Public/Private Mix: An Alternative Funding for Public Hospitals in Developing Countries: A 5-Years' Experience at Muhimbili Orthopaedic Institute, Dar es Salaam, Tanzania.

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Key words: Public, private-private mix, hospitals and funding.

Background: **The economic deterioration and structural adjustment policies of the 1970's and 80's had a particularly negative impact on social services especially health and education in most developing countries. In Tanzania at the height of this period the Government could meet only 10 – 20% of the recurrent budget needs of its hospitals. In 1996 the government of Tanzania passed the first Parliamentary act empowering a public health institution to attend private patients.**
Methods**: A review of the source of funding at the Muhimbili Orthopaedic Institute over a 5-year period between 1997 and 2001 inclusive was done.**
Results: **Muhimbili Orthopaedic Institute experience showed that it is possible for public institution to practice private-public mix. Private patients constituting only 30% of outpatients and 5% of inpatients generated 77% of Institute's income, which was about 35% of the total income of the Institute.**
Conclusion: **Private-public mix when carried out properly in hospitals offers enormous advantages in bridging the gap between actual budgets of Institutions and what governments in developing countries are able to give public hospitals.**

Introduction

Social services, particularly health and education, suffered most during the economic deterioration and structural adjustments, which occurred in most African countries during the late 1970's and 80's[1]. In Tanzania, at the peak of the decline the government could only meet about 10-20% of the required recurrent budget of Muhimbili Medical Centre, the country's biggest national referral and teaching hospital[2]. At the same time most of the external grants to the health sector were directed to preventive health programmes. This left many of the hospitals and curative services in a very precarious state. Physical structures of most of the hospitals deteriorated due to lack of funds for rehabilitation. Equipment broke down due to lack of repair, old age and lack of replacement. Limited funding for consumables like drugs and laboratory chemicals resulted into inadequate and erratic supplies. The result was that most hospitals could only operate at less than 25% capacity. Hospitals became congested due to postponed or cancelled surgical operations

or due to long waiting periods for investigations, which either took too long or could not be done. In desperation patients came to the referral hospitals believing they could offer better services thereby leading to the breakdown of the referral system which divided services into primary, secondary and tertiary levels, a common phenomenon also noted in other developing countries[3].

Like in other African countries although salaries continued being paid to the health workers as per budget, they were however very low and inadequate in real terms. The combination of low salaries and poor working environment demoralized most of the workers which in turn led to brain drain both internally and externally. Highly trained specialists were forced to engage in extra-curricula activities in order to survive. This included working in private hospitals, were they spent most of their time and where their loyalty was. Others engaged in non-professional activities like chicken farming[4]. Others still left for green pastures outside the country or continent.

The Government's inability to increase funding for health care delivery meant that the situation progressively deteriorated and some measures to arrest the situation were required. The introduction of cost sharing or payment of user fees in the early'90s was one of the earliest of such measures. Unfortunately the impact of cost sharing on improvement of health care delivery was not significant, as the fees were not based on the cost of providing services, which in many developing countries are usually higher than expected[5]. Similarly the default rate for cost-sharing patients as noted at Muhimbili Orthopaedic Institute was very high, around 40%[6]. These factors have made the impact of cost sharing on health delivery negligible.

The introduction of health sector reforms in many African countries in the mid '90s recognized for the first time the private sector as an important key player in the provision of health care in many developing countries. Initially this was in the form of allowing the involvement of public sector employees in private practice as an extra income generating activity[7]. However this measure did not address key problems like the fact that most of the population could not afford private hospital fees nor the fact that allowing doctors to own private hospitals or practice in private hospitals may split their allegiance. In order to overcome these problems the government in 1996 allowed for the first time a government public institution to practice private-public mix.

Patients and Methods

In 1996 the Government of Tanzania, passed the first ever Parliamentary Act empowering a public health institution in the country to practice a public/ private mix. The funds realized from private practice would hence force be used to subsidize worker's income and treatment of the public patients and also help in the running of the Institute.

The Muhimbili Orthopaedic Institute (MOI) was formerly a service and academic department of Muhimbili Medical Centre and Muhimbili University College of Health Sciences, catering for patients with Orthopaedics, Traumatology and Neurosurgical problems. Its 165 beds are divided into 150 public patient beds where patients pay cost sharing fees of Tshs. 500/- (0.5 USD) per day. They also pay subsidized rates for surgery; 10 USD for minor and 15 USD for major surgical procedures, drugs are also subsidized.

On the other hand, private patients pay the full cost of treatment and admission, which is comparable to private hospitals in the city. Hospital stay is Tshs. 30,000/- (about 30 USD) per day, which caters for bed, three meals and nursing care. Separate payment is made for medication, doctors' consultation and surgical procedures in which payment is done using a point system. For example an operation like plating a femur costs approximately 600 US $. Specialists treat patients in the private wards only (Orthopaedic Surgeons and Neurosurgeons).

The outpatient clinics are run on a daily basis whereby public patients pay 1,000/- (about 1 USD) and private patients between 8,000/- and 10,000/- (8 – 10 USD) per consultation. Private patient can self-referral and choose their own specialists. They are also parallel supporting services – Physiotherapy and Orthopaedic Workshop offering services for public and private patients.

Table 1 and 2 show the number of patients seen at the outpatient clinics and admissions.

Table 1. No. Of patients seen at Outpatient Clinics

YEAR	PRIVATE PATIENTS	PUBLIC PATIENTS	TOTAL
1997	4146	8537	12683
1998	4023	9178	13201
1999	3099	10013	13112
2000	3922	10914	14836
2001	5027	10498	15525
Total	20217	49140	69357

Table 2. Number of patients admitted

YEAR	PRIVATE PATIENTS	PUBLIC PATIENTS	TOTAL
1997	240	4871	5111
1998	289	4931	5220
1999	327	5552	5879
2000	347	5802	6149
2001	334	5434	5768
Total	1537	26590	28127

The total number of patients seen at the outpatient clinics has progressively increased from 12,683 in 1996 to 15,525 an increase of 22.4%. The percentages of private patient to public patients have remained between 25 - 32 % for outpatients. However for inpatients private patients contribute only about 5% being only 1537 out of the 28127 attended during the 5-year period. Similarly the numbers of surgeries have increased mainly due to availability of consumables from 762 in 1997 to 1186 in 2001 by using the same theatre facilities.

Table 3. Income Generation in US $.

1 US $ = 1,000 Tshs. (approx.)

YEAR	PRIVATE PATIENTS	PUBLIC PATIENTS	TOTAL
1997	212,122	29,302	241,424
1998	252,739	42,518	295,257
1999	219,504	77,106	296,610
2000	221,983	94,856	316,639
2001	251,888	99,283	351,171
Total	1,158,037	343,065	1,501,102

Although only a small percentage of patients attended are private patients almost 80% of the amount generated during the 5-year period are from private patients.

Table 4. Total Institute income in US $.

YEAR	INSTITUTE	GOVERNMENT	TOTAL
1997	241,424	360,166	601,590
1998	295,557	467,473	762,730
1999	296,640	458,950	755,560
2000	316,639	644,232	960,871
2001	351,171	919,420	1,270,591
Total	1,501,102	2,850,241	4,351,343

1 US $ = 1,000 Tshs. (approx.)

Table 4 show that almost 35% of the total income of the Institute was generated from Institutes own sources mainly from charges of private patients.

Discussion

The private / public mix practice at Muhimbili Orthopaedic Institute is intended to generate alternative funds for the Institute and targets private patients who normally are treated in private hospitals. These patients are usually treated by Government specialists who moonlight in order to increase their income, the majority of private institutions in Africa and particularly in Tanzania investing little in Human Resource development or are unwilling to employ specialists on permanent basis. Most of these patients prefer to be attended in private institutions because of poor physical infrastructure including accommodation and consultation rooms and the perceived poor workers-patients relationship in public hospitals[8].

In order for public hospitals to compete successfully with private hospitals for these private patients a number of changes are required. First it is necessary that the physical infrastructure including accommodation be uplifted to acceptable levels preferably to levels compared to that of private hospitals. This was a prerequisite before Muhimbili Orthopaedic Institute was established. Secondly changes in the rigid working hours and long waiting periods had to be made by the Institute. These are some of the negative factors associated with public health institutions[8]. The Institute introduced shorter waiting periods and flexible working hours for private patients. Therefore private patients were allowed to choose their own specialists and also morning and evening private clinics were introduced. Last but not least it was important that a more sensitive health-worker-client altitude was built. This was done by organizing workers workshops for "change management" and also by workers visits to various institutions including private hospitals to learn about customer care. These measures have been successful and private patients are now comfortable being managed in the Institute.

One of the main advantages of private practice in public institutions is that funds realized can assist in bridging the gap between actual budget of health institutions and government funding. In the case of MOI, of the approximately Tshs. 1.5 billion (approximately US $ 1.5 million) realized in the 5 year duration, almost 77% were from private patient practice (table II). During this period the total institute income including government subvention was close to Tshs. 4.35 billion with private patients contributing more than 26% (table II & III). This is a substantial amount and could not have been realized if private practice was not introduced.

It is however important that equity is maintained when public institutions operate on private/public mix. The government is not aiming to turn its hospitals into private ones, which will then deny access to the poor marginalized segment of the population. Table I (a) show that private outpatients constitute about 30% of total outpatients seen. On the other hand admitted private patients, which is the main source of private funds constitute about 5% only of total admissions (table I b) and about 30% of the operated patients are private. Although it may be difficult to determine the optimum ratio of public/private mix, it is important that the correct balance is worked out in order to maintain equity. Similarly it is important that all patients both private and public are attended to by the same doctors and that the difference is only in the accommodation and not in the type of treatment.

The correct use of realized funds is another crucial factor. Under funding of our public health institutions affects all areas from low salaries to absence of working tools and dilapidated buildings. Funds from private patients although significant are not adequate to solve these major funding problems. Therefore it is important that these funds are used carefully. At the Institute funds are used to subsidize workers income, the treatment costs of public patients and the general running of the institute. Subsidy to the workers primarily targets the specialists, aimed to discourage them to continue practicing in private hospitals and therefore bring on board their private patients. Because of this specialists are paid 40% of the consultation and surgical fees. By doing this most of the specialists have now concentrated their private practice within the hospital. For the other workers their income is subsidized and presently the average income for each cadre is higher than their counterparts in other government hospitals.
The subsidy to cost-sharing patients has been used to carry out, minor rehabilitation of the wards, improvement in medicine availability and other supplies. This in turn has increased the number of patients being operated and also cleanliness of the wards.

Conclusion.

The 5 years experience at Muhimbili Orthopaedic Institute experience has shown that when private / public mix is carried out properly, it offers enormous advantages especially in bridging the gap between the actual budget of public institutions and what governments are capable of giving. However the following are necessary if the system has to success.

- Initial capital investment to uplift the physical infrastructure.
- A close balance between private and public mix to maintain equity.
- Change in altitude to the "client is always right" in order to attract private patients.
- A proper balance of remuneration for various cadres and other services.

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