

Factors associated with antiretroviral treatment (ART) uptake at primary health care level in the Africa Centre Surveillance Area of the Hlabisa HIV Treatment and Care Programme

Abstract

Worldwide, an estimated 34 million people were living with HIV, but only 47% of the people in low- and middle-income countries eligible for antiretroviral therapy (ART) were receiving treatment at the end of 2010. The aim of this study was to investigate factors associated ART initiation as well as to determine ART uptake by age-group, gender and clinic catchment in a typical rural sub-Saharan African setting.

Methods: Data from the Africa Centre 2010 population-based HIV surveillance (including C4 count measurement) was linked to the HIV treatment and care programme database. Those successfully initiating treatment (n=482) were then compared against those eligible for treatment but had not yet been initiated (n=117). The variables for analysis included gender, age, education level, employment status, number of individuals in the household, household asset index, distance of homestead from the nearest clinic, number of prior pregnancies and live births a woman ever had as well as the baseline CD4 count (at ART initiation and 2010 measurement for those not yet initiated). ART uptake by age-group, gender and across six clinic catchments was calculated using the population-based HIV surveillance from 2011 through linkage to the HIV treatment and care programme database.

Results: Of the 1 308 HIV infected individuals who had CD4 count results, 599 were eligible for therapy based on a CD4 count criteria of <200 cells/mm³. Of these 80.5% (482/599) had initiated ART as of 31 October 2011. In the adjusted logistic regression model, males were 71% (OR = 0.29, $p<0.001$) less likely to have initiated therapy compared to females. Those in the 30 - 44 year age-group were 84% more likely to initiate therapy (OR =1.84, $p=0.039$)

compared to those in the 15 - 29 year age-group. Individuals who had secondary and higher levels of education and those who lived far away (≥ 4 kilometres) from the nearest clinic were less likely to initiate ART (OR = 0.29, $p = 0.001$ and OR = 0.67, $p = 0.337$) compared to those with primary and lower levels of education and those who lived within 2 kilometres of the clinic respectively. Employed individuals were about twice as likely to initiate ART (OR 1.99, $p = 0.017$) compared to the unemployed. Overall the ART uptake across the study area among all HIV positive individuals was 32.5%. ART uptake and median CD4 count at initiation by clinic catchment ranged from 31.0% to 43.2% and 132 to 153 cells/mm³ respectively across the six clinic catchments.

Conclusion: Although the overall rate of ART initiation was high, certain population groups were not covered well. Interventions that target younger people, males and unemployed individuals can help in reaching as many treatment eligible individuals as possible.