

# Predictors of uptake of High Impact HIV Services among Adolescents and Young Women in Eswatini

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## BACKGROUND

Evidence from HIV programs shows that its **critical for vulnerable populations** to access multiple high impact structural, biomedical and behavioral focused services<sup>1</sup> to reduce the risk of HIV infection and make progress towards HIV epidemic control. Pact implements the PEPFAR funded DREAMS (Determined, Resilient, Empowered, AIDS-free, Mentored and Safe) program in Eswatini to reduce HIV vulnerability and new infections among **Adolescent Girls and Young Women (AGYW)**. Once the AGYW have been assessed for HIV risks and enrolled in the program, they have access to interventions across health, education, protection and livelihoods based on individual needs outlined in the mentorship plans. The uptake of services (HTS, FP commodities, PrEP, Condoms, youth livelihoods), however, has not been consistent among participants. To increase coverage, the program conducted analysis of programmatic data to understand predictors of these service uptake.

## METHODS

A cross-sectional analysis was conducted using Stata for the April 2018 – September 2021 implementation period. Researchers analyzed data from vulnerability assessments and access to services. To create HIV risk quantiles (high, moderate and low HIV risk), Principal Component Analysis (PCA) technique was used on all DREAMS program inclusion criteria. The PCA model reduced the variables for HIV risk from 13 original variables to 8 final variables i.e., Multiple concurrent sexual partners, other forms of abuse (physical and/or emotional), history of STIs, Transactional sex, history of pregnancy, Inconsistent condom use, Alcohol abuse and children of PLHIV. xtile command was used to create risk quantiles.

Bivariate analysis was then conducted using Logistic Regression to predict the uptake of HTS, FP commodities, PrEP, Condoms, HIV, Youth Livelihoods and completion of DREAMS package of services (dependent variables), against age groups, education, duration in DREAMS program, risk quantiles (predictor variables). Furthermore, multivariable logistic regression was conducted with all predictor variables against each dependent variable to adjust for confounders. Multicollinearity was tested using variance Inflation Factor (VIF) where a regression model was run for each dependent variable against all predictor variables, followed by VIF command. The results for all multicollinearity tests were below 10.

## RESULTS

A total of 23,585 AGYW aged 10-29 years from across all 4 regions of Eswatini were included in the sample for this analysis. This included 7,941 (31.6%) AGYW who were in low HIV risk quantile, 7,781 (32.9%) AGYW in moderate HIV risk quantile and 7,863 (33.3%) AGYW in high HIV risk quantile.

For the **DREAMS package**, AGYW age 10-14 were 4.5 times more likely to complete the package than 15-19-year-old AGYW. Likewise, those who were out of school, those in DREAMS program for 0-6 months and those who were in the program for 13-24 months were more likely to complete DREAMS package than those in school or those who have been in the program for 7-12 months. Service package completion was least likely for 20-29-year-olds, those with OVC comprehensive status and those in the program for more than 24 months.

**PrEP** uptake was up to 3.5 times more likely for 20-29 years old than for 15-19-year-olds and for those that have been in the program for 13-24 months compared to those who were in the program for 7-12 months. Those with OVC comprehensive status were 17% more likely to uptake PrEP compared to non-OVC Comprehensive. The low and high HIV risk groups were least likely to uptake PrEP compared to moderate HIV risk group.

The uptake of **family planning commodities** was most likely for AGYW age 20-29 compared to 15-19 years, and those who were in DREAMS for 0-6 months compared to those who were in the program for 7-12 months. The AGYW in low HIV risk were also more likely to uptake FP commodities compared to moderate risk group. **Condoms uptake** was more likely for the older AGYW (20-29 years) compared to younger age groups. Those who were in DREAMS for more than 12 months were up to 2 times more likely to uptake **condoms** compared to those who were in the program for 7-12 months.

The uptake of **HTS** was most likely for older AGYW (20-29 years) compared to the younger age groups as well as to those who have been in DREAMS program for more than 12 months compared to those in the program for 7-12 months. **Youth livelihoods** services uptake were up to 2 times more likely for older AGYW compared to 15-19 years. Low HIV risk quantile was also more likely than moderate risk quantile to uptake youth livelihoods services.

## CONCLUSIONS & RECOMMENDATIONS

Service delivery should be sensitive to increased chances of uptake or attrition based on socio demographic characteristics of participants. This means instituting flexible approaches that consider needs and constraints of participants to incentivize retention. The results shows that while the Duration of **7-12 months** in DREAMS program is the most optimal time for service uptake among DREAMS participants, there are benefits in terms of service uptake for those who exceed this period in the program. Targeted support needs to also be provided to AGYW in the high HIV risk quantile for ensuring uptake of HTS, PrEP and condoms as evidence shows this group is at risk of being left out in terms of comprehensive service coverage and thus chance to reap the benefits of DREAMS program. Emphasis should also continue to be placed on **OVC Comprehensive beneficiaries** to uptake DREAMS services and increase their social assets. While the older age groups were likely to complete their clinical services compared to the younger age groups; they also had least chance to complete DREAMS package of service which is suggestive of higher attrition rate for safe spaces HIV prevention and financial literacy sessions. This calls for a relook at the length and mode of delivery of those sessions to ensure optimal imparting of knowledge within the period that the groups can remain engaged.

## ACKNOWLEDGEMENTS

### DREAMS participants

Implementing partners  
AMICAALL  
Bantwana  
Cabrin Ministries  
Compassionate Nazarene  
Compassionate Swaziland  
Joyful Hearts  
Lusweti  
World Vision  
Young Heroes  
SWAGAA

### REFERENCES

1. PEPFAR (2021). PEPFAR DREAMS Guidance. PEPFAR, Washington DC, USA

FIGURE 1: DREAMS package completion

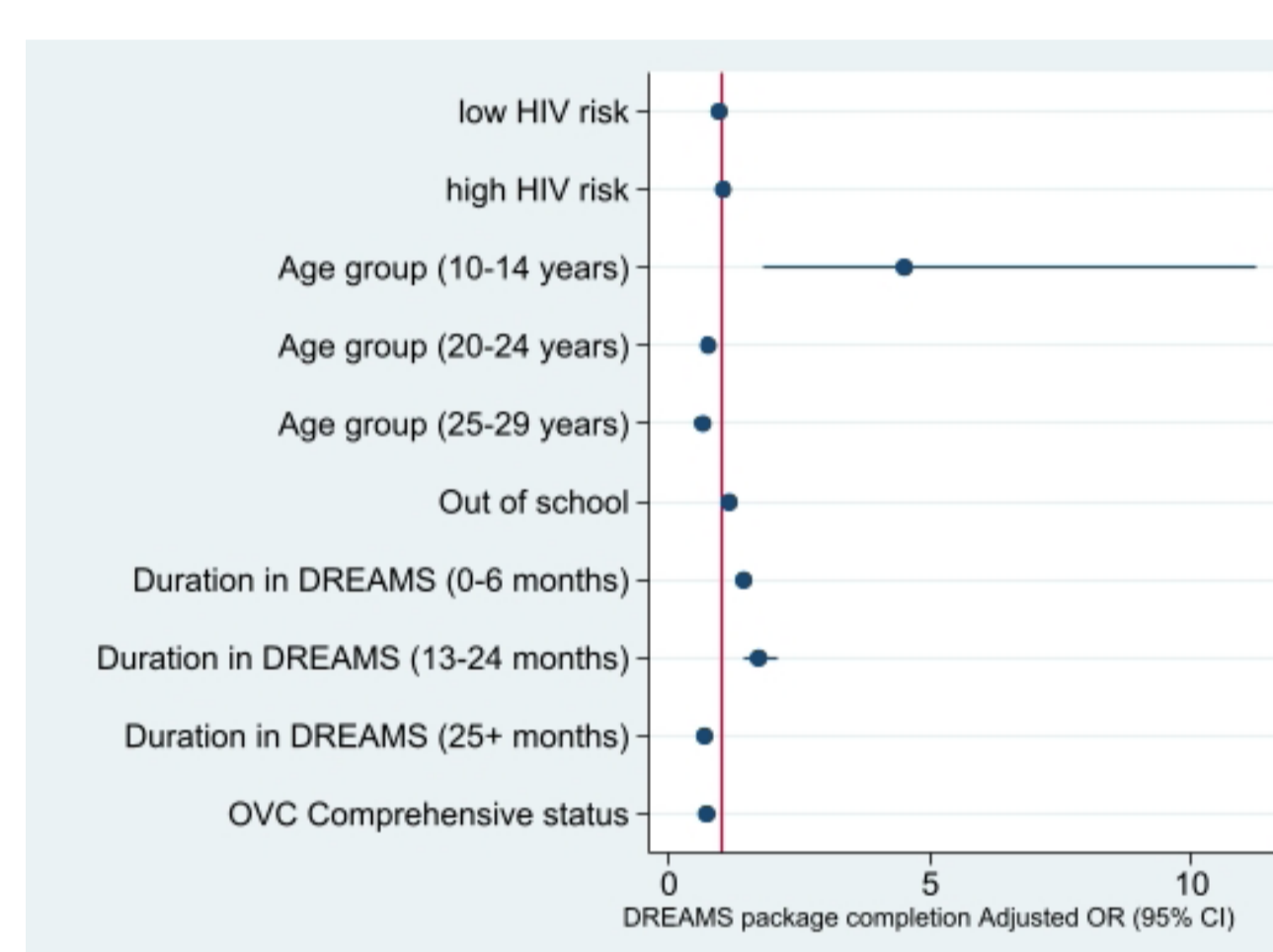


FIGURE 3: Family planning commodities uptake odds ratio

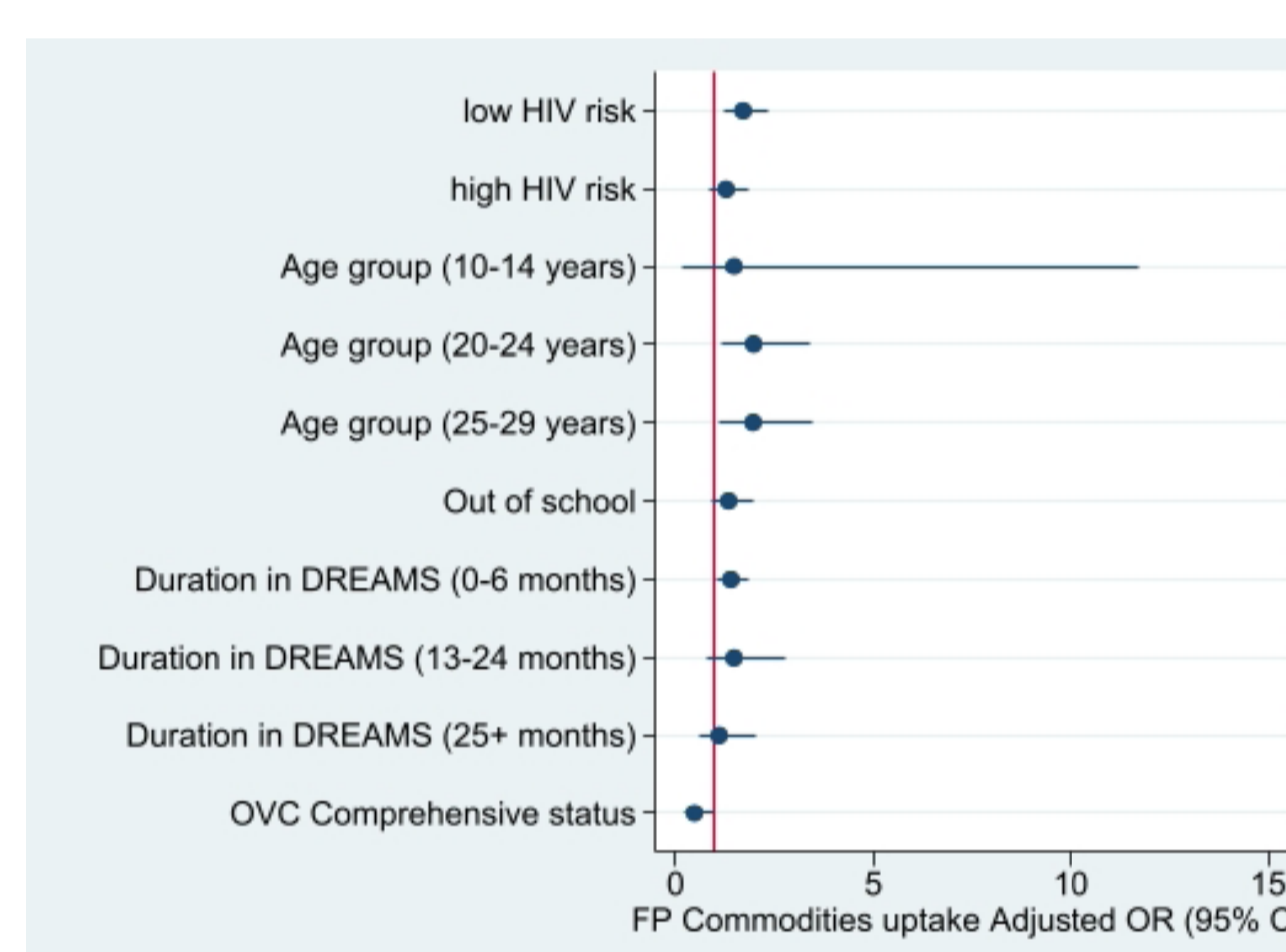


FIGURE 5: HTS uptake odds ratio

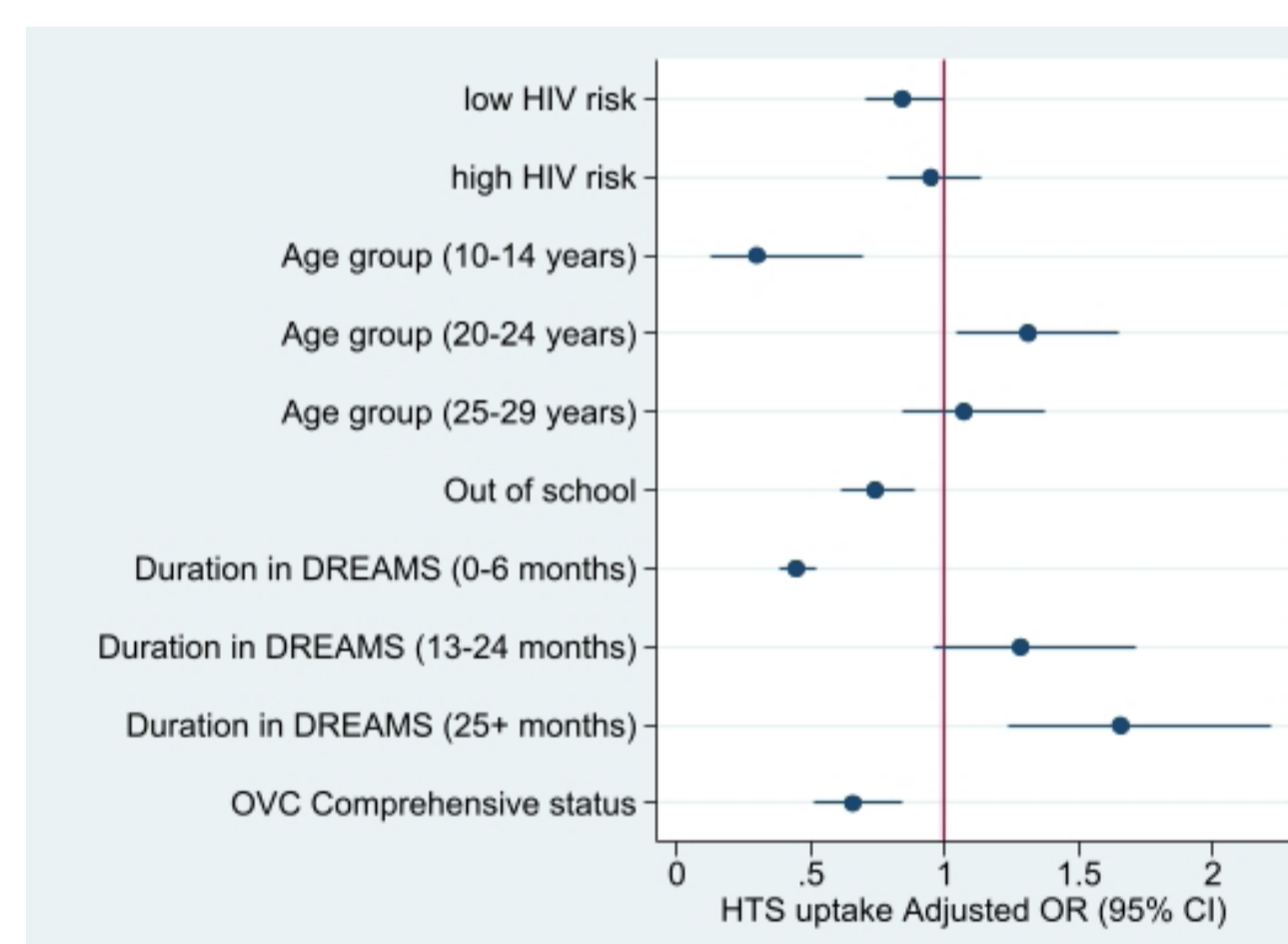


FIGURE 2: PrEP uptake odds ratio

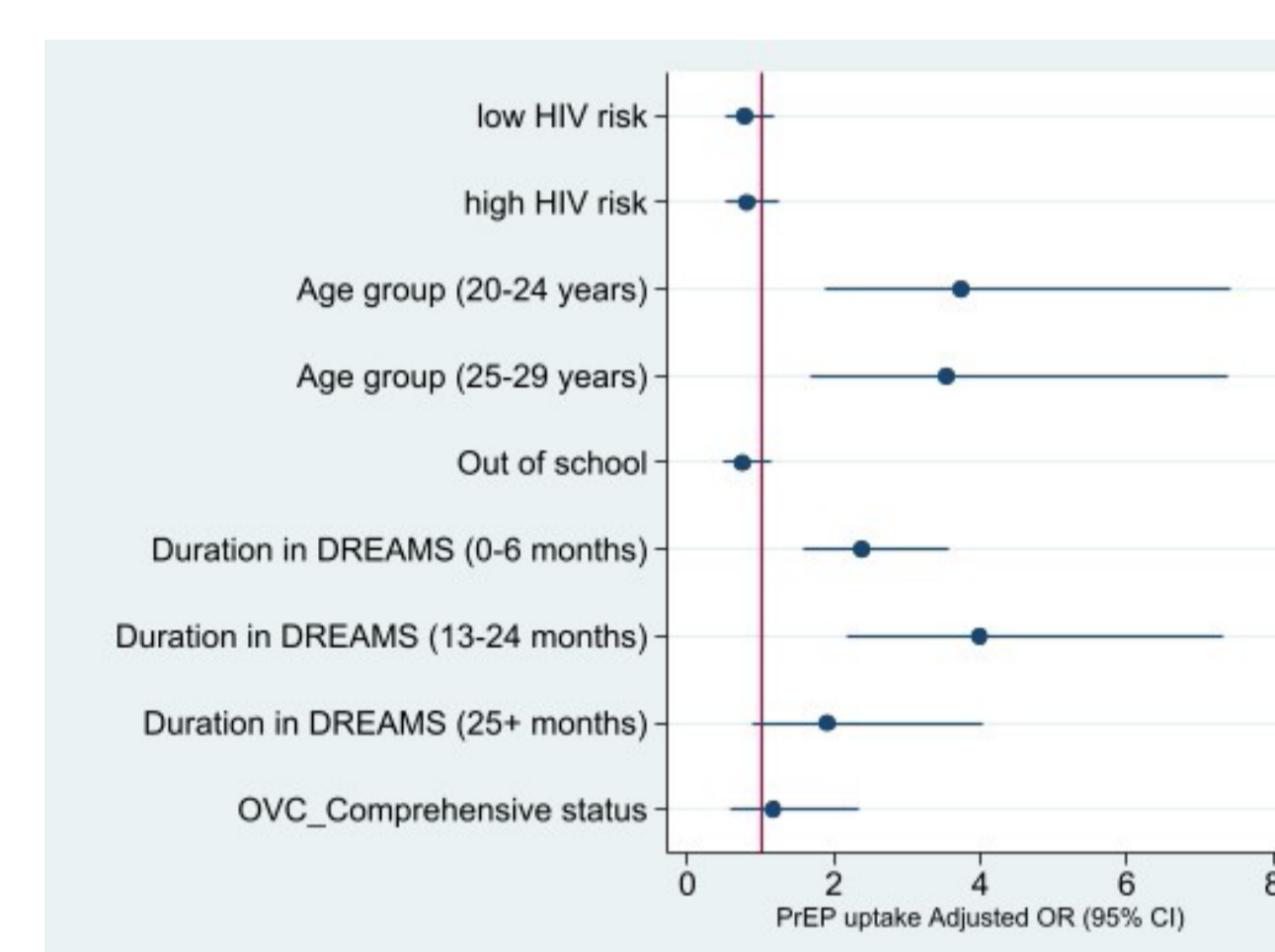


FIGURE 4: Condoms uptake odds ratio

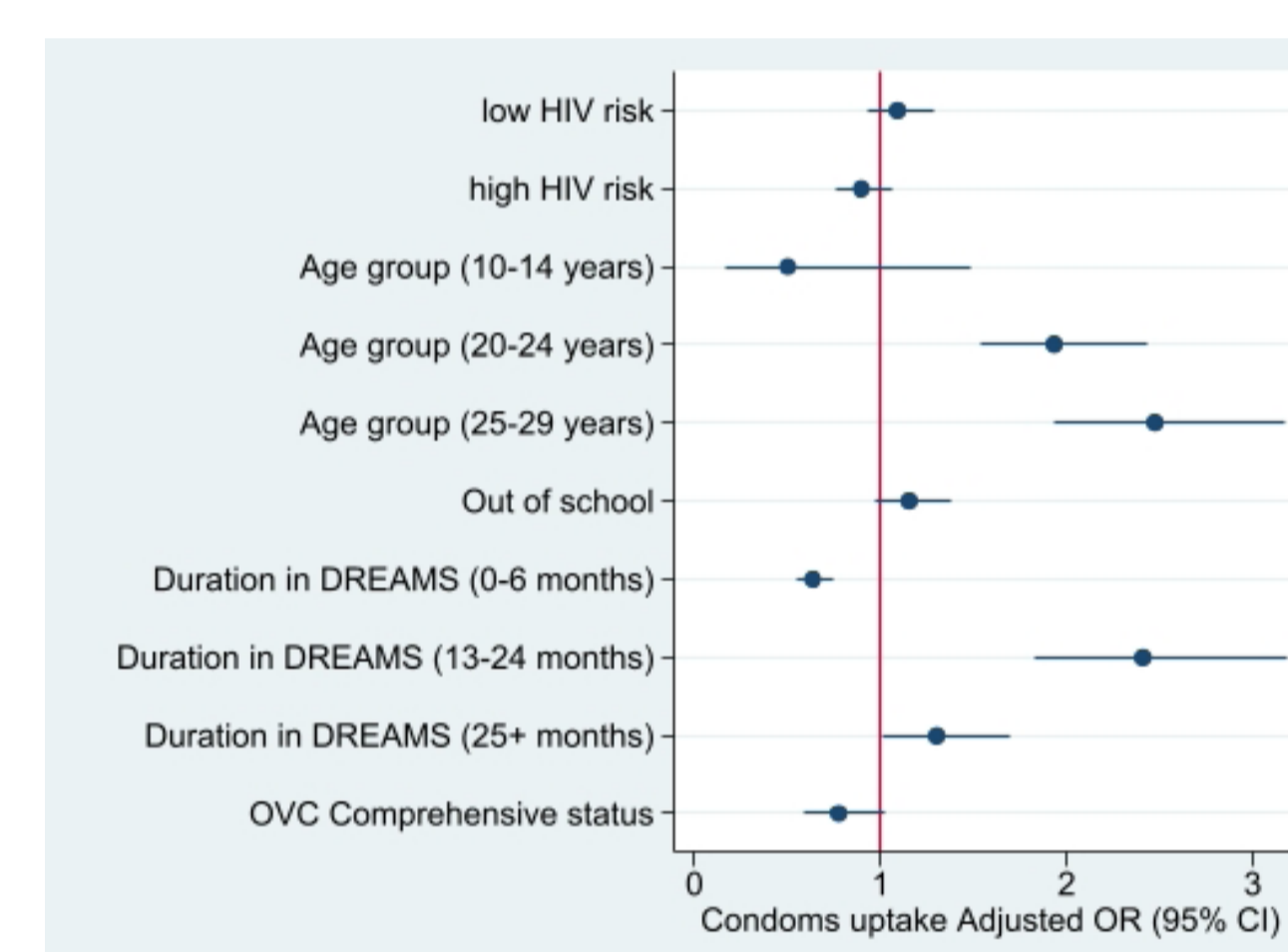


FIGURE 6: Youth livelihoods services uptake odds ratio

