

# 23. Primary Estimates of the Costs of ART Care at 5 AHF Clinics in Sub-Saharan Africa

JE Aledort PhD<sup>1</sup>, BK Stearns<sup>1</sup>, DK Evans PhD<sup>1</sup>, P Iutung MD<sup>2</sup>,

F Tootla MD<sup>3</sup>, SA Bozzette MD, PhD<sup>1</sup>, G Ryan PhD<sup>1</sup>, G Wagner PhD<sup>1</sup>

<sup>1</sup> RAND Corporation; <sup>2</sup>AIDS Healthcare Foundation, Uganda Cares; <sup>3</sup> AIDS Healthcare Foundation, Ithembalabantu Clinic

## BACKGROUND

Increased global HIV/AIDS funding and reduced drug costs have increased access to antiretroviral therapy (ART) in resource-poor settings. Published estimates of per-patient costs of providing ART in developing countries range from \$700 to \$1600, but methods, assumptions, and details vary. To ensure efficient, cost-effective, high-quality ART scale-up, more systematic accounting of clinic-level per-patient ART costs of care are warranted. We estimated the costs of providing ART care in AIDS Healthcare Foundation (AHF) clinics in South Africa and Uganda using primary cost data.

## METHODS

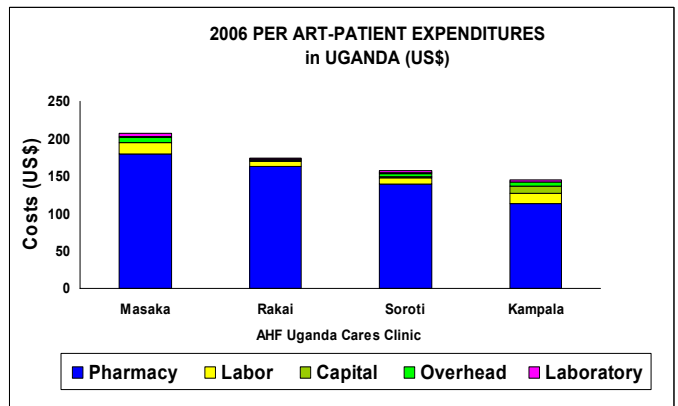
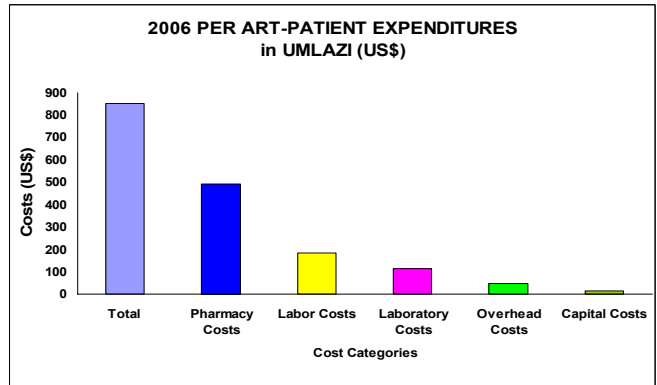
- We estimated per-patient component costs of providing care to patients on ART using 2006 monthly financial data from 5 AHF clinics.
- Data on labor and wages, laboratory investigations, overhead, training and public relations costs and the monthly number of ART patients were obtained from the clinics.
- in Umlazi (South Africa), where AHF pays for all drugs, we estimated drug costs directly from AHF financial data. For the four Ugandan clinics, where many ARVs are paid for by the Ministry of Health (MOH), we obtained additional pharmacy costs from published ARV list prices for low-income countries and from clinic-based estimates of the proportion of patients on a given ARV.
- Primary outcomes included total average expenditures per patient on ART and relative cost composition.

## STUDY CLINICS\*

Clinic	Clinic Type	Medical Care	Total Patients on ARVs (#)	Patients on ARVs (%)
UMLAZI	Stand-alone, peri-urban	Out-patient ART	1,700	90%
KAMPALA	Stand-alone, urban	ART and Non-ART	1,200	40%
MASAKA	Co-located with peri-urban district hospital	ART and Non-ART	5,200	53%
RAKAI	Co-located with rural district hospital	ART and Non-ART	3,100	47%
SOROTI	Co-located with rural district hospital	ART and Non-ART	4,700	46%

\* All data are for 2006

- In South Africa, AHF has operated the Ithembalabantu Clinic in Umlazi since 2002. In addition to ART care, Umlazi provides some psychosocial support services to non-ART patients.
- In Uganda, the AHF and MOH partnership (Uganda Cares) operates in 11 clinics in six districts throughout Uganda, largely relying on the use of lay persons trained as "HIV Medics" to streamline care.



## RESULTS

**In South Africa**, the total average cost per patient receiving ART in 2006 was \$852. Pharmacy costs comprised 58% of the total, and Labor comprised 22%. Training and education and public relations costs were negligible (not shown). Total per-patient expenditures (including those for non-ART patients) were \$887.

**In Uganda**, the total average cost per patient receiving ART ranged from \$145 to \$207, with drug costs comprising approximately 90% of the total in each clinic. Total per-patient costs ranged from \$180 (Soroti) to \$230 (Masaka).

Despite drug discounts, ART medications still account for the single largest per-patient cost across all sites.

## DISCUSSION & POLICY IMPLICATIONS

- Detailed exploration of primary financial data from AHF clinics in South Africa and Uganda suggest a total cost per ART patient on the low end of published estimates.
- The relatively low cost of ART care observed in these clinics may reflect a reliance on the task shifting of some care to nurses and HIV Medics.
- Few cost analyses of ART scale-up in resource-poor countries have examined primary donor financial data, and standardized methods are lacking. The development of such methods to track and measure 'in-kind' goods and services and other clinic costs will facilitate better data collection, enable comparisons across cost studies and encourage greater efficiency in the delivery of ART.
- Increased demand for immediate ART requires that scale-up programs place more emphasis on streamlined operations to improve overall efficiency without sacrificing patient care and outcomes.