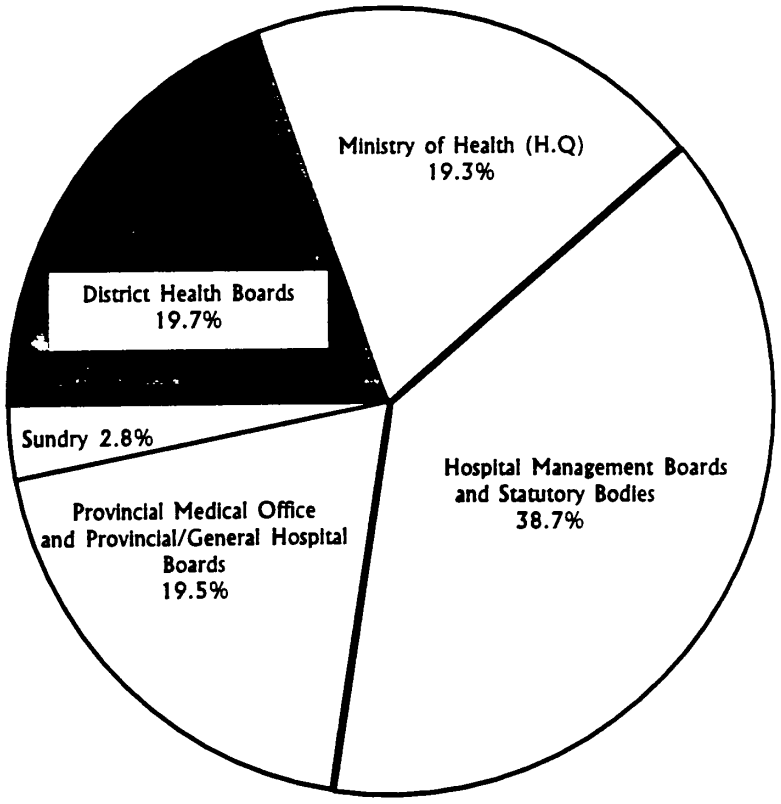
General Medicine General and Orthopaedic Surgery Obstetrics and Gynaecology Paediatrics	) Two physicians/surgeons) in each of the four) specialties, allowing a) degree of specialisation, but with cross-cover
Casualty	) Probably best led by someone with District level experience and general training (See para. 17)
Anaesthetics Radiology Pathology (haematology biochemistry microbiology)	) Whether each is led by) a physician or a clinical) officer will depend on) hospital size, range of) work, staff availability etc.

24 hours a day
Trained Nursing Care

Figure 3

In 1994, despite decentralisation, only a fifth of the operating budget will go to Districts ...

Allocation of the 1994 Health Budget Estimates for Zambia



Recurrent Annual Total Kw 43,708 million. The above proportions do not include Capital Funding of Kw 12,798 million from Donors

Figure 4

PROVINCIAL BED RATIOS

(Including beds in all types of hospitals but excluding cots)

Province	1992 Est Pop. (thousands)	Hospital Beds	Ratio of Beds/Pop. (per 1000)
Central	777.2	1059	1.36
Copperbelt	1653.0	3442	2.08
Eastern	1053.2	1517	1.44
Luapula	550.1	761	1.38
Lusaka	1347.0	1905	1.41
Northern	911.7	1169	1.28
North-Western	400.9	1301	3.25
Southern	1011.7	1660	1.64
Western	634.5	1335	2.10
	8,339.3	14,149	1.70

Range 1.28 to 3.25 = 2.5 times

Source: Health Facilities in Zambia July 1993 and Zambia in Figures 1992

Figure 5

Illustrative Only

HOSPITAL RESOURCES AND WORKLOAD

Hospital	No of beds (excl. cots)	MDs	Inpatient Admissions (p.a)	OPD Visits (new cases)	Weighted Workload Index p.a.*	Workload Index per Physician
Ndola (?1992)	850	54	40,000	100,000	50,000	926
Kitwe (1993)	422	40	47,000	75,000	54,000	1,363
Kabwe (?1992)	500	21	29,000	25,000	31,000	1,500
Chipata (1993)	458	11	10,000	50,000	15,000	1,364
Livingstone (?1992)	320	11	18,000	50,000	23,000	2,091
Mwami (1993)	210	4	7,500	48,000	12,300	3,075
Chikankata (1991)	260	4	6,000	34,000	9,400	2,350
Mazabuka	160	2	7,600	25,000	10,000	5,050
Mumbwa	75	1	5,000	25,000	7,500	7,500

* Index = Inpatient Admissions + $\frac{\text{New OPD Visits}}{10}$

Sources: Siem Tjam; Inman and Stott; own hospital visits

Appendix A

TERMS OF REFERENCE FOR DR ROBERT MAXWELL

1. To advise on the development of a policy for hospitals using as a basis the National Health Policies and strategies; the work of the Health Reform Team, the outcome of consultants' missions, donor support, World Bank Initiatives and the work done to date on the Health System Strategic Plan.

2. To identify a framework for addressing the most urgent problems of the operational management and clinical care at the level of Provincial and Central Hospitals including UTH.

3. To make recommendations on the appropriate use of existing skills and resources to enable optimum utilization of Provincial and Central Hospitals including UTH and taking into account the contribution of Mission Hospitals.

4. To review existing management process for defining problems appropriate interventions and the subsequent implementation planning and make recommendations.

Appendix B

PROGRAMME FOR DR ROBERT MAXWELL, WHO CONSULTANT SECRETARY AND CHIEF EXECUTIVE, KING'S FUND, LONDON

WHO Contact: Mr David A Howells

Sunday 27 February	08.30	Arrival at Lusaka International Airport. Accommodation at Pamodzi Hotel
Monday 28 February	09.00	Dr W S Boayue, WHO Representative
	10.00	Dr K Kamanga, Permanent Secretary
	11.00	Hon Minister Mr Michael Sata
	11.30	Dr S Nyaywa DDMS and Chair HRIT
	14.30	Vincent Musowe MoH Head of Planning and Ms Jennifer Nyoni, Cons, Human Resource Development MoH
	15.00	Attend debriefing of Dr G Holmgren WHO Consultant role of Province
	16.00	Evening: continue DoH briefing
Tuesday 1 March	09.00	Mr Johansen and Dr Poulstrop at Ndeke House (Danida)
	10.00	Dr James Banda at Ndeke House Coordinator of District Capacity Building
	14.15	Mark Sterling UNICEF Area Rep. at UNICEF Lusaka Office
	15.30	Sally Lake, Economist, UNICEF

Wednesday 2 March	08.30	Dr Bush, Minbank, Chairman Medical Council of Zambia
	10.00	Chief Executive, Univ. Teaching Hospital, at UTH, Dr G Katema; also briefly Dr B Kawimbe MP - former Minister of Health
	10.30 to 12.30	Visit to Univ. Teaching Hospital
	15.30	Roan Air flight to Kitwe
Thursday 3 March	08.00 to 14.30	Visit to Kitwe Central Hospital, Executive Director Dr G K Bolla
	15.00 to 16.15	Visit to Nkana Trust Inst (Mines) Hospital Return to Lusaka
Friday 4th March		Flight to Livingstone
Saturday 5 March	10.00 to 12.30	Visit to Livingstone Hospital Dr Matinta, Acting Medical Superintendent
Sunday 6 March	**FREE**	
Monday 7 March		Visits to Chikankata Mission Hospital and Mazabuka District Hospital
Tuesday 8 March		Visit to Mumbwa District Hospital Dr Charles Mukalenge

Wednesday 9 March		Visit to George Compound, Lusaka with Mrs Mwenza, Senor Nursing Officer
Thursday 10 March	09.00	Dutch Embassy Mr J Verheul First Secretary
	10.00	Dr Banda, CMAZ
	11.30	Mr J Grippa, Counsellor EEC Los Angeles Avenue
	14.30	Ms Sue Durston Health and Education Field Officer ODA British High Commission
	16.00	Visit to Hilltop Hospital (Professor Mukonge)
Friday 11 March	09.30	Attended Minister's office for Debriefing
	10.30	Dr K Kamanga P.S. for Debriefing
	11.00	Dr W Boayue WHO Representative for Debriefing
	14.30	Debriefing meeting with Senior Officers, Ministry of Health including Dr S Nyaywa, Chair HRIT and Dr James Banda, Coordinator District Capacity Building

REPORTS STUDIED

Appendix C1

SOCIAL AND ECONOMIC BACKGROUND

Republic of Zambia : Zambia in Figures 1992

Republic of Zambia : Selected Socio-Economic Indicators 1992

Republic of Zambia : Country Profile 1992

Republic of Zambia : Zambia Household Budget Survey Quarterly Bulletin No.1 December 1993

Republic of Zambia : Zambia Demographic and Health Survey 1992

Republic of Zambia : Social Dimensions of Adjustment Priority Survey I CSO 1991

World Bank : Zambia: Prospects for Sustainable and Equitable Growth 23 August 1993

Appendix C2

HEALTH DOCUMENTS

Ministry of Health, Republic of Zambia: "National Health Policies and Strategies (Health Reforms)" October 1992

Ministerial Statement by Hon M Sata MP, Minister of Health, Rep. of Zambia, to the National Assembly. Building Public Commitment for Reform February 1994

Ministry of Health: Health Facilities in Zambia July 1993

DANIDA, Danish Ministry of Foreign Affairs: Capacity Building Institutional Development and Provision of Basic Health Services at District, Area and Community Level In Zambia May 1993

WHO, Zambia: WHO Technical Cooperation in Zambia 1984-1993

Government of Zambia: Draft Bill on National and District Health Services Draft 5 15th December 1993

Ministry of Health: Draft Participants' Manual for District Capacity Building in Problem-Solving, Planning, Costing and Budgeting Undated

Ministry of Health: Summary Report of Provincial Workshops for the Formation of Hospital/District Health Boards 1993

Ministry of Health: Corporate Plan August 1992

Ministry of Health: District Budget Allocation B - Suggested Revision January 1994

Ministry of Health: Capital Budget 1994 Donor Support 3rd December 1993

Ministry of Health: Criteria for Assessing District Health Plan Undated

DANIDA Davida District Indicators Undated

World Bank: Health Sector Support Mission 16-28 Jaunuary 1994 Aide Memoire

Ministry of Health / SIDA Institutional Collaboration Workshop, Livingstone, 4 to 6 February 1994 Consensus Report

GRZ/UK Overseas Development Administration Project Memorandum on Kitwe and Ndola Hospital February 1994

UK Overseas Development Administration Zambian Health and Population Sector Aid PEC (94) 6 BDDCA Lilongwe February 1994

Churches Medical Association of Zambia (CMAZ) AIDS Care and Prevention Programme Strategic Plan 1994 - 1998

Banda M: Church Health Institutions in the Decentralised Health System in Zambia Discussion Paper CMAZ February 1994

Appendix C3

MISSION REPORTS

Cassels A :	The Health Sector in Zambia: An Institutional Perspective Report for the World Bank July 1993
Imman F and Stott R :	Zambian Provincial Hospitals: Towards a Sustainability Strategy 1994 and Beyond Report for WHO January 1994
Medina M :	Better Health in Lusaka: Follow Up Mission on Urban Health Report for the World Bank November 1993
Noormahomed A R:	Resource Allocation in the Health Sector in Zambia; 17 February 1994
Siem Tjam F:	Travel Report Summary for WHO May 1992
World Bank Health Sector Support Mission:	Aide Memoire for Mission Visit January 1994

REFERENCES

(1) Ministerial Statement to the National Assembly by the Hon M Sata MP February 1994

(2) Health Facilities in Zambia, Health Information Unit July 1993

(3) Zambia: Prospects for Sustainable and Equitable Growth World Bank, 23 August 1993 p.10

(4) Verbal communication from Sally Lake, economist, UNICEF, Lusaka, based on preliminary analysis of data from urban clinics. This is in line with studies elsewhere, e.g. the Rand randomised control trial of user charges in the United States.

(5) It is interesting that the cost per visit is substantially higher for traditional healers, who are still widely used, especially by the less wealthy, than for any other type of personnel. (See Social Dimensions of Adjustment Priority Survey 1, 1991, Central Statistical Office p.52).

(6) Inman F and Stott R: Zambian Provincial Hospitals: Towards a Sustainability Strategy 1994 and Beyond January 1994 p.10 para. 4.9.

(7) Zambia : Prospects for Sustainable and Equitable Growth World Bank 23 August 1993 p.127 para 6.59.

(8) Verbal communication from Dr G Katema, Chief Executive at the University Teaching Hospital, Lusaka.

(9) Siem Tjam F WHO Travel Report Summary, Visit to Zambia March 1992 p.2a.

(10) Inman F and Stott R: Zambian Provincial Hospitals: Towards a Sustainability Strategy 1994 and Beyond January 1994 p.14 to 16 paras 8.1 to 8.6

(11) Cassels A: Institutional Sector Review July 1993 p.3 para 8

(12) Ibid p.2 para 6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