

# Determining Risk Factors Associated with Non-adherence in HIV Patients in San José, Costa Rica



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# HIV in Central America

- Estimated prevalence range between 0.20% in Nicaragua and 2.01% in Belize
- Country-specific predominant modes of transmission (heterosexual, homosexual and IDU)
- Access to drug therapy is typically restrained in most Central and South American countries due to high costs

# HIV in Costa Rica

- The prevalence = 0.54 % of adults living with the virus
- Predominantly spread through homosexual contact (61%), although heterosexual transmission is growing (24%)
- Narrowing gap between men and women (13:1 to 5:1)
- Free access to treatment through the the Caja Costarricense de Seguro Social, or Costa Rican Social Security System

# Purpose

- To determine adherence levels of a group of seropositive patients attending an HIV outpatient clinic in San Jose, Costa Rica
- To identify specific factors that are associated with non-adherence

**Setting: Hospital Mexico, San Jose,  
Costa Rica**



# Methodology

- Target population- all seropositive patients of Dr. Maria Paz Leon and those who came for their routine blood tests
- Time period- mid June to mid-August of 2002
- Patients must have been on ARV for at least 6 months
- Questionnaire administered face-to-face in Spanish (ATHENA Project)
- Laboratory tests (CD4 count and viral load) were also obtained from each patient

# Results

## Sample Population

- 88 patients (75 male and 13 female) were enrolled in the study, with a participation rate of 87.1%
- Ages 18-77, median 38.2 years
- Patients take on average 13.21 pills for HIV treatment per day, (min. 7 and max. 19)
- CD4 T cell count: 0-199 (5%), 200-499 (49%), 500+ (46%)

## Adherence-defined as 100% of prescribed medications actually taken

- 85% remained adherent the 3 days prior to interview
- 69% remained adherent the week prior to interview
- 51% remained adherent the month prior to interview

# Predictors of Non-adherence

	Unadj. O.R. (C.I.)	p-value	Adj. OR (C.I.)	p-value
■ Difficulty finding transportation	4.3 (1.3-14.6)	0.02	6.3 (1.5-26.9)	0.01
■ Taking meds on an empty stomach	3.3 (0.9-11.6)	0.04	6.7 (1.3-35.7)	0.03
■ Change in daily routine	4.3 (1.1-17.7)	0.07	NS	
■ Not maintaining a good attitude or mental state	13.3 (1.1-166.6)	0.04	NS	
■ Not laying pills out	2.9 (0.9-9.7)	0.09	9.9 (1.7-55.4)	0.01
■ More than 13 ppd	6.0 (0.7-48.8)	0.09	NS	

# Transportation

- All patients must travel to San Jose for treatment
- 75% of population sampled reported difficulty in finding transportation to visit the doctor for consultation and to pick up their medications

	Car (%)	Bus (%)
Not difficult	26%	74%
Difficult	4%	100%

# Conclusions

- HIV patients are fairly adherent to their medication regimens compared with western studies (Durante, 2003)
- **Implications**
  1. Individual level/clinical care-  
interventions that promote positive attitudes, ideal treatment conditions, laying pills out and keeping a daily routine
  2. Policy-  
improving increased access to medications via improved transportation or decentralized distribution of ARVs

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