

Gender differences in a large-scale HAART program in Western Kenya

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Background

Several studies have found differences in rates of HIV disease progression and responses to antiretroviral therapy between HIV-infected women and men. However, most of these studies are from developed countries and there is limited data from large-scale HIV treatment programs in resource-constrained settings.

Objective

This study aims to describe gender differences in registration, treatment initiation and treatment outcomes.

Setting

- Busia District, Western Province, Kenya (pop. 430,000)
- HIV prevalence rate 12.9% (2001) 7.4% (2003), national average 6.4%*
- MSF supported program started in 2000, HAART started in June 2003
- > 90% of patients receive the generic, fixed-dose combination of 3TC-d4T-NVP
- Care is free of charge



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* Source: NASCOP, 2004

Methods

- Data is collected for each patient visit using specific MSF-developed software (FUCHIA).
- Survival analysis (life table method) and multivariate modelling of survival (Cox regression) were conducted.
- Data until 31/05/06 was used in this analysis and was analysed using SPSS (version 10.0.5).

Results

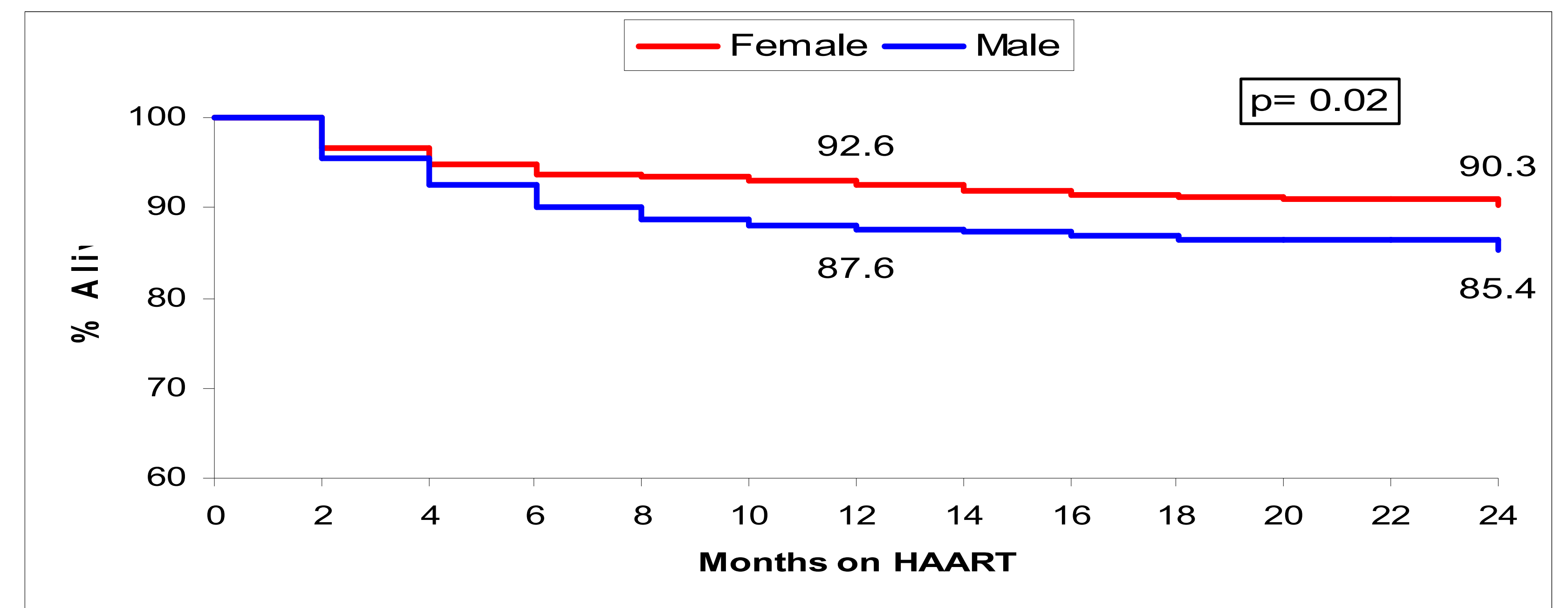
More females than males are enrolled in the HIV clinic; this difference is reflected in the number of patients starting HAART.

HAART patients baseline characteristics:

	Female	Male
HIV+ patients registered	3440 (67.9%)	1627 (32.1%)
Started on HAART	1339 (68%)	630 (32%)
% in WHO stage 3	66.0%	62.3%
% in WHO stage 4	14.5%	18.0%
Mean CD4	147 (10 ⁶ cells)	131 (10 ⁶ cells)
Median CD4	129 (10 ⁶ cells)	98 (10 ⁶ cells)
% with CD4 < 100	41%	51%
Mean age	35.3 years	38.2 years
Median age	35.0 years	39.6 years
% with BMI < 18.5	32.5%	35.9%
% with previous TB diagnosis	9.5%	11.0%

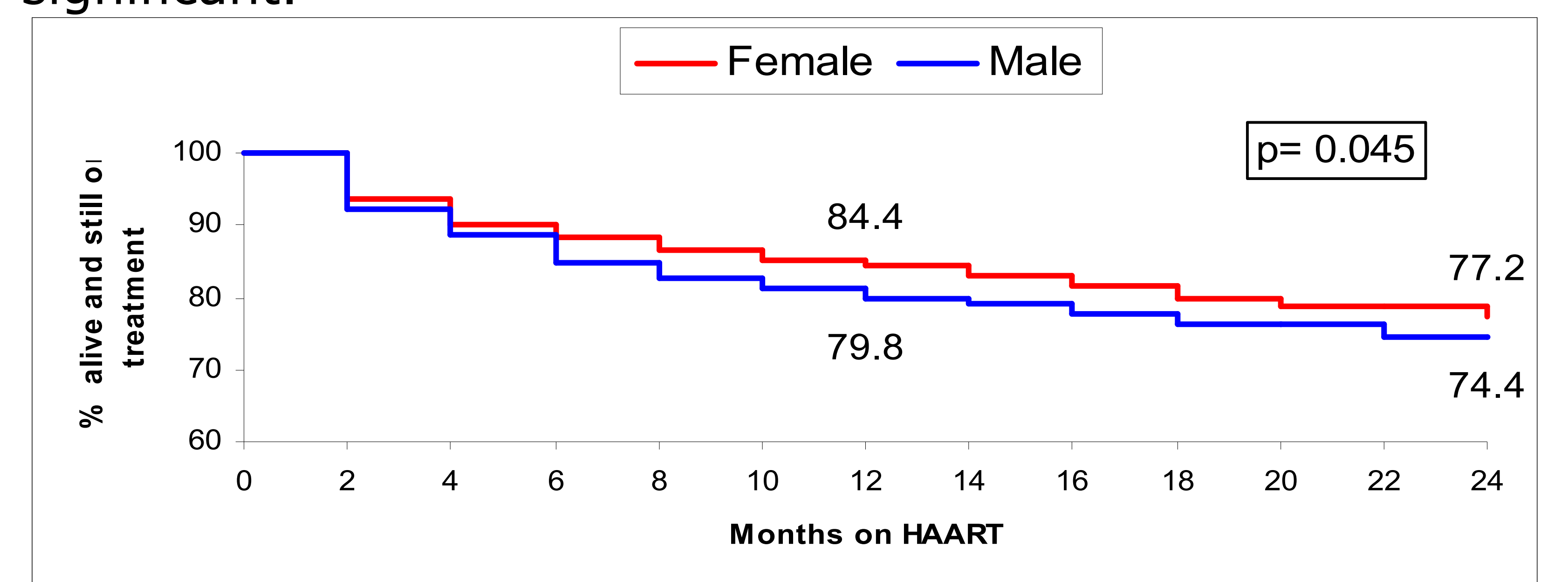
Survival on HAART:

There is a significant difference in cumulative survival between males and females. By 12 months on ART, 7.4% of females have died compared to 12.4% of males.



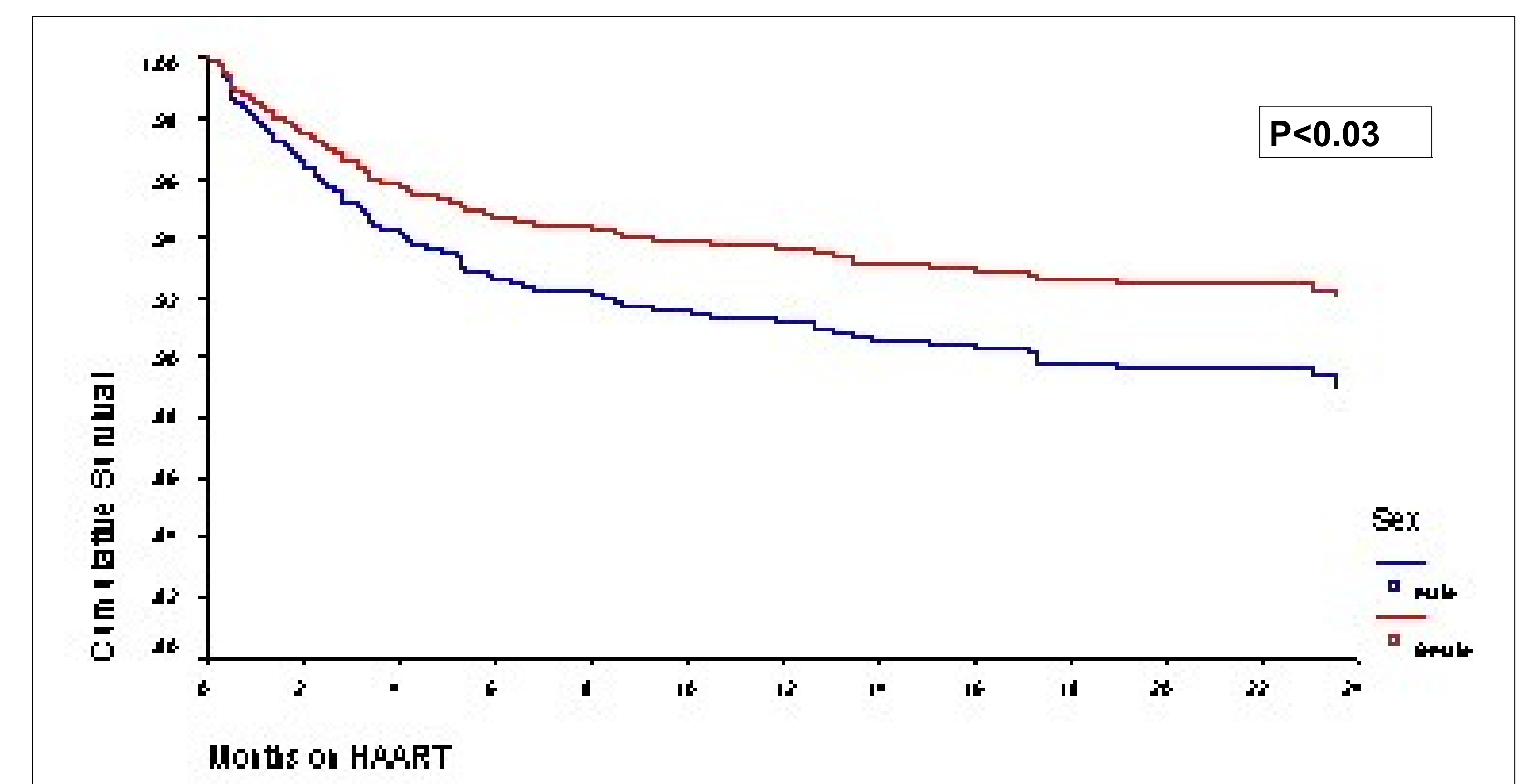
Survival and patient retention:

The cumulative percentage of patients that are alive and still on treatment (accounting for default) over time shows that the difference between males and females remains significant.



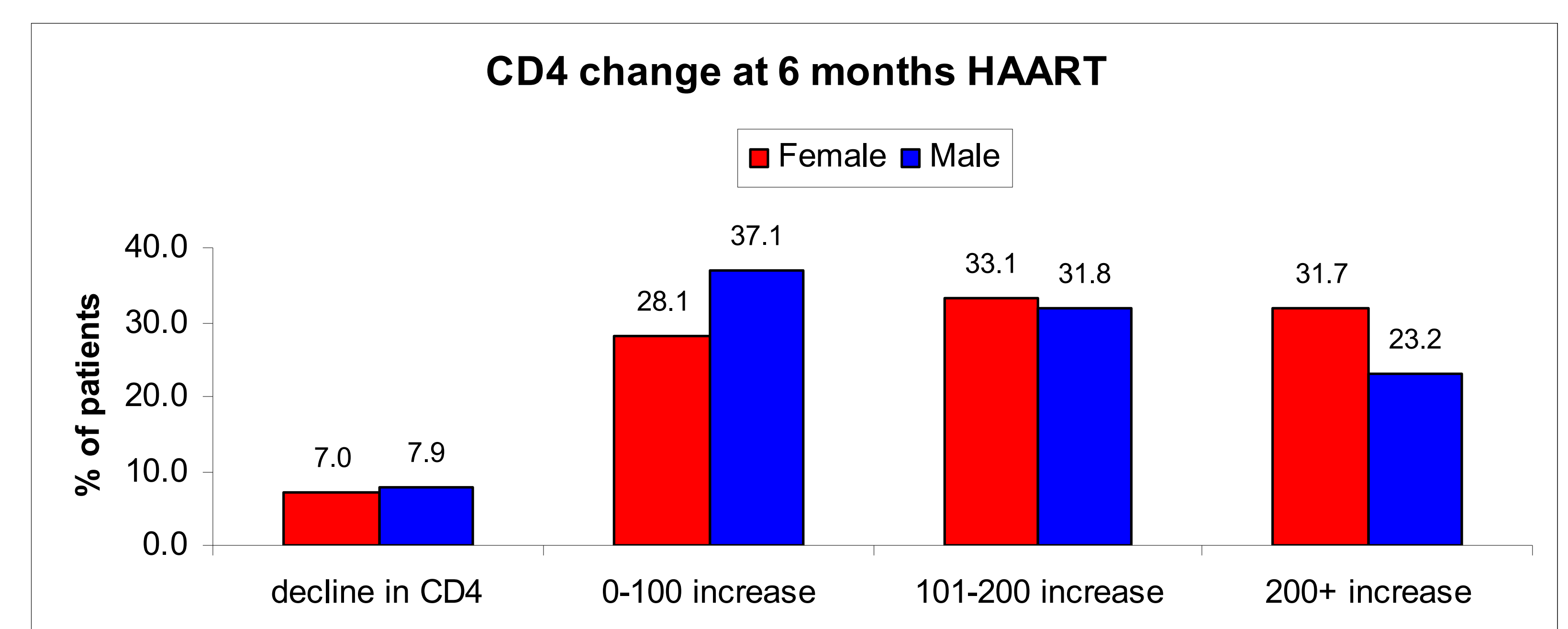
Multivariate analyses:

Even though men seem to have lower baseline CD4 count, a Cox regression analysis to control for CD4 at initiation shows that a significant difference in survival remains between males and females.



CD4 response to HAART:

While the same number of males and females failed to improve their CD4 count, more females recorded an increase of more than 200 cells than males.



Conclusion

These results suggest that, in our setting, women respond better to antiretroviral treatment and that this is reflected in better survival. Whether this is due to biological or social and behavioural factors warrants further investigation.