

# Resource Mobilization for the Health Sector in Zimbabwe

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# Table of Contents

<b>Acknowledgements</b> .....	<b>1</b>
<b>Executive Summary</b> .....	<b>2</b>
Private Insurance .....	2
User Fees .....	3
Lessons for Other Countries .....	4
<b>1. Introduction and Background</b> .....	<b>6</b>
Trends in Government Income from Taxation .....	6
User Fees and Access to Care .....	7
Private Insurance .....	9
<b>2. Financing the Health Sector</b> .....	<b>11</b>
Total Health Spending .....	11
MOHCW Allocation (1995-96) .....	12
Spending by Level of Service .....	12
Recent Health Spending Trends .....	13
<b>3. User Fees</b> .....	<b>14</b>
Objectives .....	14
Supporting the Referral System .....	15
Structure of Fees, and How Fees are Calculated and Collected .....	19
User Fees and Resource Mobilization .....	22
Effects of User Fees on Quality of Care and Patient Satisfaction .....	23
The Scope for Increasing Revenue from User Fees .....	24
<b>4. Medical Aid Societies</b> .....	<b>25</b>
Organization .....	25
Target Groups .....	26
How are Contributions Determined .....	27
What are The Benefit Packages .....	29
Institutional Links with Providers .....	30
Provider Payment Systems .....	30
Costs of Running the System, Financial Management and Control .....	31
Current Membership of MAS and Scope for Expansion .....	32

Conclusions and Lessons for Other Countries .....	35
Lessons for Other Countries and Conclusions for Zimbabwe .....	36
Sources .....	37
Appendix 1: List of Interviewees .....	38

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## Executive Summary

Rising demands from service users, and tight constraints on public funds for health care in Zimbabwe have led to a search for additional mechanisms to mobilize resources. There remains a strong case for a major continuing contribution from tax since it can help to provide universal access and a degree of equity. Options for additional resources come from higher levels of user fees, and wider availability of private insurance.

The constraints on taxation to support welfare programs come from a general objective of lowering taxes to encourage growth, and a plan to focus resources in spending that supports economic growth. Growth is encouraged by reductions in personal/company tax, tax holidays as an incentive for new investors and a reduction of import duty and tax. This may be partly offset by actions to reduce tax evasion. Overall it is unlikely that tax revenues will increase unless economic growth increases.

Revenue from taxation is the largest source of funding for health care but is expected to fall. Rates (local property taxes) have taken an increasing burden of the cost.

In 1980, at the time of independence, a policy of free health care for those on low incomes was introduced, and user fees had a declining role in financing services. Managing exemption from fees has been difficult and expensive. There is inevitably some injustice in who is exempted. Since the introduction of the structural adjustment Programme (ESAP) in 1990, more emphasis was placed on the fee collection. In 1995 all user fees in rural areas were suspended.

### Private Insurance

Private medical insurance provided by medical aid societies (MAS). They are able to keep premiums low for a number of reasons: (a) negotiate charges each year with practitioners and premiums and hospitals using their large buying power to keep charges low, (b) limited access to hospital services in rural areas where many insured government employees live, (c) the late or non-billing by government hospitals for services to MAS clients.

MAS funded services are subsidized by the government in a number of ways: (a) tax relief for 20% of employee MAS premiums as an incentive to participate in voluntary systems (b) some fees below the cost in government facilities. Private services may also affect access to public ones due to professionals moving from the public to the private sector.

There are 25 MAS in Zimbabwe which belong to the National Association of Medical Aid Societies (NAMAS). They are not-for-profit companies, and have their origins in medical schemes for large companies and industries. A range of different contributions and benefit packages are available, including minimum packages and executive ones that will pay for expensive treatment abroad. Contributions are a mixture of those related to incomes and some related to expected cost of services, but there is no risk rating of individuals. Generally, MAS work through employers, and in most cases employers pay some or all of the contributions. However, groups of self-employed people can be accepted for membership. In general it seems that MAS are well run and efficient (the likely range for administration costs is 8-12% of turnover), and there is little evidence of systematic selection of low risk cases. On retirement members can continue in membership. Around 6% of the population is currently covered by MAS schemes. In principle the MAS are funders of care and do not provide services directly, although there are some cases of investments by them in health care facilities (in principle on a commercial basis).

MAS agree prices with providers of care, and most payments for hospital services follow a price list known as the Relative Value Scale (RVS). This has some origins in research on costs, but does not claim to be a detailed analysis of relative costs. It does seem to ensure that the full costs of services provided for members by private providers is covered by fees. Although coverage of private insurance has been increasing rapidly, and the potential range of people to be covered has expanded with the introduction of low cost schemes with limited benefit packages. However, the expansion is ultimately limited by the large proportion of the population in the informal sector (around 70%) most of whom cannot realistically become members.

## User Fees

There are two potential objectives of health service user fees: (a) raising of revenue to fund or part-fund the services, (b) generation of a set of financial incentives to encourage more efficient production and use of services. In particular they can be used to support the referral system, and avoid self-referral of simple cases to high level facilities. There is good evidence that some current use of facilities and staffing is inefficient. However, it is important to note that more appropriate use of high level facilities would almost certainly increase costs, since more complex cases would be treated. It is important to find out

about those who self-refer and how they are treated in hospitals to determine the extent to which self referral leads to inefficiency.

The current rule that funds from user fees are returned to government central funds means that there is no direct benefit to hospitals and clinics that collect them. There are plans to change this, and such a change might significantly increase fee collection. There is evidence to suggest that people are happy to make a contribution for a good quality service in preference to a free service which lacks basic resources.

User fees, with appropriate exemptions for those unable to pay, can be used to improve equity in access to services. However, it is more common for user fees to have negative effects on equity. Fees are currently set by the Ministry of Health and Child Welfare in consultation with the Cabinet. These apply to public and church related facilities.

Fees have been increased significantly, and if further increases are introduced it will be necessary to allow exemptions to some fees for poorer parts of the population. For this paper simple simulations were carried out for a range of fee levels and exemption packages. The results suggest that the current policy, if enforced strictly could generate around 20% of the income needed to support health care. Policies that aim to raise more from fees for services to relatively rich people might be able to increase this to 40%. However, this would mean that most of those with private insurance would be expected to pay full cost fees, and some services might serve private providers more, with the consequent need to make cuts in public provision.

## Lessons for Other Countries

The main conclusion of this work is that there is significant scope for more cost recovery, especially if those with insurance were to pay full cost fees. But, being realistic, this will still leave a need to find most (probably over 70%) of resources to found from other sources. The MAS provide insurance similar to that originally offered by the German sickness funds, and can be seen as a type of social insurance. It is clear that such arrangements can be established and can work well for higher income people and people working in the formal sector. It is also clear that it is difficult to expand this into the rest of the population. The system grew up without a strong policy framework, and the status of MAS in law has always be a bit ambiguous. MAS in law has always be a bit ambiguous. MAS are popular with members, and may be a platform for wider development of health insurance.

The history of user fees in Zimbabwe shows the common mixture of government desire to provide services free at the point of use, with particular attention paid to ensuring good access for poor people, and the need to provide incentives and

raise revenue. Although user fees cannot do more than take a share of the cost of the current provision of health services, it is clear that a larger proportion of costs could be recovered. It is also clear that the current use of services is inefficient, but that more appropriate use of facilities would lead to higher overall costs.



# 1. Introduction and Background

This study aims to assess the options for mobilizing resources to support the health sector in Zimbabwe. Against a background of rising expectations by users of services, and very tight constraints on public funds, it is necessary to consider additional mechanisms to mobilize resources. The two mechanisms considered in detail are user fees and private insurance based on a development of the existing system of private cover. As will be clear from the analysis, there is a strong case to continue major tax contribution, to ensure access and a reasonable degree of equity in provision of care for all parts of the population. This section considers the background to health financing, and briefly outlines the existing structures and institutions concerned with insurance and fees.

## Trends in Government Income from Taxation.

In line with Economic Structuring and Adjustment Program (ESAP), Government is reducing personal tax to increase disposable income in order to increase consumer buying power. This process also aims to improve the investment climate. At the same time increased efforts are being made to bring newly eligible taxpayers into the tax net and to reduce tax evasion. The two trends will probably balance each other unless there is higher economic growth rate and hence a rapid increase in the size of the tax base. The position is further complicated by the shift of some tax raising powers (e.g., duty on the sale of liquor) to local government.

Company tax is being reduced to stimulate investment and to prevent collapse of industries in order to save jobs. Tax holidays are used as an incentive for new investors. Tax reductions also aim to increase the competitiveness of local industry. Company tax evasion is being more closely policed.

Import duty and tax are being reduced in order to open up the economy to competition. Some concern is arising from unfair competition from South Africa due to export incentives for their companies. This is leading to calls to reduce import tax on raw materials and increase it on finished goods.

Increases in excise duty on alcohol and tobacco are unpopular politically and are seen to damage the image of Zimbabwe as a major tobacco exporter. This argument needs to be treated with some care, since only a very small proportion of the tobacco grown is consumed locally, and it is hard to believe that

Zimbabwe tobacco taxes would significantly affect the sales in other countries. Tax on the sale of alcohol have been used since colonial times to finance social services. This continues in cities and on commercial farms and communal areas. "Sin tax" can put in place additional incentives to protect your own health. In addition, in the same way that it is possible to cover the cost of treatment following a car accident from motor insurance, it is a way of placing the burden on those who cause it.

Significant increases in the central government tax income are unlikely. Reductions are possible if there is further retrenchment. It is likely to increase only when there is faster growth (a result envisaged by the theory on which on which ESAP is based).

The contribution of tax revenue for funding the health sector is expected to fall, although it may remain the largest single source of funds. The experience of ESAP has shown a decline in real terms of allocations to the health sector and indeed other social services while a larger share of national resources has been devoted "productive sectors" such as agriculture, commerce and industry. In addition to general cuts to the health budget, more stringent rules for keeping within budgets have been introduced during the last tax year which have precipitated a crisis in the public health sector.

Central government has been reducing its grants to cities and municipalities for health care for a number of years (See City of Harare and Bulawayo annual reports). Cities have had to compensate by using more of their rates income for health care. Sales for utilities (water, sewage, refuse collection) probably do not cover costs. The rate of increase in city rates is probably as rapid as the city electorates will allow. Rates from the low density, high value properties are used largely to pay for social services in high density areas. Despite these constraints the cities still manage to run health services that are perceived to be more sophisticated than those run by central government. Cities use user fees to supplement tax income, sometimes in (near) defiance of central Government's pronouncements on national fee exemptions. Beerhall/bar profits for use by municipalities have shrunk due to "leakage" in the city run enterprises. Recently this has received attention and may improve due to the advent of executive mayors.

## User Fees and Access to Care

User fees and their potential as a source of revenue for the health sector are discussed in Section III. User fees can be paid as out-of-pocket expenses or can be reimbursed from insurance. This difference is important, since out-of-pocket payments for those on low incomes can deter or prevent access to care. For those with private insurance the effect of increases in fees may be to increase

the premium paid, but does not increase the price faced at the point of use. There may therefore be important differences in the effects of fees on equity in access between those with and those without insurance.

A policy of "free health care" was introduced after independence in 1980. User fee schedules were introduced in the early 1980s but very weakly implemented. Incentives to collect fees in the government health services are weak since they all go to the Consolidated Revenue Fund of the Finance Ministry. Few in the health sector believe that Treasury gives credit to ministries for the revenue they collect when considering what proportion of the estimates of expenditure to grant each year in the budget. Administrative costs of collecting fees in rural areas are high and exceed the revenue collected in some cases. More rigorous implementation of the existing fee schedule started with the advent of ESAP in 1990.

During the colonial era there was cost recovery in the health sector, and everyone paid some contribution to the cost of their services. At independence an exemption mechanism based on earnings was introduced to protect the poor and the vulnerable. The fees were according to income bands of individuals, with those on high incomes paying more. Those earning less than Z\$150 a month were exempted from paying fees. This threshold was raised to Z\$400 in 1990. Neither threshold was set on the basis of research. In April 1995 user fees in rural areas were suspended by the government. All towns continued to consider themselves "not rural" and mission hospitals (and probably clinics) continued to charge fees, complaining that Central Government grants were shrinking. The missions seem to have mechanisms for determining the ability to pay of their clients and seldom get into conflict with their catchment populations over fees. In districts such as Mutoko with two missions and a Government District Hospital, patients seem to be willing to pay higher fees for good treatment to the missions if they can afford it and use government facilities if they cannot.

Official policy is that patients who enter the health care system at the primary level and are referred to a higher level pay no further consultation fee. In reality this is poorly understood with some patients paying for consultations at the higher levels and many not being charged for any further services if they have been referred. The consultation fee is often so small in proportion of the total bill at an institution that exemption from this alone is unlikely to induce patients to comply with the referral system.

Establishing eligibility for exemption to fees is difficult. For the formally employed a payslip or a letter from an employer suffices. For the informal sector, Social Services or a District Councillor (Chairman of a Ward Development Committee covering 6000 to 8000 people) may give an exemption letter. Social Services has been overwhelmed and "defends" itself from exemption seekers by

using bureaucratic procedures, so that some patients claim that the costs of obtaining an exemption exceed the cost of care. The Social Dimensions Fund established to mitigate problems resulting from ESAP and administered by Social Services is small compared to the demands on it for health education and social welfare. Corruption is alleged to occur amongst some councillors. Recent experience shows that a conscientious councillor could be employed full time in dealing carefully with all the requests for exemptions for health and education. There is uncertainty with regards to the duration of effect of an exemption. The most "rigorous" clerks reject exemptions after short periods and only allow care for the holder to be exempt, while more generous (or unsupervised ) ones treat them as life-long and applying to all family members.

The net effect currently is that many eligible patients do not get exemptions, while some people with earnings above the threshold probably do. Poorer people have great difficulty in paying user fees. They borrow, cut back on expenditure on food and school fees and sell assets. Hospitals and clinics tend to give patients time to pay, while some patients give false addresses when seeking care. If follow-up on unpaid bills is slow, many people will have moved. Thirty percent of the population in Chitungwiza City move every year, usually to cheaper accommodation, and this is common in other towns of similar size.

## Private Insurance

Private insurance through the Medical Aid Societies is discussed in Section IV.

Private medical insurance is provided in Zimbabwe by Medical Aid Societies (MAS). They are non-profit organizations with generally low administrative costs (although it has not been possible in this study to quantify the administrative cost accurately). Their origin is in the health insurance plans developed by large firms and groups of firms in particular industries. Zimbabwe has a large formal sector relative to many African countries, and this may account for the relatively rapid growth of medical aid societies. They still mainly cover the formally employed since they collect premiums through employers. Employers often match the employees contribution or in some cases pay the full amount. The schemes initially mainly served the middle classes but have diversified upwards to the level of CIMAS's "MEDEXEC" scheme which will pay most costs, including necessary out of country costs, and downwards to the level of CIMAS's "BASICARE" scheme which allows members to attend government clinics and government hospital outpatients departments.

MAS are able to keep premiums low for a number of reasons. They negotiate charges each year with practitioners and hospitals using their large buying power to keep charges low. Ignorance about available services by some clients keeps use, and thereby spending low MAS. The rural isolation of some clients from

costly care saves money particularly for the Public Services Medical Aid Society, whose clients are civil servants, the majority of whom work as teachers and in other professions in rural areas. The late- or non-billing by government hospitals for services to MAS clients reduces MAS expenditure, but the exact amount remains to be quantified.

The MAS lead to inequity in provision of care in a number of ways. First, to provide an incentive to participate in a voluntary systems there is tax relief for 20% of employee MAS premiums. There is a general issue about how to provide incentives to participate in schemes without reducing equity. For high-cost schemes, this government subsidy to the rich can exceed the national per-capita expenditure on health. MAS tend to encourage, and in some cases provide, high-tech medical care (e.g. CIMAS Laboratory and Radiology services which recently installed a CT Scanner and a MRI). The increase in private medical practice due to the increase in insured patients has encouraged government and university doctors to see patients privately and practitioners have moved from the public to the private sector.

Social health insurance has been considered for the last 2 years in Zimbabwe. The National Social Security Authority has had an interest and received some political support, but a scandal involving alleged careless spending has damaged the image of this body. CIMAS has extended the range of private "social health insurance" with its BASICARE package. The large proportion of the informal sector (about 70%) is the main deterrent to such a scheme. Current research is focusing on the factors likely to affect the voluntary joining of a SHI scheme by the informal sector. The increased demand resulting from insurance coverage and the increase in quality of care (which is one of the main reasons for pursuing this option) is being modelled from the behavior of people now in private insurance.

## 2. Financing the Health Sector

There are six main sources of health sector financing in Zimbabwe: (i) the Ministry of Health and Child Welfare; (ii) other government departments; (iii) local government, including municipalities and rural district councils; (iv) donors and voluntary organizations, including the members of the Zimbabwe Association of Church Related Hospitals (ZACH); (v) employers; and (vi) individuals, through both direct payments and private health insurance (Medical Aid Societies).

### Total Health Spending

Below are estimates of total health care expenditure for the financial year 1994 (US\$1 ~ Z\$8; 1994 GDP = 5,432 in US\$ millions) :

	<b>Z\$ million (% of total)</b>
Public Sector	
MOHCW	1067 (29.0)
Other Ministries	171 (4.7)
Local Government	194 (5.3)
Donors	450 (12.2)
<b>Public Sector Total</b>	<b>1882 (51.2)</b>
As % of GDP	4.3 %
Private Sector	
Individual Direct Payments	1119 (30.5)
Health Insurance Benefits	432 (11.8)
Employer Based Care	208 (5.7)
Missions and other NGO's	33 (0.9)
<b>Total Private Sector</b>	<b>1792 (48.8)</b>
As % of GDP	3.9%
<b>Total Health Spending</b>	<b>3674 (100)</b>
As % of GDP	8.1%

(Source: Schwartz and Zwizwai 1995)

## MOHCW Allocation (1995-96)

The total 1995-96 MOHCW budget is Z\$1345.9 million, divided as shown in the following:

	<b>Z million (% of total)</b>
Administration and General	32.1 (2.4)
Medical Care Services	1,160.8 (86.2)
Preventive Services	156.1 (11.5)
Research	5.9 (0.4)
<b>Total</b>	<b>1354.9 (100)</b>

(Source: KPMG Peat Marwick Social Insurance Study 1996)

Note: Medical care services include all health care facility funding, (both direct funding of government clinics and grant funding to missions and councils). Preventive services cover the operational costs of programs which include health promotion, disease control, and nutrition.

The MOHCW budget does not include donor funding, which is expected to be about Z\$368 million of recurrent and capital expenditure in 1995-96.

## Spending by Level of Service

The World Bank's 1995 Public Expenditure Review provides an estimate of the share of spending by level of service for 1995-96:

	<b>Approximate 1994/95 share (%)</b>
Parienyatwa Hospitals	9.4
Central Hospitals	24.2
Provincial Hospitals	11.2
District/General Hospitals and Clinics	20
Rural Hospitals and Clinics	9.5
Councils and Voluntary Organizations	7.2
Preventive Services	11.2
Other	7.3
<b>Total</b>	<b>100</b>

(Source: Public Expenditure Review 1995)

## Recent Health Spending Trends

In the period between 1979-80 and 1987-88, MOH spending grew 94% in real terms (48% in real per capita terms). After a peak of Z\$55 per capita in 1990-91, spending had fallen 30% by 1992-93.. Drought relief expenditure administered by MOHCW in 1994 turned the trend upwards slightly, but fell again in the following two years. From a high of 3.1% of GDP in 1990-91, MOHCW spending fell to 2.1% by 1995-96.



### 3. User Fees

#### Objectives

There are two potential objectives of health service user fees - the raising of revenue to fund or partially-fund the services, and to generate a set of financial incentives to encourage more efficient production and use of services.

Since independence Zimbabwe has had a policy of making basic health care available to the whole population, and there has been a significant investment in primary care facilities, especially in the rural areas. Policy on user fees in government and church-related health facilities has varied, but the government has always been keen to avoid them presenting a heavy burden on those least able to pay. The real value of fees was allowed to fall in the 1980s due to inflation and no revision of the fees. The total revenue generated by fees has been typically below 2% of total expenditure on public health services, so that it can be argued that the main purpose of fees is to affect behavior in patients and providers of care.

The fact that the overall fee income has been low does not mean that it is irrelevant for some parts of the system. Church-related providers of care have required the fee income to bridge the gap between funding provided by the government and their costs, despite the improvement in the relative funding of these services as compared to those provided directly by government.

Government policy on the use of funds from user fees makes it difficult to assess the objectives of fees. It is currently a rule (and is possibly a constitutional requirement) that all such revenues are returned to government central funds. This means that collection of fees imposes a cost on government health care providers, and no direct benefits to them. There is therefore a strong disincentive to devoting time and effort to collecting the fees. Whereas there may be a recognition within health policy of the potential to increase the resources available through user fees, the current rules make it very difficult to implement such a policy. If the current proposal by the Minister of Health to Parliament and Cabinet to allow retention of fees within health facilities is adopted this perverse set of incentives will be removed.

It is argued by Chisvo and Munro (1994) that the main role of user fees in Zimbabwe is to support the referral system, and to encourage people to enter

the system at the primary care level. The rules on the implementation of fees require payment of consultation fees only at the point of entry into the system, although liability for fees for other services and drugs are payable at all levels of the system except by those exempt from all fees. There is some incentive in these fees to use the system of referral, but some anomalies in the system and widespread exemptions and failure to collect fees weaken the incentives.

## Supporting the Referral System

Although the logic of a referral system to avoid use of high-cost services by patients with primary care needs is sound, it is important to be aware of the risks in eliminating 'inappropriate' self-referrals to secondary and tertiary care, and the need to be prepared for the consequences.

There are two kinds of self-referrers - those who need care at the higher levels, and who actually save resources by going straight to the appropriate facility, and those who could properly be treated at a lower level in the system. Managers and doctors in secondary and tertiary care facilities complain that their hospitals are congested with such cases, which diverts them from treating patients with genuine needs for secondary care. The reasons given by self-referring patients for their behavior is normally the higher quality of the facilities and treatments offered at the secondary and tertiary centres as compared to primary care (especially primary care in rural areas). Larger studies of self-referral behavior are needed, but the results of a small exercise in Harare Central Hospital gives some useful insights.

A two-day investigation at Harare Central Hospital (April 1996) revealed that 80% of attendants at the casualty department were unreferrred patients. In 1995, ARA-TECHTOP reported for the Ministry of Health that at the same institution, in 1993, unreferrred cases accounted for 88.8% of total admissions, while referred and transferred cases were only 10.3%. The same report shows a similar situation at a district hospital (Banket) where unreferrred attendants at casualty department accounted for 64% of admissions. The indication is that the referral system is not working as intended. A detailed study would be required to establish the cost implications of treating people in higher-level facilities who could be treated at lower levels in the system.

## Characteristics of Self-Referred Patients

The first step to characterize the self-referring patients at Harare was to ask for the knowledge of the referral system as a whole. An unstructured interview was conducted.

- a. It was interesting to note that the majority of patients 60% (90 patients

were interviewed) knew they were expected to be always referred for treatment at Harare or at any other next highest level of care.

- b. Significantly more of these were residents of Harare or other urban areas. More than half patients from rural areas also know the existence of the referral system.

It is of interest to establish why those who knew about the system came to the hospital fully aware that they had to be referred. Those who know nothing about the referral system chose the nearest facility to visit for their illnesses as judged by their relatives, friends and families.

Those who knew about the referral system had a variety of explanations, some of which exposed ignorance of the health system. Reasons given included:

- a. That the referral system only applied to rural-based government facilities and there are no such facilities in urban areas, hence their presentation at Harare Hospital - the only government facility in the town. To them, Local Authority facilities are independent of this system.
- b. Some of the self-referred patients were in the income bracket that is eligible to pay for the services. These argued that it saved them time to go straight to the hospital, pay and get treated than to follow the long route from primary facilities. Surprisingly they did not know how much they were supposed to pay and relied on the charges made by the admissions/casualty clerk.
- c. A small group responded that understanding the referral system made no difference as they would be treated at the hospital anyway. The hospital has a reputation for treating all. For this reason they presented at Harare more than at Parirenyatwa hospital.
- d. Some of those who fell into the exemption category responded that health care was free and so they saw no reason why they should not present at Harare Central without referral letters. Those with this thinking included both those who understood the referral system and who did not.

A question was posed on the understanding of fees applicable for services at the Central Hospital with the view of establishing whether the fees influence adherence to the referral system. There was no knowledge of the fee structures by the self-referred. Except for those with repeat visits (9 in this case) none could say what service was charged by the hospital and what the precise fees were. Those with repeat visits just reported what they were charged as they had the fee inscribed on their cards. Some of the patients knew they had to pay but did not know how much until they got to the clerk's desk.

On seeking information on pre-conditions for exemption, the self-referred patients knew very well about the need for referral letters from primary care facilities, yet they presented without them. The belief that they would still be treated at Harare Central with or without the referral letter overrides other considerations. Those in the exemption category carried their pay slips with them while others had letters from employers to the effect that they earned less than Z\$401 per month. Only two people mentioned certificates from SDF. Those from the rural areas complained of the lengthy process of identifying which documents are needed and the process of getting the exemption certificates.

### Treatment of Self-Referred

There was no obvious difference between the treatment given to those referred and those self-referred. Having been admitted, the patients mixed and all passed through a senior sister who did the initial screening of illnesses. Many of the patients reported having been seen by the senior sister and referred to the pharmacy for a prescription. Most repeat visitors were coming for injections so they just proceeded to the cubicles for injections. Perhaps these injections could have been provided at primary facilities in urban Harare as most of them are polyclinics. The casualty Doctor saw patients referred to him by the senior sister.

Some unreferred patients reported having been seen by the Doctor but generally got the same treatment that was recommended for those seen by the nurse; they had prescriptions inscribed on their cards and sent to pharmacy for the drugs.

While it was not possible to determine the cost implications of this indiscriminate treatment, because of time and structure of the interviews, an in-depth study of managing the referral system at the hospital would provide useful insight into the financial implications. Generally it appears the patients are determined to present at this hospital as the waiting room was always full; and despite the long waiting time, they did not seem to be discouraged by the long queues, and did not abandon the queue to visit the City health clinics.

The implication of this argument is that people who need only primary care are displacing patients who require higher level, and normally high cost treatment. Given the very tight constraints on public funding for the health sector, serious problems could result from the replacement of (relatively cheap) primary care cases with (relatively expensive) higher-level cases. Although use of hospitals for primary care cases is inefficient, it is also likely to be cheap.

In assessing the burden caused by self-referral to primary care we need to know more about those who self-refer, and how they are treated in hospitals. If they

are seen by a doctor (when they would have been seen by a nurse in primary care) this will generate additional cost. If they are given tests not available in primary care, or different treatments, these also can generate higher costs. Assuming that the attender would not have been referred from primary care, there will be additional costs of treatment in hospital only in so far as different processes are followed, and different decisions made on diagnosis, tests and treatment.

User fees may also make people aware of the cost of health services, and to value them more highly. There is evidence from many countries that people prefer to pay a contribution to a good quality service in preference to a free service which lacks basic drugs and facilities. The policy of all fees reverting to government central funds has made it difficult to offer better services in the context of fees being increased.

User fees, with appropriate exemptions for those unable to pay, can be used to improve equity in access to services. There is an inevitable tendency for people on higher incomes to be better at achieving access to care, and may receive services for relatively minor needs. If fees cover all or part of the cost, then this limits the extent to which resources are diverted away from poorer people with need for services. However, it is more common for user fees to have negative effects on equity in access to care.

User fees can affect decisions by providers of care about what they provide, and how services are provided. The present system of fees in Zimbabwe, and the need to return all fees in government facilities to government means that there are few incentives to provide particular kind of care, to be responsive to the wishes of patients and to provide services efficiently.

The purpose of user fees in Zimbabwe has not been clear, and it has probably been a mixture of a desire to change incentives and a need to increase resources. It is likely that the purpose of fees will change over the next few years, as there is a growing membership of Medical Aid Societies, increasing problems in ensuring adequate staffing and services in rural areas, and continuing tight resources in the central government budget. It has now been agreed in principle that fees can be retained by providers, which will change incentives to collect, and may change other behaviors in patients and health care providers. Current discussions are moving policy towards fees that aim to recover all variable costs (possibly including staff costs), with government resources concentrated on developments and paying the fees of those who cannot afford them. If this actually happens then it will be necessary to look carefully at the incentives generated - for example it may be necessary to move from a simple system of exemptions to one that is based on a sliding scale. The simulations carried out in this study on different fee levels and revenue generated look at some possible scenarios.

## Structure of Fees, and How Fees are Calculated and Collected

User fees have always existed in the Zimbabwe public and private health services. It is generally accepted that consumers should pay for the services as long as their income levels are deemed sufficient enough to allow them contribute. The determination by Parliament of the threshold (set at Z\$400) for free services is an acceptance by the government that consumers earning above the threshold should at least contribute to financing publicly-provided health services through paying user fees. Parliament though, only determines the threshold and leaves the Ministry of Health and Child Welfare to compute the levels of user fees to be charged for the different type of services provided.

In the public sector, the Ministry of Health and Child Welfare determines the fees for health services in consultation with the Cabinet. All services provided in rural hospitals and rural clinics are free of charge regardless of the income of the patient. Drugs are included in the treatment fees in district hospitals, local authority facilities and mission hospitals, but not in fees in Provincial and Central hospitals. They are not included in the fees at central hospitals, and are charged separately. Charges for anesthetics and theatre costs are made at the rate in the Zimbabwe Relative Value Scale, the scale of fees agreed between private providers and the National Association of Medical Aid Societies. Consultation fees and fees for hospital stays are charged for children at 50% of the adult rate. The fees to be introduced on 1 May 1996 are given in Table A below.

The Ministry Central Administration is the sole architect for the fees payable at all government facilities as well as at not-for-profit mission ('Church-Related') facilities. Fees are further negotiated between the Ministry (representing the Government and state-aided providers/missions) and urban local authorities. The agreed fees are then presented to Parliament and Cabinet for approval (as happened for the fee increases effective from 1 May 1996).

The calculation of the fees used the WHO originated Relative Value (Scale RVS) for determining the fees for various health activities as well as specifying the RVS as the fee for a range of surgical and medical procedures. However, the fees charged are not based on detailed analysis of the costs of current activities at the facilities. In some cases the difference between fees for services in different levels of the health sector are set so as to encourage appropriate use of the referral system. The final fee schedule is provided to all facilities as a guide for charging consumers.

The fee levels (as in Table A) are published by the Ministry when they have been approved by Parliament and Cabinet. The RVS is published by the National Association of Medical Aid Societies (NAMAS), and is updated regularly. The RVS does not claim to be based on an up-to-date assessment of the relative costs of different elements of services, but is adjusted to ensure that the fees

**Table A**

	<i>Type of Facility</i>	<b>Z\$</b>
Outpatient Consultation Fees	Parirenyatwa Hospital	64
	Other Central Hospitals	52
	Municipal Clinics (max)	40
	Provincial Hospitals	38
	General Hospitals	30
	Local Authority Clinics/1	26
	District Hospitals	24
	Local Authority Clinics/2	14
	Rural Hospitals/Clinics	Free
Ante-Natal Fees	Central Hospitals	250
	Local Authority Clinics/1	200
	Provincial Hospitals	120
	District Hospitals	80
	Local Authority Clinics/2	60-80
	Rural Hospitals/Clinics	Free
Ward Fees	Parirenyatwa Hospitals	375-825*
	Central Hospitals	120-250*
	General Hospitals	90-160
	Provincial Hospitals	100-194
	District Hospitals	60

1/ Well-equipped clinics in large urban centres

2/ Smaller local authority clinics

\*/ Not including drug costs

paid do, on average, allow providers of services to recover their costs. This (possibly widening) gap between the costs of services and the fees charged would be more important if the decisions on the provision of treatment were linked to charges. At present it seems that charges play little part in the decisions about treatment for members of medical aid societies. At some stage it will be necessary to recalculate the RVS on the basis of a detailed analysis of the relative cost of different elements of the services.

All those earning less than Zim\$401 per month are exempt from paying user fees. There is also a policy of exemption from fees for all rural primary care facilities. In principle all other people must pay the fees at the government-

approved levels. Certification of exemption can be either on the basis of documents showing that wages fall below the required level, or by local officials. It is always difficult to determine income levels, especially of people working in the informal sector. It is likely that the present system is allowing exemption to people whose incomes are above the exemption level, especially where there are global exemptions from fees in rural health centres and hospitals. Some of those treated in these hospitals (for example civil servants covered by PSMAS) receive free treatment on the basis of location and not on grounds of ability to pay. Although most of those receiving exemptions are relatively poor, there is a distinct group who could afford to make a contribution to the cost of their care.

Health facilities are responsible for collecting the fees, and for determining if the patient has appropriate evidence of exemption. As argued above, the present rule that all fees collected are returned to government centrally means that there is little incentive to spend time and effort on ensuring that fees are paid. It is normal for the fee to be collected at the point when the patient is being registered, and when being discharged from hospital. Since no fees are payable at rural primary care facilities, there is a need to manage the money collected only at hospitals and urban clinics. This removes some of the problems with handling cash in remote health facilities. The current low level of fee income also reduces the problem of managing large amounts of cash, but the recently agreed fee increases may make it necessary to have more secure arrangements.

The incentives for providers of services generated by the current fee system are weak. It is not in their financial interest to devote significant effort and resources to collecting fees. The presence of the fees does not create significant incentives to provide any particular treatment or care. The fees are a mixture of payments for particular elements of treatment or care (for example for a day in hospital or an operation) and ones that are for courses of treatment or care (such as a course of ante-natal care). There is no system of fees based on capitation or outcomes. Although in principle the current system of fees might be expected to encourage supplier-induced demand for some services, the relatively low levels of collection mean that the incentives to providers are weak. To an extent this is likely to change with the new higher fees, and will change more if the plans to move towards higher fees and subsidies to people (rather than services) are brought in.

The incentives of fees to users of services are also effectively fairly weak since only small amounts are actually paid. In principle the fees provide an incentive to follow the referral system, since the consultation fee is only paid on entry, and fees are low or zero in primary care. In practice there are two reasons why these incentives are quite weak. First, the total fees paid by patients who are referred from primary to secondary and tertiary care can be high, since the whole process may involve more (paid for) services than direct self-referral to



higher levels of care. Second, since the necessary drugs or treatment may not be available at lower levels of the system there may be advantages in avoiding delay and self-referring to higher levels of the health system.

## User Fees and Resource Mobilization

In this section the effects of a range of possible user fee arrangements are explored. The recent experience has been for user fees to generate only very limited income, due to a combination of exemptions from paying for a large part of the population, no fees for primary care services in rural areas and low levels of collection of those fees that should be collected.

The calculations in this section are all in Zimbabwe dollars at 1996 prices. At the time of this analysis the exchange rate between the \$ and the US\$ is approximately 10:1. The government has a policy that people with an income below \$400 per month are exempt from paying fees, and that there are no fees paid for rural primary care services. In the calculations these two policies have been assumed to continue, although it is quite easy to work out the effects of changes to these.

The present system of fees has two exemptions, but for all other people the principle is that they pay the same amount. If fees were to be increased significantly, then there is likely to be a need for exemptions to be on some kind of sliding scale. The amount of the fee paid, or the range of services for which fees are payable may have to depend in part on income. To allow for this, a distinction is made in the calculations between in-patient hospital services and outpatient care. The following options were used in calculating maximum fee income.

The current (1996) fee levels are paid by all people for all eligible services (this option is calculated for comparison, and is not considered a realistic option). In the table this is described as 'Full Fees Paid'.

All those over \$400 per month pay fees at the 1996 level. This is described as 'Present Policy'.

People with income over \$1200 per month pay for all services at full cost, people with incomes between \$400-1200 per month pay the 1996 fees for outpatient services only, and those with incomes below \$400 are exempt from all fees. In the table this is the 'High Recovery Option'.

All those with incomes above \$1200 per month pay at 1996 fees for all services. People with incomes between \$400-1200 per month pay for outpatient services only, and those under \$400 are exempt from all fees. This is described as the 'Low Recovery Option'.

Table B shows the cost of current services in government facilities, and the fees recovered under each option.

**Table B**

	<i>Zim \$ Millions</i>
Total Cost of Government Health Services	\$1,102.764
Full Fees Paid	420.588
High Recovery	253.886
Present Policy	193.470
Low Recovery	124.273

Some conclusions can be drawn from the figures in Table B. The gap between the current fee levels and the full cost of services means that they could at maximum contribute only around 40% of total cost, and realistically will generate less than 20% even if the current levels were enforced strictly. The large section of the population with income below or around the current exemption level makes it difficult to recover significant amounts from the majority of the population.

Strict application of the current fee levels will probably only be possible if there is some allowance for those whose income would allow them to contribute, but not the full amount. The 'Low Recovery' option is therefore more likely than the 'Present Policy'.

The possibility of gaining much higher cost recovery from those who have relatively high incomes but who enjoy subsidized care at present is significant. If they were to pay full cost fees, then the total cost recovery from fees could be over 20%. A potential problem is that some of these people would choose not to use public facilities, and would use private services instead. In the short run this could lead to higher average costs in public facilities, since they might have excess capacity relative to the income, but in the long run there is little problem in losing patients who, had they remained, would have been treated by the public sector at a loss.

## Effects of User Fees on Quality of Care and Patient Satisfaction

Without fee retention there can be little or no effect on incentives to provide care of good quality. Retention of fees and higher levels of fees would mean that providers who attract more patients would also attract more revenue.

Anecdotal evidence suggests that patients prefer to pay some contribution for

services of good quality, with the necessary drugs available, in preference to receiving poor services free. Extending the scope or raising the level of fees is likely to be very unpopular unless service quality improves.

## The Scope for Increasing Revenue from User Fees

The current situation is one in which only a small amount is collected in user fees in Government facilities. There are reasons to expect this to change, with the higher fees now being introduced, the decision to allow fee retention at the provider level, and a general increase in the effort to collect fees.

Table B above explores the effects of a few scenarios in terms of the levels of fees paid and the exemptions allowed. Cost recovery from fees could exceed 20% of total cost of services if full cost fees were levied on those able to pay along with lower levels of fees for most of the formal sector population. The constraint to raising much more than 20-25% of cost comes from the large proportion of the population living on low incomes in the informal sector. Although these people are often able to make some contribution to the cost of their treatment, it is unlikely that the full cost of their care will be covered. It is also unlikely that the government will be willing to adopt a system of fees that requires those on low incomes in rural areas to make a large contribution to the cost of their care.

## 4. Medical Aid Societies

### Organization

There are 25 Medical Aid Societies (MAS) in Zimbabwe which belong to the National Association of Medical Aid Societies (NAMAS). These are all not-for-profit organizations in terms of their legal status. Any surplus can be used to develop their services and schemes. They are controlled mainly by their contributors, with, in some cases, participation of employers and trade unions. In addition there are a few commercial companies providing similar services for profit. However, NAMAS members provide almost all the private medical insurance in Zimbabwe.

Insurance provided by MAS is not risk-based, but offers benefits on the basis of need for either flat-rate payments or income-related contributions. In this sense the MAS have much in common with social insurance organizations, like the German sickness funds, except that there is no attempt by government to enforce risk sharing and equalization of the funding base between funds. The risk mix of different MAS must differ significantly with the occupation of members, and this must be reflected in differences in the relationship between contributions and benefits, but there is no evidence of attempts to select members for low risk.

The behavior of not-for-profit insurers, who charge flat-rate or income related contributions differs significantly from that of for-profit, risk-based insurers. The incentives facing them are also different, but, their mutual status means that they may not respond to the incentives to select members and avoid high cost individuals. Insurance based on mutual support is better able to provide coverage for relatively low income, relatively sick people than is actuarial insurance. The possibility of income-related contributions increases the availability of policies to lower income people, and the lack of risk rating helps to include people with current ill health or high risk of illness.

There are several kinds of MAS. Some provide insurance to specific groups of employees for a single firm or firms in a particular industry. Examples of the society that covers railway workers and the one for public servants (the Public Services Medical Aid Society). There are also MAS that take members from a range of different industries and employers, such as the largest MAS, the

Commercial and Industrial Medical Aid Society (CIMAS), and the Northern Medical Aid Society. CIMAS allows membership by employees of small firms and of self-employed people (in groups of four people or more) on payment of a small additional charge to cover the extra administration cost. There are special rates for retired people who have previously been employee members.

The MAS in Zimbabwe are well organized, and have grown rapidly since independence. They cover around 170,000 households, which is around 750,000 people (6% of the population), mainly for access to a comprehensive range of services. Most are formal sector employees, and most are relatively well paid. It is not possible to obtain accurate estimates of the incomes of members of MAS, but some estimates are made in Table E below. See the notes to Table F for more detail on how these were calculated. The societies are managed independently, and are keen to retain their independence, but they cooperate in organizing their relations with health care providers and other outside organizations. The MAS have agreed to make the fee schedule for medical services compulsory for members of NAMAS, and the tariff for hospital services, although technically optional, is followed by all MAS.

The implication of this is that providers of care to MAS members effectively face a monopsony of buyer care which could be used to put downward pressure on costs of services. However, even where there is more than one MAS willing to provide services for a group of workers, the cooperation between MAS seems to mean that they do not actively compete against each other for members. MAS are organized as funders and not providers of care, but there are some service providers owned by at least one of the MAS. In principle this is simply a commercial investment, but could in time lead to more vertically-integrated organization of care.

## Target Groups

The MAS was developed to provide medical insurance to employees of large, formal sector employers and their dependents. For some employers membership is effectively compulsory (i.e. contributions are by employer only, and the employee cannot take the money as higher salary), at least for senior and managerial staff. For others, such as Public Services Medical Aid Society (PSMAS), membership is by contributions by both employer and employee. Only a proportion (around one third) of eligible staff belong to PSMAS. Although all public sector workers have the right to join, and the government will match their private contributions, for some it represents relatively poor value despite tax relief, since access to certain types of care is restricted by lack of supply. Some employers pay their contribution for only certain grades of staff, so that it is more difficult for other staff to gain membership.

The MAS have grown very rapidly over the last few years, and managers of societies interviewed for this project made it clear that they want them to continue to grow. There is scope to expand within the formal sector, especially with some of the lower cost packages now being developed, as discussed below.

There has been less success in recruiting members from the informal sector, and from staff of commercial farmers. One reason given for this is that the supply of private health services is not well developed outside the main towns, and so there is less incentive to buy insurance. Some schemes offer lower premiums to residents of rural areas, taking into account the relatively poorer supply of services. Whatever mechanisms are chosen for improving access to care, it is clear that people's willingness to pay for improved access will be dependent on better services being available outside the main urban areas.

The current government policy of free care at rural health centres and hospitals removes any incentive to be insured for care at this level, although people who live in rural areas are expected to pay for care in all higher levels of the government services if they can afford it.

The fact that CIMAS allows individuals and employees of small firms to join indicates that it hopes to attract members from those with higher incomes amongst the self-employed. There is only a small additional charge for those who join under this scheme, and people who move from formal employment to the informal sector can retain their membership at the former level of charges. The next section shows the possible levels of membership on different assumptions about the sections of the population covered.

## How are Contributions Determined

There are three types of schemes for contributions. For some there is a fixed annual fee for each member, and the same (or in some cases a lower) fixed fee for dependents. This approach is taken in the low cost and very high cost schemes provided by CIMAS. Other CIMAS members pay a fee related to income. Current (1996) rates for these contributions are given in Table C below.

This can be paid partly by the employer, wholly by the employer or by the employee alone - CIMAS is concerned only about the total fee paid. Income-related fees depend on employers to keep the societies informed. Some MAS offer coverage for dependents on the basis of a single contribution.

Public sector workers share contributions with the employer. The ratio is 1:1.75 between employees and employers. This means that for the main scheme the public servant pays Z\$29.9, and the employer Z\$52.33 per month. This covers public servants and their dependents. A low cost package, costing employees

**Table C**

<b>Scheme and Income Range in Z\$ per Month</b>	<b>Monthly Contribution in Z\$</b>		
	<b>Member</b>	<b>Spouse</b>	<b>Child</b>
CIMAS' "Basicare" Package	12.00	12.00	12.00
Primary Package	31.00	31.00	31.00
General Package			
Up to 500	36.05	36.05	20.95
501-1000	42.70	42.70	26.25
1001-1500	53.65	53.65	28.15
1501-2000	58.54	58.45	30.00
2001 and over	62.15	62.15	37.15
Private Hospitals Package			
Up to 1000	81.65	81.65	50.20
1001-2000	90.80	90.80	51.20
2001-3000	94.80	94.80	54.30
3001-4000	97.30	97.30	58.20
4001 and over	99.00	99.00	59.15
Over 60 Years of Age on Joining	155.65	155.65	64.00
Medexec	173.90	173.90	103.75

Z\$13 per month provides cover for access to government clinics and private general practitioners. The contribution rates are calculated to break even on the basis of likely patterns of service use. However, in the case of public servants this has to be agreed with government.

Data are not available to obtain an accurate assessment of the average contribution rates, but it is likely that the present MAS schemes typically cost around 6-8% of the incomes of contributors. However, this does not fully reflect the value of the schemes to members, since there are government contributions to the MAS schemes in the form of tax advantages for contributors (both employees and employers), and subsidies on some of the services provided by public health facilities. MAS membership can reduce the burden on government to supply services, since some people are paying for their own care, but it is important to assess the cost to government to ensure that public funds are being used to meet health care priorities. There is a risk that the subsidy to MAS members may be greater than the cost per capita of providing services to the rest of the population.

## What are The Benefit Packages

Contribution rates are calculated to cover the expected cost of the different packages offered. Direct comparison between schemes is difficult since some charge for each beneficiary, and others offer cover to family groups. There is a wide range of coverage offered: from the CIMAS "Basicare" package, costing Z\$12 per beneficiary for coverage of fees in government facilities; through packages that provide this and fees of private GPs (CIMAS Primary Package at Z\$31 per beneficiary); packages that offer treatment in private hospitals and by private specialists; and packages for executives, some of which may offer cover for treatment abroad. Private hospital packages cost around Z\$200-250 per month for a member and two dependents, and the Executive packages Z\$350-400 per month for the same group. The PSMAS Primary Scheme at around Z\$35 per family appears to offer access to a wider range of care than the other low cost packages, and can be very good value, but for many public servants the access is probably limited by a lack of local supply.

Although there is a great diversity of packages, the common feature of the different schemes is no co-payment for services covered. Standard rates according to the Zimbabwe Relative Value Scale, and agreed hotel costs rates for private hospital stays are paid in full. If a member chooses to use a higher cost facility of treatment the fee will be covered only up to the approved level. There is therefore little financial incentive for MAS members to choose low cost services, and little consciousness of costs among this group.

The benefit packages offered by MAS generally do not try to limit services to those for which there is good evidence of effectiveness. Constraints to access normally come from limitations in access to high cost services rather than a defined package of services. Although Zimbabwe has a good record in ensuring that important, highly effective care is provided, there is some evidence that relatively low priority care is being provided to those able to pay through MAS. An example is the high priority being given to cancer services, some of which score badly in terms of effectiveness and cost-effectiveness.

Although the CIMAS Basicare package covers only treatment in government facilities, the strongest incentive to join a MAS seems to be to get access to private GPs. Government primary care is mostly nurse led, and there have been problems in the supply of drugs. For many people there is a great advantage in being able to see a doctor at this level, and to be able to obtain the required drugs. A further advantage appears to be avoiding the long waiting times that often occur in government primary care facilities.

Although better services in primary care (normally in this case meaning access to private GPs) may currently be the main incentives for membership of MAS, the rise in fee levels for access to government facilities may increase demand for



the packages that provide coverage for these. It is likely that there will be an increasing move to raise fees towards full costs, and to concentrate government subsidies on support for those unable to pay. If this policy is adopted, there is likely to be a significant increase in the demand for low cost MAS packages, or similar protection.

## **Institutional Links with Providers**

MAS in Zimbabwe are financing organizations, and do not, in general, become involved in the provision of care. The negotiations with doctors are carried out through the meetings between the associations, and there is an agreed tariff from this. Negotiations are also held with private health care facilities to agree on rates for MAS members. Government has adopted prices in the Relative Value Scale for some services supplied in government hospitals. For other services in government hospitals the fees paid are as set in the general scale of fees. There is generally close contact and cooperation between the MAS and health care providers, but these are formally agreements to pay for certain services for their members at agreed rates. These arrangements are similar to the German sickness funds.

CIMAS owns some medical diagnostics facilities, which are run as commercial undertakings. There may be other moves by MAS to develop some such 'vertical integration', and take ownership of health care providers, but the present experience is for CIMAS to treat its own providers in the same way as it would other providers. At present there is no particular incentive for CIMAS members to choose to use CIMAS-owned facilities.

## **Provider Payment Systems**

Payment for health services for MAS members is on a fee-for-service basis, using charges for government services, prices as laid down in the Zimbabwe Relative Value Scale (RVS) and other negotiated rates. It is not clear that the RVS fully reflects the different costs associated with the provision of care, but it has been widely adopted and accepted.

The RVS and other tariffs are for retrospective payment for services. The scale is very detailed, and this can help in the control of costs, but it does not allow costs of treatment to be assessed prospectively. There is no system of capitation to cover access to care. In general there is no preferred provider arrangement, but some downward pressure on costs comes from the need for providers to keep to RVS (or to be allowed only to claim this level from MAS). There is a risk that the cost of services funded by MAS will rise. There is a particular risk given the low level of use of services by members of some MAS, most notably the PSMAS. Changes in patterns of service use could seriously

affect the cost of the care, and consequently the contribution rates. A loss of control over the costs of care could reduce the number of people able to afford health services through MAS, and the capacity of the system to expand.

## Costs of Running the System, Financial Management and Control

Although there are 25 MAS belonging to NAMAS, the trend is likely to be some further consolidation in achieving economies of scale in running MAS. The larger societies have running costs in the range 8-12% of revenues. Some smaller societies may have low costs due to dealing with only one employer, and only a few providers of care, but it is likely that further consolidation will lead to lower costs in operating the system.

It is more difficult to calculate the full cost of the administration of health service use by MAS members. The detailed level of billing by providers for the different items of service means that hospitals and clinics need to record activity carefully, calculate the monies owed and send out bills. The MAS have a good record of paying properly presented bills, but providers (especially government providers) are owed significant amounts due to slow presentation of accurate bills.

The present system of services to members of MAS are subsidized by government in two ways (although it can also be argued that MAS members opt out of some services for which they have already paid). Fees paid in government hospitals do not represent average cost, so that each time a service is used there is some element of government support. This support is most likely in the low cost MAS packages, where access to care is restricted to government secondary (and above) care, and in the use of the higher level hospital services, such as those at the Parirenyatwa Group of hospitals. The recent revision of fees will reduce the government contribution for MAS members, and may require some increase in contribution rates. Given the inter-relationship of the price of services and the contribution rates, it is unwise to extrapolate about possible future roles for MAS without taking into account the likely changes in the fee levels and exemptions.

The value of the tax relief on employer and employee contributions depends on the shares paid by each. Since employer contributions are allowable costs, there is a reduction in the liability to tax for the full amount. Employees can claim tax relief on only 20% of the contributions, so that there is a smaller subsidy to this group. The current pattern of contributions (where most employers pay at least some part of the contributions) involves a tax subsidy of around Z\$140 million (around 12% of the government health budget). The relative tax advantage of employer only contributions may lead to a move towards more employers paying

all, and the tax subsidy could rise to around Z\$180 million, or 16% of the government health budget. This figure does not include another source of tax relief for health service costs - the right to off-set most of any 'shortfalls' (the additional charges for services provided at fees above the NAMAS approved rates). An example of this is dental care, most of which involved shortfalls.

Although the financial incentives for cost control in the services funded by MAS are relatively weak, at least in the larger societies, there are effective checks on excessive use and inappropriate use of services. CIMAS has a computerised information and management system that allows those who make frequent use to be identified, and explanations sought. Similarly providers of care who appear to be using resources wastefully can be identified, and in extreme circumstances the agreement for them to treat MAS patients withdrawn. In the case of PSMAS the statistics suggest very modest use of health services. It is not possible without a more detailed study, to assess the extent of misuse of the available services, but comparison of services and costs with other countries does not indicate particularly high levels of use. The overall impression is of a well-managed system.

However, there is need to be cautious in the light of experience in other countries. The Medical Aid Schemes in South Africa have found their costs have risen rapidly, and sickness funds around the world are introducing co-payment and other cost-control mechanisms. Events in other countries appear to be related to rising aspirations of patients, better availability of facilities and services, and an increasing consumerism among patients. A particular danger is that new members of MAS feel a need to get their money back in terms of use of services. At least in some parts of the MAS system at present there is a low level of uptake of MAS-financed services, and this is allowing the societies to keep contribution rates low.

## **Current Membership of MAS and Scope for Expansion**

The independence of the MAS, and the lack of data on their operation makes it difficult to assess the pattern of income of members, and the scope for expansion. For the purposes of this study an exercise was carried out to estimate the likely patterns of income of MAS scheme membership. It should be emphasized that the income distribution data for the population are out of date, and may be inaccurate. However, the results of this modelling exercise are consistent with the total revenues of the MAS and the total number of beneficiaries.

The 1993 Indicator Monitoring Survey data were updated to 1996 prices, and re-scaled to be in multiples of Z\$400 per month (Z\$4800 per annum) so as to have the current exemption level as a cut-off point. The reason for this was that

the current level of exemptions from user fees is income of Z\$400 per month. The results of this are given in Table D below.

**Table D**

<i>Annual Income Range</i>	<i>% Households</i>	<i>Number of Households</i>	<i>Estimated Mean Household Income</i>
0-4,800	54	1,340,000	2,400
4,801-14,400	27	665,300	8,000
14,401-36,000	11	280,800	22,000
36,001-84,000	6	144,700	30,000
84,000-14,4000	1	29,000	105,000
Above 14,4000	0.6	15,200	150,000

A conservative view was taken of the distribution of income. Except in the lowest category, the mean income within each range is estimated to be one third along the range from the lower limit of the range to the top. This assumption is made because of the strong positive skew in the income distribution.

Membership of the MAS is concentrated in the higher income groups. Due to higher incomes, and choice of higher cost packages, the higher income groups among the contributors provide a large share of the premium income. In order to estimate the numbers of members in each income category a number of assumptions were necessary. First, all people with incomes over Z\$84000 per annum are assumed to belong, and all high cost packages are bought by these groups. It is also assumed that membership is not possible for people below Z\$400 per month. Given the known membership of low cost packages, the contribution rates, the distribution of incomes and the total income of MAS, a series of assumptions was tested. The proportions in lower income groups was raised and lowered in a series of iterations until the numbers covered and the income of the sector matched. The likely make-up of the contributors by income is given in Table E below.

The difference in average family size means that there is not a perfect match between percentage of households and number of beneficiaries.

Using these tables it is possible to explore the likely population coverage if insurance were made mandatory at certain levels of income, and the possibility of further expansion in the voluntary membership of MAS. If all of those with incomes over Z\$36000 per annum joined a MAS, then there would be cover for

**Table E**

<i>Annual Income Range</i>	<i>No. of Beneficiaries</i>	<i>% of Households Covered by MAS</i>
0-4,800	0	0
4,801-14,400	83,200	2.5
14,401-36,000	70,200	5
36,001-84,000	425,367	65
84,000-14,4000	116,100	100
Above 14,4000	53,300	100

around one million people, or around 8% of the population. The total revenue raised under this scenario would be Z\$870 million.

If half of those in the income range Z\$14401-36000 were to join then the coverage would be 1.6 million people, or 13% of the population. Although this is a large increase in the proportion of the population covered, the income rise is proportionately smaller, since lower contributions will be paid by the additional subscribers, and the total funds raised would be around Z\$1090 million.

Table F shows the number of people covered and the revenue generated on different assumptions about the level of income above which insurance is compulsory.

**Table F**

<i>Threshold for Compulsory Insurance</i>	<i>No. of Beneficiaries</i>	<i>Total Revenue in Z\$ Millions</i>
4,801	5,600,000	1,750
14,401	2,300,000	1,332
36,001	975,000	971

Moving the threshold down significantly increases the proportion of the population covered, up to around 45%, but the additional revenue generated rises more slowly. In turn this means that the scope to provide the new members with the full package of services would be limited. If we accept a threshold for compulsory membership of and annual income of above Z\$14000, then the MAS insurance could cover around 20% of the population, and generate around double the current amounts.

## Conclusions and Lessons for Other Countries

The MAS in Zimbabwe developed in similar ways to the sickness funds in Germany and other central European countries, with schemes developing around particular occupational groups and to cover other categories of formal sector and prosperous informal sector workers. The systems of contributions contain some elements of solidarity within societies, but not between societies. The emergence of different packages of benefits within MAS reduces the degree of cross-subsidization between members of societies, but has allowed membership to be affordable to a wider section of the community. However, at present the MAS are serving only a small part, and the relatively prosperous part, of the population.

Many of the members of MAS use only or mainly private sector services. These people are in receipt of subsidy only through the tax advantages available to MAS contributions. For others who use government services, a larger, but difficult to quantify subsidy is being provided. Given the financial difficulties facing health services in Zimbabwe it may be sensible to try to ensure that hospital fees reflect the full cost, and to avoid unintended subsidies to MAS members.

Zimbabwe has devoted government resources to development of health services, and particularly primary care, to the rural areas. Despite this, a large share of the government budget for the central and provincial hospitals (around 50%), and MAS membership may allow some of those resources to be replaced, and therefore released to improve funding of district and rural services.

MAS in Zimbabwe developed without a strong policy of legislative framework, and in response to a perceived need. This may have been an advantage in that they have become independent and well managed. However, it means that they have only a limited role in funding services that are a high priority for the majority of the population. But without this system of parallel funding it is likely, on the basis of comparison with countries at a similar stage of development, that more of the government budget would have been devoted to providing urban secondary and tertiary services. The lack of a policy framework may also explain why membership of MAS covers only part of the potential target group. It would be fairly easy for such an arrangement to cover twice or perhaps three times the present membership. It is clearly possible for them to continue to grow at a rapid rate.

MAS have developed packages that potentially allow coverage for a wider population, but it is unlikely that this could be satisfactory for more than around 40%. They do not offer in their present form a mechanism for the majority rural and informal sector population. They may nevertheless provide an effective mechanism to provide finance for a significant minority.

## Lessons for Other Countries and Conclusions for Zimbabwe

It is likely that the dependence on tax revenues for financing health services in Zimbabwe will decline, and other sources will be needed. It is clear that the combination of some higher fees, more careful management of exemptions and more enthusiastic collection of fees could increase fee income to over 20% of total health service costs. This could be achieved without any worsening of access to essential care.

The system of determining fees for health services in Zimbabwe has grown without there being a need to match fees to costs very closely. As fees increase, and take a greater share of the burden of raising revenue it may be necessary to work on a system of fees that reflects the costs of providing care.

Zimbabwe has a well-developed system of private insurance through the Medical Aid Societies, whose operation has much in common with Bismarckian social health insurance. These societies allow access to a minority of the population to a full range of services. This has implications for equity, but the main equity consideration is the extent to which members receive additional support in the form of subsidized care and tax relief on premiums. Since these societies provide a fairly efficient and popular service, there is a case for encouraging their development, but care should be taken not to divert government funds from higher priority care. Some other countries may benefit from analyzing the progress in Zimbabwe of this type of insurance.

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Note - the exchange rate between the Zimbabwe \$ and the US \$ at the time of this study was approximately 10:1.



## Appendix 1: List of Interviewees

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