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Can the poor afford 'free' health services? A case study of Tanzania

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This paper reports on research undertaken for the Government of Tanzania to investigate the case for the introduction of user charges in the health services. A parallel report is being completed on the potentiality of compulsory health insurance for those in regular employment. Five studies were undertaken at the national level. The main studies were interviews of nearly 900 outpatients at the main hospitals and interviews with over 1800 households all over the country with access to both government and mission hospitals. Information was collected on travel time, travel cost, and waiting time, which health facilities were chosen and why, the cost of using them, and difficulty in finding the money to pay and willingness to pay user charges.

The most important conclusion was that because of inadequate supples of drugs and of food at hospitals many patients had to incur substantial costs to use the 'free' services in addition to travel costs. It is therefore concluded that modest charges, with attempts to exempt the poor, would be less inequitable than the existing situation, if the revenue could be used to ensure that supplies were always adequate at government health services. The level of charges suggested was based on what the majority surveyed said they were willing to pay.

Introduction

Since the publication of the World Bank study on the financing of health services in developing countries,[1] there has been intensive discussion of options for raising more resources for the health sector. The main options are compulsory health insurance,[2] community financing[3] and user charges. The primary reason has been that many, if not most, developing countries find themselves no longer able to raise the additional revenue required to finance their health services through taxation, let alone find the extra resources needed to achieve 'Health for all by the year 2000' under present economic difficulties.

While the provision of health services in Tanzania since independence has been an integral part of overall development and provided 'free', it has become difficult in recent years to maintain adequate government health services. The reasons can be related primarily to the underfinancing of the health sector due to the present economic crisis and structural adjustment. This has meant that the use of non-governmental and private health facilities has increased significantly, even though people have to pay considerable amounts to use them.

This paper is based on a report on user charges prepared for the Government of Tanzania. A parallel report on the potentiality of compulsory health insurance to cover those in the formal sector of employment is currently being prepared. Other obvious options which have been discussed include community financing, making employers pay in full for industrial injuries, making the users of vehicles pay for motor accidents, and developing more special services for those willing to pay for speedy treatment and private treatment in the public health services.

This paper first reviews health services briefly. It then focuses on the research studies conducted in order to consider the case for cost-sharing and sets out the findings. Finally, the policy implications are briefly set out in the context of 'equity'.

Background

The health services in Tanzania expanded rapidly following the Arusha Declaration of

1967. The emphasis was on the greater development of dispensaries, rural health centres and preventive services. It was originally aimed to build 90 dispensaries and 20 health centres a year. This was modified for financial reasons to try and create a village health post in every village that did not have a dispensary or a rural health centre. Village health posts are in the charge of village health workers. The latest figures show that the government health infrastructure consists of hospitals at the following levels – 6 at referral level (two of which are special hospitals); 17 at regional level and 129 at district level. In addition, there are 266 health centres, 2205 dispensaries and 1800 village health posts. Since independence, the number of doctors has multiplied more than thrice and the numbers of medical assistants, rural medical aides and health assistants has multiplied ten-fold. The increase in facilities and staff has made it possible for 93% of the population to be within 10 km of a health facility, and for 72% to be within 5 km of such a facility.

The level of finance which the Ministry of Finance in Tanzania is able to provide for the public health sector is not, however, now sufficient to maintain this expanded service effectively. The proportion of the budget devoted to the social sector has been falling, and the government is under pressure to cut public expenditure. Apart from charges for patients in special or private wards at the referral and regional hospitals of the country, and for seeing dental officers by appointment (though such services are very rarely given), as well as charges for the immunization of travellers abroad, the current health services are provided 'free of charge'.

Symptoms of under-financing

The symptoms of the current under-financing are the following:

- Reliance on foreign aid for drugs for rural primary health care and under-provision of drugs for hospitals and urban services.
- Lack of repair and replacement of medical equipment and vehicles. Inadequate supplies of petrol to enable the services to be properly supervised.
- Gross neglect of the maintenance of buildings. As long ago as September 1985, a World Bank mission report concluded that only 660 out of 1800 rural government dispensaries were in good condition, while 810 were fair, and 330 in bad condition.
- A fall in real salary levels from 1981 onwards, leading to the temptation to encourage 'gifts' from users with consequential effects on equity in the use of services.
- Inadequate staff, particularly of nurses in urban hospitals, and other staff in the more remote rural areas.
- Lack of a functioning information system.

No useful estimates are available of the additional finance needed to make the existing service fully effective. Nor is it possible to show the extent to which the public financing of the health services has declined over recent years, partly because no index has been constructed showing the trend in local health service prices, and partly because expenditure below regional level has been transferred to local government and reliable recent figures for this expenditure are not available.

The research studies

The following studies were undertaken:

(1) A survey of 29 518 prescriptions at 28 health units in seven different regions to ascertain the average number of drugs items per prescription and what proportion of prescriptions might be exempt from charges, based on criteria laid down by the Ministry of Health. The findings were used for the calculation of revenue.

(2) A survey of 893 outpatients at three referral hospitals, two regional hospitals and four district hospitals in nine different regions to ascertain the extent of the willingness of outpatients to pay charges and what level of charges would be acceptable.

(3) A survey of about 1820 households with 11 918 persons living in three urban cities or half-way between mission and government hospitals in 26 rural districts from 15 regions. The response rate was not far below 100% but some questionnaires had to be rejected because of poor interviewing. The purpose was to ascertain which services were used, the reasons for these choices and attitudes to cost-sharing, what people were willing to pay, where and for what. From these households, the use of services for 2083

episodes of illness in the last four weeks and 542 admissions to hospital in the last year was ascertained. Contrary to what was expected, respondents did not hesitate to answer questions about willingness to pay. Of course answers to hypothetical questions give no assurance that charges would be readily accepted in practice.

Households were also asked to estimate their annual income. As anticipated, the results were neither reliable nor complete: 21.6% of households failed to make an estimate. The interviewers found that in urban areas the question was unwelcome to many of the respondents. Fears were openly expressed that any information might be reported to the tax authorities. Households were also asked their average weekly expenditure. This proved to be less sensitive and answers were obtained from 95.4% of respondents. Expenditure is clearly not the same as income and subsistence agriculture would need to be brought into account to try and establish level of living. But this was not the aim of the survey. Any charges for health care would have to be paid out of cash income.

For those households giving figures both for annual income and weekly expenditure a comparison could be made. On average, income was substantially below expenditure when adjusted for the time period, especially in rural areas. This again suggested that more reliability could be placed on the expenditure figures than the income figures. The expenditure given for the household was adjusted into adult equivalents per head by giving children below the age of five the weight of half an adult. The data was then divided into quintiles.

The criteria for charges

As mentioned above, it is the present policy not to make any charges to ordinary patients. This has the obvious advantage that patients, in this respect, are encouraged to use services as soon as they are needed. The case for charging individual patients not using special facilities, such as private beds, has been argued on the following grounds:

- that this will prevent unnecessary or frivolous use of government services and thus ensure that the services which the government can afford to subsidize are those which are more cost-effective, and that services in general are used by those in real medical need.[4]
- that in accordance with economic theory, most patients should pay at least the marginal cost of what is provided.[5]
- that patients are paying considerable sums to mission and the traditional services. The former are, moreover, able to go a long way towards being self-supporting at least in terms of recurrent costs and the latter are wholly self-supporting, though sometimes less effective in curing patients. From these comparisons it is argued that similar charges could be made for government services.
- that charges will enable services to be improved for all users, if patients are willing to pay for these improvements.[6]

On the other hand, it has been argued that charges are bound to be inequitable as no effective way can be found to exempt the poor.[7] This, however, assumes that government services are in practice free. If services have deteriorated to such an extent that even the poor have to resort to the private sector to obtain services at much higher cost, charges will be less inequitable than continuing to provide under-financed services – particularly inadequate drug supplies.

The research undertaken for this study was largely aimed to test the validity of these arguments in the Tanzanian situation and to ascertain what type and level of charges might be acceptable and would minimize inequity. The main criterion used for the research was to find what charges, if any, could be collected to improve services, while still securing the best use of services by all social groups. In theory, charges might be made according to ability to pay. This would bring in much more money for the health services. But this theory could not be applied in Tanzania because of the formidable, if not insoluble, problem of ascertaining income for every patient.

The two studies directed at these questions are complementary. The outpatient survey was biased towards users of the more expensive referral and regional hospitals for which not enough users would be found from random surveys of the population. The interviews had to be kept short as patients were standing in a queue. The population survey collected

information about the use of all services, public and private, in situations where patients had the option of using mission as well as government services. As these interviews were conducted in the home, a much richer quantity of information could be collected. It is however recognized that surveys of this kind cannot collect reliable data on very sensitive subjects. It would appear very likely that the use of traditional services was too sensitive a subject for full information to be obtained from this type of survey.

Findings from the surveys

Unnecessary use of services

The argument that patients make unnecessary or frivolous use of services assumes that people can always tell whether use is necessary or not. Secondly, it assumes that charges will deter the unnecessary user. The two assumptions are very questionable. Many patients are in no position to know whether their symptoms are serious or not. Secondly, the relationship between fee increase and frivolous use was investigated in Swaziland and no evidence was found of any decline in frivolous users. The greatest drop in utilization was in immunization and preventive services which was against the government's intentions.[8] Thirdly, the use of services is seldom costless. It is often tacitly assumed that the only costs of using health care are any charges which may be levied by providers. But an important additional cost is time away from other activities, which can be very important not only for those who lose cash earnings when away from work, but also for subsistence farmers and, not least, mothers taken away from their household duties. A further cost is that of travel for some patients.

Loss of working time

Over two-thirds of those in the outpatient survey said that they had got to the hospitals within an hour, but nearly 10% said that it took them four hours or more. Having got to the hospital, patients were faced with long waits. In the outpatient survey the question asked was about expected waiting time. About 20% of those who could answer expected to wait three hours or more. The figure rose to 36% at referral hospitals. Only one-third expected to wait up to an hour (16% at referral hospitals).

In the population survey, questions were asked about the actual time spent in travel and receiving services at visits during the last two weeks. The long time for travel for a visit to either type of hospital was partly due to the fact that 84% of rural patients walked. Only 7% used a bicycle and only 6% used motor vehicles. Even in the urban areas, 55% of patients walked, though 44% used motor vehicles - mainly buses.

Respondents were also asked about the time they had spent waiting at different levels of the government and mission health services for visits during the past two weeks. The average wait at a government hospital was 1 hour and forty minutes. The time taken varied between over an hour to about half an hour at the lower level government facilities, while it was about an hour and a half at mission hospitals.

What was also important was how long the consultation had actually taken, allowing, for example, for waiting at the pharmacy.

A visit took nearly three hours on average at a government hospital, two and a quarter hours at a government health centre and still about an hour and forty minutes at either a government dispensary or a mission hospital. Waiting time and consultation time are brought together in Table 1.

Table 1. Average consultation time at government and mission services (in minutes)

Facility	Travel time	Time at consultation	Total time allowing for journeys both ways
Mission hospitals	63	105	231
Government hospitals	52	177	281
Government health centres	38	134	210
Government dispensaries	31	100	162

A visit to a government hospital took on average three-and-a-quarter hours in travel time - the trip to the hospital, the consultation, and then the journey back home - making a total of 4 hours and 41 minutes. The time involved in a visit to a

mission hospital was only 50 minutes less. While the visit time was shorter, the journey took longer on average.

Travel costs

A second cost is travel cost. From the outpatient survey it was found that at the referral hospitals 48% of outpatients had incurred travel costs averaging (Tanzanian shillings) Tsh 4741 (see Table 2). This is because a few patients travelled for a day or more to visit the best hospitals in the public sector. At the regional hospitals, 46% incurred travel costs averaging Tsh 2543. At the district hospitals, only about a quarter incurred travel costs averaging Tsh 673.

Table 2. Travel cost for those incurring it (Tanzanian shillings Tsh)

Type of hospital	Percentage paying %	Average amount (Tsh)
Referral	48	4741
Regional	46	2543
District	28	673

From the population survey, the mean cost of travel to government health services for a consultation was Tsh 440. This is broken down by the different types of facility in Table 3. It was on average Tsh 642 at a government hospital and Tsh 392 at a dispensary. These findings are compatible with those shown above, as most respondents to the population sample will have visited district hospitals.

Table 3. Average travel costs for consultation at government services (Tanzanian shillings)

Facility	Number of cases	Average amount (Tsh)
Hospital	250	642
Health centre	127	284
Dispensary	406	392

Travel costs were much higher for patients going for an admission at a government health facility as 66% of patients used motor vehicles in rural areas and nearly 81% in urban areas. The average cost was Tsh 2577 in rural areas and Tsh 857 in urban areas.

The substantial costs in time and effort and the money spent on travel make it unjustifiable to introduce charges on the grounds that it would discourage frivolous use of services. Even if a patient lived very near the health facility, the time spent in waiting and being treated would seem sufficient to deter any frivolous use. On the contrary, it might well constitute a barrier to using the services.

Choice of health facility and the cost

Choice for consultation

Does the use of traditional services and mission services for which people pay, provide a justification for charging at government services? The population survey obtained evidence on who used what services for consultation and why. It was found that the use of services varied according to household expenditure level as shown in Table 4.

Table 4. Place of consultation for an illness episode

	Percentages of reported consultations				
	Quintiles of weekly expenditure per adult equivalent				
Action on illness	I Lowest	II	III	IV	V Highest
No action	7.5	1.5	3.2	1.8	4.7
Self-care	22.5	15.9	21.0	18.8	18.3
Traditional	4.8	3.2	3.0	1.5	0.3
Government	42.5	49.7	39.4	34.6	35.0
Mission	18.0	14.4	20.2	24.2	17.3
Private	3.6	8.0	6.4	9.0	17.3
Military/ Employer	0.0	7.1	5.7	10.0	7.0
Total	99.90	99.80	99.60	99.90	100.20

While all used the government services to a considerable extent, use declined as people had more money to spend and thus could, if they chose, use more expensive services. The use of mission services thus tended to increase with levels of weekly expenditure, but the richest group used them less, as more of them used private services.

But it is important to note that 18% of the poorest group used the mission services, while 42% used the government service.

The cost of consultation at the government services

A quarter of the whole outpatient sample said that they had incurred costs, other than for travel, at the consultation. These costs averaged about Tsh 100: 8% of the sample spent Tsh 500 or more - on food, drinks, and so on. A few respondents to the population survey (1.4%) said that they had paid for the consultation at the government service. In half of these cases the amount paid was Tsh 500 or over. This was almost entirely a problem reported by the rural sample.

In view of the known shortage of drugs and the fact that drugs in health centres tend to run out in the third or fourth week of the month and new supplies come at the beginning of the month, respondents to the population survey were specifically asked where drugs had been obtained after a consultation. The replies are shown in Table 5. A considerable proportion of drugs were not bought at the same health facility. This was particularly the case with government services where over 26% were bought outside the facility - mainly from chemists.

Table 5. Where medicine obtained after consultation

Place of purchase	Percentage of positive answers		
	Following consultation at:		
	Government	Mission	Private
Same health facility	73.6	95.6	93.5
Another health facility	1.5	0.8	0.0
Chemist	21.0	1.3	3.2
Other	3.8	2.3	3.2
Total	99.90	100.00	99.90
Number of positive answers	(808)	(385)	(186)

Finally, respondents were asked what they paid for the medicines/treatment. The average amount paid was Tsh 671 with a very wide dispersion: 19% paid Tsh 1000 or more and 16.2% had paid less than Tsh 100. The number of payments reported was 248 which can be compared with the 213 respondents who had used these services but had obtained their drugs elsewhere. This suggests that 35 of the paying respondents (14%) had made illicit payments for drugs at the government health services.

Choice for admission

The type of hospital used is shown in Table 6, divided into the different expenditure groups. The pattern of use was different for admissions to hospital from that shown for consultations. As would be expected, the use of private hospitals tended to increase with increased expenditure levels. But what at first sight seems odd, in view of the fact that patients would normally have to pay, is that those in the lowest expenditure group were admitted to mission hospitals over two-and-a-half times more frequently than to government hospitals.

Table 6. Type of hospital used for admission during last year

Facility	Percentage of admissions				
	Quintiles of weekly expenditure per adult equivalent				
	I	II	III	IV	V
Government	26.5	48.7	46.7	54.9	55.7
Mission	68.6	47.4	42.5	36.6	35.4
Private	3.9	3.9	8.2	5.6	8.9
Employer	1.0	1.0	2.7	2.8	0.0
Total	100.00	100.00	100.10	99.90	100.00
Number of admissions	(102)	(76)	(73)	(71)	(79)

The cost of admission

The average cost reported for an admission (excluding the cost of travel) is shown in Table 7. It was reported to cost as much as Tsh 3500 at a government hospital which would be a heavy burden for a poor family. The average cost of an admission to a mission hospital was reported to be lower than the average cost of an admission to a government hospital. Families found government hospitals expensive because patients were not given sufficient food, so food had to be brought to the hospital both for the patient and visitors. In addition, often the drugs the patient

needed had to be bought at substantial cost, from private pharmacists. The advantages of mission hospitals were that they provided more food, and drugs were nearly always available in the dispensary.

Table 7. Average total cost of admission (excluding travel) for those making a payment (Tsh)

Facility	Rural		Urban	
	Number	Cost Tsh	Number	Cost Tsh
Government	23	3560	53	3198
Mission	129	2860	22	4147
Private	5	2280	16	6946
Employer	1	1500	4	333

There was a considerable variation in the costs falling on patients. In the case of the government facilities, this was not only because of variations in length of stay but also variations in whether the drugs needed happened to be available. There was less variation at the mission hospitals, with 8.7% and 12.4% paying less than Tsh 500 for government and mission facilities, and 12.6% and 12.9% paying more than Tsh 5000 for government and mission hospitals respectively. When one takes account of the heavy travel costs mentioned earlier, admission to a government hospital could be a very worrying extra financial burden.

Reasons for choice

When heads of household were asked why they used particular services, the commonest response for choosing government services was that they were expected to be cheap (72% of answers) and the commonest reason given for not using non-governmental services was that they were expected to be expensive (82% of answers). The most common reason given for not using government services was that they had a poor drug supply (81% of answers) and the commonest reason given for using non-government services was that drugs were available (70% of answers). Thus it was perceived that the different services were intended to serve different markets.

Use of traditional healers

Respondents were asked about the use of traditional services on two separate occasions, but very few told the interviewers that they used them. The reported average cost, after giving money values to payments in kind, was quite high – an average of over Tsh 2000 in rural areas and over Tsh 5000 in urban areas. These services have some special advantages, quite apart from cultural acceptance, as there is normally no travel cost to use them. Secondly, payment is often accepted in kind. But there was probably a great reluctance to report use. The major users, if the answers are accepted, are the lower income groups. The level of payments for these services seemed to vary according to the economic status of the user, but the number of consultations is too small to draw firm conclusions (Table 8).

Table 8. Payments to traditional healers

Payment	Quintiles of weekly expenditure per adult equivalent				
	I	II	III	IV	V
Number	41	35	21	12	20
Average (Tsh)	886	3438	2658	1629	6228

Choices for delivery

Respondents were asked in the population survey about the place of birth of children up to the age of five. The findings are shown in Table 9.

Table 9. Place of birth of children up to the age of five

Place of birth	Rural		Urban	
	Number	%	Number	%
Home	415	34.2	75	9.1
Government	521	42.9	634	76.9
Mission	269	22.1	42	5.1
Private	2	0.2	56	6.8
Military/Employer	7	0.6	17	2.1
Total	1214	100.00	824	100.00

In the rural sample, 34% of births were at home. Of the remainder, about twice the number were born in government facilities than in mission facilities. In the case of the urban sample, home deliveries were only 9% and over three-quarters of births were in government health facilities.

Estimates of the cost of deliveries in government and mission facilities were collated. Respondents were asked to recall costs over a period of five years, so the figures should only be interpreted as giving a rough indication of costs. Moreover, prices had increased substantially over the five year period. Nevertheless, the replies indicated that the cost could be substantial. While 65% said that the delivery at a government institution had cost them nothing, nearly 14% said it had cost Tsh 2000 or more. The cost was reported as much higher in urban areas than in rural areas. Not surprisingly, the cost at mission facilities was consistently higher. Only 10% reported free care and nearly 19% said the delivery had cost them Tsh 2000 or more. The average cost was Tsh 1533 for a rural delivery compared to Tsh 4391 for an urban one.

In about half of home deliveries, the respondent said there had been no cost, but 29% in the rural sample and 41% in the urban sample said that the birth had cost Tsh 400 or more. It was those in low expenditure groups who were most likely to pay Tsh 400 or more.

Respondents who reported home births were asked about the type of assistance they had received. In the rural sample, the most common type of assistance at birth came from a friend or relative, while only about a quarter used a traditional birth attendant. The predominance of help from a friend or relative was even greater in the urban sample.

Willingness to pay

From the outpatient survey

The outpatients were asked to assume that the waiting time was reduced to less than one hour and then asked whether they were willing to pay the charges as indicated in Table 10. The proportion willing to pay varied according to the level of the suggested charge. Willingness to pay was greater at the referral hospitals, although they had the longest expected waiting time. Fifty-nine per cent were willing to pay at least Tsh 200, 35% at least Tsh 300, and 31% Tsh 400 or more. At the district hospitals, only 27% were willing to pay Tsh 200 or more, and under 10% Tsh 400 or more. But 56% were willing to pay Tsh 100 or more. When asked whether they were willing to pay if a charge were introduced to consult a doctor, the proportion unwilling to pay increased. In the case of the referral hospitals, 14.5% were unwilling to pay to see a doctor was and in the case of the regional hospitals, 17.6%.

Table 10. Willingness to pay if waiting time reduced to one hour

Rate of charge	% Willing to pay	% Not willing to pay	Don't know/ No answer %
Referral hospitals			
Tsh 200	58.9	29.8	11.2
Tsh 300	35.1	52.3	12.6
Tsh 400	30.8	55.3	13.9
Regional hospitals			
Tsh 200	55.1	34.8	10.2
Tsh 300	29.9	57.8	12.3
Tsh 400	26.1	61.2	12.8
District hospitals			
Tsh 200	27.1	65.8	7.1
Tsh 300	12.3	78.1	9.6
Tsh 400	9.6	80.0	10.3

Next, the outpatients were asked if they would be willing to pay if the services were improved in general. The replies are shown in Table 11. Unwillingness to pay dropped to 11% in the referral hospitals and only 7% in the regional hospitals. About half the respondents were willing to pay Tsh 200 or more at the referral and regional hospitals and Tsh 100 or more at district hospitals.

Finally, respondents to the outpatient survey were asked whether they would be likely to choose an early morning or a late afternoon clinic for an non-emergency problem, if clinics at these times were introduced to improve the hospital service. As many as 84% said they would choose an early morning clinic and 16% a late afternoon clinic. The figures were similar for the three types of hospital.

From the population survey

Using the leads from the outpatient survey, the question of willingness to pay was pursued at greater depth in the population survey. Separate questions were asked about willingness to pay if waiting time were reduced to one hour and if drug supplies were always available. The findings

in the case of drugs always being available are shown in Table 12. As many as 45% of respondents in the lowest expenditure groups said that they were willing to pay Tsh 200 for government hospitals. In the case of the highest expenditure group, the proportion saying that they were willing to pay Tsh 200 or more was as high as 60%. At health centres, over a half of the lowest expenditure group were willing to pay Tsh 100 or more, and more than half were willing to pay this amount in the highest expenditure group.

Table 11. Percentage willing to pay if the service were improved in general

Hospital	No reply %	Not willing to pay %	Willingness to pay in Tsh (figures are %)			
			Up to Tsh 99	Tsh 100–Tsh 199	Tsh 200–Tsh 399	Tsh 400+
Referral	9.9	10.9	13.9	15.9	22.5	27.2
Regional	9.6	7.0	8.6	28.3	27.8	27.8
District	10.1	14.3	19.2	24.9	20.7	10.8

Table 12. Willingness to pay if drugs always available by expenditure quintile

Facility	Percentages of positive answers				
	Quintiles of weekly expenditure per adult equivalent				
	I	II	III	IV	V
At government hospitals					
Not able	10.1	11.0	9.5	11.4	10.3
Not willing	4.1	6.9	9.5	9.8	8.3
Up to Tsh 99	12.2	12.1	8.7	5.0	4.2
Tsh 100 up to Tsh 199	16.3	16.8	18.9	13.9	8.2
Tsh 200 up to Tsh 399	21.0	27.2	24.6	21.5	25.7
Tsh 400 and over	24.3	21.7	24.9	33.8	35.5
Mean: Tsh 448					
At government health centres					
Not able	10.1	11.8	9.7	11.5	10.5
Not willing	4.5	7.1	9.7	9.6	8.3
Up to Tsh 49	7.1	6.5	5.3	2.6	2.2
Tsh 50 up to Tsh 99	11.3	11.2	12.3	8.3	5.4
Tsh 100 up to Tsh 199	21.1	19.4	21.1	17.9	14.5
Tsh 200 up to Tsh 399	19.9	23.8	20.8	24.4	21.0
Tsh 400 and over	12.2	12.1	14.1	18.9	15.8
Mean: Tsh 294					
At government dispensaries					
Not able	10.3	11.4	10.0	11.6	10.4
Not willing	4.2	7.5	10.9	8.6	8.4
Up to Tsh 49	9.7	9.3	10.0	6.9	3.8
Tsh 50 up to Tsh 99	15.2	15.9	12.7	10.6	9.5
Tsh 100 up to Tsh 199	19.7	24.2	22.7	20.5	13.6
Tsh 200 up to Tsh 399	17.6	17.4	17.1	19.5	23.4
Tsh 400 and over	10.6	9.0	11.8	16.2	19.6
Mean: Tsh 243					

On the whole, it was the higher expenditure groups which had a higher proportion of those who said they were unwilling to pay. This was the consistent pattern throughout the findings. What is particularly important is the fact that 10% in the lowest expenditure quintile said that they were not able to pay, and in the one from lowest quintile, the proportion was 11%. This together with those not willing to pay resulted in about 2% of the sample.

The proportion of people saying that they were unable or unwilling to pay, are compared on the alternative assumptions of drugs always being available, and of waiting time being reduced to under one hour. The replies showed that many fewer people said that they were unwilling to pay if drug supplies were always available than if waiting time were reduced to under one hour. Moreover, the amount they were willing to pay was greater.

Improvements in government services

Respondents to the population survey were specifically asked what improvements they would like to see in the government services. Of those giving an answer, the first suggestion which came from 66% in the case of hospitals, 70% in the case of health centres and 74% in the case of dispensaries was that there should be more drugs.

Of all the suggestions made, more drugs came top of the list. They were 26% of the suggestions made for hospitals, 39% in the case of health centres and 45% in the case of dispensaries. Next in importance was improvements in the attitude of the doctors - 16% of the suggestions for hospitals, 11% for health centres and 9% for dispensaries. A better drug supply was mentioned three to nine times more frequently than a quicker service. Particularly worrying were the complaints about doctors and the allegations about bribery. It is clear that the services need to be given stronger supervision, and a powerful 'voice' for consumers in the running of services would seem to be highly desirable.

Difficulty in finding the money

Respondents to the population survey were asked whether they had experienced difficulty in finding the money to pay for health care in the past four weeks and a substantial proportion said that they had found it difficult or very difficult, with 32% facing difficulties amongst the rural population, compared to 22% in urban areas.

As expected, it was the rural population which reported the greatest difficulties in paying for health care. They were on average poorer, and the costs they faced were higher, both in terms of transport costs and in the costs of admission for inpatient care. Table 13 analyses findings in terms of the use of services.

In rural areas, those who used the mission hospitals rather than the government services found it most difficult to find the money. The reverse was reported in the urban areas. Even those who used private services reported substantial difficulty in finding the money.

Respondents were then asked if difficulty in finding the money was normally the case. There was no wholly consistent variation between the groups, but those finding it very difficult decreased from the second lowest expenditure group upwards, in the case both of those who used the government services and those who used the mission services. Indeed, quite a number of respondents said that they had had to borrow money or sell some of their possessions to raise the money to pay for health care as shown in Table 14. As many as 60% of respondents reported that they had to borrow or make special sales to pay for health care in the previous year. Those borrowing were as high as 36%.

Type of charge

Respondents to the population survey were asked whether they thought everyone should pay the same amount irrespective of differences between them. The majority (62%) thought that everyone should not pay the same. The main reason given for differentiation was that people's income, estate and ability varied. These who thought people should pay the same, most commonly justified it in terms of health services being the same or should be the same, people being equal, or that it was difficult to know people's incomes.

When respondents were asked what people should pay for, the most frequent specific response was for drugs. The second most frequent response was paying as inpatients. The third was tests/examinations and the fourth was

Table 13. Difficulty in finding the money by use of services

	Government		Mission		Private	
Difficulty	Rural	Urban	Rural	Urban	Rural	Urban
Very difficult	36.0	30.9	42.0	23.6	33.3	22.6
Difficult	47.8	49.7	43.5	53.4	36.7	43.2
Not difficult	13.6	17.4	13.5	20.9	26.7	30.3
Other/no reply	2.6	2.0	1.0	2.1	3.3	3.9
Total	100.0	100.0	100.0	100.0	100.0	100.0

Table 14. Means of raising money for health care in last year for those who have used these means

	Number of replies	
	Number	Percentage
Borrowing from relatives/friends	648	35.6
Selling animals	303	16.6
Selling farm produce	588	32.3
Selling valuables	274	15.1
None of the above	732	40.2

seeing the doctor. Drugs were mentioned nearly four times more often than seeing the doctor. When asked about what should *not* be subject to a charge, services for mothers and children were the most specific answers, while consultations with doctors came second. Indeed, nearly twice as many respondents said that there should be no charge to see a doctor than those who said there should be. Ten times more people mentioned drugs as a target for charges than said they should not be charged for. About 75% more respondents favoured charging for inpatients than not doing so. About 75% more respondents said that there should be charges for everything than said that there should be no charges.

Summary of findings

Is there a case for charges at government services, and if so, for which of the possible reasons set out above?

(1) *To stop frivolous use.* It has been found that government health services are far from free to the whole population. It is therefore not justifiable to impose charges on the grounds that this will reduce frivolous use. Even for those living near the facilities, waiting time (often standing), discourages unnecessary use.

(2) *Because the mission health services make a charge.* The research has shown that those who use government services do so primarily because they are expected to be cheap and convenient. Those who use non-governmental services say they do so primarily because drug supplies are available. The fact that they are considered expensive is the main reason why people do not go to them. For those who have both within range, the government and non-governmental services are perceived as being intended to serve separate markets. The majority of users, whether of government services or of mission services, reported difficulty in paying for health care, and as many as 40% of respondents had borrowed money to pay for care. In the rural areas, as many as 42% of users reported that it had been very difficult to find the money for mission services. The argument that people are prepared to pay at non-governmental services, such as missions, does not justify charging similar rates at government services.

(3) *To improve services for all users.* Both surveys have shown that the majority of users are willing to pay for services providing they are improved. By far the most important improvement they are seeking is the ready availability of drugs. Failings in drug supply are a much more important consideration than waiting time. About half the users say that they would be prepared to pay Tsh 200 at referral and regional hospitals and Tsh 100 at district hospitals if services were generally improved. Thus, it is justifiable to introduce charges, if the money can be used to improve services.

(4) *To lighten the burden on the poor.* At present some of the poor have to pay considerable transport costs, particularly for admission as inpatients in rural areas. Secondly, 26% of those who had consultations at government health services had to buy their drugs elsewhere. The cost averaged Tsh 671 and 19% of patients said they paid Tsh 1000 or more. Thirdly, the average cost of staying at government hospitals was over Tsh 3000, in terms of food and drugs. As the poorer section of the population were the main users of the government services for consultations, they would be better-off if drugs were always available at government services, free only for the poor and at modest charge for other users of the services. This would seem a conclusive reason for introducing charges, if it could secure that drugs were always available and that food was adequate for inpatients. But the administrative problems of collecting the charges, exempting the poor and ensuring that charges are used in improving services should not be underestimated. It is therefore crucial that the implementation should be carefully planned so that health units can spend the revenue on further supplies.

Conclusions

It was found from the research that substantial costs are incurred by those using the government's 'free' services:

- in travel for a consultation, 7% of the rural patients paid an average of Tsh 734 and 37% of the urban patients paid an average of Tsh 472;
- in buying drugs prescribed at government services, 26% of patients paid an average of Tsh 671;
- in travelling for an admission, 62% of the rural patients paid an average of Tsh 857 and 63% of urban patients paid an average of Tsh 2577;
- for the admission, 74% made payments, mainly for food and drugs, averaging Tsh 3560 for urban patients and Tsh 3198 for rural patients;
- for delivery at a government institution, 32% of mothers paid sums averaging Tsh 1533 for those from rural areas, and Tsh 4391 for those from urban areas.

It is concluded that the 'free' services in Tanzania are placing unaffordable burdens on the poor.

On the basis of these findings the charges and exemptions shown in Box 1 were recommended. The main criterion used in selecting the charges was what people said they were willing to pay for. The main criterion used in fixing the level of charges was what the majority said they were willing to pay. It is estimated that these charges would bring in gross revenue of Tsh 2214 million. Allowing for very tentative guesses at the cost of collection, the net revenue is put at Tsh 1824 million. This is about 10–13% of the estimated recurrent cost of the public health services for 1990–1. Further money might be raised for the health sector if compulsory health insurance is found to be practicable and acceptable for those in regular employment. If by these means it is possible to secure the constant

Box 1. The proposed level of charges

Drugs	Tsh 40 per item
Outpatients	Tsh 200 at referral and regional hospitals Tsh 100 at district hospitals
Delivery	Tsh 400 at referral and regional hospitals Tsh 300 at district hospitals Tsh 100 at health centres and dispensaries
Other inpatients	Tsh 20 a day (maximum Tsh 140) Per admission - Tsh 200 (regional and referral hospitals) - Tsh 100 per admission (district hospitals)
Dental	Tsh 200 at referral hospitals Tsh 100 at other hospitals Tsh 5000 for dentures

Exemptions

Always exempt
- all preventive services
- children up to age 8
- five diseases - tuberculosis, poliomyelitis, leprosy, cholera and typhoid
- the poor

Further exemptions
- for inpatient care - compulsorily detained psychiatric patients
- for outpatients - diabetes cases

Note: Tanzanian shillings (Tsh) were 425 to UK£1 in March 1992.

availability of drugs and that food is provided at government hospitals, and the poor are effectively exempt from charges, this would substantially lighten the burdens now carried by the poor.

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