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PRIVATE SECTOR UTILIZATION OF HIV/AIDS SERVICES AND HEALTH EXPENDITURES BY PEOPLE LIVING WITH HIV/AIDS IN INDIA:

FINDINGS FROM FIVE HIGH-PREVALENCE STATES

November 2009

This publication was produced for review by the United States Agency for International Development. It was prepared by Aneesa Arur, Kathryn Banke, Sara Sulzbach, and Venkatachalam Selvaraju for the Private Sector Partnerships-One project.



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ACRONYMS

AIDS	Acquired Immunodeficiency Syndrome
ART	Antiretroviral Therapy
GNI	Gross National Income
HIV	Human Immunodeficiency Virus
NFHS-3	National Family Health Survey- 3
NGO	Nongovernmental Organization
PEPFAR	United States' President's Emergency Program for AIDS Relief
PLWHIV	People Living with HIV/AIDS
PSP-One	Private Sector Partnerships-One Project
STI	Sexually Transmitted Infection
UNDP	United Nations Development Program
USAID	United States Agency for International Development
VCTC	Voluntary Counseling and Testing Center

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EXECUTIVE SUMMARY

Human immunodeficiency virus (HIV) infection and acquired immunodeficiency syndrome (AIDS) are a critical challenge in India with an estimated 2.4 million people living with HIV/AIDS in 2007. Approximately two-thirds (65 percent) of people living with HIV/AIDS (PLWHIV) are in five high-prevalence states: Andhra Pradesh, Karnataka, Maharashtra, Manipur, and Tamil Nadu. The private health sector in India is large and heterogeneous and has grown considerably over time. The proportion of private health expenditures is also high in India and households bear nearly 75 percent of all health expenditures. However, little is known about the private sector's role in delivering HIV/AIDS-related services or about health expenditures by PLWHIV in India. This report seeks to address this information gap by examining two existing data sources:

- Utilization of HIV testing and sexually transmitted infection (STI) treatment services from public, private for-profit, and private non-profit sources in the National Family Health Survey 2005-2006 (NFHS-3)
- Health expenditures by PLWHIV in the United Nations Development Program (UNDP) 2006 Socio-Economic Impact Study of HIV/AIDS

Uptake of HIV/AIDS testing services is relatively low in India. However, our analysis showed that the private for-profit sector was the dominant source of HIV testing for men in all states except Manipur and for women in all states except Manipur and Tamil Nadu. In most states the private for-profit sector accounted for over 50 percent of HIV testing. Of the poorest men and women who were ever tested for HIV, 40 percent and 30 percent, respectively, reported receiving their test at a for-profit facility. Interestingly, the non-profit sector accounted for a very small proportion of HIV testing: it provided less than 3 percent and 6 percent of HIV tests to ever-tested men and women, and was also a very small source of HIV testing to the poorest men and women.

Findings on STI treatment use are just as striking. About half of men and women who reported STI symptoms sought treatment for STIs. Most men (81 percent) and women (68 percent) who sought treatment for STI symptoms did so in the private sector. The private sector was the dominant source of STI treatment for women in all states except Tamil Nadu and for men in all states except Karnataka. Non-profit providers accounted for a near-zero share of STI treatment in all states and across the wealth spectrum.

PLWHIV spend heavily on outpatient and inpatient care and on HIV testing in the for-profit sector. On average, households with a PLWHIV report spending an average of US\$ 0.74 on HIV testing at public facilities and US\$ 13 in private facilities. Even the poorest third of households spend almost US\$ 12 on HIV testing in a private facility. Per-episode treatment costs are also high. On average, PLWHIV spent US\$ 31 for outpatient care and US\$ 140 for inpatient care in the for-profit sector for their last illness episode. This is a substantial amount given that India's per capita gross national income is US\$ 1,070. The poorest third of PLWHIV spent marginally less on average at US\$ 26 and US\$ 99 for outpatient and inpatient care, respectively, in the for-profit sector. There is little evidence of risk pooling, and in fact, employer reimbursement or insurance is the primary source of financing for inpatient care in fewer than 2 percent of cases. This combination of limited risk pooling and high per-episode treatment costs is

pushing PLWHIV households into adopting distress-coping strategies like liquidating assets and borrowing to finance inpatient care.

Utilization and expenditure analysis findings strongly suggest that donors and governments in India should explore ways to partner with the for-profit sector to expand delivery of HIV/AIDS services, target subsidies more effectively to the poor (who are already using for-profit providers), protect the poor from the shocks of HIV-related health expenditures, and ensure that the quality of care provided by the for-profit sector meets technical standards and follows protocols. However, policymakers face severe information constraints in identifying appropriate partnership strategies. These include:

- Limited information on the allocation of HIV/AIDS-related funding across public, private for-profit, and private non-profit providers
- Scant data on the qualifications, quality, and capacity of for-profit providers to deliver HIV/AIDS-related services. The for-profit sector in India is very heterogeneous and ranges from large corporate hospitals that attract medical tourists to unregistered practitioners operating outside the formal sector

Addressing these data constraints is an essential prerequisite to forging and implementing effective partnerships. Promising options that merit further investigation include health insurance, vouchers, and contracting with private providers to deliver HIV/AIDS services coupled with performance-linked provider payments and monitoring to incentivize technical quality.

I. BACKGROUND

In recent years, India has experienced a rapid increase in HIV prevalence and a concomitant increase in the number of people living with HIV/AIDS (PLWHIV). Between 1990 and 2000, HIV prevalence among adults (age 15-49) rose dramatically and peaked at an estimated 0.45 percent before dropping to an estimated 0.3 percent in 2007 (Joint U.N. Program on HIV/AIDS [UNAIDS]/World Health Organization [WHO] 2008). However, with a population of approximately 1.1 billion (Office of the Registrar General, India ¹), even relatively low prevalence levels translate into large numbers and the number of PLWHIV in India is estimated to be 2.4 million (UNAIDS/WHO 2008). Close to 65% of PLWHIV live in five high-prevalence states: Andhra Pradesh, Karnataka, Maharashtra, Manipur, and Tamil Nadu (Pandey et al. 2009) (Table 1). Heterosexual contact is the primary mode of HIV transmission in all of these states except Manipur, where transmission occurs predominantly via intravenous drug use (Chandrasekaran et al. 2006).

TABLE 1: ESTIMATED HIV PREVALENCE (%) AND NUMBER OF PERSONS LIVING WITH HIV/AIDS (PLWHIV) IN FIVE HIGH-PREVALENCE STATES, INDIA, 2005-2006

State	Estimated HIV prevalence (%)	Estimated Number of PLWHIV
Manipur	1.13	25,089
Andhra Pradesh	0.97	525,560
Karnataka	0.69	276,129
Maharashtra	0.62	495,488
Tamil Nadu	0.34	246,473

Sources: HIV prevalence data from National Family Health Survey (NFHS)-3 (International Institute for Population Sciences [IIPS] 2007). Estimated number of PLWHIV from Pandey et al. (2009).

The private health sector in India is large and heterogeneous and includes for-profit providers of varying capacity, ranging from international-quality corporate hospitals to chemist shops, informal providers such as drug sellers, and nongovernmental organization (NGO) providers (Gupta and Bollinger 2006).² The proportion of wholly privately run health care institutions³ in India grew from about 8 percent at independence in 1947 to nearly 60 percent in the 1990s, and it has continued to expand since then (Radwan 2005). As of 2004, the private sector accounted for 80 percent of outpatient care and 60 percent of inpatient care, with virtually no difference in urban versus rural areas (Over 2009; Sengupta and Nundy 2005) or income level (Mahal et al. 2001).

¹ Office of the Registrar General and Census Commissioner. Government of India. http://www.censusindia.gov.in/Census_Data_2001/National_Summary/National_Summary_DataPage.aspx

² For the purposes of this paper, the 'private sector' is defined to include both for-profit and non-profit providers operating in the formal (i.e., registered and subject to medical/legal regulations) and non-formal sectors (i.e., non-registered and, for all practical purposes, operating beyond the influence of medical/legal regulations).

³ Radwan defines private sector institutions as encompassing all nongovernmental health care (including nongovernmental organizations [NGOs]), private clinics and nursing homes, for-profit health care institutions, registered and unregistered medical practitioners, and donor-funded project facilities.

Most health care in India is privately financed. Three-fourths (75 percent) of all expenditures on outpatient and inpatient care are borne by households. A mere 3.3 percent is borne by employers and third-party payers such as insurance companies (Merson et al. 2004).

It is unclear whether these general patterns also apply to private sector involvement in HIV/AIDS service delivery and expenditures on these services. In 2006, India's total expenditure on HIV was estimated to be US\$129 million; most of this funding was from external sources (Steinbrook 2007). Currently, HIV/AIDS spending is approximately US\$ 0.12 cents per capita (Steinbrook 2007). Donor funding for HIV/AIDS has expanded in recent years. Along with the increased amount of funding available for HIV/AIDS, the number of major donors has grown significantly (World Bank 2007). For example, the Global Fund for AIDS, Tuberculosis and Malaria approved a total of US\$ 100 million for HIV/AIDS in projects from rounds 2-7,⁴ the U.K. Department for International Development (DfID) and the World Bank support the National AIDS Control Program 3 in the amount of approximately US\$ 425 million, and the United States' President's Emergency Program for AIDS Relief (PEPFAR) has provided US\$ 136.4 million from 2004 to 2008. Other major donors supporting HIV/AIDS in India include the Gates Foundation, the Clinton Foundation, the Danish International Development Agency (DANIDA), the Swedish International Development Cooperation Agency (SIDA), the Canadian International Development Agency (CIDA), and the European Union.

The increase in donor funding has been accompanied by an expansion in HIV-related service delivery as well, but the need for HIV-related services remains vast. Since 2002, the National AIDS Control Organization (NACO) has scaled up testing centers dramatically, so that by the end of 2005, there were over 1,110 operational testing centers that served over 970,000 clients that year (Chandrasekaran et al. 2006). While HIV prevalence has begun to decline, the estimated number of people receiving antiretroviral therapy (ART) has increased dramatically, from approximately 28,000 in 2004 to 158,000 in 2007 (UNAIDS/WHO 2008). At the same time, the number of testing and counseling centers rapidly expanded to a total of 4,245 in December 2007 (UNAIDS/WHO 2008). Yet, an estimated 80 percent of HIV-positive people are unaware of their status (UNAIDS/WHO 2008). Ensuring that high quality prevention and treatment services are delivered in a country of India's size with a large HIV-affected population is a difficult task.

Given these challenges, there is concern about whether the Indian public health system has enough funding and is large enough to meet current demands for health services (Peters et al., 2002). In this context, many experts have noted the importance of engaging the private sector and forming public-private partnerships with non-profit and for-profit providers to respond effectively to HIV in India (Sheikh et al. 2006; Brugha 2003; Sheikh et al. 2005).

Currently, there is limited clarity on the private sector's role in delivering HIV/AIDS-related services. In the case of ART, for instance, estimates range from 6.3 percent (Steinbrook 2007; WHO et al. 2007) to 25 percent (Over 2009) of ART patients being treated in the formal and informal private sector. The former estimate implies a relatively small private sector share whereas the latter suggests a substantial private sector role.

It is important to understand the private sector's role in delivering HIV/AIDS-related services and how these services are paid for in order to assess whether to enter into public-private partnerships to deliver and/or finance HIV/AIDS-related services and to identify the types of partnership mechanisms needed. To address this information gap, the Private Sector Partnerships-One (PSP-One) project

⁴ The amount above relates to HIV/AIDS grants from rounds 2, 4, 6, and 7. Data sourced from the Global Fund's online database on portfolio of HIV/AIDS grants. <<http://www.theglobalfund.org/programs/portfolio/?countryID=IDA&lang=en>>. Last accessed November 3, 2009.

examined two existing household survey datasets to gain insights on this important topic in the five states with high HIV prevalence. The specific objectives of this paper are to examine:

- The extent to which private providers are used for HIV/AIDS-related services and the types of private providers used
- The level of health spending by PLWHIV to inform policy and interventions focused on meeting the needs of PLWHIV.

The focus of this paper is on five high prevalence states — Andhra Pradesh, Karnataka, Maharashtra, Manipur, and Tamil Nadu — as the need for HIV-related services is very high in these states. The utilization analyses presented focus primarily on HIV testing and STI treatment. Representative data on ART were not available.

2. DATA AND METHODOLOGY

2.1 UTILIZATION OF HIV/AIDS-RELATED SERVICES

To assess utilization of HIV/AIDS-related services, we analyzed data from the 2005-2006 NFHS-3 (IIPS and Macro International 2007). The NFHS-3 survey includes a nationwide representative sample of interviews with 124,385 women age 15-49 years and 74,369 men age 15-54 years in all 29 states of India. Data were collected between November 2005 and August 2006.⁵

In this report, we focused our analysis on respondents from Andhra Pradesh, Karnataka, Maharashtra, Manipur, and Tamil Nadu, five of the six highest-prevalence states in the country. The sample size for our analyses included 32,601 women and 31,170 men (Table 2).

TABLE 2: SAMPLE SIZE FOR HIV/AIDS-RELATED SERVICE UTILIZATION ANALYSES, BY STATE AND GENDER

State	Women	Men
Manipur	4,512	3,951
Andhra Pradesh	7,128	7,128
Karnataka	6,008	5,528
Maharashtra	9,034	8,867
Tamil Nadu	5,919	5,696
Total	32,601	31,170

The key indicators of interest in our analyses are sources of HIV testing and treatment of sexually transmitted infections (STI). The NFHS-3 includes a question about whether or not the respondent has ever been tested for HIV (but it does not ask for the test result). Those who have been tested for HIV are asked about source of the HIV test. All respondents were also asked about presence of STI symptoms in the past 12 months, whether they sought care, and if so, where they sought care for those symptoms.

The source of the HIV test or STI treatment is coded as:

- 'Public' if the respondent reported getting the service from any government facility or government health provider
- 'Non-profit' if the respondent reported getting the service from any NGO or trust hospital, clinic, or health provider
- 'For-profit' if the respondent reported getting the service from a private source that is not explicitly identified as NGO or trust. This category also includes pharmacists/compounders,⁶ Indian Systems of

⁵ Sampling and data collection methods are described elsewhere. See IIPS and Macro International 2007 for more details.

⁶ Compounders are staff employed by doctors to dispense medicine. They are typically not formally qualified pharmacists.

Medicine and Homeopathy practitioners, and traditional healers.

2.2 HEALTH EXPENDITURES OF PLWHIV

To assess the health expenditures of PLWHIV, we analyzed data on health spending from household survey data collected by the National Council for Applied Economics Research for the United Nations Development Programme (UNDP) Socio-economic Impact Study of HIV/AIDS (Pradhan et al. 2006). The study collected data in Andhra Pradesh, Karnataka, Maharashtra, Manipur, and Tamil Nadu,⁷ purposively selecting 5-7 high-prevalence districts in each state. A case-comparison design was used with case households sampled through voluntary counseling and testing center (VCTC) counselors working with State AIDS Control Societies and NGOs.⁸ Three households without PLWHIV were selected from each block⁹ where every one household containing a PLWHIV was selected.

The survey collected data on household and individual socioeconomic characteristics including morbidity and expenditures on treatment.¹⁰ The numbers of sample households and individuals covered during the survey by state are given in Table 3. Respondents were asked about illness(es) experienced in the preceding one month, and care seeking by source of treatment. The analysis was restricted to PLWHIV in the households surveyed in order to approximate expenditures on HIV-related services as closely as possible. The expenditure analysis also focused on the most recent episode of illness in order to minimize bias from recall error. Health expenditure data include both direct medical and associated expenditures such as transport, food, and lodging.

TABLE 3: SAMPLE SIZE FOR PLWHIV EXPENDITURE ANALYSES

State	Number of Households	Total Number of Persons	Reported Number of HIV-positive Persons	Percentage HIV-positive Persons
Andhra Pradesh	400	1,499	495	33.0
Karnataka	401	1,747	536	30.7
Maharashtra	403	1,639	570	34.8
Tamil Nadu	410	1,520	552	36.3
Manipur	254	1,085	287	26.5
All States	1,868	7,490	2,440	32.6

Key variables in the expenditure analysis include: household income, financing source for household health expenditures, and source of care by type of provider (public, private for-profit and private non-profit). In each state, PLWHIV were categorized into three¹¹ groups based on household monthly consumption expenditures: poorest, middle, and richest third of all households (Figure 1).

⁷ The study also collected data from Nagaland. These data were not analyzed as part of this study.

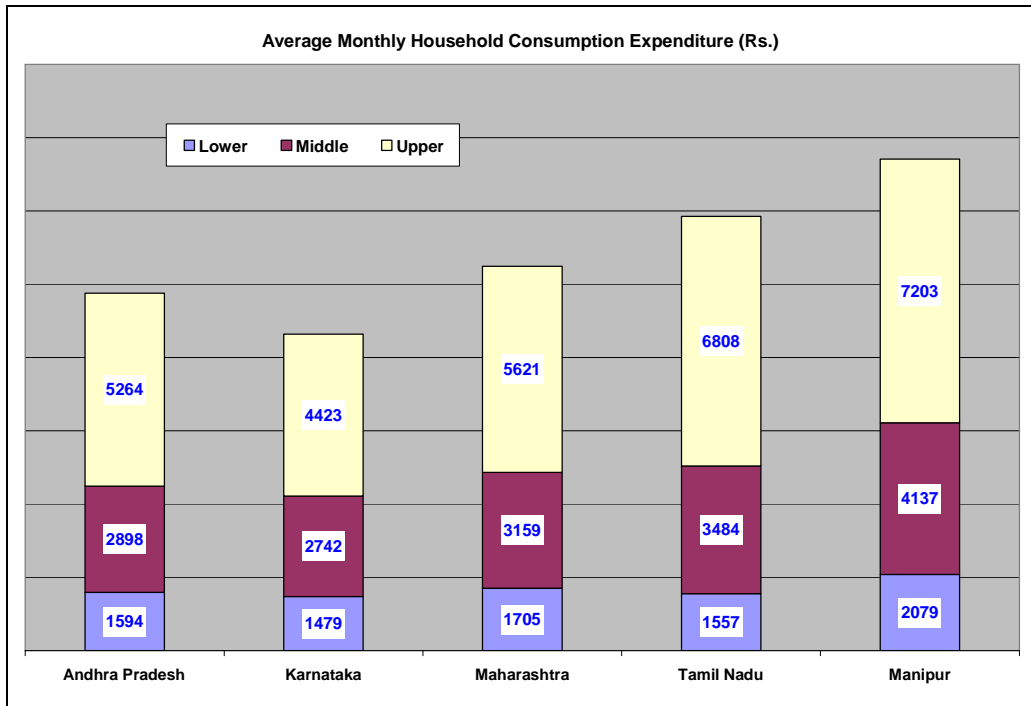
⁸ Sampling case households using this approach likely underestimates actual levels of PLWHIVs' use of for-profit private sector services.

⁹ A block is a sub-district administrative unit in each state in India. Originally, a block was defined as having a population of 100,000, but population per block varies considerably in practice.

¹⁰ For more details on sampling and data collection, please refer to Pradhan et al. (2006).

¹¹ PLWHIV were categorized into three groups to ensure adequate sample size within each group to allow for comparisons between groups.

FIGURE I: AVERAGE MONTHLY HOUSEHOLD CONSUMPTION EXPENDITURE (INDIAN RUPEES) FOR THE POOREST, MIDDLE, AND RICHEST THIRD OF SAMPLE HOUSEHOLDS



Source of financing health expenditures by the households is another important variable in this analysis. Data collectors were instructed to record the two most important sources of financing for health care expenditures. This analysis focuses on the first, most important source of financing reported. It does not analyze separately by the remaining two sources, as the data collected do not present the proportion of financing that each source accounts for.

All data were analyzed in Stata version 10 (StataCorp, College Station, Texas).

3. FINDINGS

3.1 UTILIZATION OF HIV TESTING AND STI TREATMENT

3.1.1 UTILIZATION OF HIV TESTING

HIV testing and counseling is critical as a gateway to both prevention and treatment. Post-test counseling can help to ensure that HIV-negative individuals know the best ways of protecting themselves from HIV. HIV-positive individuals can learn about treatment options and strategies to maintain their health.

Table 4 presents the proportion of men and women reporting having ever been tested for HIV and source of the HIV test (if tested) for men and women age 15-49 years in each state, based on analysis of NFHS-3 data. Coverage of HIV/AIDS testing services was fairly low in all of the high-HIV prevalence states examined in this analysis. The proportion of men age 15-49 years who ever had an HIV test ranged from 5 percent in Karnataka to 9 percent in Manipur. The proportion of women age 15-49 years having ever received an HIV test was higher than for men in Karnataka and Tamil Nadu (9 percent each), while testing was similar for both sexes in Maharashtra and Manipur and lower for women than for men in Andhra Pradesh.

TABLE 4: HIV TESTING BY GENDER, STATE, AND PUBLIC AND PRIVATE SOURCE

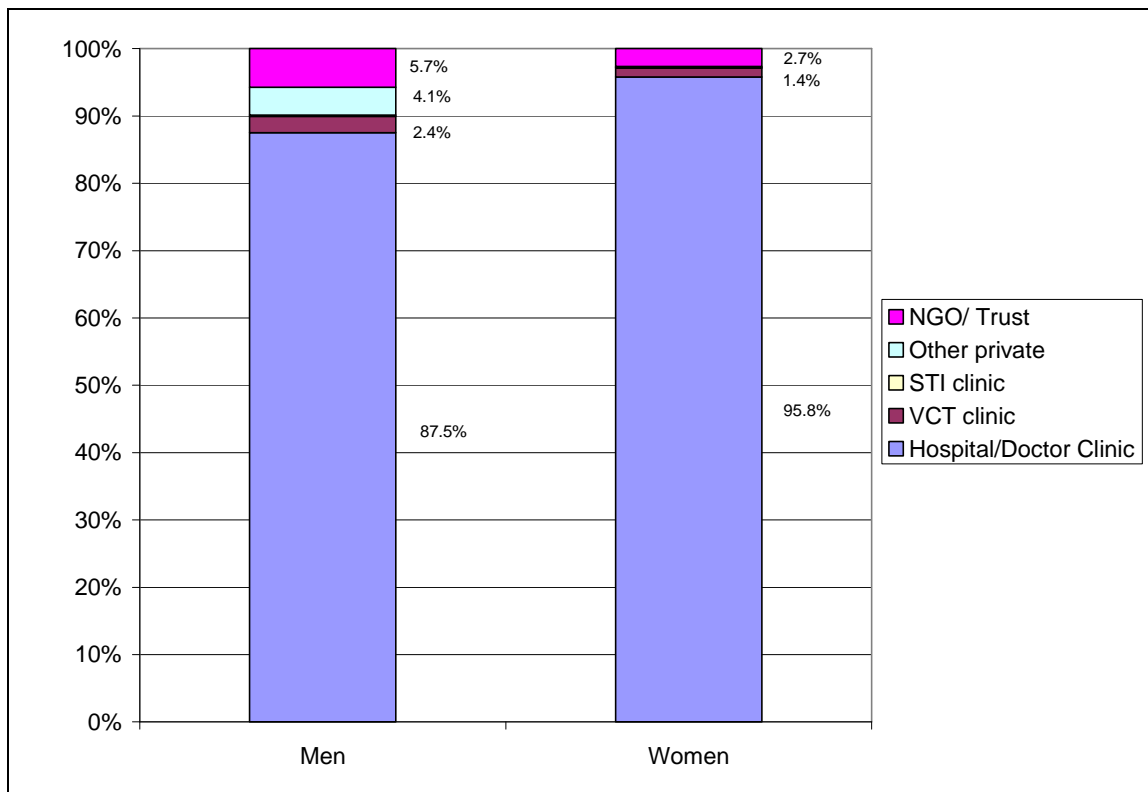
		Men			
		Source, among ever-tested			
State	HIV tested	Public	Private Non-profit	Private for-profit	Other*
All five states	6.6%	34.3%	3.6%	59.9%	2.2%
Andhra Pradesh	8.3%	30.1%	4.6%	63.6%	1.7%
Karnataka	4.9%	31.1%	4.8%	60.6%	3.5%
Maharashtra	7.1%	34.7%	3.4%	59.0%	2.9%
Manipur	8.6%	69.8%	4.4%	22.2%	3.6%
Tamil Nadu	5.8%	42.4%	1.3%	55.6%	0.7%
		Women			
		Source, among ever-tested			
State	HIV tested	Public	Private Non-profit	Private for-profit	Other*
All five states	8.1%	37.0%	1.7%	60.3%	1.1%
Andhra Pradesh	7.9%	31.6%	1.8%	66.0%	0.6%
Karnataka	8.8%	33.9%	1.0%	62.6%	2.5%
Maharashtra	7.2%	32.3%	2.9%	63.7%	1.1%
Manipur	8.6%	75.0%	2.5%	20.7%	1.8%
Tamil Nadu	9.3%	50.7%	0.5%	48.3%	0.5%

Data source: NFHS-3 (IIPS and Macro International 2007)

* 'Other' includes those cases that could not be classified as public or private.

Among respondents who were tested for HIV, however, close to or over 50 percent received the test from a private for-profit or private non-profit provider in all states except Manipur (Table 4). It is also interesting to note that only a small proportion of men (6 percent) and women (3 percent) who received an HIV test from a private sector source were tested at a non-profit sector source or outlet (Figure 2). In contrast, private for-profit hospitals or clinics accounted for a very large share of private sector HIV testing in these four states. In Manipur, the public sector was the leading source of HIV testing (70 percent of men and 75 percent of women), and the private for-profit sector thus provided a much smaller overall proportion of testing (22 percent for men and 21 percent for women). Also, in Tamil Nadu, women were slightly more likely to have received an HIV test at a public sector source than a private for-profit source (51 percent vs. 48 percent, respectively). Use of a private sector provider for HIV testing did not vary much by gender.

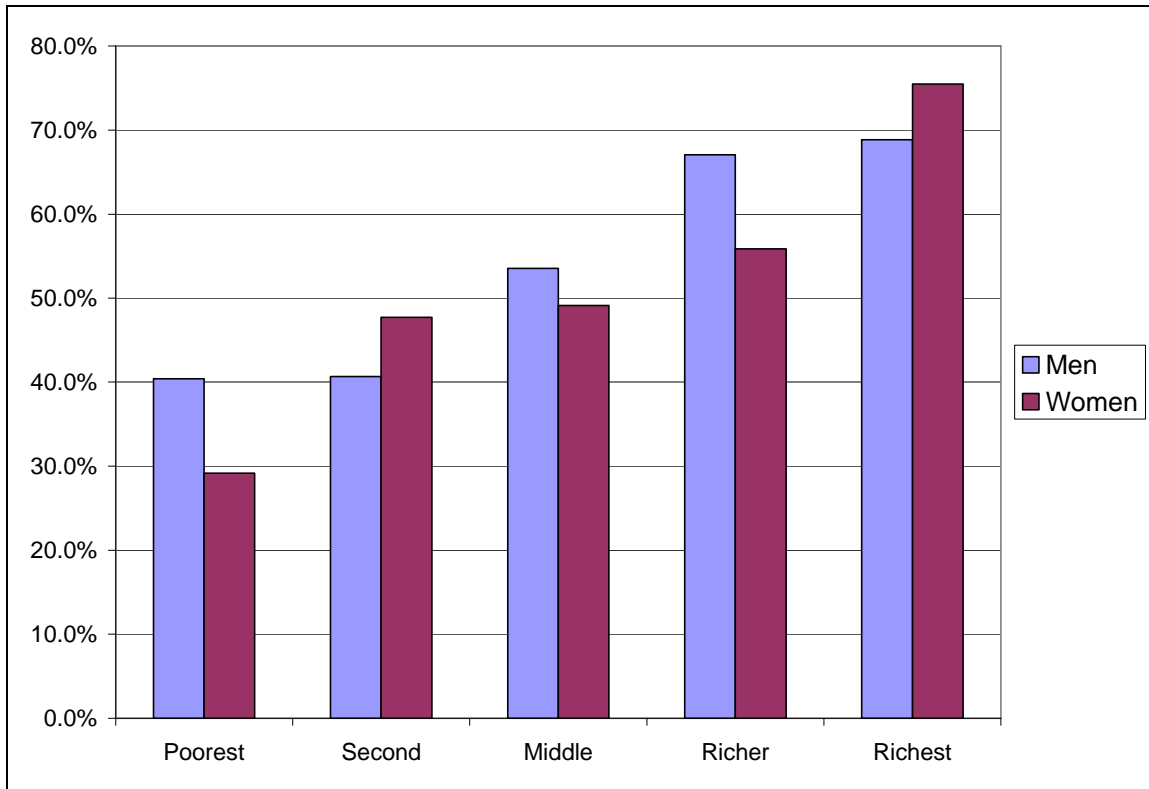
FIGURE 2: TYPE OF PRIVATE SECTOR SOURCE FOR HIV TEST



Socioeconomic status is a key determinant of whether PLWHIV seek care and the source of care sought. We examined the relationship between wealth and private sector use of HIV testing using a standard wealth index based on household assets and characteristics. Private for-profit and private non-profit source are combined due to the very small share of private non-profit facilities and providers in HIV testing. In general, wealthier men and women were more likely to be tested in the private sector than poorer men and women (Figure 3). However, even the poor relied on the private sector for testing services - about 40 percent of men and 30 percent of women in the poorest wealth quintile sought testing from a private provider in the five study states. Private sector use among the poorest varied between states, with the poorest men (20 percent) and women (14 percent) in Karnataka least likely to use the private sector compared with the other four states (Table 5). In the remaining states, use of the private sector among the poorest men ranged from 29 percent in Manipur to 100 percent in

Andhra Pradesh¹², while usage among the poorest women ranged from 25 percent in Maharashtra to 77 percent in Manipur.

FIGURE 3: PRIVATE SECTOR HIV TESTING BY WEALTH QUINTILE (AMONG THOSE EVER TESTED FROM ALL FIVE STATES)



¹² Note that a very small number of the poorest fifth were tested for HIV in each state. Hence, point estimates for the proportion tested for HIV by source should be interpreted with caution since the standard errors for the point estimates are likely to be large as well.

TABLE 5: PRIVATE SECTOR HIV TESTING BY WEALTH QUINTILE (AMONG THOSE EVER TESTED) BY STATE AND GENDER

State	Wealth Quintile				
	Poorest	Second	Middle	Fourth	Richest
	Men				
Andhra Pradesh	100%	59%	64%	75%	65%
Karnataka	20%	32%	51%	73%	77%
Maharashtra	41%	24%	50%	60%	68%
Manipur	29%	23%	21%	26%	31%
Tamil Nadu	32%	31%	39%	60%	75%
	Women				
Andhra Pradesh	34%	56%	66%	67%	81%
Karnataka	14%	39%	50%	59%	80%
Maharashtra	25%	83%	60%	49%	73%
Manipur	77%	13%	12%	25%	38%
Tamil Nadu	28%	38%	29%	46%	73%

Urban men and women were more likely than their rural counterparts to use private HIV testing services in Karnataka, Manipur and Tamil Nadu (Table 6). Although differences exist between urban and rural areas in each state, it is important to note that the private sector share of testing is very substantial in both areas for all states excepting Manipur.

TABLE 6: PRIVATE SECTOR HIV TESTING BY URBAN/RURAL LOCATION (AMONG THOSE EVER TESTED) BY GENDER AND STATE

State	Men	
	Urban	Rural
Andhra Pradesh	64%	72%
Karnataka	73%	54%
Maharashtra	62%	64%
Manipur	28%	26%
Tamil Nadu	60%	53%
State	Women	
	Urban	Rural
Andhra Pradesh	64%	71%
Karnataka	72%	53%
Maharashtra	65%	72%
Manipur	30%	20%
Tamil Nadu	50%	47%

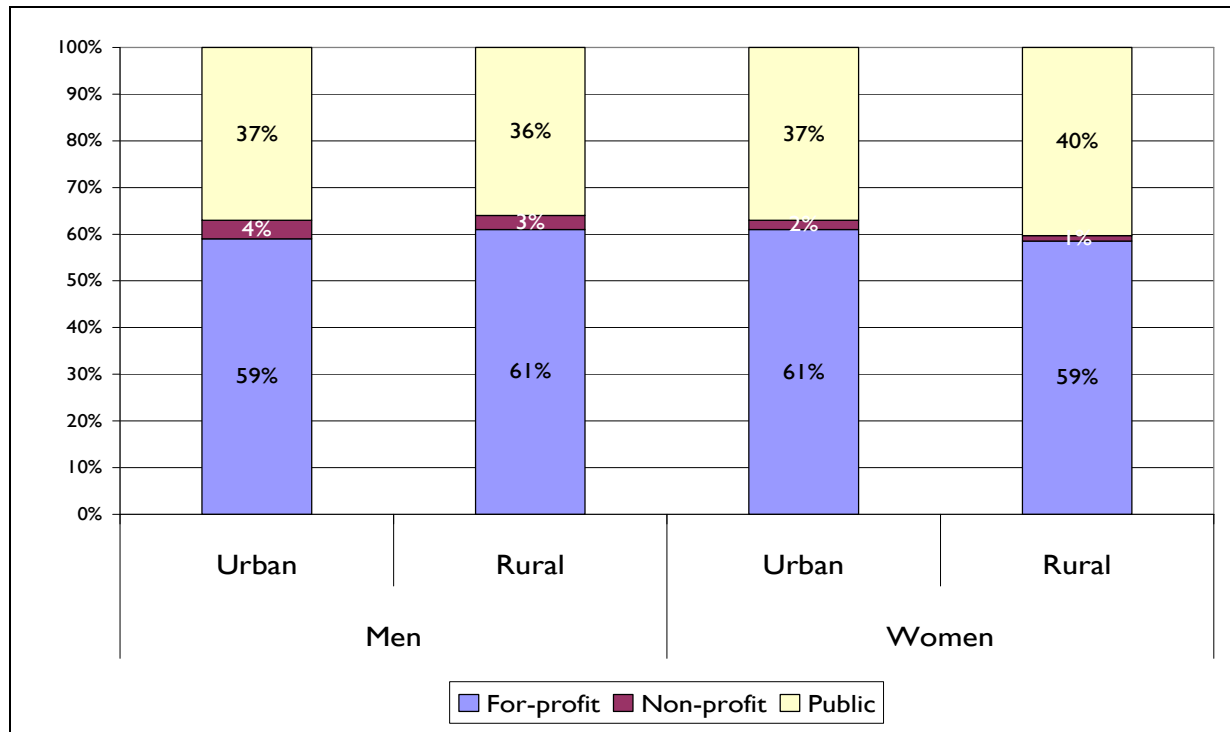
Reflecting the more general trend, the non-profit sector's share of HIV testing was low ($\leq 7\%$) in all states for both urban and rural men and women (Table 7). Surprisingly, individuals residing in rural areas were not necessarily more likely to be tested at a non-profit facility than urban men and women. In fact, for-profit providers accounted for a much larger share of HIV tests in rural areas than non-profit providers (Figure 4). This contrasts sharply with the general conception that the non-profit sector has

greater reach among rural populations who typically have lower ability to pay out-of-pocket for and sustain for-profit providers than urban populations.

TABLE 7: HIV TESTING FROM NON-PROFIT SECTOR BY GENDER, URBAN/RURAL LOCATION, AND STATE (AMONG THOSE EVER TESTED)

State	Men	
	Urban	Rural
Andhra Pradesh	7%	2%
Karnataka	6%	3%
Maharashtra	3%	5%
Manipur	3%	5%
Tamil Nadu	1%	2%
State	Women	
	Urban	Rural
Andhra Pradesh	2%	1%
Karnataka	1%	1%
Maharashtra	3%	1%
Manipur	2%	3%
Tamil Nadu	0%	1%

FIGURE 4: HIV TESTING BY SOURCE, GENDER, AND URBAN/RURAL LOCATION (AMONG THOSE EVER TESTED FROM ALL FIVE STATES)



3.1.2 UTILIZATION OF STI TREATMENT

Table 8 presents information on the proportion of men and women age 15-49 years who reported an STI during the 12 months preceding the NFHS-3 survey. The proportion of men reporting an STI in the previous 12 months ranged from 0.3 percent in Karnataka to 3.9 percent in Manipur. For women, the proportion ranged from 2.3 percent in Karnataka to 5 percent in Manipur.

TABLE 8: STI PREVALENCE IN PREVIOUS 12 MONTHS, BY STATE AND GENDER

State	Men	Women
All 5 states	1.1%	3.0%
Andhra Pradesh	1.3%	2.6%
Karnataka	0.3%	2.3%
Maharashtra	1.6%	3.6%
Manipur	3.9%	5.0%
Tamil Nadu	0.7%	3.1%

Despite reporting STI symptoms, a substantial proportion of respondents did not seek treatment and this proportion varied by state and by gender (Table 9). The proportion seeking treatment ranged from 31 percent (Maharashtra) to 61 percent (Karnataka) among men, and from 27 percent (Andhra Pradesh) to 60 percent (Tamil Nadu) among women.

Most men (81 percent) and women (68 percent) who sought treatment for STI symptoms did so in the private sector. The private sector was the dominant source of STI treatment for men in all states except Karnataka and for women in all states except Tamil Nadu (Table 9). Men were more likely than women to use a private provider for STI treatment in Andhra Pradesh, Maharashtra, and Tamil Nadu. It is also important to note that non-profit providers accounted for no STI treatment among men in all states and for a near-zero share of STI treatment among women. The remaining analyses of STI treatment by public/private source thus do not disaggregate private non-profit and private for-profit providers - virtually all private sector STI treatment was obtained from a private for-profit source.

TABLE 9: STI TREATMENT BY SOURCE AND STATE

State	Treated for STI*	Men		
		Of treated, source of treatment**		
		Public	Private Non-profit	Private For-profit
All 5 states	43%	20.9%	0.0%	81.3%
Andhra Pradesh	57%	13.1%	0.0%	87.9%
Karnataka	61%	60.0%	0.0%	40.0%
Maharashtra	31%	16.8%	0.0%	83.6%
Manipur	38%	46.7%	0.0%	53.2%
Tamil Nadu	55%	24.6%	0.0%	80.9%
State	Treated for STI*	Women		
		Of treated, source of treatment**		
		Public	Private Non-profit	Private for-profit
All 5 states	53%	36.8%	0.0%	68.4%
Andhra Pradesh	27%	40.6%	0.0%	64.2%

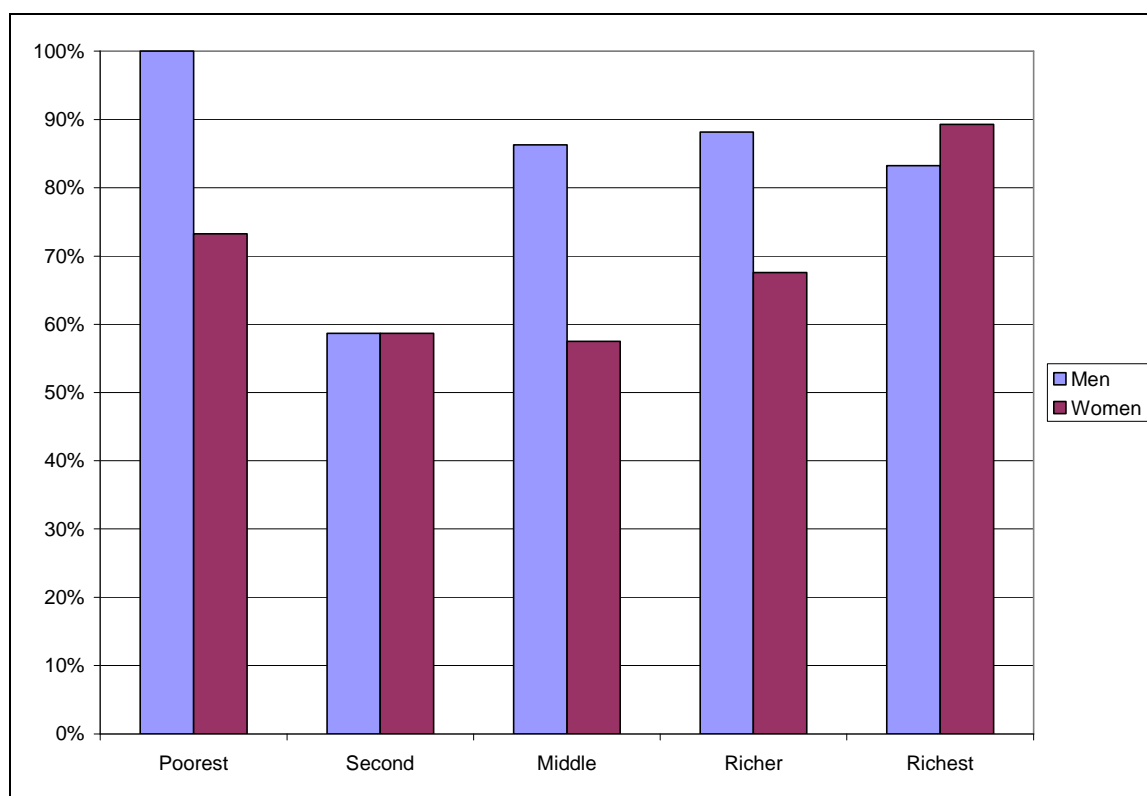
Karnataka	57%	41.4%	0.1%	64.8%
Maharashtra	54%	23.6%	0.0%	79.9%
Manipur	42%	43.9%	1.3%	61.2%
Tamil Nadu	60%	53.7%	0.1%	54.2%

* Percentage of respondents 15–49 years seeking treatment for STIs (among those reporting one or more STI symptoms)

** Public or private source of treatment (among respondents 15–49 seeking treatment for STI symptoms)

Figure 5 presents the proportion of respondents seeking STI treatment in the private sector among all of those with STI symptoms who sought treatment. The private sector accounted for the majority of STI treatment across the wealth spectrum for both men and women. Interestingly, men in the poorest wealth quintile were more likely than any other wealth group to use the private sector for STI treatment. Among women, those in the wealthiest quintile were most likely to use the private sector, while women in the poorest quintile had the second highest use of the private sector for STI treatment.

FIGURE 5: PRIVATE SECTOR SHARE OF STI TREATMENT BY WEALTH QUINTILE AND GENDER



The private sector is an important source of STI treatment in both urban and rural areas: 82 percent of urban men and 80 percent of rural men across India who were treated for an STI received treatment from a private provider (Table 10). Most urban (76 percent) and rural (63 percent) women who sought treatment for STI symptoms were treated by a private provider. Urban-rural differentials between private sector treatment for STI were larger for women than men.

TABLE 10: STI TREATMENT BY URBAN/RURAL LOCATION AND GENDER

		Men	
	Any STI treatment	Of treated, source of treatment	
		Public	Private
Urban	43%	19%	82%
Rural	44%	22%	80%
		Women	
	Any STI treatment	Of treated, source of treatment	
		Public	Private
Urban	56%	30%	76%
Rural	51%	42%	63%

Virtually all men and women who sought STI treatment in the private sector did so from a for-profit private doctor or clinic, as opposed to a NGO/Trust (non-profit) source (Table 11). Even in the poorest wealth quintile, more than 90 percent of men and women who used a private sector source for STI treatment in urban and rural areas were treated by a private doctor or clinic. Pharmacies or compounders accounted for less than 0.3 percent for men and 1.3 percent for women of private sector STI care. An especially striking finding is that virtually none of the men or women who used private providers for STI treatment went to non-profit providers.

TABLE 11: TYPE OF PRIVATE SECTOR PROVIDER BY GENDER (PROPORTION OF THOSE TREATED FOR STIs IN THE PRIVATE SECTOR)

	Men	Women
NGO/Trust	0.0%	0.1%
Private doctor* or clinic	97.5%	93.6%
Pharmacy or compounder	0.3%	1.3%
All other private	2.2%	5.1%

* Private doctor includes all medical practitioners (registered or unregistered).

3.2 HEALTH EXPENDITURES BY PEOPLE LIVING WITH HIV/AIDS (PLWHIV)

This study examined the health expenditures of PLWHIV for their most recent illness episode and found clear spending patterns (Table 12). PLWHIV who used the for-profit sector spent considerably greater amounts per treatment episode than PLWHIV who used the public sector (twice as much for outpatient care and over four times as much for inpatient care). Average spending per episode was considerably higher for PLWHIV who used the for-profit sector than for PLWHIV who used non-profit providers (almost three times as much for both outpatient and inpatient care). The average expenditure per episode at for-profit facilities was consistently higher than in non-profit and public facilities in all five states except for outpatient care in Maharashtra and Manipur.

TABLE 12: AVERAGE HEALTH EXPENDITURES FOR LAST ILLNESS EPISODE (IN US DOLLARS*) BY PLWHIV, BY STATE AND TYPE OF CARE

	Public	For-profit	Non-profit	Other**	Total
All five states					
Outpatient care	14	31	10	14	20
Inpatient care	30	140	50	26	67
Andhra Pradesh					
Outpatient care	17	40	4	4	18
Inpatient care	51	138	51	4	76
Karnataka					
Outpatient care	14	40	9	1	28
Inpatient care	33	122	48	63	66
Maharashtra					
Outpatient care	9	23	57	16	18
Inpatient care	27	168	47	10	80
Tamil Nadu					
Outpatient care	11	22	3	20	14
Inpatient care	18	105	8	13	43
Manipur					
Outpatient care	29	27	10	15	22
Inpatient care	66	371	66	38	81

* Note: Indian rupees have been converted to U.S. dollars at the rate of 48 rupees=1 U.S. dollar.

** 'Other' includes those cases that could not be classified as public or private.

As a proxy measure of household wealth, the analysis divided PLWHIV into three groups based on total reported household consumption expenditures.¹³ These analyses showed that PLWHIV from the poorest third of households who used for-profit providers spent considerable amounts per treatment episode in the for-profit sector (Table 13). Given Gross National Income (GNI) per capita of US \$1,070,¹⁴ average per-episode expenditures of US \$26 on outpatient care and US \$99 on inpatient care may account for a considerable portion of monthly expenditures for PLWHIV. Unsurprisingly, average per-episode expenditures are substantially greater in the for-profit than in the public and non-profit

¹³ Household consumption expenditures are assumed to correlate with household wealth given the absence of other data.

¹⁴ GNI per capita is for all of India. World Bank World Development Indicators database:

<http://web.worldbank.org/WBSITE/EXTERNAL/DATASTATISTICS/0,,contentMDK:20535285~menuPK:1192694~pagePK:64133150~piPK:64133175~theSitePK:239419,00.html>. Accessed on July 1, 2009.

sectors. On average, outpatient care expenditure in the for-profit sector for the most recent episode among the poorest third of PLWHIV was 2.4 times higher than that in the public sector and 5.1 times higher than the average expenditure in the non-profit sector. The corresponding differences for inpatient care in the for-profit sector for the most recent episode were 4.3 times higher than the average expenditure in the public sector and 2.2 times that in the non-profit sector. These differences were apparent in all the high prevalence states included in this analysis. As can be expected, there was a clear correlation between household wealth and average health expenditure. PLWHIV from wealthier households spent more for both outpatient and inpatient care in the public, for-profit, and non-profit sectors.

TABLE 13: AVERAGE HEALTH EXPENDITURE FOR LAST ILLNESS EPISODE (IN US\$) BY PLWHIV FROM THE POOREST THIRD OF HOUSEHOLDS, BY STATE AND TYPE OF CARE

	Outpatient Care			
State	Public	For-profit	Non-profit	Other*
All 5 states	11	26	5	9
Andhra Pradesh	7	30	2	5
Karnataka	11	28	7	1
Maharashtra	8	27	12	5
Tamil Nadu	6	18	2	4
Manipur	27	26	9	16
	Inpatient Care			
State	Public	For-profit	Non-profit	Other
All 5 states	23	99	44	33
Andhra Pradesh	18	149	24	4
Karnataka	24	102	36	63
Maharashtra	25	93	47	-
Tamil Nadu	13	77	8	-
Manipur	67	291	69	-

*Other' includes those cases that could not be classified as public or private.

Table 14 breaks down expenditures on the last illness episode by type of item and type and level of health facility. Fees and medicines were the single largest expenditure items for outpatient (57 percent) and inpatient (45 percent) care across all types and levels of facility. Clinical tests and room charges (for inpatient care) also accounted for a substantial part of average expenditure. Interestingly, transportation costs were an important expenditure item for both outpatient (18 percent) and inpatient (12 percent) care, and in absolute terms patients spent over twice as much on average for transportation when seeking inpatient care as on outpatient care (based on Table 4). One possible explanation for this finding, particularly in the case of outpatient treatment, which typically requires less sophisticated provider capacity, is that PLWHIV may prefer to receive care further away from their place of residence to avoid stigma.

TABLE 14: AVERAGE HEALTH EXPENDITURE FOR LAST ILLNESS EPISODE BY EXPENDITURE ITEM (ALL STATES)

	Public (Excl. Hospitals)	Public Hospitals	Private For-profit Hospital/ Nursing Home	Private For-profit Doctor	Non-profit	All
Outpatient care						
Fees and medicines	54%	50%	60%	60%	60%	57%
Clinical tests	20%	24%	23%	25%	24%	24%
Transport cost	23%	25%	15%	14%	16%	18%
Bribes and tips	3%	1%	1%	0%	0%	1%
Total (INR)	964	644	1662	1102	489	965
Total (US \$)	19.28	12.88	33.24	22.04	9.78	19.3
Inpatient care						
Room charges	18%	6%	26%	14%	4%	17%
Fees and medicines	32%	46%	45%	42%	49%	45%
Clinical tests	26%	14%	14%	27%	12%	15%
Surgery	0%	2%	2%	0%	0%	2%
Transport cost	13%	15%	7%	11%	24%	12%
Bribes and tips	0%	1%	0%	0%	0%	1%
Food and lodging for caregivers	11%	17%	6%	5%	11%	9%
Total (INR)	1206	1463	6421	9161	2419	3205
Total (USD)	24.12	29.26	128.42	183.22	48.38	64.1

Table 14 also breaks average spending down by type of health facility. In keeping with the pattern of findings so far, PLWHIV spent much more on care from the for-profit sector than the public or non-profit sectors for all expenditure items, although the proportion of expenditure by item type was fairly similar across sectors (Figures 6 and 7). Although the contribution of transportation costs to total expenditures was substantially lower in the case of inpatient care at a private for-profit facility (clinic/nursing home or doctor), average transportation spending was very high in absolute terms given the higher average expenditures at for-profit facilities.

FIGURE 6: PLWHIV OUTPATIENT HEALTH EXPENDITURES BY PROVIDER TYPE

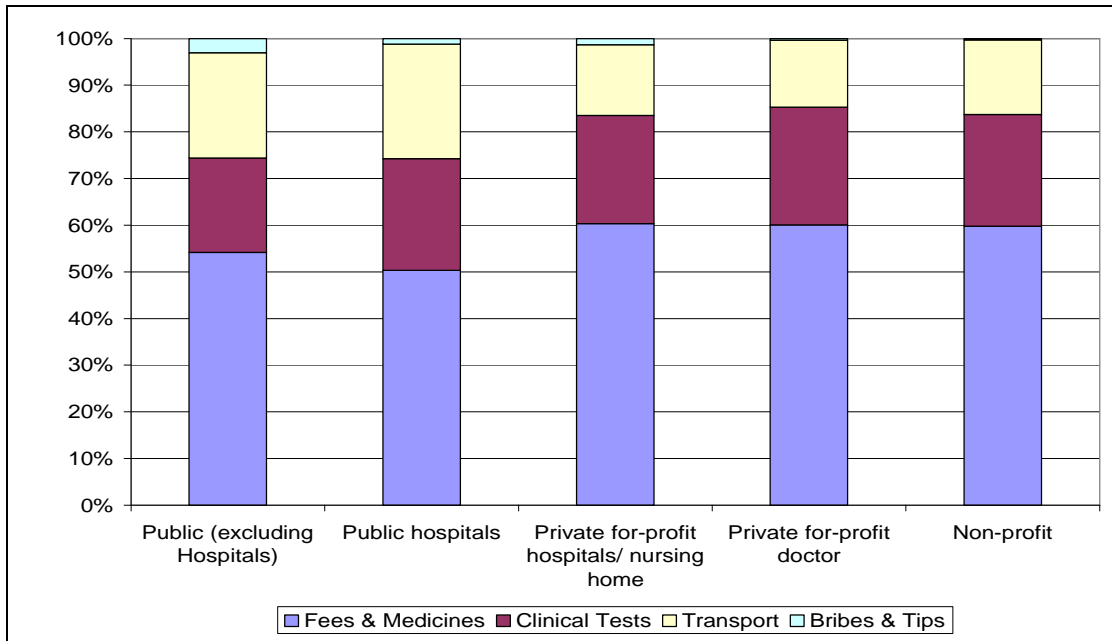
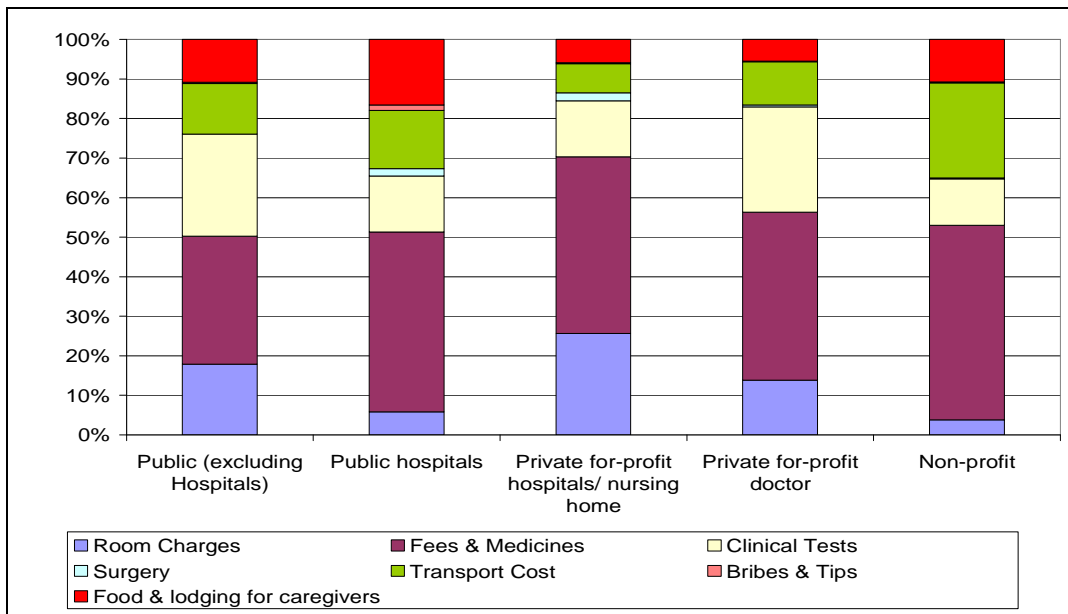


FIGURE 7: PLWHIV INPATIENT HEALTH EXPENDITURES BY PROVIDER TYPE



Households are also spending substantial amounts on HIV testing in the private sector. The average expenditure reported to obtain an HIV test in a public facility was US\$ 0.74. The corresponding figure for a private facility was US\$ 13.20. Even the poorest third of PLWHIV households in urban *and* rural

areas are spending an average of US\$ 11.78 on HIV testing in the private sector and US\$ 0.54 in public facilities.

In the case of both inpatient and outpatient care, there were few differences in the proportion of spending on each individual item by PLWHIV belonging to the poorest third of households (Table 15) compared with the same data for all households (Table 14) although average expenditure for the poorest third of households was considerably lower.

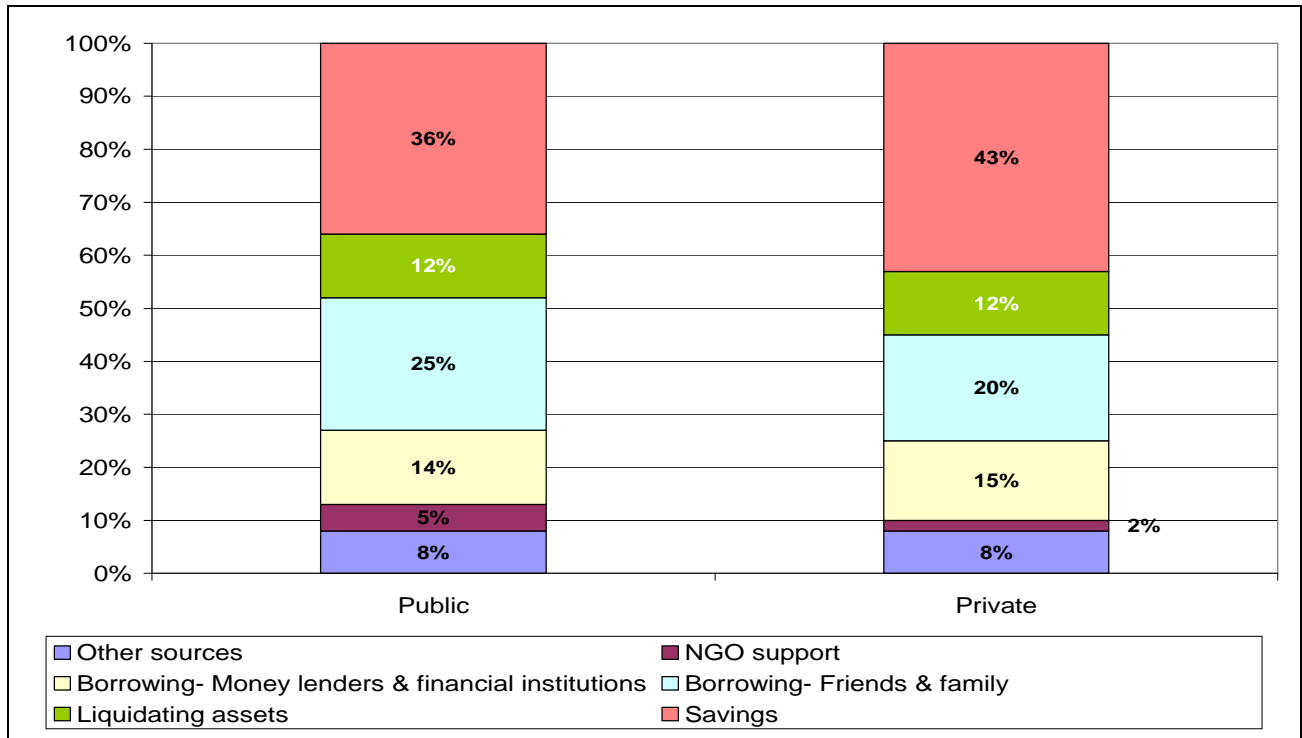
TABLE 15: AVERAGE HEALTH EXPENDITURE FOR LAST ILLNESS EPISODE BY EXPENDITURE ITEM (ALL STATES) FOR THE POOREST THIRD OF HOUSEHOLDS

	Public (Excl. Hospitals)	Public Hospitals	Private For-profit Hospital/ Nursing Home	Private For-profit Doctor	Non-profit	All
Outpatient care						
Fees and medicines	52%	47%	62%	61%	62%	57%
Clinical tests	17%	25%	23%	25%	13%	23%
Transport	29%	27%	14%	13%	25%	19%
Bribes and tips	2%	1%	1%	0%	1%	1%
Total (INR)	376	530	1305	1105	239	692
Total (US \$)	7.52	10.6	26.1	22.1	4.78	13.84
Inpatient care						
Room charges	22%	5%	25%	10%	4%	15%
Fees and medicines	34%	39%	44%	44%	62%	46%
Clinical tests	21%	17%	17%	26%	12%	17%
Surgery	0%	1%	1%	0%	0%	1%
Transport cost	10%	18%	5%	11%	9%	10%
Bribes and tips	1%	1%	0%	0%	0%	1%
Food and lodging for caregivers	13%	17%	8%	9%	11%	11%
Total (INR)	588	1094	4494	7007	2116	2223
Total (USD)	11.76	21.88	89.88	140.14	42.32	44.46

Figure 8 presents source of financing for the last illness episode requiring inpatient care in public and private sectors. We see that PLWHIV financed inpatient treatment primarily by depleting savings, liquidating assets, and borrowing money from various sources, for care in both public and private sectors. Medical insurance and employer reimbursement were a negligible source of financing of inpatient care for PLWHIV across the rural-urban and wealth spectrum. Insurance and employer reimbursement (combined) were the primary source of financing in about 1 percent of rural and 1.6 percent of urban cases of hospitalization for PLWHIV. As insurance and employer reimbursement made

a very limited contribution to financing they are presented as part of the ‘Other sources’¹⁵ in Table 16. Unsurprisingly, insurance and employer reimbursement were even less likely to be the primary source of financing for PLWHIV belonging to the poorest third of households. This heavy reliance on distress-coping strategies like liquidating past savings and assets and borrowing to finance their hospitalization expenses suggests quite clearly that expenditures on inpatient care are a substantial burden with potentially catastrophic consequences for PLWHIV across the spectrum.

FIGURE 8: SOURCE OF FINANCING FOR INPATIENT CARE IN PUBLIC AND PRIVATE SECTORS (PERCENTAGE OF CASES)



¹⁵ The ‘Other sources’ category is a miscellaneous category that includes medical insurance, employer reimbursement, and unspecified sources of financing.

**TABLE 16: SOURCE OF FINANCING FOR INPATIENT CARE (PROPORTION OF CASES)
AMONG ALL AND THE POOREST THIRD OF RURAL/URBAN HOUSEHOLDS**

Source of Finance	Rural		Urban	
	All	Poorest third	All	Poorest third
Past savings	33	36	41	39
Liquidating assets	11	8	11	11
Borrowing from friends and relatives	22	23	24	24
Borrowing from money lenders or other financial institutions	16	16	11	13
NGO support	10	10	7	8
Other sources	8	8	6	6
All sources	100	100	100	100
Average expenditure (INR)	454	301	510	237
Average expenditure (US \$)	9	6	10	5

4. DISCUSSION AND RECOMMENDATIONS

The prevalence of HIV/AIDS in India is relatively low at 0.45 percent. India's population size, however, means that the number of PLWHIV is very large: approximately 2.4 million (UNAIDS/WHO 2008). Close to 65 percent of these PLWHIV live in five states - Andhra Pradesh, Karnataka, Maharashtra, Manipur, and Tamil Nadu - which underscores the need to expand HIV/AIDS-related services that can arrest the spread of HIV and assist in managing HIV/AIDS and its health, psychosocial, and financial consequences in these five priority states.

Our results suggest that the for-profit sector accounts for a very large share of HIV testing and STI treatment services being provided in these states and is far more likely to provide these services to the poor than either the public or non-profit sectors in all states examined except Manipur.

While well over half of all men and women who had ever been tested for HIV were tested in the for-profit private sector, it is important to note the unexpected finding that even among the poorest fifth of persons ever tested, 40 percent of men and 30 percent of women received their HIV test in a for-profit facility. Equally surprising, the non-profit sector accounted for a very small proportion of HIV testing provided in these five states. Only 4 percent and 2 percent of ever-tested men and women, respectively, were tested in a non-profit facility. What is more, non-profit providers were not more likely to reach the poor than for-profit providers. In fact, pooling data from all five states, a negligible proportion of the poorest ever-tested men and women received their test in the non-profit sector. Looking at this another way, almost all of the poorest men and women who were ever tested in a private facility were tested in the private for-profit sector.

Representative data were not available on ART coverage. However, this study examined utilization of STI treatment as the best available proxy for use of private providers for HIV-related curative services. The analyses suggest that STI treatment was underused, as only 31 percent - 61 percent of men and 27 percent - 60 percent of women with STI symptoms reported seeking treatment for the symptoms. We also found that, similar to HIV testing use, 81 percent of men and 68 percent of women who received treatment for STI symptoms were treated in the private for-profit sector. Virtually no men or women treated for STI symptoms were treated in the private non-profit sector. This was true of the poorest men and women as well.

We also found that PLWHIV were spending heavily on outpatient and inpatient care in the for-profit sector. Expenditures on HIV testing services in the private sector were fairly high. On average, households with a PLWHIV reported spending an average of US\$ 0.74 on HIV testing at public facilities and more than US\$ 13 in private facilities. Even the poorest third of households spent almost US\$ 12 on HIV testing in a private facility.

Per-episode treatment costs were also high. On average, PLWHIV spent US\$ 31 for outpatient care and US\$ 140 for inpatient care in the for-profit sector for their last illness episode. This is a substantial amount given that India's per capita gross national income is US\$ 1,070. The poorest third of PLWHIV spent marginally less on average at US\$ 26 and US\$ 99 for outpatient and inpatient care respectively in the for-profit sector. Risk pooling to mitigate against catastrophic health spending was extremely limited

across the wealth spectrum. Employer reimbursement or insurance was the primary source of financing for inpatient care in public and private sectors in under 2 percent of cases in both urban and rural areas. This combination of limited risk pooling and high per-episode treatment costs is pushing PLWHIV households into adopting distress-coping strategies such as liquidating assets and borrowing to finance inpatient care. Such strategies can have potentially catastrophic effects on the productive potential of households with PLWHIV. The effects can include pushing households into poverty or further impoverishing households that are already below the poverty line.

It is important to note that the household expenditure estimates presented are likely to be underestimates. PLWHIV were identified for the study using VCTC counselors in State AIDS Control Societies. The implication of this selection process is that the sample is likely biased in favor of those who use public sector services either exclusively or in combination with private sector services. Public sector services involve lower expenditures for households than for-profit private sector HIV/AIDS-related services, thus resulting in possible underestimation of expenditures. The sampling design also focused on high-prevalence districts in each state, with the result that expenditure estimates are not representative of each state.

For-profit private providers in India exhibit a wide range in the quality of their services and their degree of organization. They range from high quality corporate hospitals that attract international medical tourists to unregistered medical practitioners who operate outside the formal health sector. High levels of private provision raise concerns that the poor are using poor quality services delivered by drug shops or other informal sector providers (see, for instance, Oxfam 2009). The data presented on utilization of STI treatment show that clients primarily chose to use providers that they perceive as doctors, rather than going to pharmacists or drug sellers. Private doctors or clinics provided virtually all private sector STI treatment for women (94 percent) and men (98 percent). This pattern held true even for the poorest 20 percent of men and women. However, it is important to remember that the NFHS-3 relies on clients' reporting. Clients may not be able to distinguish between a qualified and registered doctor and an unregistered practitioner operating outside the formal health sector. It is thus possible that although clients believe that they are seeing a qualified doctor, that may not, in fact, be the case. Furthermore, little is known about the quality of care delivered by for-profit private providers. More information is also needed about the current or potential capacity of specific types of for-profit providers to deliver HIV/AIDS-related services and how this compares with public and non-profit providers.

A third key information gap relates to how public and donor resources for HIV/AIDS are allocated between the public, for-profit, and non-profit sectors. Heavy utilization of and high expenditures on for-profit providers for HIV/AIDS-related services, including by the poor, implies that the poor may not be benefiting adequately from public or donor subsidies unless these are proportionately allocated to for-profit private providers.

4.1 RECOMMENDATIONS

High expenditures in the for-profit sector on HIV/AIDS-related services combined with high levels of utilization of the for-profit sector strongly suggest that donors and governments should explore ways to partner with the for-profit private sector in Andhra Pradesh, Karnataka, Maharashtra, and Tamil Nadu states to deliver HIV/AIDS service to the poor.¹⁶ The potentially catastrophic consequences of high

¹⁶ Manipur differs from these four states both in the scale of for-profit private sector involvement in the delivery of HIV/AIDS services and in the nature of the HIV/AIDS epidemic.

expenditures also strongly suggest that partnership strategies should incorporate a risk protection mechanism to shield vulnerable and poor households from high out-of-pocket expenditures on HIV/AIDS. However, more information is needed to define the specific objectives that partnership strategies must achieve and to identify the most appropriate partnership tools. Based on our findings, we suggest the following preliminary recommendations for policymakers in the HIV/AIDS arena in India:

Track allocation of HIV/AIDS resources. Heavy use of for-profit private providers raises questions about how resources for HIV/AIDS are allocated across public, for-profit private, and non-profit private providers. Channeling public or donor subsidies to for-profit private providers is essential to target subsidies effectively to the poor. Resource tracking is a critical input to assess whether current patterns of resource allocation by the public, for-profit, and non-profit sectors are equitable, or need to be reconfigured in order to reach the poor.

Segment providers who deliver HIV/AIDS-related services by capacity and current quality of care. Donors and governments should consider engaging with formal sector for-profit providers who are most heavily used by the poor, already provide a minimum level of technical quality of care, and/or have the capacity to provide HIV/AIDS services that meet technical standards. Given the heterogeneity of for-profit providers and the scant data available on them, identifying the types of providers who are most heavily used for HIV/AIDS-related services such as HIV counseling and testing and ART and grouping them along key characteristics that make partnership feasible and desirable is an essential first step to identifying and implementing appropriate partnership strategies. Such characteristics include current level of quality, provider qualifications, current patient volumes, capacity to deliver HIV/AIDS services, and willingness to partner with governments or donors. Understanding these characteristics will also help to define key challenges that partnership mechanisms will need to address.

Use financing mechanisms to expand access to HIV/AIDS services through private providers and ensure risk protection and technical quality of care. Household expenditure data point to the important potential role of financing strategies to protect PLWHIV from catastrophic health spending. Heavy use of private for-profit providers strongly suggests that provider payments will be an important lever in forging effective partnerships, as revenue is typically an important motive underlying for-profit provider participation in partnerships.¹⁷ If the larger trends of widely varying levels of quality and capacity in the private health sector in India apply to HIV/AIDS services, an important challenge that partnership strategies must face is how to ensure that private providers' services meet quality standards and follow accepted protocols for HIV/AIDS-related services. Three promising options merit further exploration to identify the most contextually appropriate:

(a) Health insurance models to pool risk

Exploring appropriate health insurance models to pool risk and protect PLWHIV from catastrophic health spending is a promising way forward. Policymakers should consider accrediting and contracting highly used for-profit providers to deliver HIV/AIDS-related services and ensure that provider payment mechanisms incentivize private providers to expand the delivery of high quality HIV/AIDS services.

(b) Targeting subsidies directly to end-users with vouchers

A second promising approach is to use vouchers for a defined package of HIV/AIDS services like HIV counseling and testing or to cover expenses that households incur in accessing health services such as

¹⁷ The experience with implementing output-based aid in Kenya provides some important insights into this issue. See Arur et al. 2009.

transportation costs or medicines. Vouchers can enable more effective targeting of HIV/AIDS subsidies to defined population groups (such as the poor). Vouchers can also ensure that services are free at the point-of-use, thus protecting households from the financial risks associated with using HIV/AIDS services. Voucher program designers should ensure that voucher programs have robust provider accreditation and quality monitoring mechanisms, and also ensure that provider payments incentivize providers to deliver high quality services.

(c) Contracting for-profit providers to deliver HIV/AIDS services

Contracting for HIV/AIDS service delivery with for-profit providers presents a third promising approach to protect households from the costs of using HIV/AIDS services at for-profit private providers by ensuring that services are free at the point-of-use. Contract stewards (government, donor, or third - party payer representatives) should ensure robust quality accreditation as a pre-requisite to contracting, ensure rigorous contract monitoring, and link quality monitoring to provider payments to incentivize and regulate technical quality of care.

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