Pergamon

Soc. Sci. Med. Vol. 46, No. 1, pp. 13–21, 1998

Printed in Great Britain
PII: S0277-9536(97)00130-5
0277-9536/98 $19.00 + 0.00

THE CHALLENGE TO RESTORING BASIC HEALTH CARE IN UGANDA

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Abstract—This paper presents the results of a health facility survey conducted in Uganda between June 1992 and December 1993. The survey covered both government and non-government organisation (NGO) facilities from 10 districts in the five regions of the country. The main objective of the survey was to assess resource use, costs and financing of health facilities. The survey found differences between resource levels of NGOs and government facilities. Government facilities were inadequately maintained, and mostly in a state of disrepair. The user fee scheme that had been recently introduced in some government units to meet running costs was not only inadequate, but was not being used to meet the needs of consumers. In addition, most available resources, including human resources, were concentrated in hospitals. As a result, there was heavy demand for hospital services and less use of services in the lower level facilities. And furthermore, staff in government facilities were paid much less than staff working for NGOs, who not only got better pay but also in-kind forms of rewards, which made them better motivated to work. The number of qualified staff, particularly for primary health care, was grossly inadequate, and most of the work in local facilities was being done by unqualified employees, such as ward maids and dressers. In order to alleviate some of the problems identified, particularly in government facilities, there is a need to explore ways in which more can be done with the available resources to improve the efficiency of health services. The user charge system could be effective in improving the resource base of the health facilites, but it must result in visible improvement in the quality of services for consumers to be willing to pay. Collection methods should be standardised, and expenditures supervised. As part of the government's decentralisation programme, districts should be given the power to recruit and fire personnel. Once this authority is in place, the district should consider employing fewer personnel at all levels and aim to pay them a living wage. © 1998 Elsevier Science Ltd. All rights reserved

Key words—resource utilisation, health facilities, Uganda

INTRODUCTION AND BACKGROUND

Health services in Uganda are provided by the Ministry of Health (MOH), the Ministry of Local Government (MOLG) and non-governmental organisations (NGOs), particularly religious groups. The MOH is responsible for planning and developing health policies and for providing health care in all government hospitals. The MOLG is in charge of health care delivery at the district level and below. The NGOs provide services both in hospitals and in smaller medical units.

The current health delivery system is organised under four levels of health care: primary, secondary, tertiary and quaternary. The primary level of care comprises health centres and other lower units. The secondary level comprises a network of district and rural hospitals. The tertiary level includes all General Referral Hospitals based at regional capitals. The two national hospitals (Mulago and Butabika) comprise the quaternary and highest level of care.

Usually each of the 39 districts in the country has at least one hospital and several other smaller health units. The bed size of the hospitals and other health units varies from district to district. A hospital in Uganda should generally have at least 100 beds, while a health centre has 24 beds (12 for maternity, six for children and six general) (Uganda Government, 1987). With this arrangement, it is estimated that some 27% of the population are within 5 km of the nearest health unit, while 57% are within 10 km (Uganda Government, 1992). However, there are no clear guidelines on how the available health units were located, especially in rural areas where the population structure is quite variable.

Following the signing of the Alma Ata Declaration on Primary Health Care (PHC) in 1978, the Uganda government in 1983 adopted PHC as the official health policy for making essential health care accessible to households. The policy of PHC emphasises services based at the lower levels of care and in the community. In 1987, the Government of Uganda's Health Review Commission recommended the health centre (HC) as the lowest level of care. Under normal operation health centres are supposed to be linked up to rural

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hospitals and district hospitals through an elaborate referral system.

Before the breakdown of law and order, together with various political and social upheavals the country has gone through in the past two decades, the levels of care formed a referral system used in an ascending order of complexity. Patients would usually report to the aid post, dispensary or health centre before they could be referred to larger units for more advanced care. At the time, an "aid post" was really no more than a rendezvous visited weekly by a medical assistant from a dispensary, health centre or hospital. The dispensary had a physical structure with full-time staff, usually a medical assistant and a nurse. A dispensary–maternity unit (DMU) functioned both as a dispensary and a maternity unit. It had additional staff with midwifery skills, and facilities for maternity care. These units were only expected to treat simple conditions and to refer patients with serious illness to higher levels. This operated best in the rural areas.

Even though some of the structures described above still exist in many districts, the system has grossly deteriorated. In the current rehabilitation efforts and health sector reform, emphasis is being placed on reviving the health centre as a unit which provides a family with all the health services it requires, other than those which need to be provided in a hospital. The viable lower level structures from the old systems are being upgraded or turned into health centres. The functions of a health centre will include promotion of healthy living conditions, seeking to prevent diseases through immunisation, better environmental sanitation, better child feeding practices, early diagnosis, and treatment of minor ailments that do not need to be referred to hospital.

There are multiple reasons for the disorganisation of practice. One of the areas of major concern is the belief that a large proportion of the health budget continues to go to hospitals which are mostly located in towns, leaving peripheral units and the HCs depleted of health resources (Okello *et al.*, 1994). In addition, the periods of prolonged chaos in the country led to a breakdown in supervision of services at all levels. This, together with poor motivation of staff due to low salaries, led to a feeling that the general standard of care and services, particularly in government owned health units, had fallen drastically. Overall, there was a general feeling among health care providers and consumers that NGO health facilities were offering better quality service than government owned units.

Furthermore, although government has been slowly introducing user fees since 1988 as a method of cost recovery for recurrent costs of health care, it is still responsible for financing a large share of health care. The user fees scheme in government run units is not yet fully operational as it is still in its experimental stage. In comparison, unlike the government, explicit fees are paid for NGO services. In addition, recently there has been concern that government health services provided for at a high cost are not fully utilised.

Given the above situation, an analysis comprising of an evaluation of resource utilisation, unit cost estimates and an assessment of consumer satisfaction with services provided in the health facilities was undertaken. Emphasis was placed on understanding the distribution and utilisation of the available resources, as well as examining the operation of various health programmes. The overall aim of the study was to recommend measures for efficiency improvement in the health care system. The information obtained would also help shape health policy at the district level under the current overall government policy of decentralisation of services.

The specific objective of the study was to compare government and NGO institutions across similar facility types with respect to: (1) resource utilisation, (2) costs, and (3) consumer satisfaction. This analysis is designed to provide data for policy debate on the topic of decentralisation.

METHODOLOGY

The study was conducted during the period between November 1992 and December 1993. The information on resource utilisation, costs and financing of services was obtained from records in the health units based on retrospective data covering the period between July 1991 and June 1992. Further information on issues of consumer practices and concerns was obtained using qualitative methods during the period between March and December 1993.

Several years have passed since the records and data were collected. We are aware that many organisational changes are taking place in the health care system under the health sector reform initiatives. Some of these changes have already been described (Okuonzi and Macrae, 1995; Gilson *et al.*, 1995; Uganda Government, 1995; Macrae *et al.*, 1996). But proposed changes do not usually match operations on the ground, and changes in organisational structures are not necessarily accompanied by improved resources for health care.

Following completion of data analysis, the results of this survey were discussed with officials of the Ministry of Health headquarters and members of the District Health Management Committees in the study districts during the last half of 1994. While some further modifications have occurred to improve government financing, and a number of organisational changes have been initiated, the situation for most districts at the point of dissemination of results in 1994 was similar to that found in fiscal year 1991/1992. Since 1986, most of the new resources for health have been used to rehabilitate some hospitals and health centres (capi-

tal costs) and to support single focus vertical programmes such as control of diarrhoeal diseases. While rehabilitation is popular, this has led to a major crisis of funding and donor dependency. Government is now unable to raise sufficient recurrent funds to sustain the rehabilitated facilities and vertical programmes (Barton and Wamai, 1994).

Ten districts were included in the study, two randomly selected from each of the five regions of the country. Within each district, one government health unit and one NGO health unit were selected from three different levels of care (i.e. hospital, health centre and dispensary or dispensary–maternity unit). In addition, the District Medical Office (DMO) was included in the units covered, making it seven health units from each district. Together, a total of 81 health units were eventually covered, including those used in the pilot period. There were 10 DMO offices, 20 hospitals (eight district hospitals and 12 rural hospitals), 22 health centres, nine dispensary/maternity units (DMUs) and 20 dispensaries.

In each unit a number of variables were used as indicators of resource utilisation. These included patient throughput, average length of stay, bed occupancy rates, attendances to various programmes in the health unit, and use of drugs and other medical supplies. These were examined in the context of existing unit capacity and staffing levels. Standard questionnaires/forms were used to extract information from all sources. Costs and expenditure figures were computed for crucial categories of cost items, including: expenditures on personnel, drugs, maintenance, medical supplies and on laboratory procedures, and average pay and allowances by cadre. Further, information was computed for financing and funding categories, including funds collected from user fee charges and expenditures on drugs.

The consumer survey was a cross-sectional design. It involved interviews with 480 outpatients randomly identified at the exit points of a sample of 29 health units (15 government and 14 NGO) from those identified above. These interviews were structured and were conducted by two members of the research team, who are trained social scientists. Further information was also obtained from focus group discussions with patient attendants in the health units. All together, consultations were held with 13 focus groups, consisting of 6–32 people in each group. In addition, unstructured interviews with some unit managers and members of the health management committees were carried out. The interviews focused on patient practices regarding the use of available services and resources in the health facilities, and were meant to examine some aspects of the quality of services provided.

After editing the questionnaires all the information was entered and analysed using various statistical software including SPSS, EPI INFO and dBase IV. Field notes from focus group discussions were typed and analysed manually by identified key themes and issues.

RESULTS

Bed size of the facilities

There was a wide variation in the structural establishment of health facilities, with apparently no fixed standard of what should be expected at what level. The bed size of hospitals ranged from 70 to 200, while health centres had between 12 and 20. One NGO health centre had a bed capacity of 150 beds. Many dispensaries had bed facilities, and bed capacity at this level ranged from 12 to 28.

Patient throughput

Patient throughput as used here means the number of patients going through a health unit, both outpatient (OP) and inpatient (IP), in a year. The bed occupancy rates at different levels indicate that there was under-utilisation of inpatient services at the primary health care level, while at hospital level, especially those located in urban centres, there was clear overcrowding with patients. The bed occupancy rates in district hospitals were over 100%, while those in the rural hospitals ranged from 54 to 119%. The average bed occupancy in health centres, DMUs and dispensaries ranged from 24 to 56%, 18 to 36% and 17 to 29%, respectively (see Table 1). In some areas in the north of the country, bed occupancy rates at the lower level were as low as 0.2%.

A high proportion of the filled beds in hospitals were due to long stays. The average length of stay at district hospitals was 18 days, and ranged from six to 15 days in rural hospitals. A comparison of the length of stay in rural hospitals between government and NGO may be rather misleading since the NGO rural hospitals are much larger than government rural hospitals. This could mean that the number of patients handled in rural NGO hospitals are comparable to district hospitals. The average length of stay at the lower level of care, in the HCs and dispensaries, was much shorter in both NGO and government facilities, often being less than one week. The primary reasons for the large variation in the average length of stay are due to case mix differences. For example, in DMUs many cases were normal deliveries, whereas in hospitals many more cases were either accidents or TB complications.

Generally, there were more outpatients in government units than in NGO units. However, the NGOs were admitting more inpatients at the lower level units, particularly at dispensary levels. The OP/IP (number of outpatient/number of inpatient) ratios were much higher in the lower government units than in the NGOs, suggesting a more consist-

Table 1. Bed utilisation in the health units (1991/1992)

Type of unit	Average bed size	Average throughput (annual)	Average length of stay (days)	Average bed occupancy rate (%)[a]
District hosps	148	5769	18	153
Rural hosps				
Govt	101	3196	6	54
NGO	130	4262	15	119
Health centres				
Govt	28	867	5	56
NGO	40	461	4	24
DMUs				
Govt	14	295	2	18
NGO	16	771	3	36
Dispensaries				
Govt	15	86	7	17
NGO	12	396	4	29

Source: Records of patient admissions 1991/1992.
[a]Bed occupancy rates (OCC) for each unit were calculated as follows: OCC = $I/(365 \times B)$, where I = number of inpatient days, and B = bed capacity. Further, I = (number of inpatients) × (average length of stay);
DMU = dispensary–maternity unit.

ent admission policy and possibly more adequate resources available in NGO facilities relative to government (see Table 2).

A majority of consumers using hospital services (62%) travelled long distances, usually skipping their nearest health unit, to reach a hospital, which are frequently urban based and far away from the rural community. The mean distance travelled to reach a hospital was 12.9 km, but ranged from less than 1 km to 60 km, with 14% of the respondents travelling over 20 km. The reasons for skipping services nearest to home included: looking for specialised services, non-availability of drugs in the nearest unit and the existence of better trained staff at higher levels. Only 15% of respondents visiting hospitals were referrals.

The figures in Table 2 differ from figures in Table 1 because these numbers represent only the most recent month of available information during fiscal year 1992. There was also a wide variation in patient throughput between months. For example, inpatient throughput per month at district hospitals ranged from 217 to 7569. At the lower health centre level the range was 2–602 in government facilities, and 4–95 in NGO facilites.

Staffing

Staffing in the health unit was examined both as an indicator of, and as one of the explanations for, the level of utilisation of the health units. Generally the proportion of skilled personnel to unskilled personnel decreases as the level of complexity of the health unit falls. The lower units were predominantly staffed by unskilled wards maids/dressers who formed about 40% of the work force at this level (see Table 3). Ward maids/dressers (sometimes also called nursing assistants or nursing aides) are usually school dropouts who get training on the job to carry out simple nursing procedures such as wound dressings. They were reported to run most of the essential services in the lower units because trained nurses were not available at this level.

Note from Table 3 that the NGOs have fewer employees per bed as indicated by lower employee/bed ratio. Holding other things constant, this lower employee per bed ratio suggests a lower cost of treating inpatients in NGO facilities. However, the ratio of outpatient throughput to skilled staff was much larger in lower government units compared to the NGO. This larger ambulatory throughput for government rural facilities suggests a greater efficiency of labour resources in government facilities in comparison with similar NGO facilities. However, service quality and components of service delivery are not held constant between NGO and government facilities. Overall, consumers thought the NGOs had a better standard of care (59% rated NGO standard of care as better, compared to 41% who were in favour of government), but the difference in consumer rating of the standard of care was not statistically significant.

Cost and financing of services

The value of resources used at different levels of care both in government and NGOs was computed

Table 2. Average monthly patient throughput (1991/1992)

Level of unit	Government	NGO	Govt/NGO ratio
Inpatients			
District hospital	1493		
Rural hospital	598	355	1.7
HCs	157	36	4.4
DMU	25	64	0.4
Dispensaries	7	29	0.2
Outpatients			
District hospital	6926		
Rural hospital	8601	3690	2.3
HCs	4928	1653	3.0
DMU	2825	1883	1.5
OP/IP ratio			
District hospital	4.6		
Rural hospital	14.4	10.4	
HCs	31.4	45.9	
DMUs	113.0	29.4	
Dispensaries	442.6	37.4	

HC = health centre;
DMC = dispensary–maternity unit.

Table 3. Staffing in the health units

Level of unit	Bed size	Skilled staff	Unskilled staff[a]	Total	Employee per bed	OP/skilled staff ratio
District hospital	148	94	212	306	1.8	102.4
Rural hospital:						
Govt	101	57	164	221	2.2	150.9
NGO	130	36	159	195	1.5	102.5
HCs:						
Govt	28	6	15	21	0.8	821.3
NGO	40	7	14	21	0.5	236.1
DMUs:						
Govt	14	5	10	15	1.1	565.0
NGO	16	5	11	16	1.0	376.6
Dispensary:						
Govt	15	3	11	14	0.9	1032.7
NGO	12	3	8	11	0.9	362.0

HC = health centre;
DMU = dispesary–maternity unit;
[a]ward maids/dressers comprise the largest single personnel category among the unskilled workers.

using a standard price/charge list in the case of supplies, or from records of payrolls in the case of salaries and allowances paid to staff.

Salaries and allowances

There was a substantial difference in total payment to staff between government and NGO, especially among doctors, medical assistants and those with nursing training where government compensation was about half of comparable NGO pay. The ratios between the average government expenditures to NGO expenditures for salaries and allowances were much less than 1 for these cadres of staff, suggesting that NGOs were paying their personnel better than government. In addition, staff in NGOs also received other in-kind benefits which were not easy to quantify. These in-kind benefits included a wide range of material things (such as food items, clothing, bars of washing soap, etc.), free medical treatment and better housing facilities. In-kind benefits for government employees were limited to free health care and housing for some. The average pay per month shown in Table 4 included salaries and the many different allowances public health workers are paid, but this is another factor which has changed greatly since the time of our data collection. Public hospital workers are now better paid.

Expenses for drugs

Expenditures on drugs were calculated based on records of drugs reported to have been used in the health facility during the period covered by the study. However, NGOs do not always get drugs at the same price as government. The calculations assumed a standard price list.

Generally, more drugs were used in NGO facilities than in government ones, both in absolute as well as on a per patient basis. With the exception of aspirin, chloroquine and fortified procaine penicillin, the ratios of the quantities of drugs used in government to those in the NGO were all less than 1 for most of the common drugs at hospital levels. At the lower levels, the quantities of drugs used were almost equal between government and the NGOs, and in some situations even better in government, suggesting better availability of drugs in the lower level government units. Drugs in government facilities are supplied through the Essential Drug Management Programme in Kits, whose distribution emphasises the lower units.

Overall, NGO expenditures on drugs (as computed from the amount of drugs used) were much higher than in government. The NGO annual spendings on drugs per patient of Ug. Sh. 8870 at hospital level and Ug. Sh. 148,720 at health centre level are extremely high. The total health spending (public and private) in Uganda stands at only $7.73 (government health expenditure, $2.82 per capita; household health expenditure, $4.91), as compared with $11–19 per capita in most sub-Saharan African countries, and an estimated cost of $12 per capita in low income countries (World Bank, 1994).

The figures of costs of drugs per patient are based on records of patient attendance and the amount of drugs used in the units. But we are aware that generally records of attendance in the health units are poor and unreliable. While the records of drugs used in the units may be correct because they closely mirror supply records, not all attendance episodes in the units are recorded. We suspect that recorded attendance figures (the number of patients) on which our calculations are based

Table 4. Average pay per month (in Ug. Shs) on salaries and allowances for key cadres of staff (1991/1992 exchange rate was about U.S.$1 = Ug. Shs 1000)

Staff type	Government	NGO	Govt/NGO ratio
Doctors	52,592	89,273	0.6
Med. assistants	16,166	33,486	0.5
Nurses	15,191	25,943	0.6
Technicians	15,291	18,602	0.8
Dispensers	15,683	19,030	0.8
Ward maids	9,327	10,222	0.9
Administrators	12,216	26,277	0.5

Source: 1991/1992 returns of payment records.

are much lower than the actual attendance episodes. Therefore, the computed costs of drugs per patient shown in Table 5 are likely to be much higher than the actual figures.

It is also known that there is massive pilferage of drugs in the units. Drugs taken by pilferage are still recorded as used in the units. Also, some NGO drugs obtained mainly through donations from their links abroad tend to be in brand forms (not generics as is the case in government) and therefore worked out to be more expensive than the ones in government. All these arguments are likely to explain the very high cost of drugs recorded here.

Maintenance costs

A comparison of figures of expenditure on maintenance of equipment and of physical structures between government and NGOs is shown in Table 6. Although estimates of what was expected as budgeted allocation for maintenance at different facility type is not known, the actual annual maintenance expenditure was generally very low across facilities (never more than Shs 40,000/year). However, the NGOs had better allocation of resources for maintenance than government, especially at the lower levels of care which had comparatively very low allocations for maintenance in government facilities. These differences were especially more marked at the DMU level where the ratio of maintenance costs between government and the NGO was lowest at 0.03. Due to underfunding for building maintenance over time, many government facilities were found to require major repairs and rehabilitation.

User fee collection

Unlike the NGO, who explicitly charge user fees, only a few government units studied were officially collecting user charges, but informal (under-the-table) charging by all levels of health workers for services was widespread. Table 7 shows that the average figures of collections from user fees in government were so small, contributing to less than 0.2% of recurrent cost in hospitals, and between 0.8 and 7% in lower facilities. The figure for informal charging is not known. In the NGOs, user charges contributed between 31 and 46% of recurrent costs. Information gathered from discussions with the unit managers indicate collections in the NGOs were used mainly to purchase drugs. Nearly all government units used it as salary supplements for staff. This salary supplement from user fees has not been included in the computations on wages made earlier in the paper.

It should be noted that there is a difference in policy between NGOs and government regarding collection of user fees. For example, government has no clear exemption policies. It is in fact believed that exemption methods are unworkable in government (Okuonzi and Macrae, 1995). Members of the Health Unit Management Committee, staff and their relatives often exempted themselves from paying user fees. This factor, together with lack of supervision and accountability of funds collected in government facilities, could account for the huge differences in collection between NGOs and government.

Issues of consumer concerns

Based on the survey of 480 patients described in the second section, there were a number of issues that concerned patients with respect to availability of resources and services. The highlights of this section of the study included a low demand for inpatient services at primary health care level mainly because patients thought there was inadequate allocation of resources at this level. In the urban or semi-urban areas all patients preferred to go directly to hospitals. Some of the reasons cited for the low level of demand for inpatient services at the health centre and dispensary levels were: lack of medically trained personnel at these level; lack of diagnostic facilities and clinical support services; lack of transfer facilities for patients who may get complications; and a total breakdown in the referral system.

Availability of drugs to patients

There was a marked difference between government and NGO in the proportion of patients who

Table 5. Drugs and patients in Uganda health facilities, government and NGO, FY 1992

Level of unit	Government			NGO		
	Patient *n*	Total cost of drugs	Cost per patient	Patient *n*	Total cost of drugs	Cost per patient
IP:						
Rural hosp.	7176	15,812	2.20	4260	37,777	8.87
HCs	1884	3023	1.60	432	64,246	148.72
DMU	300	91	0.30	768	820	1.07
Disp	84	10	0.12	348	2965	8.52
OP:						
Rural hosp.	103,212	18,904	0.18	44,280	84,228	1.90
HCs	59,136	8450	0.14	19,836	75,785	3.82
DMU	33,900	8215	0.24	22,596	1044	0.05
Disp	37,178	5477	0.15	13,015	12,039	0.92

Notes: Drug costs are in Ug. Shs '000;
HC = health centre;
DMU = dispensary–maternity unit.

Table 6. Average maintenance costs (in '000 Ug. Shs) (1991/1992)

Level	Government	NGO	Govt/NGO ratio
DMO	15,574		
District hosp.	37,598		
Rural hosp.	15,733	39,949	0.4
H/centres	439	1580	0.3
DMUs	171	4957	0.03
Dispensaries	206	739	0.3

DMO = District Medical Office;
DMU = dispensary–maternity unit.

reported receiving all prescribed drugs. The proportion of patients in government who received all the prescribed drugs varied from level to level (49% in hospitals, 79% in HCs and 93% in the DMUs). There was a statistically significant difference in the relationship between receiving and/or not receiving drugs between hospitals and the lower units in government ($\chi^2 = 57.5$, $P = 0.00$). The likelihood of getting all the prescribed drugs was better in the lower units. In NGOs drugs were available at all levels (see Table 8). The reason for not getting all the precribed drugs in government was because some drugs were sometimes not available. In NGOs some patients did not get some of the prescribed drugs mainly because they could not afford to pay for them.

Concerns about user charges

Patients had reservations about why user fees were collected in government units. They objected to the fees being used as salary supplements for staff. They also reported that there was generally unsupervised expenditure of funds collected from user fees, and that the funds did not improve the quality of services. Asked as to what one quality improvement they would most like to see, they consistently mentioned "more drugs" as their first priority.

Patients objected to fee collections where no treatments were given, when drugs were out of stock. Fees in government are collected at registration, while in NGOs they are collected after treatment is given.

Time taken to receive service

Patient waiting times in the outpatient clinics ranged from 30 minutes to over six hours, with a mean of 1.5 hours. The longest patient waiting times were experienced at hospital level where 27% of patients had to wait for two to six hours, and about 1% waited for over six hours. There was a statistically significant difference in patient waiting times between government and NGO units, with patients in government spending longer in units than those in the NGO ($\chi^2 = 15.76$, $P = 0.00$). The reason for longer waiting times in hospitals was thought to be related to overcrowding of patients at this level. Services in the lower units were quicker because of less crowding at this level. Further, since workers in government facilities had to spend time doing other things before coming to the clinic, patients were often seen only after 10 am.

DISCUSSION

This study has clearly shown differences between resource levels of NGOs and government. Patients perceive these differences to be more pronounced in the lower level facilities. With respect to human resources, it is most probable that part of the problem is related to the fact that salaries for health staff in government are insufficient to support families and all workers must spend a significant proportion of their time doing activities other than that for which they have been trained. The demotivating factor of low pay is exacerbated by irregular intervals of payment. There are reports of instances where health facility staff at the health centre level have gone without payment for up to two years (Uganda Government, 1994). In effect, therefore, all staff at all levels have become part-time workers. The best way to attract staff back to facilities would be to provide a living wage.

The introduction of a user fees scheme was meant to alleviate some of the constraints highlighted in this paper. Unfortunately, the official fees collected in government units are still too little to have any impact. Besides, the prospects for improv-

Table 7. Average annual collections from user charges during 1991/1992 (in Ug. Shs)

Level of unit	Number studied	Average collected	Average per patient	% of recurrent cost
Hospitals				
Govt	1	407,810	5	0.2
NGO	4	56,156,366	1539	46
HCs				
Govt	5	260,624	4	0.8
NGO	6	10,330,427	1312	41
DMU				
Govt	1	766.280	13	4
NGO	2	5,125,580	280	31
Dispensary				
Govt	3	898,433	18	7
NGO	6	3,700,012	228	35

Source: Records of user charge collections in the health units (1991/1992).
HC = health centre;
DMU = dispensary–maternity unit.

Table 8. Percentage of patients receiving all prescribed drugs in the health facilities

Level of unit	Got all the drugs	Did not get all the drugs	Don't know
Hospitals			
Govt	49	48	3
NGO	92	4	4
Health centre			
Govt	79	15	6
NGO	94	6	
DMUs			
Govt	93		7
NGO	90	10	
Dispensary			
Govt			
NGO	97	3	

Source: Interviews with patients at the health facilities (March–December 1993).
DMU = dispensary–maternity unit.

ing revenue collection from user fees is limited as patients are only willing to continue paying if the money is used to improve priority services, such as the provision of drugs and supplies, and not for salary supplements for staff. Furthermore, there is doubt as to whether user charges will alleviate the problem of shortages in the districts as there is evidence in some health units that user charge revenues are mismanaged and there is an inadequate system of accountability (Uganda Government, 1993). This does not imply that a well designed and managed user charge system could achieve service quality improvement. Proper design and vigorous implementation management is essential for the success of the user fee programme as experience elsewhere has shown (Quick and Musau, 1994).

The study has demonstrated low utilisation of services at the lower level units, and overcrowding at hospital levels. Most beds at the lower levels of care are not utilised. A major policy issue here would be whether resources would be released by reducing the number of these beds. There is also a great shortage of skilled staff, particularly of nurses in these lower units. Uganda has trained an enormous number of nurses in the country (Scheyer and Dunlop, 1981). It is suspected that most of them are in private practice or engaged in other forms of economic activities to earn a living. Although it may be suggested that the ward maids/dressers be trained to fill in the gaps, after training it is possible they would also demand higher wages and may be unwilling to continue working for their currently low wages.

Some limitations of this study must be pointed out. There was generally poor record keeping in most health units. This meant that some information could not be obtained in the required detail and accounts were not identifiable by unit of output. There was also difficulty in costing payments and other benefits received in-kind. The value of in-kind payments in NGO and in government facilities has not been included. Thus, the costs figures provided here are likely to underestimate actual expenditures. It is also important to mention that a lot of changes have occurred in the country since the period of this study. Salaries for staff have improved, but are probably not yet attractive enough to employ most staff on a full-time basis. The government has also begun to decentralise services to the district level. Greater authority over the management of health resources now lies with the districts than with the Ministry of Health. There have been major changes concerning user fees. Nearly all the districts are trying out some approach to collection of user fees and to their distribution, but with many variations.

There are areas for more research that need to be examined as a follow-up of this study. This study has shown that user fees account for between 31 and 46% of recurrent costs in NGO facilities and between 0.2 and 7% in government. It would be useful to establish how the NGOs are able to raise so much from user fees. This information would help the districts to restructure their methods of collection. There is also need to determine the quality and standard of health care being given in the facilities.

In conclusion, this report has presented data on the situation of resources for health care in health facilities in Uganda. In order to alleviate some of the problems identified, particularly in government facilities, there is a need to explore ways in which more can be done with the available resources, as well as seeking more sources. Government facilities have to be at least at a level at which people will accept using them. The user charge system could be effective in improving the resource base of the health facilities, but it must result in visible improvement in the quality of services (e.g. the provision of drugs) for consumers to be willing to pay.

RECOMMENDATIONS

Given the above scenario, the following major recommendations are hereby proposed.

1. Because user fees seem to be the main alternative source of funding for government facilities (besides government sources), their collection methods need to be standardised, and expenditures supervised. Efforts should be made to gain patient and public acceptance through the institution of treatment fees, rather than registration fees. There is a need to adopt the system of collection being used in NGO facilities where funds are collected after receiving services and for services received only.
2. The districts should be given the power to recruit and fire personnel under the decentralisation programme. Once this authority is in place, the district should consider employing only a small but critical number of personnel at all levels and pay them a living wage. They should also con-

sider attracting skilled personnel back to services at primary health care level through providing a living wage.

Acknowledgements—This study was supported by a grant from the Carnegie Corporation of New York, through the International Health Policy Programme (IHPP) of the World Bank. We acknowledge with thanks the contributions of Dr. David Dunlop of the World Bank, who reviewed this manuscript before submission for publication. We also wish to acknowledge technical support from the International Clinical Epidemiology Network (INCLEN) through Clinical Epidemiology Unit at Makerere Medical School.

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