

## Adherence to ART in Bangalore, India

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### Project Description

The overall goal of this study is to examine patient and provider antiretroviral therapy (ART) adherence issues as well as factors leading to the development of ART drug resistance in public and private health care settings in Bangalore, India. During our first four years, culturally appropriate adherence measures were developed, including a measure of ART treatment interruptions. We also developed culturally-specific measures of AIDS stigma and identified barriers that interfere with adherence to ART and lead to treatment interruptions in private clinic settings. This model is currently being expanded to a public health setting and these data will be used to develop and pilot test an ART adherence intervention in both settings.

In years five-seven we plan to:

- Expand our initial study to the South Indian public health clinic setting, to apply, test and modify the adherence model developed for patients attending our private health clinic.
- Document the relationship between ART adherence and HIV-1 subtype C drug resistance patterns in a cohort of 500 patients recruited from both private and public clinic settings.
- Develop a culturally-appropriate, theoretically-guided and empirically-based ART adherence intervention and to pilot test and evaluate it first in the private clinic setting and subsequently in the public clinic setting.

### Interesting Findings

- The greatest adherence challenges include long-term maintenance and obtaining timely prescription refills.
- Challenges in obtaining prompt prescription refills are often associated with social and structural barriers and often lead to treatment interruptions of more than 2 days.
- Delays in prescription refills are associated with virologic failure.
- More than a quarter of the study patients were in virologic failure and among these patients, only 20% had wild-type virus. This severely limits the utility of first-line ART in this setting.
- Due to its cost, viral load is not currently part of standard HIV clinical practice in India. Patients may be in virologic failure for months before their clinical failure is detected by their physicians.
- Given the prevalence and significance of these mutations, there is an urgent need for the introduction of second line ART in India.

**Project End Date:** May 2011