

## Abstract

### MOPE0674 - Health care costs, savings and productivity benefits resulting from a large employer sponsored ART program in South Africa

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**Background:** Employer-based programs are playing an increasingly important role in the rapid scale up of access to antiretroviral (ART) in Southern Africa. There is limited evidence on the costs of provision, net impact on health service utilization and wider benefits associated with improved absenteeism, productivity at work and rates of labour turnover for ART. This paper presents an economic analysis of 2400 employees on treatment through a large employer ART in South Africa.

**Methods:** Net costs of differing ART provision models from an employer provider perspective were calculated from prospective data collected over a 3 year period. Data on absenteeism and labour turnover and productivity were also monitored. Changes in health care utilization and absenteeism pre-post treatment were analyzed with and without adjustment for progression of disease. Determinants of costs and savings were explored using econometric techniques including employer and employee characteristics and ART take up and response.

**Results:** ART provision costs decreased over 2 years of implementation from over US\$220 per patient month on treatment to less than US\$170. Contractor GP delivery models were higher cost than company based clinics due to lower economies of scale and greater variation in drug and lab use. Mean absence per worker on treatment declined from 7.5 days per month immediately prior to treatment to 2.9, 2.2 and 2.1 days after 6, 12 and 18 months of treatment respectively. Significant predictors of savings include baseline CD4, job grade and other employee contract variables.

**Conclusions:** Short term savings exceeded costs across all models of employer based ART provision. Longer-term data based net benefit calculations are required. Where economic benefits exceed costs to employers economic arguments exist for employer financed ART lessening burdens on public sector programs in resource poor settings. Public-private partnerships encouraging employer-based ART provision are viable for rolling-out ART provision.