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# Patient Advocates for Improved Retention of ART patients –*Kheth'Impilo*–

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Reaching 90–90–90 in South Africa Part III: Best Practices and  
Innovations in Linkage, Treatment and Viral Suppression. Pretoria

31 May 2016



# Background

- ▶ **The antiretroviral treatment (ART) program in SA has expanded rapidly and now includes > 3 million people on ART.**
- ▶ **However, long-term patient retention in public programs is challenging, with patient retention of 58% nationally after 4 years of ART.\***
- ▶ **Viral resistance and treatment failure rates are increasing.**
- ▶ **To attempt to improve ART adherence, viral suppression and long-term patient retention, a community-based adherence support program was introduced by Kheth'Impilo since 2004.**
- ▶ **Kheth'Impilo is an NPO that supports DOH with public health systems innovations.**

\* Patients starting ART in 2008/09. NDoH ART program analysis 2004–2014



# Patient Advocates (PAs)



**SUPPORT**



**HOME VISITS**



**ENCOURAGE PATIENTS**



**PLANNED SUPPORT  
to suit individual needs**



**SPECIAL ATTENTION**

- **Community health workers provide adherence and psychosocial support for ART patients.**
- **Perform home visits & assess patients and household to identify potential issues that adversely affect adherence: eg. non-disclosure, substance abuse, nutrition security, domestic violence etc.**
- **Patients encouraged to adhere to positive lifestyle choices that include taking treatment & keeping clinic appointments.**
- **Plan support to suit individual client needs through planned home visits and clinic-based support.**
- **Special attention paid to those ill, pregnant women, with TB, children, those with irregular clinic attendance.**



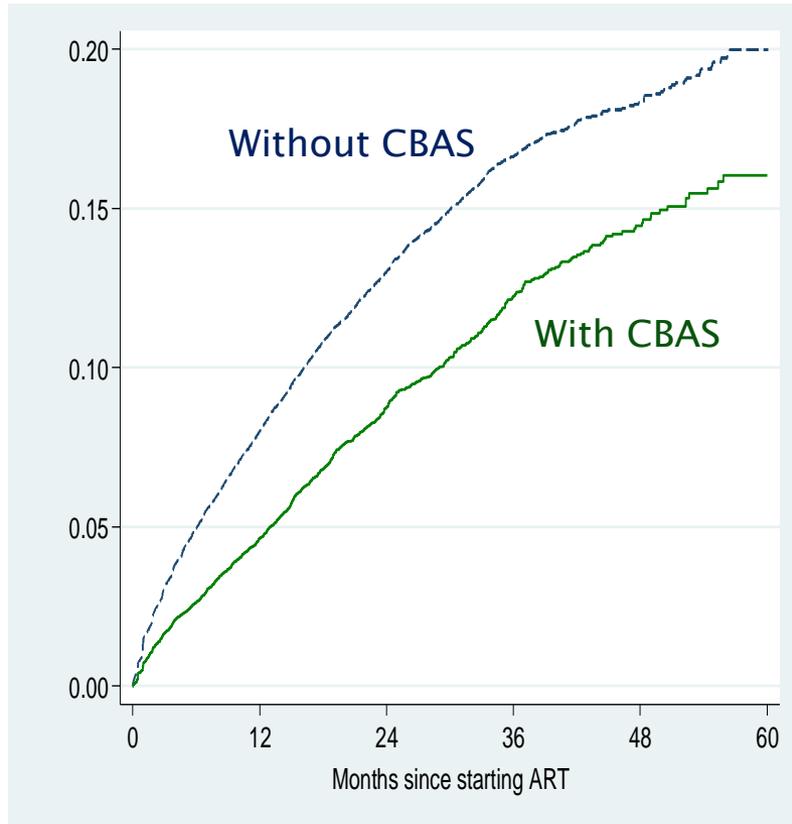
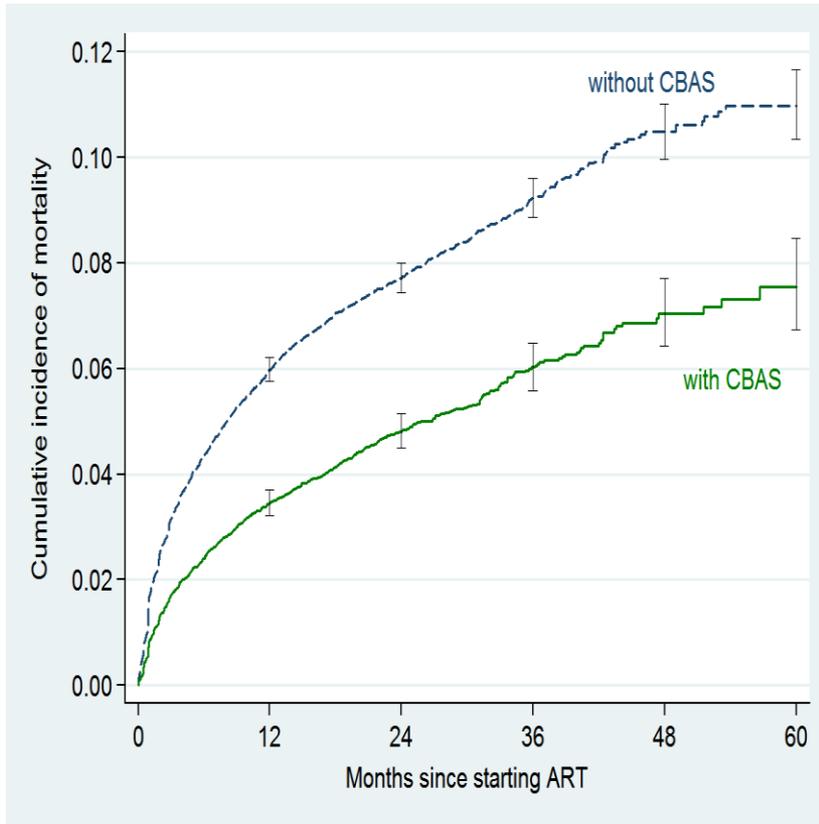
# Methods

- ▶ **AIM:** To evaluate the effectiveness of community adherence support for patients receiving ART in routine settings in SA.
- ▶ A multicentre cohort study was performed at 77 facilities in four provinces.
- ▶ Included adults, adolescents and children starting ART since 2004.
- ▶ Prospectively collected routine clinical data were analysed.
- ▶ Outcome measures: mortality, loss to follow-up, viral suppression and CD4 cell increases after starting ART.
- ▶ Outcomes compared between patients who received and did not receive CBAS.

## Results

- ▶ 71,806 patients included, 20,650 (28.8%) received CBAS and 51,156 (71.2%) did not.
- ▶ Observation time: 105,143 person-years

# Mortality and LTFU after starting ART (adults)

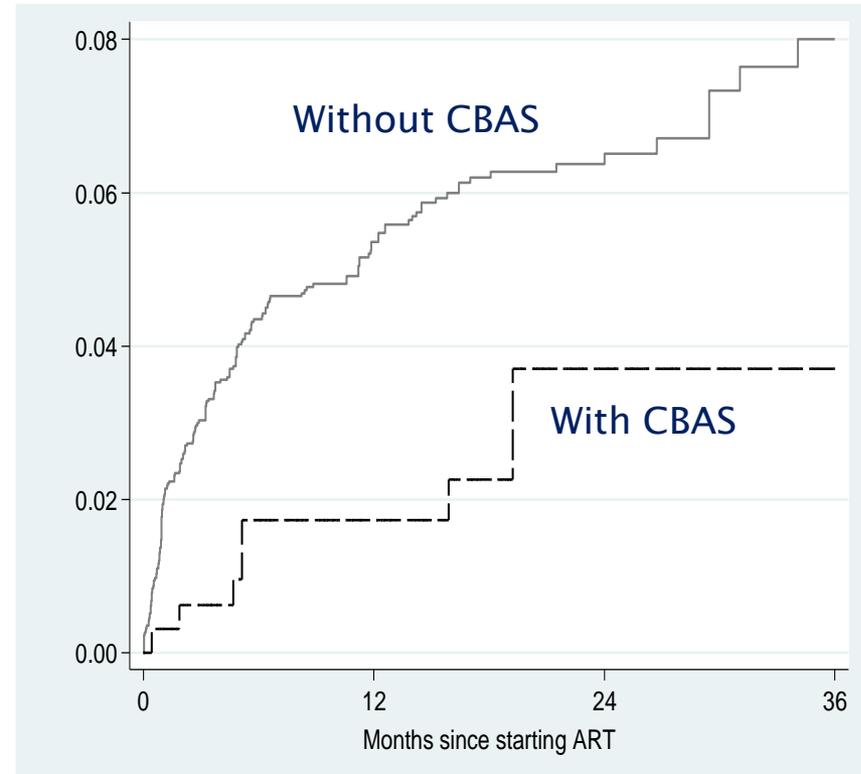
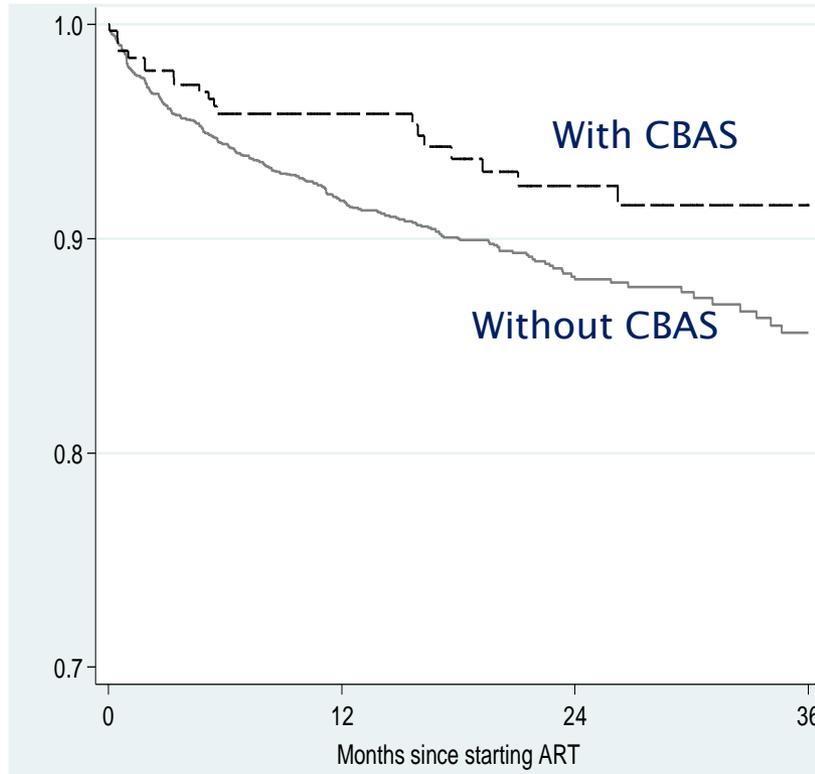


35% reduction in mortality; aHR 0.65 [95% CI: 0.59–72]

37% reduction in loss to follow-up; aHR 0.63 [95% CI: 0.59–0.68]



# Retention and mortality in children

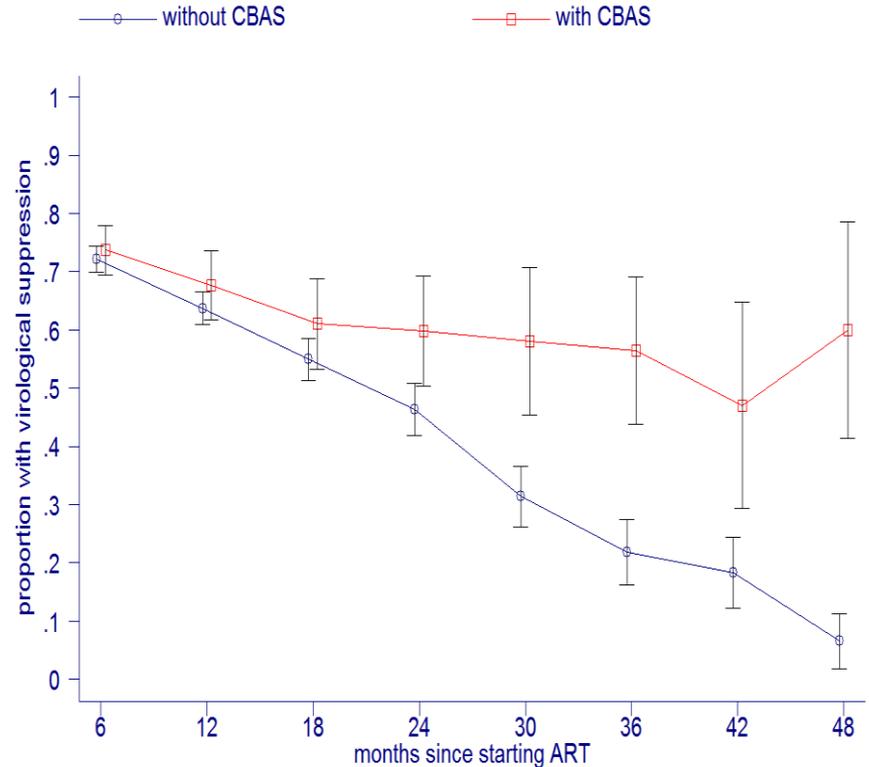
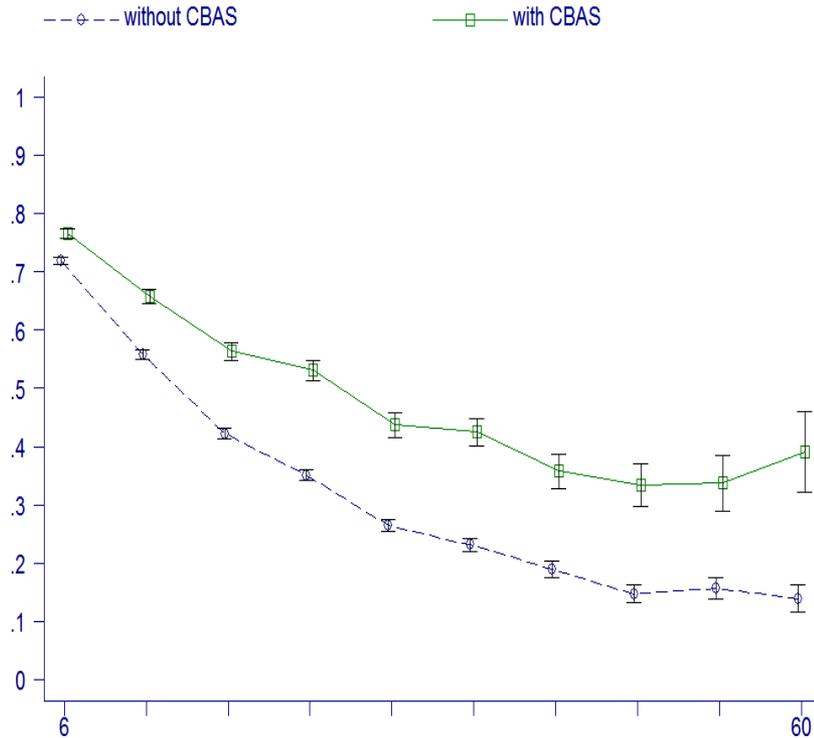


**43% reduced hazard of attrition: aHR 0.57 (CI: 0.35-0.94)**

**60% reduction in mortality with CBAS: aHR 0.40 (CI: 0.15-1.06)**



# Combined outcome: retention with viral suppression (by ITT)

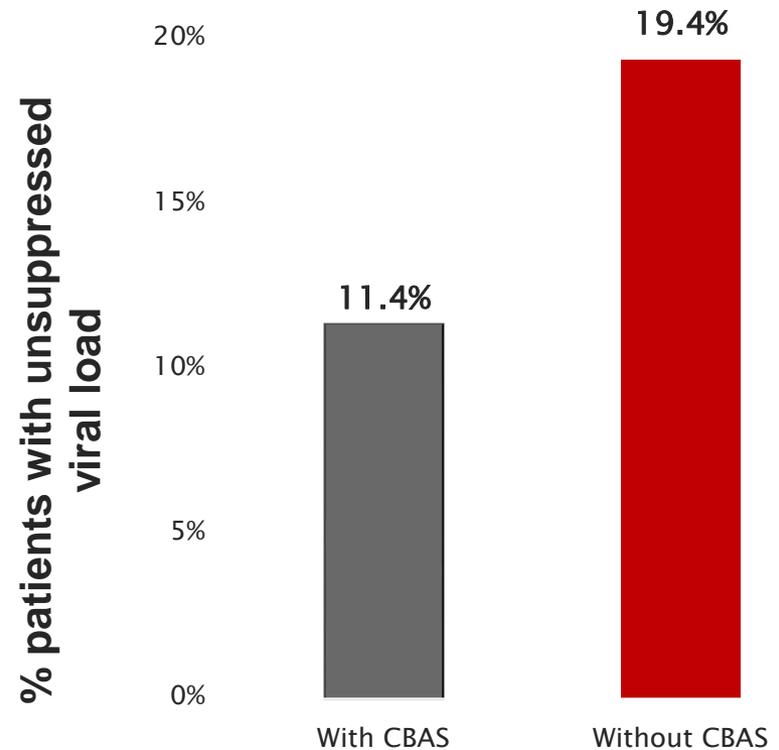
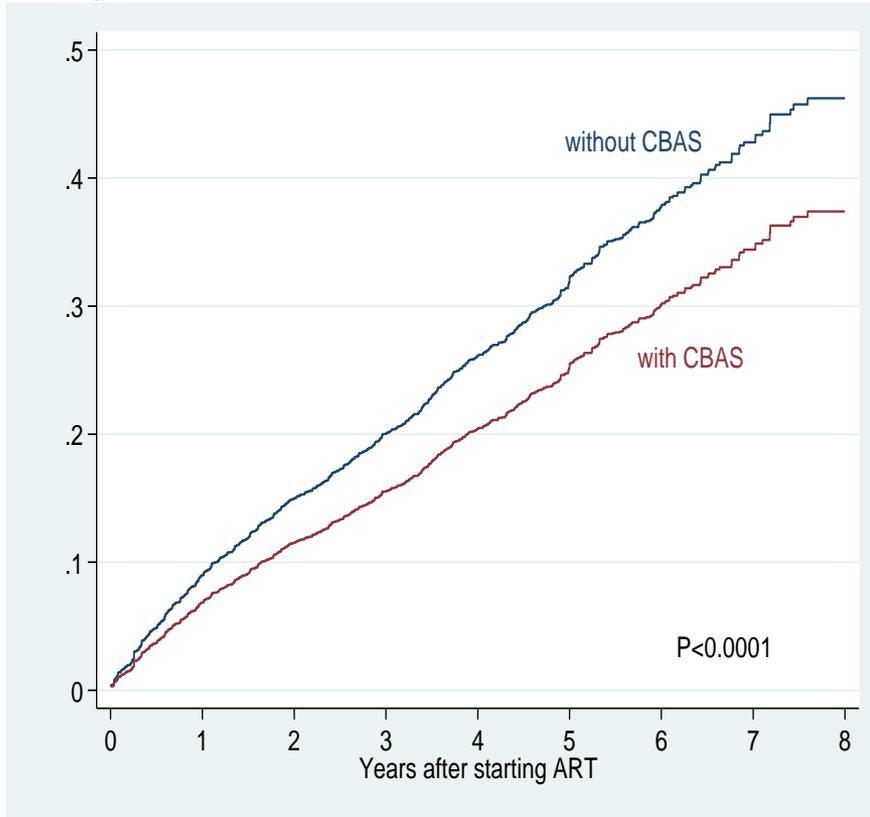


50% improvement: aOR: 1.49  
(95% CI: 1.40–1.58)

60% improvement: aOR 1.60 (95% CI: 1.35–1.89)



# Loss to follow up and viral suppression after 8 years of ART



asHR 0.74 (95% CI: 0.66–0.84)

aRR: 0.47 (95% CI: 0.26–0.86)

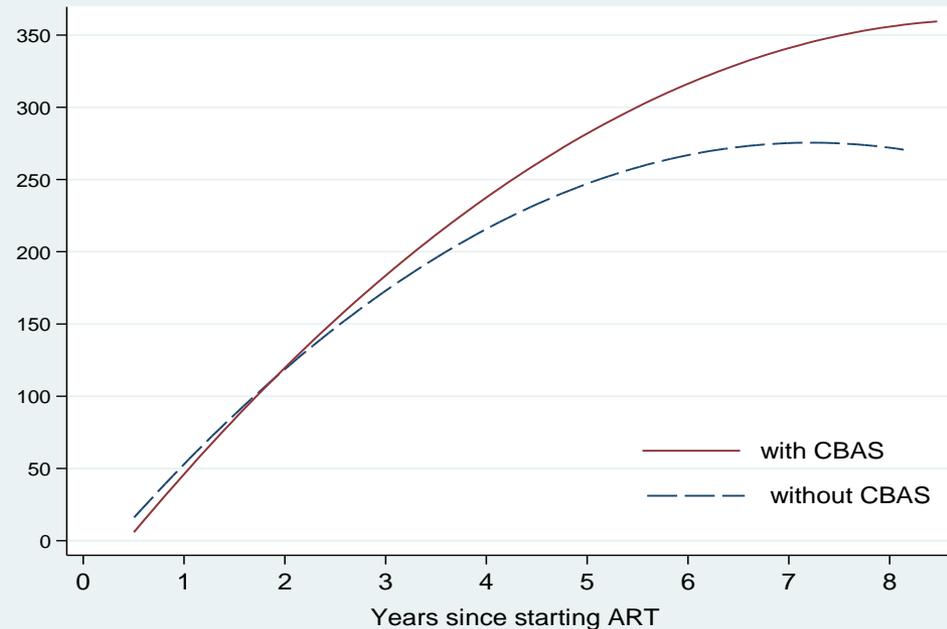
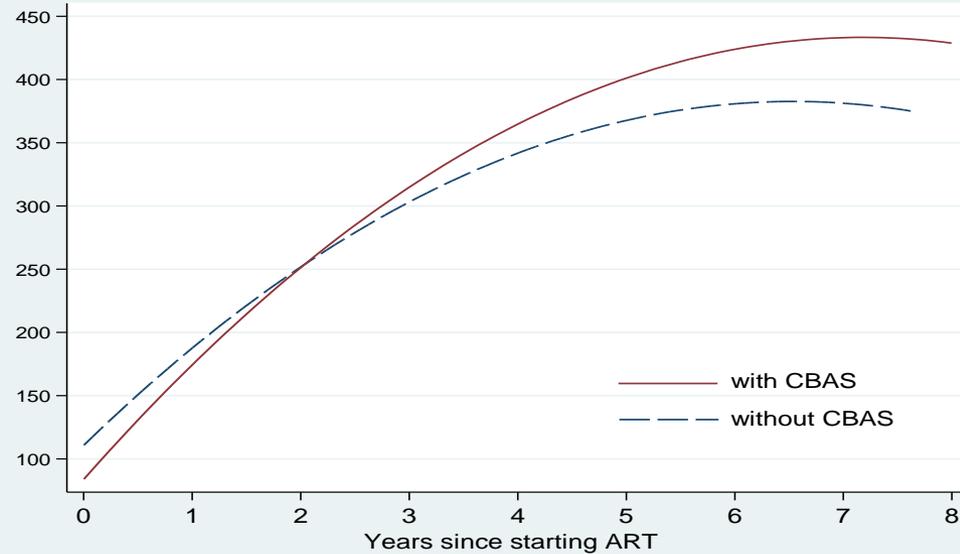
Geoffrey Fatti, Eula Mothibi, Najma Shaikh, Ashraf Grimwood. Improved Long-Term Antiretroviral Treatment Outcomes Amongst Patients Receiving Community-Based Adherence Support in South Africa. AIDS Care, 2016. In press.



# Modelled CD4 cell trajectories over 8 years

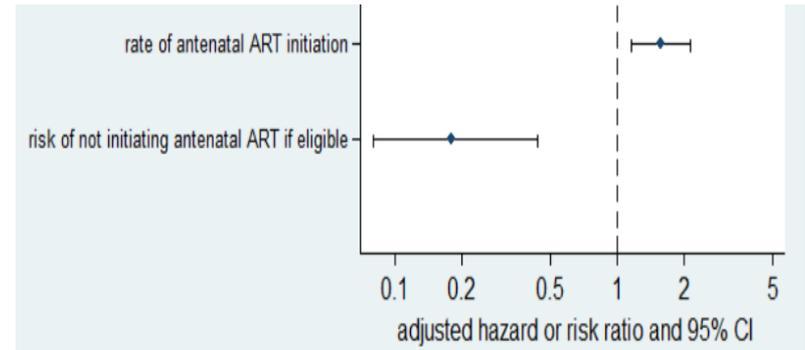
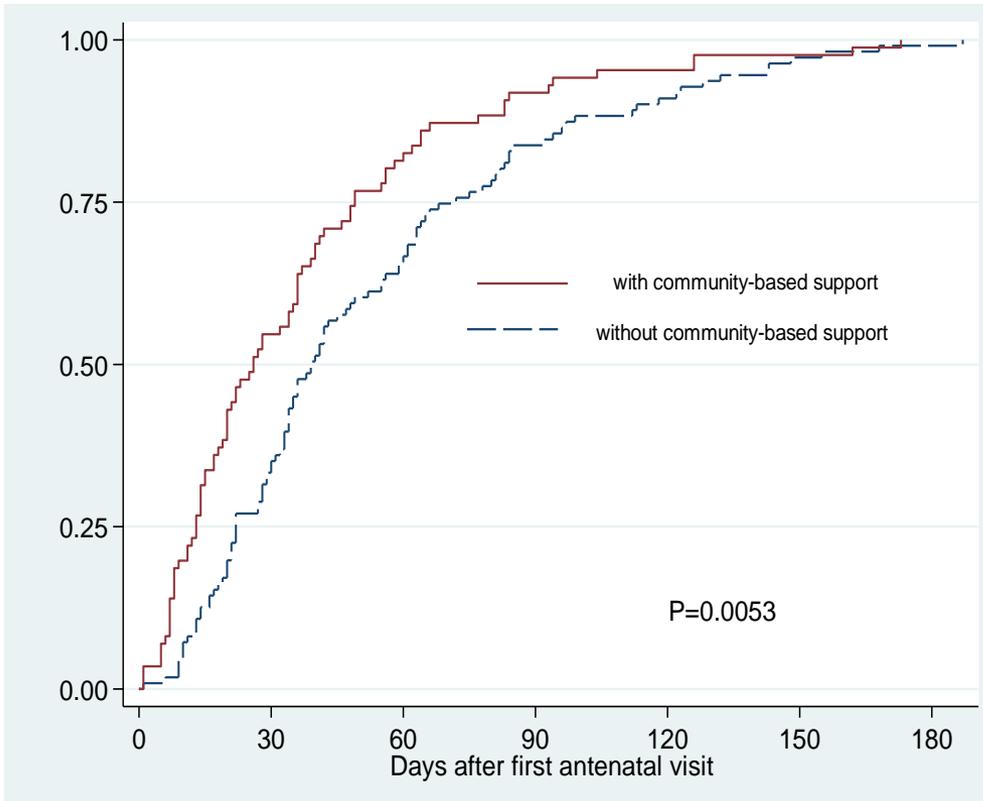
Adjusted annual CD4 cell slope between 6.5– 8 years of ART:

19.1 cells/ $\mu$ L/year (95% CI: 3.5–34.8) greater amongst CBAS patients (P=0.016)





# Initiation of ART in pregnant women newly diagnosed with HIV





# Conclusions/Key Messages

- ▶ **ART patients who received community-based adherence support had reduced mortality, reduced LTFU, improved viral suppression, improved immune restitution after starting ART. Improved ART initiation in pregnant women.**
- ▶ **Low-cost intervention (~ R15 - R30 /patient /month) that can be introduced and developed in resource-poor settings. Cost-effectiveness analyses currently being conducted.**
- ▶ **Community adherence support is important for ensuring good ART outcomes & should be closely linked and coordinated with primary level healthcare services.**



# Acknowledgements

“This presentation was made possible by the Presidents Emergency Plan for AIDS Relief (PEPFAR) through the United States Agency for International Development (USAID). The content of the presentation are the sole responsibility of Kheth’Impilo and do not necessarily represent the official views of USAID or the United States Government.”



**Thank you**