

D. Expenditures on HIV/AIDS in the state of São Paulo, Brazil

by Roberto Iunes, Antonio C.C. Campino, Jeffrey Prottas, and Donald S. Shepard

Section One: Introduction and background

São Paulo is the richest and most populous state in Brazil. About one-fifth (33 million) of the country's population of 155.8 million reside in São Paulo state. Its per capita gross domestic product (GDP) (US\$7,574) is 72 per cent higher than the national GDP per capita (US\$4,393). Thus, more than one-third (36.6 per cent) of Brazil's GDP originates from the state (IBGE, various issues; FGV, various issues; World Bank 1997). It has also accounted for more than half of all of the reported AIDS cases to date in Brazil.

This study estimates total public and private expenditures on AIDS treatment and prevention in São Paulo state, by the source of financing and the type of programme. The first section provides background on the AIDS epidemic and the Brazilian health care system. The second section explains the methodology and results for estimates of individual components of AIDS expenditure in São Paulo state. In the third and final section we compare the level of public subsidy for AIDS with that for all health programmes.

1.1 The AIDS epidemic in Brazil

Between 1980, when the first AIDS case was diagnosed, and early March 1996, there were 79,908 cases of AIDS reported in Brazil. Of this total, 43,184 cases (54 per cent) occurred in the state of São Paulo. About 30 per cent of AIDS cases go unreported, and there is often a substantial delay in between diagnosis and official notification.

Of the cumulative number of cases reported for the country, 81.8 per cent are in males. However, the proportion of female cases has been increasing: women represented 18.7 per cent of new cases in 1992, 21.5 per cent of new cases in 1993, 22.4 per cent in 1994, and 24.8 per cent in 1995–96. Heterosexual transmission has been on the rise, accounting for 6.4 per cent of all reported AIDS cases in 1989 and 28 per cent in 1995–96. The share of cases

transmitted via injecting drug use increased from 13 per cent to 23 per cent during approximately the same period.

Both the number of AIDS cases and the incidence rates have increased between 1990 and 1993 in the country as a whole and in São Paulo. In 1993, 7,460 new cases were reported in São Paulo (incidence of 23.0 per 100,000) compared to 13,792 new cases in Brazil (incidence of 9.2 per 100,000) (table 1).¹ By the end of 1995 there were approximately 36,000 persons with AIDS (PWA) alive in Brazil and 19,000 in São Paulo state, and roughly 700,000 individuals were infected with HIV in the country.

Table 1. Number of AIDS cases reported and annual incidence rates (per 100,000) by year of diagnosis

Year of diagnosis	Brazil		São Paulo state	
	AIDS cases	Incidence rate	AIDS cases	Incidence rate
1990	7,683	5.2	4,393	13.3
1991	10,265	7.0	5,762	18.3
1992	12,515	8.4	7,070	21.8
1993	13,792	9.2	7,460	23.0
1994	13,595	8.9	6,941	21.0

Source: Ministry of Health, National Programme on STD/AIDS, various issues.

1.2 The Brazilian health care system

The Brazilian national health system and its legal existence are founded on the principles of public financing, universal access, free care, and full coverage. This public system is known as SUS (acronym for Sistema Único de Saúde or Unified Health System) and finances the care of approximately 75 per cent of Brazilians. SUS provides some care directly and also finances substantial amounts of care by nongovernmental providers, both nonprofit and for profit. As the quality of care provided through SUS is generally not seen as very good, wealthier people and those with jobs that provide insurance coverage usually have access to better facilities and services.

Within SUS, the reimbursement of services is primarily the responsibility of the federal government, which prospectively defines the reimbursement rates and transfers resources directly to providers.² The federal government devotes 55 per cent of its expenditures to curative services.

The pure private market includes the care provided or financed by third-party agents like health insurance companies, health maintenance organisations (HMOs), cooperative systems, and so on. Employers and individuals purchase these services, which will be referred to in this text as medical or health plans. About 40 million Brazilians (nearly 25 per cent of the population) have some type of private coverage.³ Total public and private health expenditures amounted to US\$29.9 billion in 1995, or 4.37 per cent of GDP (table 2).

Table 2. Public and private health expenditures, Brazil, 1995

Source of financing	Expenditure (US\$ billion)	Per cent	Per capita (US\$)
Public, of which:	19.9	66.56	129.23
Federal	16.1	53.85	104.55
Cities and states ^a	3.8	12.71	24.68
Private ^b	10.0	33.44	250.00
Total	29.9	100.00	194.16

a. Health expenditures incurred by states and cities are not known in Brazil. This estimate is the working figure used by government agencies and is based on a study done in the late 1980s. It is believed, and the authors agree, that this amount underestimates actual expenditure.

b. Private expenditures are revenues received by third-party companies operating with health care. They exclude out-of-pocket expenditures. The private per capita figures are for the covered population.

Source: Ministry of Health, various issues; Instituto de Economia Aplicada (IPEA) 1994, 1995; Associação Brasileira das Medicinas de Grupo (ABRAMGE) 1995.

Structural inconsistencies in financing SUS and the general crisis of the public sector have severely limited the government's ability to provide and finance health care services, further affecting the quality and quantity of the services offered by the system. As a result, workers have increased pressure on their employers for company-financed medical benefits, the private health care market has expanded, and some of the better providers have terminated their contracts with the government. Thus, those individuals who depend on SUS have been left with fewer services and a generally lower quality of care. SUS is responsible for the vast majority of medical services being performed in the country: in 1993 it paid for 77.5–83.5 per cent of all hospital admissions in the country (Iunes 1995). As will be shown, this proportion is significantly higher in the case of AIDS.

In São Paulo state, public and private health expenditure amounted to about US\$7.6 billion, or 3.03 per cent of the state's GDP, of which 54 per cent was publicly financed (table 3).

Table 3. Estimates of public and private health expenditures, São Paulo state, 1995

Source of financing	Expenditure (US\$ billion)	Per cent	Per capita (US\$)
Public, of which:	4.1	53.96	124.2
Transfers from federal level	2.0	26.32	60.6
State	1.3	17.11	39.4
Cities	0.8	10.53	24.2
Private	3.5	46.04	303.0
Total health	7.6	100.00	230.3

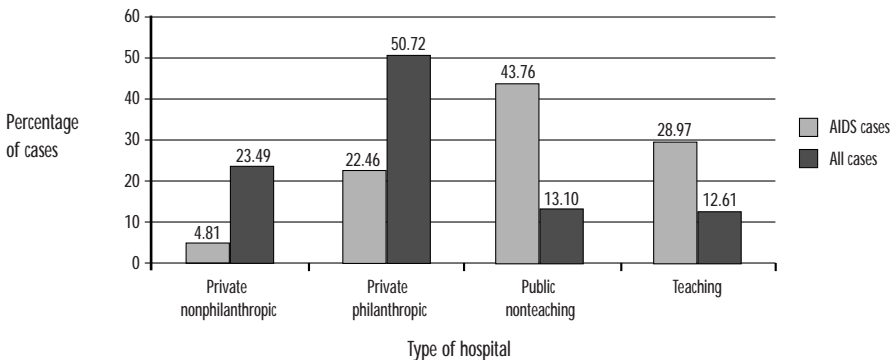
Source: Ministry of Health, various issues; authors' estimates.

Section Two: Estimating expenditures on AIDS

2.1 Hospital expenditures

Public medical facilities provide a disproportionate share of AIDS hospitalisations. Overall, nearly three-quarters (73 per cent) of AIDS patients are treated in public facilities (public nonteaching hospitals and teaching/research hospitals⁴), but only about one-quarter (26 per cent) of all hospitalisations take place in public hospitals (figure 1). As we shall see, this divergence is largely explained by the refusal of most private institutions to provide or finance care for AIDS patients.

Figure 1. Distribution of hospital admissions financed by SUS, by type of hospital and type of admission, São Paulo state, 1994



Source: Datasus 1995.

Public sector: SUS

The Ministry of Health distributes monthly data on public sector hospital expenditures for public use on CD-ROM. These data, while rich, must be viewed with caution. First, they represent reimbursements made by the government to private and public hospitals, not the total costs incurred by providers. Second, fraud is widespread, largely due to the low reimbursement rates set by the government. The most commonly observed forms of fraud are submitting bills for 'ghost' patients, billing for procedures or drugs and materials not consumed, and shifting the diagnosis or procedure to fit more severe cases. Finally, some public hospitals may not submit their bills or may not present a detailed account of all expenditure items. It is not known if all these problems are present in the AIDS-related data, but fraud may not be as significant a concern for AIDS hospitalisations because it is a recently established reimbursement category, it is relatively expensive, and the number of cases is not very large relative to all hospitalisations.

Table 4 shows data for hospitalisations for all causes and for AIDS in Brazil and the state of São Paulo in 1994. As expected, the share of AIDS-related hospitalisations is much greater in São Paulo than in the country as whole.

- SUS paid for about 15.4 million hospitalisations in the country, of which 3.4 million (21.8 per cent) were in São Paulo. AIDS hospitalisations represented about 0.2 per cent of all hospitalisations paid for by SUS in the entire country and almost 0.5 per cent in São Paulo state.
- AIDS-related hospitalisations are significantly longer than the average case: 10.8 days compared to 6.6 days, respectively, in São Paulo and 13 days compared to 6.1 days, respectively, for all of Brazil.
- Hospitalisations for AIDS are also more expensive per day, by about 26–28 per cent. Each day of hospitalisation for AIDS costs SUS about US\$51 in São Paulo and US\$47 for all of Brazil, compared to US\$40 and US\$37 per day in the two areas for all hospitalisations.
- As a result of the longer stay and higher cost per day, AIDS hospitalisations cost the government more than twice as much as the average hospital stay. In São Paulo state, for example, the average hospitalisation for AIDS cost US\$549, more than twice the average cost for all hospitalisations (US\$261).
- AIDS accounted for 1 per cent of all hospital expenditure by SUS in São Paulo state and half that percentage for the entire country.

However, as noted above, SUS reimbursements may substantially understate the costs of providing the services. To estimate the extent of this problem, we compared the total costs of hospitalisation of 10 randomly selected

Table 4. Hospitalisations financed by SUS, by cause, in São Paulo state and Brazil, 1994

Item	All causes	AIDS	AIDS/All causes (%)
<i>São Paulo state</i>			
Admissions (000)	3,355,878	15,907	0.47
Hospital days	22,136,371	171,722	0.78
Average length of stay (days)	6.6	10.8	164
Total expenditure (US\$ 000)	876,698	8,726	1.00
Expenditure per admission (US\$)	261	549	210
<i>Brazil</i>			
Admissions	15,367,326	29,221	0.19
Hospital days	93,858,552	379,795	0.40
Average length of stay (days)	6.1	13.0	213
Total expenditure (US\$ 000)	3,479,147	17,803	0.51
Expenditure per admission (US\$)	226	609	269

AIDS patients, based on 1995–96 patient records obtained from a philanthropic hospital in São Paulo, with SUS reimbursements.⁵ According to these records, the average cost per hospital admission was US\$4,397, while the average payment by SUS in 1995 was US\$631. The cost per day of hospital care was US\$332, compared to the US\$57 average daily SUS reimbursement. This analysis is corroborated by an earlier study (Médici and Beltrão 1991) that found a daily cost of AIDS hospitalisation of US\$360. So the cost per day of hospital care for AIDS patients is about 5.9 times greater than the amount paid by SUS. This difference is actually very close to the 6:1 cost to reimbursement ratio reported to us by the director of the largest hospital involved in the treatment AIDS patients. We therefore estimate that the total cost of AIDS-related hospitalisations in São Paulo state was US\$59.4 million, compared to US\$10.1 million reimbursed by SUS in 1995.

Who paid for the US\$49.3 million difference between total costs and SUS payments? We have several hypotheses:

- Some hospitals transfer this burden to their private patients covered by medical plans, which means that private patients are cross-subsidising SUS patients. However, few of the hospitals that receive AIDS patients from SUS also provide services to private patients, and it is doubtful that hospitals would be able to extract an additional volume of resources that is large enough to cover all excess costs.
- Hospitals may be overcharging the system for other procedures.
- Some hospitals may be partially covering the extra costs with their own resources. Such an assumption can only hold for philanthropic and public hospitals. In the case of public hospitals this implies that the public sector is actually paying through other means, such as bigger hospital budgets, what it does not pay through the reimbursement rates.⁶ In the case of philanthropic hospitals it can be safely assumed that the proportion of the extra costs assumed by these institutions is not very large, for they have been facing financial difficulties for quite some time.⁷

We considered four separate sets of assumptions regarding the financing of the difference between the total costs of the services and SUS payments, and present here the results of the most likely scenario. Among the 22 per cent of patients that are treated in philanthropic hospitals, we assume that the hospitals themselves bear 20 per cent of the excess cost, 30 per cent is transferred to private insurance companies, and 50 per cent is paid for by the government. The for-profit hospitals do not bear any extra cost, transferring 30 per cent to private plans and 70 per cent to the government.⁸

The sources of finance for AIDS hospitalisations by SUS under these assumptions are shown in table 5. The public sector finances US\$53

Table 5. Sources of financing for SUS AIDS hospitalisations, state of São Paulo, 1995

Source	1995 US\$	Per cent
Government	53,151,692	89.49
Private plans	4,030,053	6.78
Nonprofit hospitals	2,212,797	3.73
For-profit hospitals	0	0
Total	59,394,542	100.00

Source: Datasus 1995; authors' estimates.

million of the cost of SUS AIDS hospitalisations, or 89 per cent of the total. Nonprofit hospitals assume 3.7 per cent of the cost, and private plans, 6.8 per cent. It is generally expected that for-profit hospitals will make every effort to shift any extra cost to third parties, so these hospitals do not assume any burden.

Private medical plans

Most private medical plans in Brazil do not cover AIDS.⁹ However, this position has been recently questioned in courts, and consumers have generally obtained a positive ruling. Data on AIDS expenditures by private third-party payers are not readily available. A study commissioned by one company estimated an expected annual cost of US\$22,000 per AIDS case.

Since it is not known how much of each hospitalisation was paid for by these private companies, we have assumed that they paid for 4 per cent of the number of AIDS-related hospitalisations funded by SUS in São Paulo in 1995. This assumption implies a hospitalisation rate (per population covered) that is 9.4 per cent of the one observed for SUS and that private plans would have paid for 642 AIDS admissions in 1995 in São Paulo, costing US\$14,126,640. Including the possible cross-subsidy to SUS patients, the total expenditures of the private sector for AIDS-related hospital cases in the state of São Paulo in 1995 was US\$20.4 million.

Total hospital costs

We estimate that the expenditure incurred in providing hospital care within SUS (US\$59 million) is almost 81 per cent of total hospital expenditures for AIDS care (US\$73.5 million) (table 6). The public sector spends a little more than US\$53 million, thus financing 72 per cent of the hospital care, and the private sector finances the remaining 28 per cent (19 per cent of total care), or about US\$14 million.

Table 6. Financing of hospital services for AIDS patients, state of São Paulo, 1995, by provider and source of finance (US\$)

Source of finance	Provider		Total
	SUS	Private	
Public	53,151,692	–	53,151,692
(%)	(89.5)		(72.3)
Private, of which:	6,242,850	14,126,640	20,369,490
(%)	(10.5)	(100.0)	(27.7)
Providers	2,212,797	–	2,212,797
(%)	(3.7)		(3.0)
Plans	4,030,053	14,126,640	18,156,693
(%)	(6.8)	(100.0)	(24.7)
Total	59,394,542	14,126,640	73,521,182
	(100.0)	(100.0)	(100.0)

– Zero.

Source: Datasus 1995; authors' estimates.

2.2 Outpatient care: Day hospitals

The development of the so-called day hospital ('hospital dia') in Brazil, a facility in which patients typically stay for several hours and receive medication, food, and care, is considered a blessing by many physicians. This form of ambulatory treatment has replaced much of the traditional individual office visits within SUS and is being adopted by many physicians in their private practices.

This type of service has several advantages. The day hospital provides some economies of scale, particularly for the professionals, who can see several patients, and partially compensates for the low wages or rates received. By replacing the extremely brief and not very efficacious office visit, it may actually also improve the quality of care. It reduces the overall cost of AIDS treatment by reducing the number of inpatient admissions. In fact, according to some physicians, the use of day hospitals has allowed more patients to afford a better quality of private care, which also reduces the pressure on SUS. Finally, this form of ambulatory care also decreases the demand for hospital beds, the lack of which is a major problem faced by SUS. It is estimated that there are about 215 beds in day hospitals in the state of São Paulo.

Unfortunately, the data available on outpatient care only refers to SUS patients. The cost estimate of the services provided in day hospitals was calculated from a three-month sample obtained from one facility. The result indicates a per patient daily cost of US\$81 (each bed is used more than once per day and usually twice), or 24.5 per cent of the cost of a day in the hospital, and translates into US\$9.2 million in total expenditures in 1995.¹⁰

2.3 Drugs

The government is the major supplier of AIDS drugs, which are available at public facilities without any charge to patients. With respect to antiretroviral (ARV) drugs, it supplies AZT, ddC, and ddI. However, the public sector's capacity to buy and distribute the drugs is limited for both the ARV drugs and those used against opportunistic infections. The state's Department of Health estimates that the supply of drugs available in the state in 1995 was only enough to cover 8,000 of the 19,000 patients who needed medication.

The estimate of drug expenditures here is based on work done at the state's Department of Health and at the Federal University of São Paulo. Table 7 describes the volume and cost of ARV drugs ideally needed for the 8,000 patients covered for a total of US\$31.7 million. In 1995 this array did not include 3TC and protease inhibitors. Had they been offered, the total cost would have been US\$54.6 million, including US\$5.6 million for 3TC and US\$17.3 million for protease inhibitors.

Table 7. Public expenditures on antiretroviral drugs, state of São Paulo, 1995

Drug	Patients per year	Capsules per patient per year	Unit cost (US\$)	Cost per patient per year (US\$)	Total annual cost (US\$)
AZT					
100% 600mg/day	8,000	2,190	0.52	1,139.14	9,113,134
2.5% oral 10mg/ml	200	60	27.09	40.64	325,098
2.5% IV	200	27	102.95	69.49	555,917
Didanosina (ddI)					
60% 400 mg/day	4,800	1,460	1.90	1,661.25	13,289,987
40% 250 mg/day					
(100 mg)	3,200	730	1.90	553.75	4,429,996
(25 mg)	3,200	730	0.48	139.23	1,113,828
Zalcitabina (ddC)					
20% 2.25 mg/day	1,600	1,095	1.65	360.73	2,885,826
Total				3,964.23	31,713,786

Sources: State Department of Health and Federal University of São Paulo.

In addition to antiretroviral drugs, a total of US\$7.4 million was spent on drugs for treating opportunistic illnesses in 1995, of which US\$5.9 million was distributed by the federal government and US\$1.5 million by the state (State Department of Health and Federal University of São Paulo).

The combined public expenditure on ARV and other drugs was US\$39 million in 1995. The number of private individuals who can afford these drugs is very limited. We assumed that 5 per cent of the 19,000 AIDS patients who need medication purchase all the ARV drugs and the drugs for the opportunistic

infections directly from the market and that another 2 per cent of the patients can afford all of the drugs (that is, all ARV drugs, the medications for opportunistic infections, and the high-cost drugs).¹¹ This estimate implies private spending of US\$9.6 million on drugs for São Paulo state in 1995.

A few months after this study was completed, the Brazilian Congress passed a law that requires the government to supply, free and independently of the person's income, all drugs necessary to the treatment of AIDS, including the so-called cocktail of protease inhibitors. At that time (the end of 1996) it was estimated that the annual drug provisions would cost the government US\$40 million. By November of 1997 the actual cost had actually reached ten times that much, or US\$400 million, which is about 2 per cent of the Ministry of Health's budget. The government estimates that this cost will increase to US\$700 million in 1998, or about 4 per cent of the ministry's proposed budget.

2.4 Other curative expenditures

São Paulo received US\$250 million from the AIDS project financed by the World Bank. The transfer of resources from the federal level, which is responsible for the general management of the project, began in March 1994. Among the components of the project being developed in the state of São Paulo, US\$2.4 million was spent on services and institutional strengthening (training and equipment for laboratories), of which 15.2 per cent were national resources.

2.5 Information and education

The data obtained on expenditures for information and education are still extremely limited. We could only locate one item (within the transfers made to the state through the World Bank project), and that amounted to a little more than US\$500,000 in 1995, with 85 per cent from international sources.

This amount is clearly a gross underestimate of the resources being allocated to these activities. In 1995 the National AIDS programme coordinated information and education projects in all 27 states, with an overall estimated expenditure of US\$950,000. Eight were directed to sex workers (US\$270,000), eight to homosexuals (US\$260,000), nine to prisoners (US\$340,000), and two to miners in the Amazon region (US\$83,000). It also conducted 11 national campaigns, including both electronic and nonelectronic media (outdoors, posters, folders, and so on).

Even though Brazil has legislation that mandates AIDS education in the workplace, compliance with the law is rare and companies have received little support in designing and implementing their programmes. The national AIDS programme has put much effort into improving and increasing its relationship with companies, and as a result the firms' involvement has grown substantially (some are even distributing medication to their infected employees). Hard figures are still very scant, however.

2.6 Blood screening

There were approximately 840,000 blood donations in the state of São Paulo in 1995. Each blood donation in the state is tested for the presence of HIV. Unfortunately, there is no single institution that has assembled all of the cost information. Some institutions test their own blood, others contract private laboratories to do the testing, and others use the resources of the Fundação Hemocentro, the largest blood bank in the state. The figures presented are based on data collected from one hospital and from interviews with specialists.

The types of tests performed vary according to whether a sophisticated private hospital or public facilities are performing them. The former usually run two Elisa tests in parallel, but some are using new tests, such as the P24 (which costs US\$7 each), and even experimental tests, such as the PCR (costing US\$100). The general rule, however, is to use one Elisa test and the Western Blot test for confirmation. Since there are so many different types of institutions performing tests, it was impossible to obtain an estimate of their indirect costs. We have used the general rule of thumb of doubling the cost of the unit test to incorporate some of these other costs. Each Elisa kit with 100 tests costs approximately US\$175. Since in every kit five or six tests must be left unused, the unit cost increases to about US\$1.85. Thus, it is assumed that each test costs US\$3.70 overall.

In Brazil more than 90 per cent of blood donations are from first-time donors. About 0.2 per cent of the Elisa tests produce a positive result, and 0.08 per cent are confirmed by the Western Blot. If a test is confirmed as positive the individual is called for an interview and counselling; however, many blood banks lack the capacity to perform this task. The total 1995 expenditure was US\$3.2 million.

2.7 Condom distribution

According to officials from the Department of Health, São Paulo state spent about US\$1.5 million on condom distribution in 1994–95. We have not been able to obtain information on expenditures incurred by the federal level or by cities. In 1991, 45.3 million condoms were sold in the entire country. If this figure is projected to 50 million in 1995, and, assuming that roughly 35 per cent of this total were sold in São Paulo, the state's market for condoms would represent something like US\$17.5 million (using US\$1 as the average cost of a condom).

2.8 Other preventive expenditures

Approximately US\$1.9 million was spent in 1995 for HIV surveillance in the state of São Paulo, 96 per cent of which was funded by the World Bank and other international resources.

2.9 Summary

The total expenditure for AIDS in São Paulo state reached almost US\$158 million in 1995 (table 8). Only US\$24 million (or 15 per cent) was used for prevention; the remaining US\$134 million (85 per cent) was spent on curative measures. The public sector spent approximately US\$102.5 million (65 per cent); private agents, US\$47 million (30 per cent); and the resources from the World Bank project amounted to US\$4.6 million (3 per cent). The US\$3.2 million (2 per cent of the total) spent on blood tests could not be divided among the different sources of funds. About US\$27 million (17 per cent of total expenditures) was out-of-pocket expenditures by households and individuals, including US\$17.5 million in condom purchases and US\$9.5 million on drugs.

Table 8. Summary table of expenditures, state of São Paulo, values in thousands of 1995 US\$

	Public				Private				Inter-national	Un-defined	Total
	Federal	State	Un-defined	Total	Providers	House-holds	Insurance	Total			
Prevention											
Information	78	-	-	78	-	-	-	0	437	-	516
Blood screening	-	-	-	0	-	-	-	0	-	3,157	3,157
Condom distr.	-	759	-	759	-	17,500	-	17,500	-	-	18,259
Other	9	-	-	9	-	-	-	0	1,937	-	1,946
Total prevention	87	759	0	846	0	17,500	0	17,500	2,374	3,157	23,878
Treatment											
Hospital	53,152	-	-	53,152	2,213	-	18,157	20,370	-	-	73,521
Day-hospital	-	-	9,228	9,228	-	-	-	0	-	-	9,228
Drugs											
Antiviral	28,828	2,886	-	3,714	-	-	-	0	-	-	31,714
Other	5,851	1,508	-	7,358	-	-	-	0	-	-	7,358
Total drugs	34,679	4,394	-	39,072	-	9,564 ^a	-	9,564	-	-	48,636
Other	193	-	-	193	-	-	-	0	2,229	-	2,422
Tests	-	-	-	0	-	-	-	0	-	-	0
Total treatment	88,024	4,394	9,228	101,645	2,213	9,564	18,157	29,934	2,229	-	133,807
Total expenditure	88,111	5,152	9,228	102,491	2,213	27,064	18,157	47,434	4,603	3,157	157,685

Note: Expenditures by NGOs could not be determined.

a. Household expenditure was not broken down by type of drug.

Source: Authors' compilations.

On the one hand, the bulk of preventive expenditures (73 per cent) are the result of private purchases of condoms. In fact, the government's share of preventive expenditures (3.5 per cent) is smaller than the resources made available through the international counterpart of the World Bank project.

On the other hand, public resources account for about 76 per cent of the expenditure on curative services. It is also interesting to note from the table that hospital care represents almost 55 per cent of the total expenditures for treating AIDS patients and that drugs represent another 36 per cent.

Finally, table 9 shows AIDS expenditures in per capita terms, as a percentage of the state's GDP and as a percentage of total health expenditures, and public expenditures on AIDS as a percentage of its total health expenditure. Expenditures on AIDS amount to about US\$5 per citizen of the state of São Paulo, or roughly 0.06 per cent of the state's GDP. While these numbers may seem relatively small, it must be remembered that these resources are being used to treat about 19,000 PWA (or 0.06 per cent of the state's population). They represent 1.7 per cent of the total (public and private) health expenditures incurred in the state, or 2.3 per cent of the public sector's health expenditure.

Table 9. AIDS expenditures per capita and compared to other aggregates, state of São Paulo, 1995

	Per capita expenditure on AIDS (1995 US\$)	AIDS as a per cent of GDP	AIDS as a per cent of health expenditure	Public AIDS expenditure as a per cent of total public sector health expenditure
Prevention	0.72	0.01	0.30	0.07
Treatment	4.04	0.05	1.67	2.31
Total	4.76	0.06	1.97	2.38

Source: Authors' calculations.

Section Three: Discussion

The data and the preceding analysis have clearly shown that the costs imposed by the AIDS epidemic in Brazil have been borne almost entirely by the public sector. While the contagious characteristic of AIDS may provide some justification for the presence of the government in preventive actions, in Brazil we observe that the public sector is also responsible for the financing *and* treatment of most AIDS cases.

Three main factors have determined the observed emphasis on the provision of curative services relative to prevention:

- The modern Brazilian health system is structurally (and historically) focused on treatment.
- Political pressure by different interest groups and by society in general has favoured treatment.
- Establishing an adequate preventive campaign has been difficult. Poor design and planning rendered early mass-media campaigns highly ineffec-

tive, creating an environment of scepticism with regard to the potential impact of such measures.

The dominant role assumed by the public sector in the provision of AIDS care is the result of four major determinants:

- the exclusion of AIDS coverage in most pre-payment plans and health insurance policies
- the high cost of treatment, particularly inpatient care
- the large share of low-income patients
- the refusal of most private hospitals to accept AIDS cases, due to the previous items and to the low reimbursement rates paid by the government combined with alleged low institutional capacity. As a result, there are no private health facilities that provide care specifically or systematically for AIDS patients.¹²

Therefore, while the first three factors have reduced the demand for a pure private market, the fourth factor has limited the supply of private services. As result, the Brazilian government was forced to extend its role, from being mostly a purchaser of services to becoming the major provider of care.

Notes

- 1 Reporting of more recent data was still incomplete.
- 2 The system is going through a process of decentralisation to the municipal level, which will be ultimately responsible for these payments. Federal resources would then be transferred to the cities on a lump-sum basis.
- 3 Most health plans, however, do not provide coverage for AIDS treatment. See the discussion below.
- 4 It was assumed that all teaching and research hospitals are public institutions (which somewhat overestimates the share of public hospitals for both categories of patients).
- 5 This small sample is clearly not representative of the universe of hospital services being provided. That is what was possible to collect given our time constraint, a problem aggravated by the fact that very few hospitals in Brazil monitor costs. However, the estimates seem to be within the general order of magnitude obtained from other sources.
- 6 Besides the revenue accruing from the reimbursement of services, public hospitals have their own budgets.
- 7 It is also possible that hospitals are cutting back services or having their assets depleted.
- 8 The larger proportions transferred to the government, relative to the private plans, reflect the fact that not all hospitals that receive SUS patients have contracts with these companies.
- 9 Physicians have reported to us that the restrictions of the medical plans have been bypassed by hospitalising AIDS patients using a limited (or different) diagnosis. This practice is defended in terms of compassion and

- disagreement with the impediments imposed by the companies. These cases would not appear in any record as an AIDS-related hospitalisation.
- 10 This approach may somewhat underestimate actual costs, particularly with respect to medicines. According to the director of a major hospital, the cost of medicines is around 40 per cent of the cost of a hospital bed per day, which would be around US\$132 or US\$15.1 million in total.
 - 11 Note that patients who can afford to pay for the medication are getting the drugs (free) from the government.
 - 12 About 70 per cent of all beds are in private hospitals.

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