DO BUDGETS REALLY MATTER?

EVIDENCE FROM PUBLIC SPENDING ON EDUCATION AND HEALTH IN UGANDA

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I. INTRODUCTION

According to the prevailing normative view of government, once the right policy or intervention has been found — be it for correcting market failures and externalities, crowding-in private investment, or achieving a more desirable distribution of income — the government is assumed to implement it as designed, and the desired effects will follow. Governments are viewed as benevolent single agents, behaving in the same way everywhere in the world, and policy-making is a technical problem rather than a political process that varies between countries (Dixit 1996).

The normative view of government has led to the general practice of measuring public expenditure, both capital and recurrent, by budgetary allocations when actual spending data are not readily available. Public expenditure reviews carried out by the World Bank are an example of this practice.

This paper argues that budgetary allocations can be quite misleading in explaining outcomes and making policy decisions in a weak institutional context, particularly in Africa. While there are new theories of multi-task and common agencies that can explain weak incentives within governments, this paper presents a detailed diagnosis of the problem in practice, using empirical evidence from Uganda. We argue that the Uganda case is representative of the problem in many poor countries, particularly in Sub-Saharan Africa.

The principal motivation for this study was the observation that since 1987 public spending on basic services had increased substantially in Uganda, albeit from a small base, while several officially reported outcome and output indicators remained stagnant. The most obvious disparity in outcome indicators was observed in primary school enrollments. Despite the fact that budgetary allocations for education increased over time, there was

hardly any increase in the officially reported enrollments in the 1990s.[1] Conditionality of the structural adjustment programs of the World Bank also supported increases in spending on basic services and contained provisions for the protection of budgetary releases for these services from within-year cuts in the event of inflationary pressures or shortfalls in revenue or aid flows.

Our hypothesis for the study was that actual service delivery (output) is much worse than budgetary allocations would imply because public funds (inputs) do not reach the intended facilities as expected, and hence outcomes cannot improve. Reasons for facilities not receiving the funds could range from competing priorities at various levels of government to misuse of public funds. To test this hypothesis, budgets and actual spending were compared in two selected sectors, primary education and health care. Although we do not attempt a comprehensive analysis of the determinants of public sector efficacy, the government's ability to translate budgetary allocations into actual spending at the facility level is a useful proxy for it. As adequate public accounts are not available in many African countries, including Uganda, a field survey of schools and clinics had to be carried out to collect actual spending data.[2]

The field survey confirmed the hypothesis that input flow suffers from serious problems which, to a large extent, have to do with governance and lack of accountability. But as documented in this paper, the survey also unearthed a host of other features of the service delivery system that were quite unexpected but nonetheless critical to the functioning of the health and education services and hence to any intervention in these sectors. First, instead of being stagnant as indicated by the officially reported figures, according to the school survey primary enrollments increased by 60 percent in 1991-95. Second, although the government's share increased over time, public primary education was mostly funded by parents who, on average, contributed as much as 74 percent of total

[1] In 1997 primary enrollment increased quite dramatically, following government's announcement of free universal primary education for four children per family.

[2] In order to shed light on actual spending, the government initiated in 1990 efforts aimed at developing and implementing a financial tracking system for primary education and health (Republic of Uganda, 1990, 1992). These efforts bore little or no fruit.

school spending in 1992 and 60 percent in 1995 (42 percent and 23 percent at the median school, respectively). Strikingly, parents' contributions continued to increase in real terms despite higher public spending. Third, we demonstrate that the behavior of public service facilities in different sectors can vary considerably even within one country, depending on the institutional context and incentives they face.

Survey work is typically limited to examining effects and impact of policies or interventions on households and firms, while inputs, such as flow of public funds, and outputs, such as primary enrollments, are left solely for official statistics or administrative records. As this study demonstrates, survey work can provide a useful reality check in circumstances where institutions operate sub-optimally, and official statistics are not an adequate guide for policy-makers.

There are strands of recent mostly theoretical literature that differentiate governments as providers of public goods. Svensson (1997), for example, finds that the control of public policy is less effective the higher society's polarization and degree of social conflict, resulting in higher public spending but a lower supply of public goods. Thus, it is important to separate the effects of public capital on welfare, from the effects of public spending on public capital. Pritchett (1996) argues that governments are different from the private sector in the extent to which they behave as profit-maximizing investors. If public investment is guided by motives other than profitability, the cost of cumulated public capital is likely to be higher than its value in terms of future returns. Therefore, using investment cost to measure public capital across countries may indeed be misleading.

A number of recent empirical papers also highlight the divergence between the actual and potential impact of public spending on health outcomes in developing countries. Filmer and Pritchett (1997) for example find that 95 percent of cross-national variation in child mortality can be explained by non-health policy related factors, such as per capita income, income distribution, female education, and a number of cultural factors, while the impact of public spending – typically measured by budget allocations – is very small and statistically insignificant.

The rest of the paper is divided into four sections. Section II briefly describes the field survey carried out in Uganda. Section III examines official data on primary enrollments over time, compares them with the facility survey data, and presents the main results of the field survey of primary schools with respect to actual public and private spending. Section IV explores service delivery and actual public spending in primary health care. Finally, Section V summarizes the findings of the study as well as the subsequent policy changes which were introduced to increase accountability and transparency in the Ugandan public service.

II. FIELD SURVEY

Ideally, the public accounting system should be able to provide timely information about actual spending on various budget items and programs. This is not often the case in many low income countries. As the revival of the accounting system has been slow in Uganda, it was necessary to embark upon a field survey to gauge the extent to which public resources actually filtered down to the intended facilities. A survey of 19 districts covering 250 government-aided primary schools and close to 100 health clinics was carried out in 1996, covering the period 1991-95.[3] Apart from school income and expenditure, the objective of the survey was to collect data on primary enrollments and health service delivery at the facility level over time.[4]

[3] At the time of the survey, there were about 8,500 'government-aided' primary schools, which were supposed to receive a large proportion of their funding from central and local government. The rest of the schools (1,500) were either profit or non-profit private or community schools.

[4] For the sample selection, the country was first divided into regions. In order to bring out regional differences more clearly, the traditional four regions (North, East, West and Central) were reconfigured into seven regions, namely: Northwest, North, Northeast, East, Central, Southwest and West. Kampala was treated as a separate region because it enjoys many advantages over the rest of the country. The 39 districts were then arrayed into three groups, based on the fiscal year in which a particular district first received a separate budget vote under the decentralization program that commenced in 1993. The objective was to pick one district per region in each successive phase of decentralization. In practice, only two districts were selected from the smaller regions. After some other minor adjustments, the following 19 districts were selected: Kampala; Arua, Moyo (Northwest); Apac, Gulu (North); Soroti,

Bearing in mind the budget constraint for the survey, the number of schools visited in each district was fixed in the range of 10-20. Among the districts selected, Bushenyi had the largest number of primary schools (399 in 1994), while Bundibugyo had the smallest number of schools (59). Specifically, in the districts with less than 100 government-aided schools the enumerators visited 10 schools. Where the number of schools was between 100 and 200, they visited around 15 schools, and in the districts with more than 200 schools, they visited 20 schools. The primary leaving examinations results, supplemented by information about school facilities, were used as criteria for the selection of schools within a district. Both good and poor performers in terms of examination results were included in the district sample, which was determined in consultation with the district education officer.

There are many more schools than health facilities in every district. Surprisingly, some districts (Kapchorwa and Kisoro) had no government health centers at all, while others had as many as ten. Of course, lack of government facilities could be compensated for by the availability of missionary, private or NGO facilities, which often benefit from government support. Five primarily government facilities were visited in each district, comprising two health centers, two dispensaries/maternal units and one aid-post, or some other combination of these facilities, decided in consultation with the district medical officer.

Enumerators who collected the data from schools and clinics were mainly former teachers and health workers resident in the districts. Standardized forms were used. In addition, interviewers made qualitative observations to supplement the quantitative data. Enumerators were trained and closely supervised by a local research team to ensure quality and uniformity of data collection and to assess the standard of record keeping in schools and clinics.

Moroto, Kapchorwa (Northeast); Jinja, Kamuli, Pallisa (East); Mukono, Mubende, Kiboga (Central); Bushenyi, Kabale (Southwest); and Kabarole, Hoima, Bundibugyo (West). Kiboga, which is a new district, had to be subsequently dropped due to limited data availability.

III. PRIMARY EDUCATION AND PUBLIC SPENDING

A. PRIMARY ENROLLMENTS

As mentioned above, the principal motivation for this study was the observation that primary enrollments did not seem to react to increased public spending in Uganda. The main source of data for primary enrollments is the annual school census carried out by the ministry of education. To obtain the necessary information the ministry sends out questionnaires to district education officers. The latter send them on to schools which return the questionnaires through the same channel. Field work by the census staff is minimal.[5]

Table 1: Official Enrollment Data from Government-Aided Primary Schools, 1987-97

Year	Schools	Teachers	Students, mill.
1987	7,627	72,970	2.31
1988	7,905	75,551	2.42
1989	7,684	81,418	2.53
1990	7,667	81,590	2.28
1991	8,046	78,259	2.54
1992	8,325	86,821	2.36
1993	8,430	91,905	2.67
1994	8,442	84,043	2.60
1995	8,531	n/a	2.64
1996	n/a	82,600	2.74
1997	10,000	98,700	5.30

Source: Ministry of Education.

Prior to introduction of free universal primary education in 1997, primary school enrollment in government schools, according to official data, was almost stagnant for ten years (Table 1).[6] Since the number of children of primary school age was increasing due to high population growth, it follows that net primary enrollment rates must have fallen during the period. The official data

[5] The 1992/93 integrated household survey recorded an average gross primary enrollment of slightly over 90 percent, while net enrollment (the proportion of children between 6 and 12 years of age enrolled in school) was 67 percent nationally. The net enrollment rate among the lowest expenditure quintile was only 46 percent, and 59 percent for the second lowest quintile, compared to 81 percent for the highest quintile. High drop-out and repetition rates were also common (World Bank 1996a, 1996c).

[6] The introduction of free education for four children per family in January 1997 brought a large increase in primary enrollment, rising to 5.3 million students. The latter figure is based on a nation-wide headcount in 1997. Most of the increase was in P1, revealing a high private demand for education. Both under- and over-aged children entered P1, producing an exceptionally large cohort (2.1 million children in 1997).

cannot, however, be easily verified without going to the school level because virtually no reliable educational statistics are kept by the district education officers. The well-developed record-keeping of the 1960s broke down in the political and military turmoil of the 1970s and early 1980s and has not yet recovered.

Quite unexpectedly, the school survey results were found to be in contrast with the

Table 2: Survey Enrollment Data 1991-95

Year	1991	1992	1993	1994	1995
Number of students	81,318	90,330	109,063	119,919	129,087
Annual growth rate (%)		11	21	10	8
Number of teachers	3,077	3,312	3,663	3,897	3,498
Annual growth rate (%)		8	11	6	-10
Student-teacher ratio	26:1	27:1	30:1	31:1	37:1

Source: School Survey

trend in the official enrollment figures (Table 2). Instead of being stagnant, there was an increase of 60 percent in primary enrollment in the sample schools between 1991 and 1995. The overall student-teacher ratio increased from 26:1 in 1991 to 37:1 in 1995. The survey results seem actually more plausible than the official figures, given the continuous improvement in the political and socio-economic environment and public finance since 1987. As the survey was based on a careful examination of individual school registers, it casts a serious doubt over the officially reported enrollment statistics, which appear to understate grossly the progress made in the 1990s.

It is very difficult to determine where in the delivery system the incentive to under-report was the highest. One can assume, for example, that at the school level it would have meant a smaller amount of tuition fees to be remitted to the district, while at the district level under-reporting would have resulted in lower disbursements of capitation grants to schools.

B. AVAILABILITY OF DATA ON PUBLIC SPENDING

The total budgetary allocation for recurrent expenditure on education increased almost three-fold in real terms during 1991-95 (Table 3).[7] Neither functional nor spatial disaggregation of education spending is easy, however. First, at the central government level, data were not available on salaries paid to primary school teachers either by district or by school in 1991-95. The only data available at the time of the survey were the aggregate salary payments, lumping together payments to teachers in primary, secondary and tertiary levels as well as to non-teaching staff. Needless to say that this made systematic comparison between budget allocations and actual spending at the school level impossible with respect to teachers' salaries. A factor that further complicated efforts to track salary spending was the fact that there were more teachers at the school level than on the central government payroll. Additional teachers were hired directly by schools and funded by parent-teacher associations (PTAs). The only systematic information available at the central government level on primary education was capitation grants for non-wage spending.

Table 3: Recurrent Allocation for Education in Fiscal Years (1991 Prices) U Sh (million)

1991	19,202
1992	30,002
1993	24,569
1994	32,258
1995	51,891
1996	49,027
1997	68,081

Source: Ministry of Finance

Second, our intention was to track public spending through the entire delivery system, that is, the central government, districts and schools. The field survey revealed that the district level records for both non-wage and wage spending are even worse than those at the central government level. The quality of available information both on transfers from the center and disbursements to schools was so poor — both prior to and

[7] The exchange rate of one US dollar ranged from 960 to 1200 Uganda Shillings during 1991-95.

after decentralization — that districts simply had to be excluded from the expenditure tracking exercise.

Strikingly, school records were found to be relatively comprehensive. Presumably parents, who prior to 1997 contributed substantially to school income, demanded financial information and accountability from the school. Therefore a comparison of budgetary allocations and actual spending could be made between the central government outlays for non-wage spending and the equivalent school income.

Donor assistance for primary education has come in two main ways. First, financing has been made available for textbooks and other scholastic materials.[8] Secondly, donors have provided substantial financing for school construction.[9] With the exception of one major donor-funded project, tracking of donor and NGO expenditures was difficult in the absence of any disaggregated data at the center.

C. ACTUAL SPENDING AT PRIMARY SCHOOLS

[8] During the survey period about one third of the primary schools benefited from IDA support to instructional and other materials. Data on the value of the books received by district and by school are, however, not available. Most schools surveyed for this study acknowledged receiving textbooks (confirmed by the school records) and, to a less extent, other materials. Under USAID support, from a list of textbooks with their prices, each school made a selection based on its share of project funds. The textbooks were delivered to the office of the district education officer from where each school collected its order. This delivery system has ensured that textbooks reach the schools. Both the headmasters and district authorities interviewed during the school survey acknowledged the efficiency of the system.

[9] The IDA Project to Alleviate Poverty and the Social Costs of Adjustment (PAPSCA) was directed at the rehabilitation and refurbishing over 2,300 primary schools in disadvantaged districts, but information on district-level expenditure is not available. PAPSCA is widely perceived to have achieved relatively poor results on the ground: materials went unused, buildings were left uncompleted and not enough effort was made to engender community participation. Another IDA project, the Northern Uganda Reconstruction Project, provided close to 900 classrooms in 1993-95.

The evidence presented in this section is based on data drawn from the field survey of 250 primary schools in 19 out of the 39 districts in Uganda. Table 4 presents a summary of the sources of income (in 1991 prices) for these schools, both cash and in-kind. During the period 1991-95 the central government's financial contribution to primary education consisted of three components. First, it paid salaries of primary school teachers which was by far the largest item. This is consistent with the general finding that public spending choices tend to favor teachers' salaries over and above their role in producing educational outputs (Pritchett and Filmer 1997). Second, government provided funding for capital expenditure which was limited almost entirely for rehabilitation rather than new construction.[10] Third, the capitation grant for non-wage expenditure is a payment per student enrolled and is viewed as a matching (50 percent) government contribution against the mandated tuition fees which had to be paid by parents. The

Table 4: Summary of School Income Data (1991 Prices)
U Sh (million)

	1991	**1992**	**1993**	**1994**	**1995**
Teachers' salary payments by GOU	213.9	214.7	381.3	748.6	914.6
Capitation grants received by schools	4.2	15.8	58.0	60.9	58.3
Other government funding	73.8	62.5	73.6	118.7	147.1
Total Government	**291.9**	**293.0**	**512.9**	**928.2**	**1120.0**
Tuition collected	55.4	96.8	116.6	136.2	141.3
o/w Tuition retained by schools	2.2	7.4	10.6	23.7	50.3
PTA levies	591.1	609.6	775.2	934.9	1032.7
Salary payments by PTAs	125.8	134.1	196.0	300.7	475.9
Total Parents	**772.3**	**840.5**	**1087.8**	**1371.8**	**1649.9**

Source: School Survey

[10] In fact, since the 1970s the central Government has virtually abandoned its responsibility for classroom construction. In principle, the provision of classrooms became the responsibility of local governments. As the local government tax base needed to support school construction is very underdeveloped, local governments in turn passed the responsibility for classroom construction on to parents. To shoulder this and other school-related financial obligations, parent-teacher associations (PTAs) increasingly resorted to PTA levies. In addition, central government is responsible for counterpart funding which is the government's share of the cost of donor-financed development projects. It also incurs expenditure on teacher training, examinations and school inspection which have a separate allocation.

capitation grant is intended to be used to defray a portion of the costs of textbooks and other learning materials as well as general running costs of schools.

Leaving donor assistance aside, the survey confirmed that the main sources of income for government-aided primary schools were parent-teacher association (PTA) levies collected from parents by the school, central government transfers and PTA contributions for teachers' salaries, government funding for capital expenditures and capitation grants, and retained tuition fees in this order of importance. PTA funds are under the full control of the schools, and the PTA executive committee oversees the utilization of the funds. Being dependent on the ability of parents to pay, the level of PTA levies varies widely across districts as will be demonstrated below.

Government's total contribution reaching the schools almost quadrupled between 1991 and 1995 in real terms, albeit from a negligible base. This is proportionately more than the overall increase in education spending. Despite an increase in government spending, parents' spending doubled during the same period. In per-student terms, parents' average contribution increased by 35 percent in real terms between 1991 and 1995, while the average government contribution more than doubled (Table 5).

Table 5: Average Parental and Government Contribution To School Income per Student (1991 Prices) U Sh

	Parents				Government			
Year	**Tuition Fees Collected**	**PTA Levies**	**PTA Salaries**	**Total**	**Capitation Grant**	**Salaries**	**Other**	**Total**
1991	682	7,269	1,547	9,498	52	2,630	908	3,590
1992	1,072	6,749	1,484	9,305	175	2,377	692	3,244
1993	1,069	7,108	1,797	9,974	532	3,496	675	4,703
1994	1,136	7,796	2,507	11,439	507	6,243	990	7,740
1995	1,094	8,000	3,687	12,781	452	7,085	1,136	8,673

Source: School Survey

Table 6 shows total expenditure by parents and government at the median school during 1991-95. We can see from the table that parents' expenditure at the school level has a highly asymmetric distribution so that the median is only a fraction of the mean in every year. Hence, the medians are a better measure of the general tendency in parents' expenditure than the means. The distribution of government spending is much less asymmetric, although the medians are lower than the means. At the median, parents' expenditure per student doubled during 1991-95, while the increase in government spending was almost five-fold during the same period.

Table 6: Median Parental and Government Contribution to School Income per Student (1991 Prices)
U Sh

Year	Parents	Government
1991	1,173	1,639
1992	1,631	2,215
1993	1,792	4,179
1994	2,209	4,467
1995	2,291	7,729

Source: School survey

Table 7 shows the proportion of school income that came from parents and government during the period 1991-95. Although declining in importance over the survey period, parental contributions were clearly the mainstay of the system of financing primary education in government-aided schools. In 1991-92 parental contributions accounted for over 70 percent of school income on average; by 1995 the share had declined to 60 percent. For the median school government funding was much more important, ranging from 58 percent in 1991-92 to 77 percent in 1995.

Table 7: Parental and Government Contribution to School Income
Percent

Year	Parents		Government	
	Mean	**Median**	**Mean**	**Median**
1991	73	42	27	58
1992	74	42	26	58
1993	68	30	32	70
1994	60	33	40	67
1995	60	23	40	77

Source: School Survey

In the absence of an adequate breakdown of the salary data at the central government level, one of the key questions this study sought to answer is how much of the non-wage expenditure, i.e. capitation grants, made available by the central government actually reach the schools. The government stated policy was to disburse the grant in full to the schools either in cash or in-kind, using the district education officer as the channel.

The capitation grant was set in 1991 at the nominal rate of U Sh 2,500 per child enrolled in P1–P4 and U Sh 4,000 per child enrolled in P5–P7. These nominal rates remained the same until 1997. There is no doubt that the nominal rates fixed in 1991 grossly underestimated the true cost of providing scholastic materials and maintaining the physical facilities. Although moderate since 1993, inflation has eroded the real value of the grant. Thus, one can conclude that the real increase in total recurrent expenditure over time (Table 3) was not at all reflected in non-wage spending on primary education. To compensate for the inadequacy of the central government provision for non-wage (and wage) expenses, school administrators resorted to PTA levies.

Table 8 presents data showing the amount of capitation grant which was supposed to be disbursed by the central government, and the average amount received by the schools (in 1991 prices).[11] While the central government contribution in real terms was at its highest in 1991, the schools received on average practically nothing (two percent) of this grant. But even if 1991 and 1992 are viewed as extreme cases, the figures for 1993-95, although better, are still shockingly low. For the three-year period, the schools received at best 28 percent of the capitation grant on average. The median was zero every year, which indicates a highly asymmetric distribution.

[11] The average capitation grant is based on the assumption that 70 percent of students were in P1-P4 and 30 percent in P5-P7.

Interviews during the school survey confirmed that the bulk of the grant was retained by the local government authorities. Districts seem to have disbursed the grant on the basis of the number of students who had paid tuition. The funds intended for children who have enrolled but not paid tuition fees were typically retained by the urban or district councils. This practice was bound to hurt poorer communities the most because it is in these communities that parents are more likely to default on the payment of tuition fees.

Table 8: Average Capitation Grant per Student (1991 Prices)
U Sh

Year	Intended Grant Amount	Schools Actually Received					
		Mean		Min.	Median	Max.	
			%				%
1991	3,100	52	(2)	0	0	792	(26)
1992	1,966	175	(9)	0	0	918	(47)
1993	1,869	532	(28)	0	0	1,254	(67)
1994	1,850	507	(27)	0	0	1,274	(69)
1995	1,737	452	(26)	0	0	979	(56)

Source: School Survey

Some local governments reported that the discrepancy was used to cover expenses of the district education officer (DEO). In some districts the funds retained by the local authorities were spent for purposes unrelated to education. In addition, part of the intended grant must have remained at the center as the government budgeted and disbursed the grant on the basis of the 1991 enrollment figures. As enrollment increased overtime, the grant per student actually disbursed to the schools must have fallen.

During the survey period, parental contributions towards financing primary education consisted of (i) tuition fees at the nominal rate of U Sh 2,500 per child in P1–P4 and U Sh 4,000 per child in P5–P7, that is, to match the capitation grant paid by the government; (ii) PTA levies which vary from district to district and from school to school; and (iii) contributions to teachers' salaries. Tuition fees collected by the schools were not remitted to the central government. Rather, they were left to each DEO to determine how the funds raised should be redistributed amongst the schools. In some districts the schools were allowed to retain a certain percentage or a fixed amount of the tuition fee collected

per student, with the balance transferred to the DEO. In other districts all the tuition fees collected was remitted to the DEO; subsequent disbursements to schools, either in cash or in-kind, may or may not have taken place. Collection efficiency of tuition fees was very low in 1991 but improved since 1992 (Table 9).

In 1991 schools received on average four percent of the tuition collected. By 1995 the situation had improved considerably, but still only 36 percent of the average tuition fees was retained by schools. Hence, as shown in Table 9, local government authorities not only retained the bulk of the capitation grant, but also kept a large portion of the tuition fees paid by parents. Variation between districts was also substantial.

Table 9: Average Tuition per Student (1991 Prices)
U Sh

Year	Tuition Fees Collected Mean	Tuition Fees Retained by Schools Mean		Min.	Median	Max.	
			%				%
1991	682	27	(4)	0	0	256	(38)
1992	1,072	82	(8)	0	0	395	(37)
1993	1,069	97	(9)	0	0	398	(37)
1994	1,136	197	(17)	0	0	605	(53)
1995	1,094	390	(36)	0	0	546	(50)

Source: School Survey

Despite anecdotal evidence that teachers' salary payments suffer from delays and other problems in the flow of funds, interviews carried out during the survey indicate that government salary payments, by and large, reached the schools relatively well.[12] Although it was not possible to track salaries through the system in the absence of annual disaggregated data at the center, the school survey provides other useful information, however. First, it shows that teachers derived salaries from three sources: government, PTA, and others, such as NGOs (Table 10). In 1991 and 1992 close to one-half of teachers' pay came from other sources than government. From 1993 onwards the

[12] The only systematic way of misappropriating funds were 'ghosts' on the payroll. A total of 15,000 'ghosts' teachers were removed from the payroll in 1993.

government contribution started to rise significantly, thanks to a presidential directive which called for special treatment of teachers in the award of annual salary increases. In reflection of this policy, the government contribution to teachers' pay reached a high of 66 percent in 1994. Hence, one can conclude that increased budgetary allocations showed up in higher salary payments at the school level, but this information alone is not adequate to determine the extent to which budgetary allocations were translated to actual spending at the school level.

Table 10: Contributions to Teachers' Salaries (1991 prices)
U Sh (million)

Year	GOU	%	PTA	%	Other	%	Total	%
1991	213.9	51	125.8	30	79.7	19	419.4	100
1992	214.7	52	134.1	33	61.5	15	410.3	100
1993	381.3	59	196.0	30	72.4	11	649.7	100
1994	748.6	66	300.7	26	86.7	8	1,136.0	100
1995	914.6	61	475.9	32	104.7	7	1,495.3	100

Source: School Survey

Parental contributions have fluctuated from one quarter to one third of the total wage bill during the survey period. It is interesting to note that the share of total PTA contribution that was used for teachers' salaries increased from 16 percent in 1991 to 29 percent in 1995, despite the quadrupling of government spending on salaries.

Total spending on instructional materials and other non-wage items by schools increased only by 20 percent in real terms between 1991 and 1995, while the equivalent spending on salaries (government and parents combined) tripled during the same period.

Not only were public spending choices favoring teachers' salaries over non-wage spending but teachers may have exerted disproportionate influence over PTAs as well.[13]

The salary payments per teacher, on average, more than tripled in real terms between 1991 and 1995. However, it is important to recognize that the starting point was extremely low (U Sh 11,360 or around US$12 per month in 1991). It was less than one quarter of what the civil service reform program considered a minimum 'living wage' at the time. Interviews for the school survey confirmed that absenteeism was a serious problem as teachers had to make a living outside their profession. Although the targeted 'living wage' was not yet attained by 1995, the situation had improved considerably from the teachers' point of view.

While it is obvious from the data that teachers' salaries were given priority over instructional materials and other non-wage items, one can argue that a major pay increase was warranted in the Ugandan circumstances in order to reduce absenteeism and to restore the quality of teaching. There is evidence that this strategy actually worked to an extent, given the survey finding that enrollment increased by 60 percent during the period. At the same time one can argue that a more balanced spending pattern between salaries on instructional and other materials could have produced an even better result.

D. REGIONAL DIFFERENCES

As national averages conceal regional variations, it is useful to explore actual spending in the sub-regions included in the survey. First, Table 11 shows government expenditures per student that reached the schools by sub-region (in 1991 prices). The western region appears to have the lowest per student spending at the school level. This could be explained by worse inefficiency in the transfer system between the center and the schools than in other sub-regions. As schools are not larger in the West than elsewhere, a lower unit cost is not likely to result from a higher student-teacher ratio, and hence, a

[13] To some extent, donor funds compensated for slow growth in non-wage spending, but the coverage of schools was limited.

lower wage bill.[14] The opposite may be true in the North and Northeast where classes are smaller and the per-student expenditure is therefore higher.

Table 11: Average Government Contribution per Student Reaching Schools by Sub-Region (1991 Prices)
U Sh

Year	Northwest	North	Northeast	East	Central	Kampala	Southwest	West
1991	1,623	4,866	2,599	3,546	5,878	1,067	5,718	1,958
1992	1,772	3,972	2,781	3,315	4,220	2,348	4,392	2,488
1993	3,964	4,664	5,138	4,516	6,122	3,535	6,285	3,307
1994	7,384	7,526	8,405	8,048	10,120	6,438	7,962	6,235
1995	12,811	8,151	7,748	8,179	10,318	8,636	7,300	5,977

Source: School Survey

To explore regional differences in efficiency further, a good proxy is the capitation grant as this grant was supposed to be the same amount per student across the country. Table 12 shows the share of the capitation grant spent on the intended purpose by sub-region. It appears that the North suffered from the worst inefficiency. It is also one of the poorest regions in Uganda, measured by household expenditure. If we assume that the poor performance of the North is due to the continued military disturbance, and hence unavoidable, then the least efficient sub-regions are the East, the Southwest and the West. It is interesting to note that the East, which is a relatively poor region in Uganda, suffers from major inefficiencies, while the equally poor Northeast and Northwest are among the more efficient regions.

[14] This appears to be the case in Kampala, however, where the share of public funding is the smallest and classes are large.

Table 12: Average Capitation Grant per Student Reaching the Schools by Sub-Region (1991 Prices) Percent of Intended Grant

Year	Northwest	North	Northeast	East	Central	Southwest	West
1991	2	0	1	5	4	0	0
1992	13	0	13	5	16	11	12
1993	51	13	61	19	26	19	31
1994	33	10	45	22	51	31	25
1995	24	12	61	21	40	22	22

Source: School Survey

Note: Kampala data are not comparable and hence omitted here.

Parents' expenditures per student have a much larger spatial spread than public spending (Table 13). The level of private spending is the highest in the better-off central region and Kampala, while the three poor northern sub-regions and the West have extremely low spending levels per student.

Table 13: Average Parents' Contribution per Student by Sub-Region (1991 Prices) U Sh

Year	Northwest	North	Northeast	East	Central	Kampala	Southwest	West
1991	1,345	1,048	839	6,932	27,545	49,084	3,064	1,480
1992	976	991	1,195	4,709	20,134	65,829	3,436	1,559
1993	1,107	1,763	1,175	5,500	22,176	46,170	4,440	1,988
1994	1,880	2,074	1,070	7,196	27,576	41,792	6,053	2,189
1995	2,034	2,277	999	8,522	31,568	37,286	6,520	1,795

Source: School Survey

Finally, Table 14 shows private and public spending on primary schooling per student in 1994 by district (current prices). Public spending at the facility level varies a great deal, from U Sh 21,045 per student in Moroto to U Sh 6,073 in Kabarole. The (Spearman rank) correlation coefficient between public spending on primary schools and poverty measured by household expenditure is -0.228. Poorer districts seem to benefit from a somewhat higher level of public spending per student available to the schools.

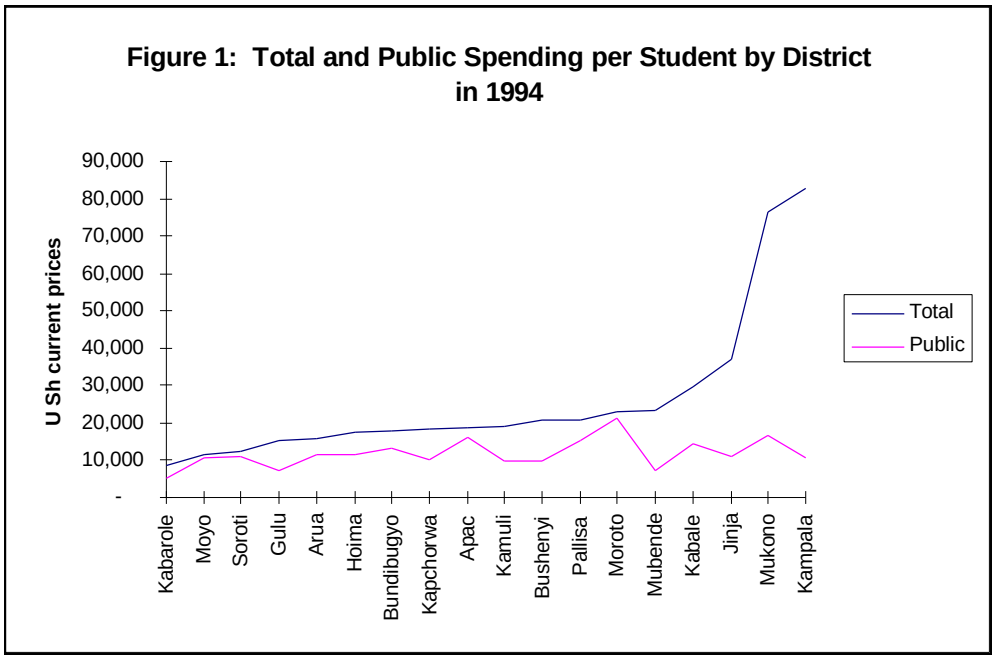
Table 14: Public and Private Spending per Student by District in 1994 (Current Prices)
U Sh

District	GOU	Parents	Total
Apac	16,788	1,871	18,659
Arua	12,220	3,568	15,789
Bundibugyo	14,248	3,355	17,603
Bushenyi	11,718	7,544	19,262
Gulu	7,256	5,537	12,793
Hoima	11,982	4,953	16,936
Jinja	11,647	25,189	36,836
Kabale	14,656	12,242	26,898
Kabarole	6,073	2,266	8,339
Kampala	10,790	70,044	80,834
Kamuli	10,533	9,163	19,696
Kapchorwa	13,278	4,406	17,684
Moroto	21,045	1,032	22,077
Moyo	12,972	1,541	14,514
Mubende	8,863	37,817	46,680
Mukono	18,054	47,352	65,406
Pallisa	15,935	4,433	20,368
Soroti	11,996	533	12,529
Mean	12,781	13,491	26,272
Median	12,108	4,693	18,961
Maximum	21,045	70,044	80,834
Minimum	6,073	533	8,339
Std deviation	3,694	19,339	19,427

Source: School Survey

However, this may also reflect a lower student-teacher ratio as households can afford to send fewer children to school in those districts. Again, spending by parents varies much more than public spending by district, from U Sh 70,044 per student in Kampala to only U Sh 533 in Soroti. Note that the median of private spending by district is only a third of the mean. There is a fairly strong positive correlation (0.56) between household expenditure and private spending on primary education.

Figure 1 depicts the 1994 total and government spending per student by district, sorted by total spending from the lowest (Kabarole) to the highest (Kampala). It confirms that actual public spending is only modestly progressive as indicated by the correlation coefficient.



Source: School Survey

E. IMPACT OF DECENTRALIZATION

Prior to fiscal decentralization, which was implemented gradually, starting mid-1993, with the bulk of public funds coming from the central government, the ministry of education played a major role in primary education as it controlled nearly all the recurrent budget allocations for the sector. The district administrations were, however, used to channel these funds to schools even before decentralization. Following decentralization district authorities and the district and urban councils gradually gained control of the funds provided by the central government for primary education. It is estimated that in 1996 the ministry controlled only about one quarter of the total recurrent spending on primary education.

As before, the capitation grant is a good proxy to explore the impact of decentralization on the flow of public funds to schools, as it was supposed to be the same amount per student throughout the study period in all districts. Table 15 shows the average capitation grant (in 1991 prices) per student by the three phases of decentralization; the districts decentralized in mid-1993 are pooled into Phase 1, those decentralized in mid-1994 into Phase 2 and the ones decentralized in mid-1995 into Phase 3. Although it is too early to draw any definite conclusions, decentralization appears to have brought a slight deterioration in the flow of funds to schools at least in the short term.

Table 15: Average Capitation Grant per Student Reaching Schools by Decentralization Phase (1991 Prices)
U Sh

Year	Phase 1	Phase 2	Phase 3
	(%)	**(%)**	**(%)**
1991	14 (0)	43 (1)	152 (5)
1992	120 (6)	132 (7)	389 (20)
1993	<u>504</u> (27)	329 (18)	1,005 (54)
1994	399 (22)	<u>527</u> (28)	711 (38)
1995	311 (18)	436 (25)	<u>833</u> (48)

Source: School Survey Data.
Note: The school year during which fiscal decentralization took place is underlined.

III. PRIMARY HEALTH CARE AND PUBLIC SPENDING

A. HEALTH SERVICES

Unlike primary education, there is very little official data on service delivery in health care. Similarly, the field survey found no systematic facility level information on outputs, such as the number of in- or out-patients. One explanation for such a marked difference in facility-level behavior between the two sectors could be that the parent-teacher associations (PTAs) who financed most of the school level expenditure in 1991-95, demanded record keeping and accountability, while in health clinics there was no such pressure from users. A long term relationship between providers and beneficiaries that characterizes primary education in contrast to health care, where the relationship is typically short and more *ad hoc,* clearly favors better organization on the demand side. The supply side (schools) has to take this into account and cannot treat parents as individuals as clinics typically do.

The private sector is a major player in health care in Uganda. Since 1987 the number of private and NGO-operated facilities has increased rapidly, while there has been virtually no change in the number of government facilities. Health centers and other facilities are very unevenly distributed across the country.[15]

A pilot service delivery survey, which was carried out in 1996, found that about a quarter of households used government health services in the previous month prior to the survey, but nearly a third used some other health service during the same time (World Bank, 1996b). Most households reported some problems when they contact government health services, although they do not seem excessive. Only one sub-dispensary reported

[15] The health status of the Ugandan population is poor by any standard. Life expectancy at birth for the average Ugandan was just 43 years in 1995. This is in large part due to the AIDS epidemic and to high infant mortality. The latter was estimated at 122 deaths per 1,000 in the 1980s. According to the most recent demographic and health survey, infant mortality had fallen to 97 by 1995. Based on a cross section of 61 developing countries, Uganda's health outcomes are worse than one would predict given its level of overall GNP. An infant mortality rate of only 71 would be predicted for Uganda given its per capita GNP in 1994 (Demery and Dorabawila, 1997).

not raising user charges. Overall, two thirds of households are willing to pay for improved health services, with a mean payment of U Sh 725 (median U Sh 502) for a clinic visit. When asked to rate the government health service in their area, 38 percent thought it was good, 30 percent neither good nor bad and 22 percent bad. Main problems identified with the service were lack of drugs and poor access to facilities. People resented having to pay for poor service with no drugs available. A health worker was available in 96 percent of visits, while drugs available in 80 percent. Eight percent had to wait for longer than three hours.

B. AVAILABILITY OF DATA ON HEALTH SPENDING

The most reliable health spending figures are available for 1992/93. Public spending was only US$4.38 per capita (including donor assistance), while private spending was US$5.36. Although the level of health spending is very low in Uganda, this study attempts to go beyond it and examines a particular aspect of public sector efficacy, that is, the flow of funds from the center to service facilities. Poor efficacy obviously magnifies the negative impact of low level of spending on health outcomes.

Recurrent budgetary allocations for health increased two and half fold between 1991 and 1995 (Table 16). However, the bulk of public expenditure on primary health care is financed by donors. The most accurate disaggregated data are available for fiscal year 1992/93: donors financed 77 percent of health spending, while the government's share was only 23 percent (World Bank, 1996c). In the case of hospitals, the situation was reversed: 36 percent were funded by donors and 64 percent by government. Donor support has come mainly in the form of drugs, equipment,

Table 16: Recurrent Budgetary Allocations for Health (1991 Prices) U Sh (million)

1991	6,381
1992	9,109
1993	8,863
1994	14,429
1995	16,819
1996	16,470
1997	19,925

Source: Ministry of Finance
Note: In fiscal years

rehabilitation of facilities, and construction of new facilities. Many donors also fund staff salaries, allowances and training.

As public resources dwindled from the mid-1970s, government health facilities at all levels increasingly resorted to a host of informal charges; that is, charges for drugs, meals, consultation, treatment and operations. Attempts were made in 1989 to formulate a national policy on user fees for public health services but these efforts were soon abandoned. In principle, districts are free to set user fees for their health services. In practice the imposition of charges is left to each facility. The ministry of health has issued them fee-for-service guidelines. According to these guidelines, up to 50 percent of fees collected may be spent on staff incentives, up to 25 percent on drugs and supplies and the rest on maintenance, supervision and outreach.

As discussed above, information provided by the public sector on both financial flows and service delivery is much worse in health than in education. At the central government level, public funds for non-wage spending in health facilities have been transferred to a large extent in the form of drugs and other supplies. Some data are available on these transfers but their monetary values are typically not indicated. With decentralization, non-wage recurrent expenditure on primary health care became part of the block grant but drugs and other supplies funded largely by donors continue to be delivered from the center. The central government's main responsibilities are the salaries of health workers. The majority of primary health care workers are central government staff seconded to local authorities; direct hiring by the local authorities is limited. Despite decentralization, this continues to be the case. As in education, data on staff salaries were not disaggregated either by district or health facility for 1991-95.

As in primary education, the public primary health care delivery system — comprising health centers, dispensaries, sub-dispensaries, maternity units and aid posts — is managed by the local governments. Since decentralization, the provision of primary health care rests with the district and urban councils but because of their weak revenue base, few districts allocate locally generated resources to the service. Consequently, they

rely almost entirely upon grant transfers from the central government and donor assistance. At the district level, locally recruited health workers are paid out of the district's own resources, but this information is patchy. Similarly, donor funding cannot be disaggregated either by district or by facility.

The lack of almost any financial information at the facility level and the heavy reliance on in-kind measures were not fully anticipated at design and pilot stage of the survey. As the data gathering proceeded, any hope of systematic tracking expenditure on the basis of data from primary health facilities slowly faded. While much of the resources received by health units were in kind, their values were not indicated and hence not easy to compute, except perhaps for drugs. Similarly, health units maintain inventories of equipment with no values or dates of receipts indicated.

Although user fees are collected and retained at the health facility level, records on their utilization were either not available or where available they were patchy. Unlike in primary education where school income and expenditures can be related to pupils enrolled, records on patients are extremely poor and unreliable.

C. QUALITATIVE SURVEY RESULTS

Despite the fact that the enumerators found little or no reliable quantitative financial information at the health facilities they visited, they provided the following qualitative observations:

- Drugs are the main non-wage recurrent input into the primary health care delivery system. They are supplied directly to the health units on a quarterly basis from the center. The current delivery system from the National Medical Stores ensures that the drugs reach the health units with little or no leakage.

- There is little compliance in the clinics to user fee guidelines provided by the ministry of health.

- Salaries for the seconded staff seem to reach the intended facilities relatively well, although remuneration of health workers is low, resulting in unethical conduct adversely affecting delivery of and access to primary health care. The fact that local recruited staff has a poorer and less regular remuneration causes additional problems at the facility level.

- Health workers devote very little time to the activities of health units.

- There is high rate of attrition among health workers.

- Rural health units cannot attract qualified health workers.

While our survey found that in-kind inputs into the health care system provided by donors and government, by and large, reach the intended facilities, another study carried out around the same time sheds more light on other problems regarding efficacy of services at the facility level (Asiimwe *et al.*, 1997). Twelve health units in two districts (Bushenyi and Iganga) were subjected to an in-depth study including questionnaires, focus groups and direct observation, to highlight the existing socio-economic survival strategies of health workers and their implications for formal health financing policy (Table 17).

One of the findings was that health workers in all but two facilities routinely charge users beyond the formally agreed levels, and drug supply by donors or government is routinely used as a source of additional income. Table 18 shows that the leakage estimate ranges from 40 to 94 percent of the public supply of drugs to the facilities. Asiimwe *et al.* summarize the findings of their study:

> "The situation described by the preceding results can be summarized as the absence of a public health system. Almost all elements of the system which were once public have been incorporated into the private business activity of the health workers. Drugs which are supplied to public health units become the private property of health workers who resell them in their own private premises ranging in character from

their homes to established medical clinics. Public health facility premises have become the sites on which private transactions for health service delivery are conducted. In the large urban district hospital studied the privatization is more developed and explicit... The result is that very few free services are delivered in the public health facilities, and almost none at all are delivered to the poor."

V. SUMMARY AND CONCLUSIONS

This study was inspired by the observation that officially reported primary enrollments did not improve in Uganda, despite substantial increases in budgetary allocations for education. The objective was to measure the actual public spending that reached the intended facilities and to proxy public sector efficacy by a simple indicator, the ability of the public sector to translate budgetary allocations into actual spending on the intended purpose. In addition to primary schools, health clinics were included. As in many other African countries, accounting and reporting systems function poorly in Uganda and seem difficult to improve. Hence, there is little information on actual spending or outputs of the service delivery system. A survey of 250 primary schools and about 100 health clinics was therefore carried out in 19 districts to canvas the existing situation in terms of actual funding made available to service facilities.

The field survey provided three major findings. First, the good news is that, instead of being almost stagnant, as indicated by the official data, according to the school survey primary enrollment increased by 60 percent between 1991 and 1995. Hence, the school survey casts a serious doubt over reliability of the officially reported data on outputs. One can think of numerous reasons and incentives to under- or over-report at various levels of the service delivery system. Nonetheless, such a large discrepancy between the official data and the survey is simply stunning. Assuming that the school-level information is more accurate, from the educational point of view the findings provide a much better picture of outcomes than expected in the beginning of the study. This is also quite plausible, given the improvement in political and socio-economic conditions which allowed parents to send more children to school, reinforced by an increase in the central government's actual contribution to teachers' salaries.

The second finding is that budget allocations may not matter when institutions or their popular control are weak. Therefore, despite a paucity of data on what public funds

are actually used for, public expenditure analysts must find other ways to go beyond them. For example, given that the capitation grant per student was fixed in nominal terms in 1991, the central government allocation for non-salary spending in primary schools fell in real terms during the survey period, despite an increase in the overall education budget. The survey confirmed that at best less than 30 percent of the intended non-salary public spending reached the schools in 1991-95. The bulk of the capitation grant was retained and used by the district authorities. Part of the discrepancy must have resulted from an increase in enrollments which was not taken into account when the total amount of the grant was calculated. Similarly, at best only about one third of the compulsory tuition fees paid by parents was retained by schools, while the rest was remitted to district education officers.

In spite of anecdotal evidence that teachers salaries (the main item in the government education budget) also suffer from inefficiencies in the flow of funds, interviews confirmed that salary payments, by and large, reached the schools. However, it was not possible to establish how much of the annual allocation is actually spent in primary schools, as disaggregated salary data at the central government level were not available. The survey shows that the average government contribution to teachers' salaries increased from 51 percent in 1991 to 66 percent in 1994 and 61 percent in 1995, an indication that at least part of the increase in budgetary allocations did filter down through the system.

Total spending on instructional materials and other non-wage items by schools (government and parents combined) increased only by 20 percent in real terms between 1991 and 1995, while the equivalent spending on salaries tripled during the same period. Not only were public spending choices favoring teachers' salaries over non-wage spending but teachers seem to have exerted disproportionate influence over the PTAs as well. Although a major pay increase was warranted, given the extremely low level of teachers' salaries in 1991, one can argue that a more balanced spending pattern could have produced a better educational outcome.

In health care drugs and medical supplies are transferred in-kind without records of their values, hence making it impossible to generate quantitative information about public funding reaching the facilities. Qualitative observation during the field survey, by and large, confirmed that drugs and other supplies reach the health units which receive them directly from the center. However, another study by Asiimwe *et al.* (1997) suggests that, unlike in education, the leakage actually takes place at the health unit level where the staff uses, on average, 70 percent of the drugs and supplies for their personal gain in order to compensate their extremely low pay. It is important to note, however, that an abrupt change in the current delivery system could make it even worse. More gradual improvements should focus on incentives and a change in the ethical conduct of service providers. Both are likely to take a long time, however.

The third key finding is that the behavior of public service facilities or providers can vary considerably between sectors even within one country, depending on the institutional context and incentives they face. For example, primary schools were found to keep relatively good records on enrollments and financial flows, while in health clinics there was an almost complete void of information both on outputs, such as in- and out-patients, or financial information, such as user fees and cash and in-kind transfers of public resources. The reason for such a marked difference could be the fact that in primary education parents have for a long time been the principal financiers of not only the private schools but also the public system. Parent-teacher associations, which contributed as much as 73 percent in 1991 and 60 percent in 1995 of the total school expenditure, on average, are likely to insist on accountability and exert pressure on the schools to provide services in return for their contributions. However, parents did not seem to have much control over public spending which was dominated by central and local governments. Users of public health clinics are not organized in the same way and hence not able to exert pressure on them. They will often opt for private services, provided they can afford them.

Despite low efficiency of the Ugandan public sector in channeling public funds to primary schools, health care and hence to the ultimate beneficiaries, as revealed by this

study, there is some good news. Following the dissemination of the findings of the study in Uganda, government has taken a number of immediate steps to improve its performance by increasing the information flow within the system:

- Monthly transfers of public funds for wage and non-wage expenditure to districts are now regularly published in the main newspapers and broadcast by radio;

- Publication of disbursements of donor funds by district and schools in local newspapers;

- Districts are requested to pay the recently introduced conditional grant for primary education on individual school accounts. The central government's, donors' and NGOs' monitoring effort has increased substantially;

- School based procurement has replaced the highly inefficient central supply of construction and other materials;

- Measures to enhance accountability and dissemination of accounting information were incorporated in the 1997 Local government Act. The previous statute had no such provisions; and

- A renewed effort is underway to put in place basic accounting systems for the public sector, including districts.

These efforts are encouraging as we believe that the public sector continues to have an important role in Uganda's development efforts. But there is no doubt that, even within the confines of the fundamental political processes in Uganda, its public sector needs to improve its performance in a major way to fulfill this role — and to make budgets matter.

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Table 17: Main Health Related Survival Strategies at Facility Level

Facility	1	2	3	4	5	6	7	8	9	10	11	12
Informal Charges	x	x	x	x	x		x	x	x	x	x	
Mismanagement of user charges	x		x	x	x	?		x	x			
Mismanagement of drug supply	x	x	x	x	x	x	x	x		x		x
Ownership of clinics, drug shops	x	x	x	x		x						x
Home Treatment				x	x	x	x	x	x	x	x	
Part-time work in clinics			x	x		x	x				x	x
Training nursing aides		x										

Source: Asiimwe, et al. (1997)

Table 18: Drug Leakage Estimate
Percent of Total

Facility	1	2	3	4	5	6	7	8	9	10	11	12
Ghost Patients	13	0	22	0	29	-	80	57	64	0	0	0
Prescribed out-patient drugs received (poll)	95	73	73	68	67	-	90	54	54	72	69	38
Prescribed in-patient drugs received (inpatient audit)	-	84	-	62	71	-	?	-	75	-	80	26
Drugs issued from stocks accounted for by number of prescriptions (median)	40	76	53	40	35	16	36	29	40	40	100	68
Working leakage estimate	**67**	**40**	**70**	**74**	**83**	**84**	**94**	**93**	**91**	**72**	**?**	**78**

Source: Asiimwe et al. (1997)

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