



Do Free Drugs Mean Free Treatment? The Patient-Level Costs of Obtaining Treatment for AIDS in South Africa

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BACKGROUND

Cost has repeatedly been found to be the most common reason for poor adherence to antiretroviral therapy (ART) and treatment discontinuation among African populations. Many countries are now providing antiretroviral drugs (ARVs) free of charge to expand access to poorer patients and promote adherence. ARVs are only one part of the full cost to the patient of obtaining treatment, however. Patients must also pay for transport to the treatment facility, incur opportunity costs for the time required for clinic visits, and spend money to improve their nutrition as advised by treatment providers. If the non-drug costs of obtaining treatment are large, cost may continue to limit access to treatment and deter adherence, even when ARVs themselves are free.

METHODS

For a longitudinal study of treatment outcomes, baseline interviews were conducted with 442 adult South African patients receiving pre-ART care and 585 patients who had been on ART < 6 months. Questions included the costs to the patient of obtaining treatment, including clinic visits (transport, fees, payment for substitute labor, and lost wages) and treatment-related expenditures in the previous week (purchase of special foods or medicines, other medical care obtained). The three study sites, which are shown below, receive PEPFAR support through USAID and Right to Care.

Site	Province	Sector	Setting	# Study Subjects
1. Themba Lethu Clinic, Helen Joseph Hospital	Gauteng	Public	Urban	597
2. Witkoppen Health and Welfare Centre	Gauteng	NGO	Periurban (informal settlement)	292
3. ACTS Clinic	Mpumalanga	NGO	Rural	138

Recruitment began in July 2005. Subjects were selected systematically from each site's appointment register. ART patients were eligible if they had initiated therapy less than 6 months before enrollment; all pre-ART patients were eligible, regardless of disease stage. Following receipt of written informed consent, study staff administered the baseline questionnaire to each subject during a routine clinic visit (typically while the subject was waiting to see the doctor or have a prescription filled). Mean and median costs at each site were calculated using an exchange rate of \$1=R6.54, the average rate during the period in which data were collected.

RESULTS

COST PER CLINIC VISIT

Type of cost (2005 US dollars)	% of subjects paying > \$0	Median paid by those paying > \$0	Top decile of those paying > \$0
Transport fares			
1. Urban hospital	90.3%	\$3.06	\$7.65
2. Periurban clinic	91.4%	\$1.53	\$3.36
3. Rural clinic	93.5%	\$4.28	\$13.15
All sites	91.0%	\$2.60	\$7.65
Clinic fees			
1. Urban hospital	25.1%	\$6.88	\$6.88
2. Periurban clinic	82.5%	\$4.59	\$4.59
3. Rural clinic	92.8%	\$10.70	\$10.70
All sites	50.5%	\$5.35	\$10.70
Wages lost during clinic visit			
1. Urban hospital	9.4%	\$15.29	\$30.58
2. Periurban clinic	12.7%	\$13.76	\$22.94
3. Rural clinic	1.4%	\$10.55	\$15.29
All sites	9.3%	\$13.76	\$30.58
Payment to substitute labor during clinic visit (e.g. for childcare)			
1. Urban hospital	6%	\$7.65	\$18.35
2. Periurban clinic	3.1%	\$3.82	\$53.52
3. Rural clinic	14.5%	\$3.06	\$11.47
All sites	6.3%	\$6.12	\$15.29
Total cost per clinic visit			
1. Urban hospital	93.8%	\$4.59	\$22.94
2. Periurban clinic	98.3%	\$6.12	\$18.35
3. Rural clinic	96.4%	\$14.99	\$26.61
All sites	95.4%	\$6.12	\$22.02
Time spent traveling to the clinic (minutes each way)			
1. Urban hospital	100%	45	120
2. Periurban clinic	100%	30	60
3. Rural clinic	100%	90	150
All sites	100%	45	120

- Almost all subjects paid for transport. The median amount paid was modest, though substantially higher at the rural site than the urban and periurban sites.
- Most subjects attending the two NGO clinics paid a fee for the visit. Although the urban hospital charges a fee, it was waived for the majority of subjects. Subjects who reported being employed were significantly more likely to have paid a fee at the urban hospital than were those who reported not being employed (33.0% v. 21.1%, p=0.0015).
- Few subjects reported losing wages as a result of the time spent visiting the clinic. Wage loss was most common at the periurban clinic, which serves an informal settlement in which employment is likely to be casual rather than permanent, such that absences from work result in lost wages.
- Few subjects reported paying for substitute labor, for example for childcare, as a result of the time spent visiting the clinic. Payment for substitute labor was most common at the rural clinic, perhaps because of the longer time spent traveling to the site.
- The median total cost per clinic visit was lowest for the urban hospital and highest for the rural clinic. Across all sites, the median cost of a clinic visit was \$6.12. The top decile of patients, however, paid more than \$22 per clinic visit, nearly two days' average wage for an unskilled worker in South Africa.
- In addition to paying the highest amount per clinic visit, rural patients spent the largest amount of time traveling to the clinic.
- Only about 1 out of 10 subjects at the urban and periurban sites reported spending money on other medical care, including traditional healers, during the week preceding the interview. This figure was twice as high for the rural site, however. For those who did pay for other medical care, the amounts spent were large, with a median of \$15.29 per week.
- More than half the subjects at all sites reported having spent money on non-prescription medicines or special foods for themselves during the week preceding the interview. Amounts spent were large, particularly among subjects at the urban hospital.

AMOUNT SPENT IN PREVIOUS WEEK

Type of cost (2005 US dollars)	% of subjects paying > \$0	Median paid by those paying > \$0	Top decile of those paying > \$0
Other medical care			
1. Urban hospital	11.4%	\$10.70	\$38.23
2. Periurban clinic	8.9%	\$16.82	\$38.23
3. Rural clinic	21.7%	\$16.06	\$30.38
All sites	12.1%	\$15.29	\$36.70
Non-prescription medicines or special foods			
1. Urban hospital	59.8%	\$13.76	\$45.87
2. Periurban clinic	57.5%	\$6.96	\$45.87
3. Rural clinic	51.4%	\$7.65	\$30.58
All sites	58.0%	\$9.17	\$45.87
Total amount spent in previous week (excluding clinic visit)			
1. Urban hospital	64.5%	\$12.54	\$72.63
2. Periurban clinic	62.7%	\$10.70	\$47.40
3. Rural clinic	52.9%	\$21.71	\$62.69
All sites	62.4%	\$13.76	\$64.07

CONCLUSIONS

Although ARVs are free of charge in the public and NGO sectors in South Africa, obtaining treatment is not free. South African ART guidelines call for patients to visit the treatment facility at least 9 times during the first year on ART. For the median subject in this study, this entails an annual cost of almost \$75. Many patients pay considerably more than this. Patients also report spending large amounts to improve their nutrition.

Despite the provision of free drugs, cost may hinder adherence and deter long-term retention of ART patients, particularly those without cash incomes and patients in rural areas. Strategies for subsidizing transport, reducing numbers of clinic visits, or delivering drugs to patients could mitigate this problem.

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