

Growth in the first 10 years after Antiretroviral Therapy initiation among HIV-infected children in the CoRISpe Spanish Pediatric Cohort.

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INTRODUCTION

Previous studies have described impaired growth in HIV-infected children. Many of them showed weight and height improve after ART initiation. Most series include children from resource limited settings in which malnutrition is frequent and treatment is not fully available. We aim to characterize long-term growth in a cohort of HIV-infected children after ART initiation and to identify determinant factors.

METHODS

We included:

All children living with HIV participating in CoRISpe (Spanish Pediatric AIDS Network), diagnosed < 10 years of age and Enrolled in the cohort after January 2000 to December 2018 who initiated ART with Available follow-up anthropometric data

We collected:

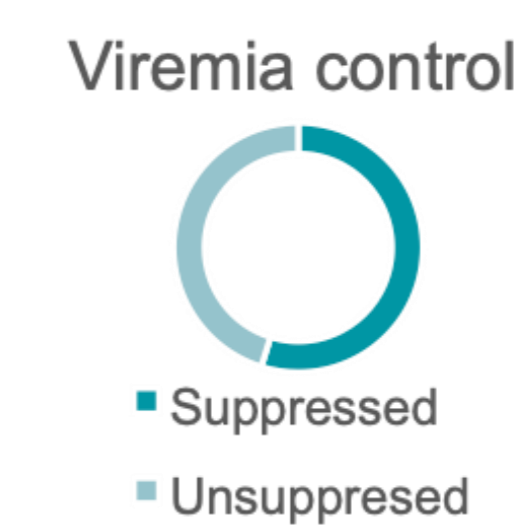
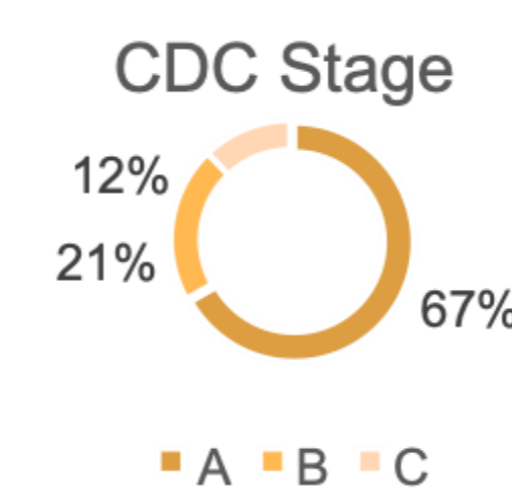
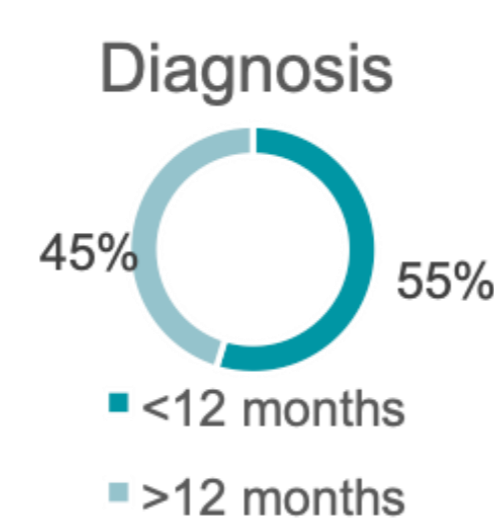
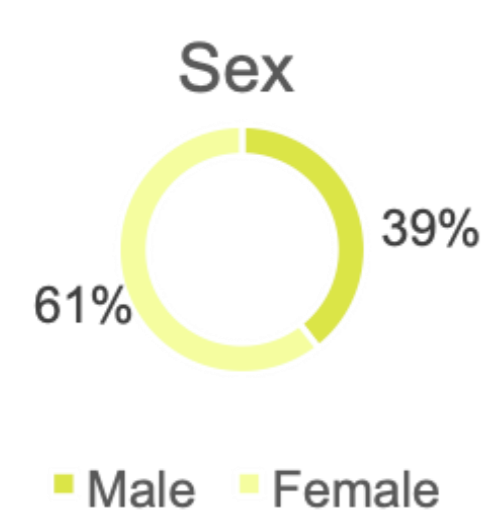
Clinical, immunovirological variables and Anthropometric indicators expressed in Z-score (Spanish growth standards):
Weight-for-age (WAZ) **Height-for-age (HAZ)** **BMI-for-age (BAZ)** **Growth rate-for-age (GAZ)**

RESULTS

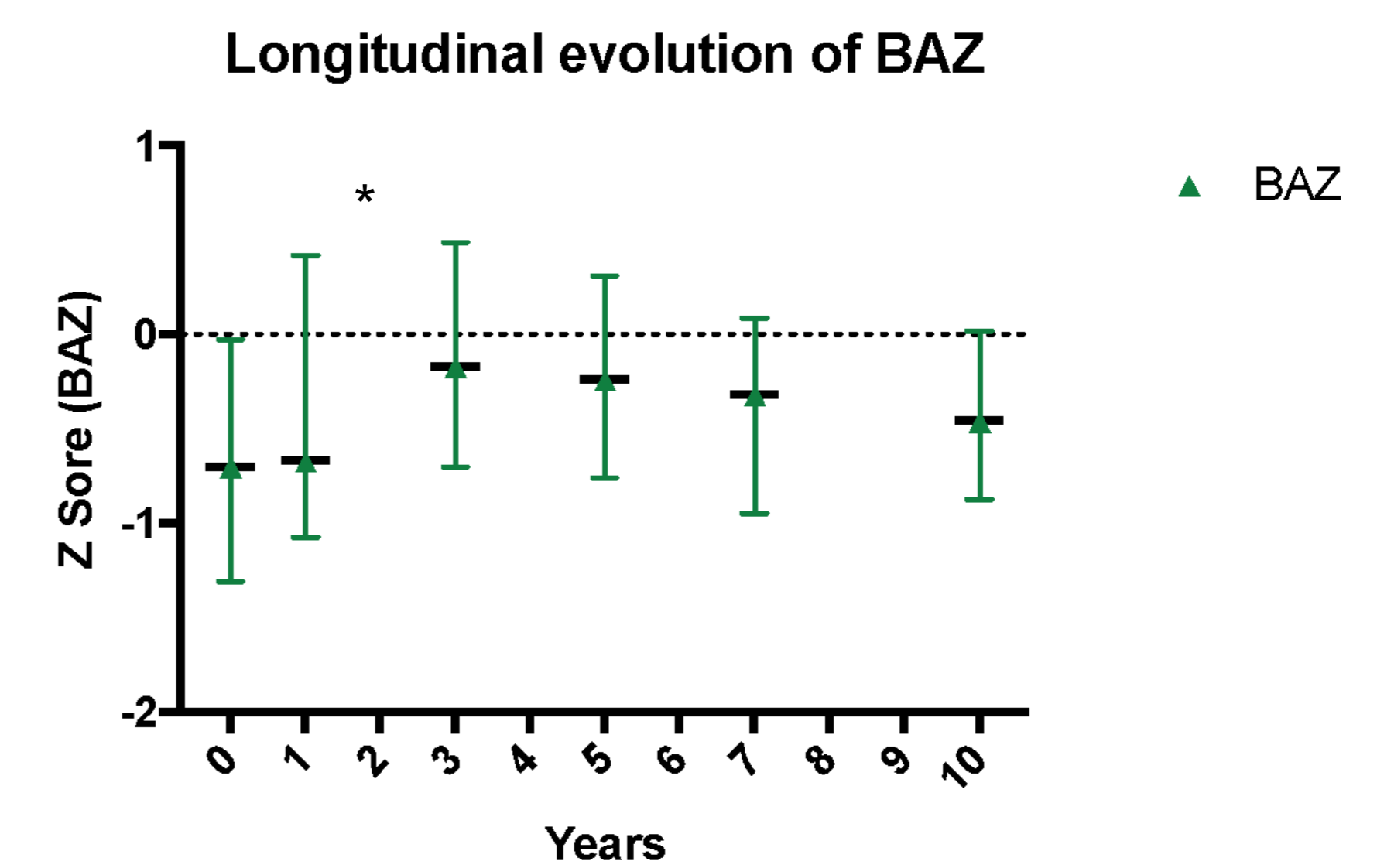
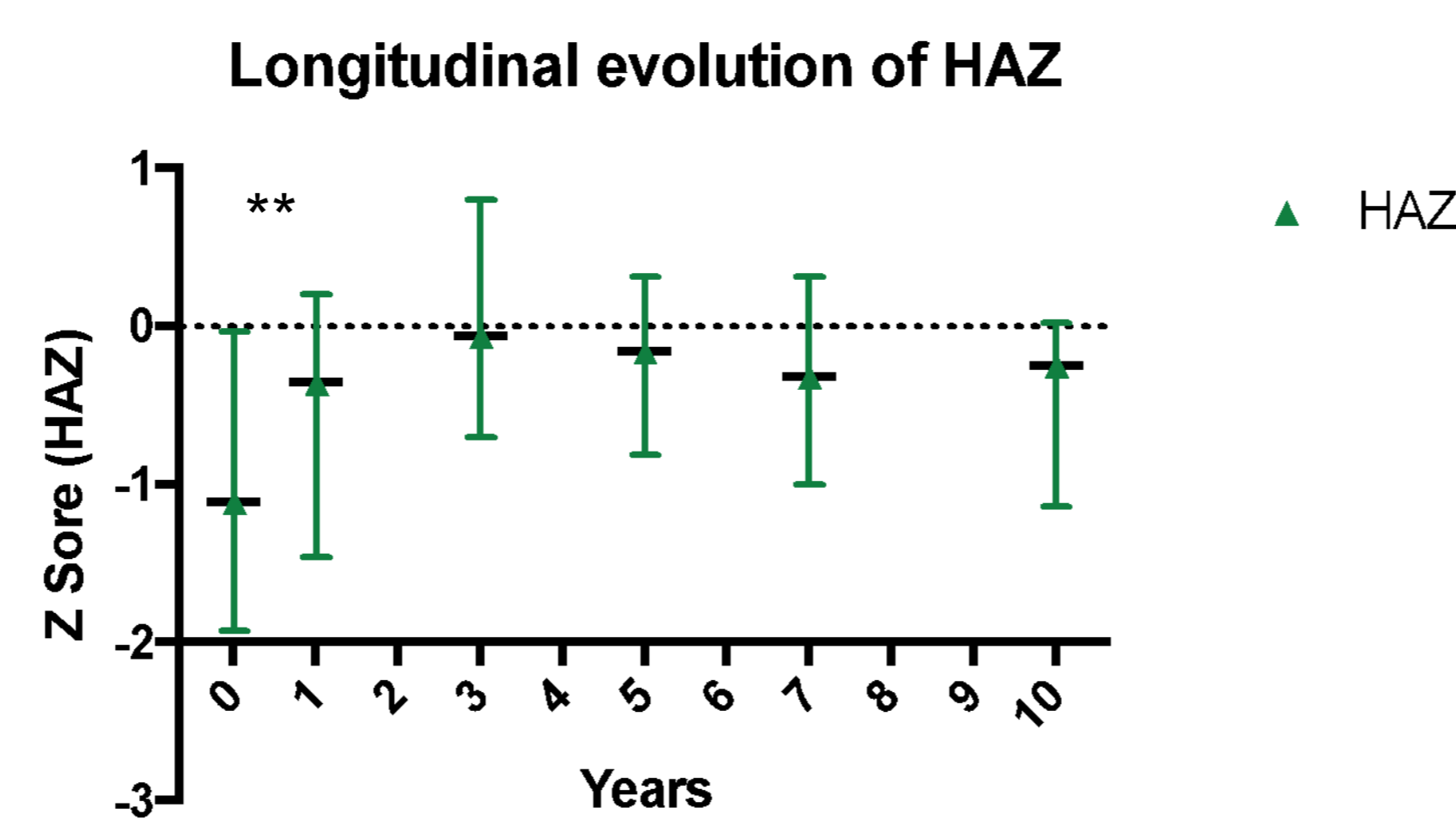
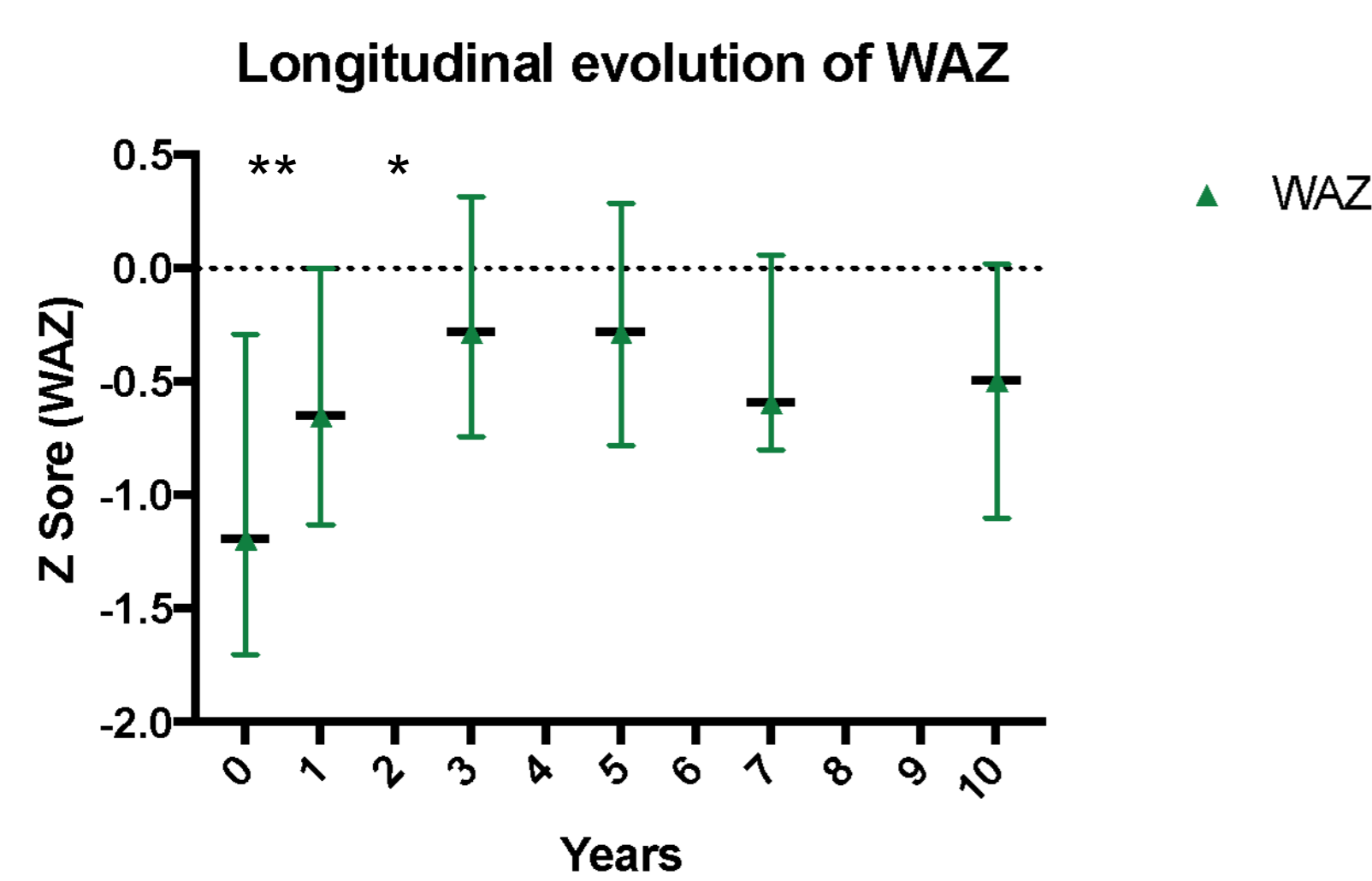
- 124 children were included
- 82% born in Spain
- All vertically HIV-infected

- 55% diagnosed before 12 months
- Age at ART initiation 9.9 months (1-36)

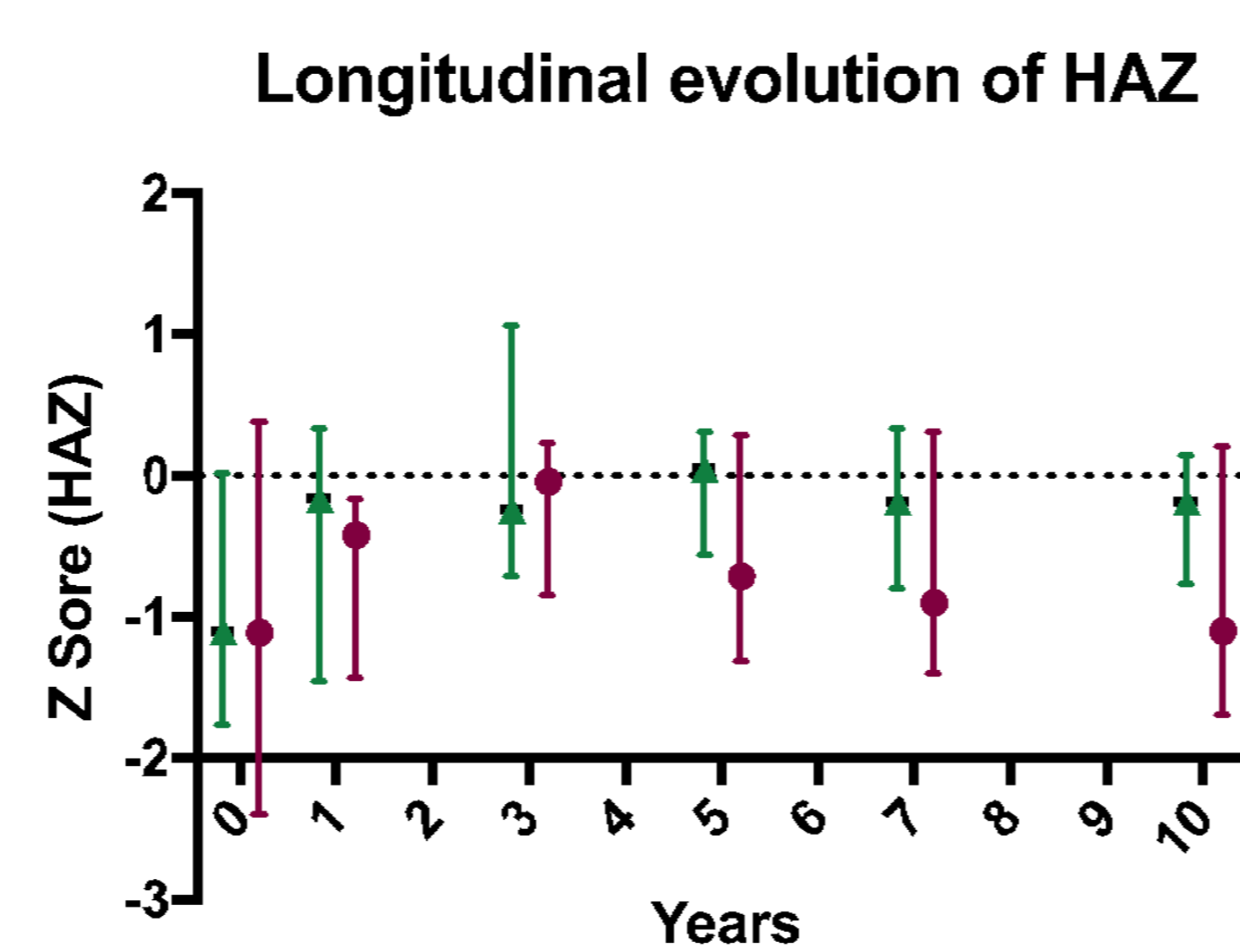
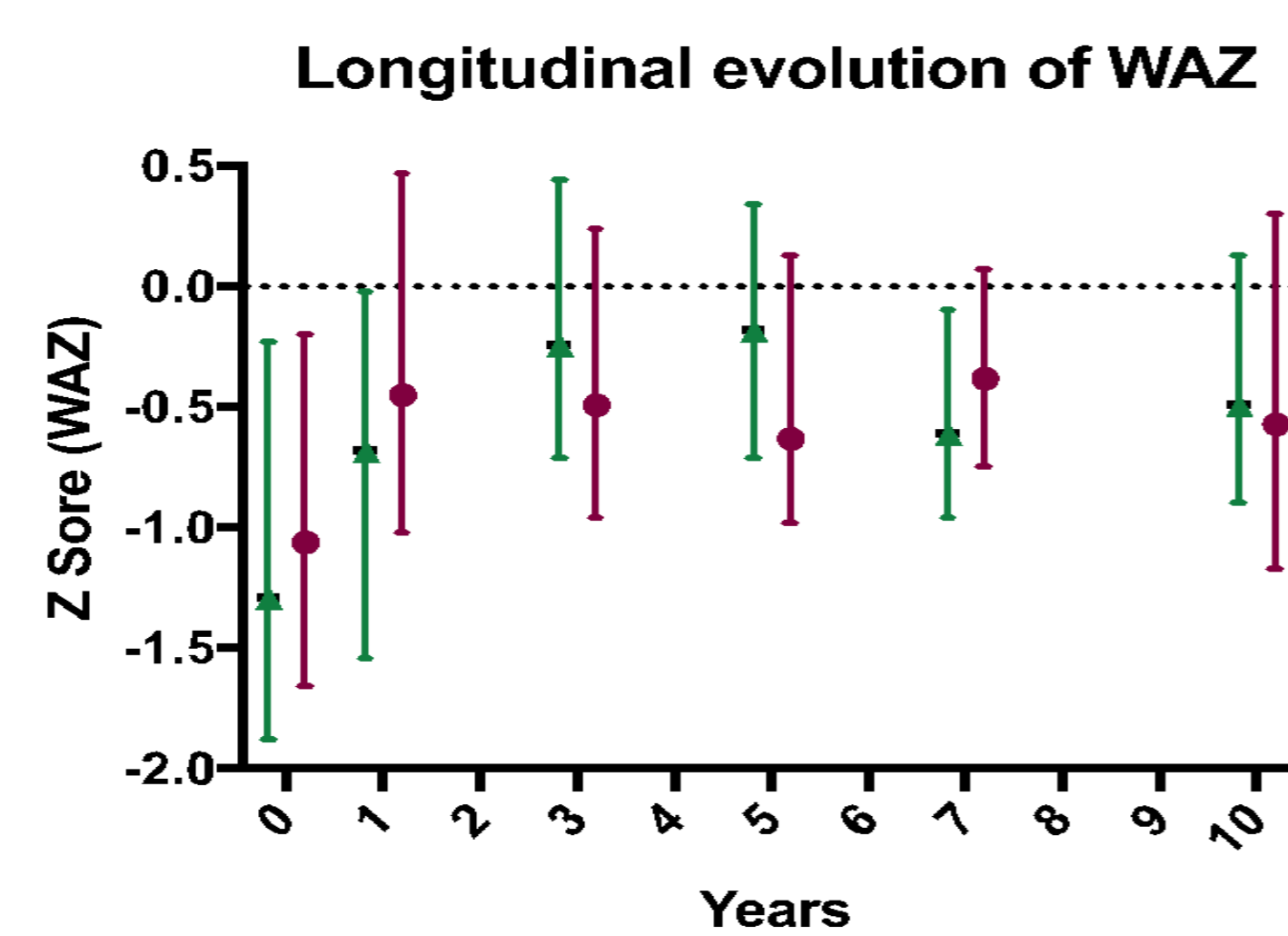
- CD4 T-cell counts
 Median : 1400 (400-1800)
 CD4 < 200 cell/ml: 7 (5%)



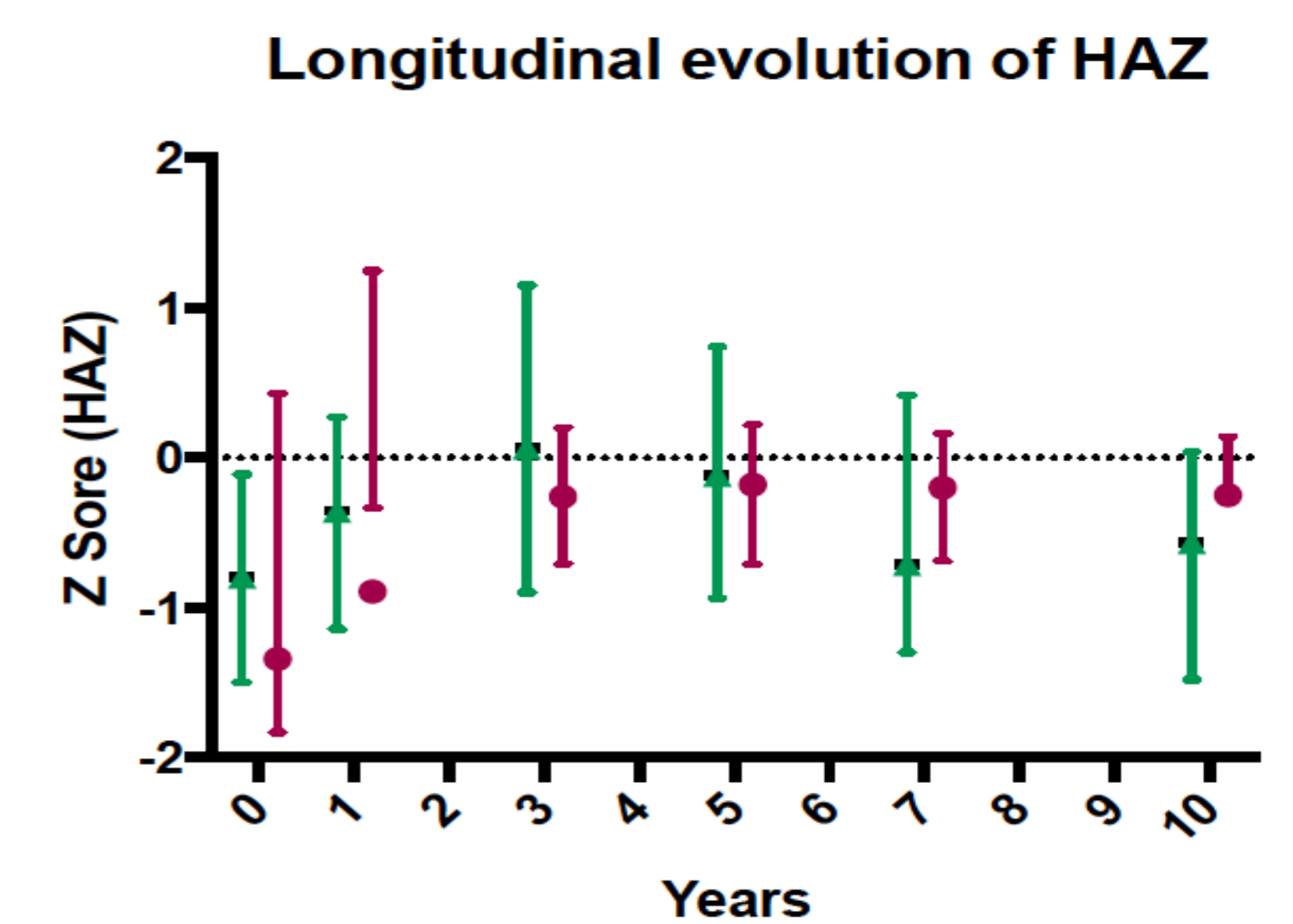
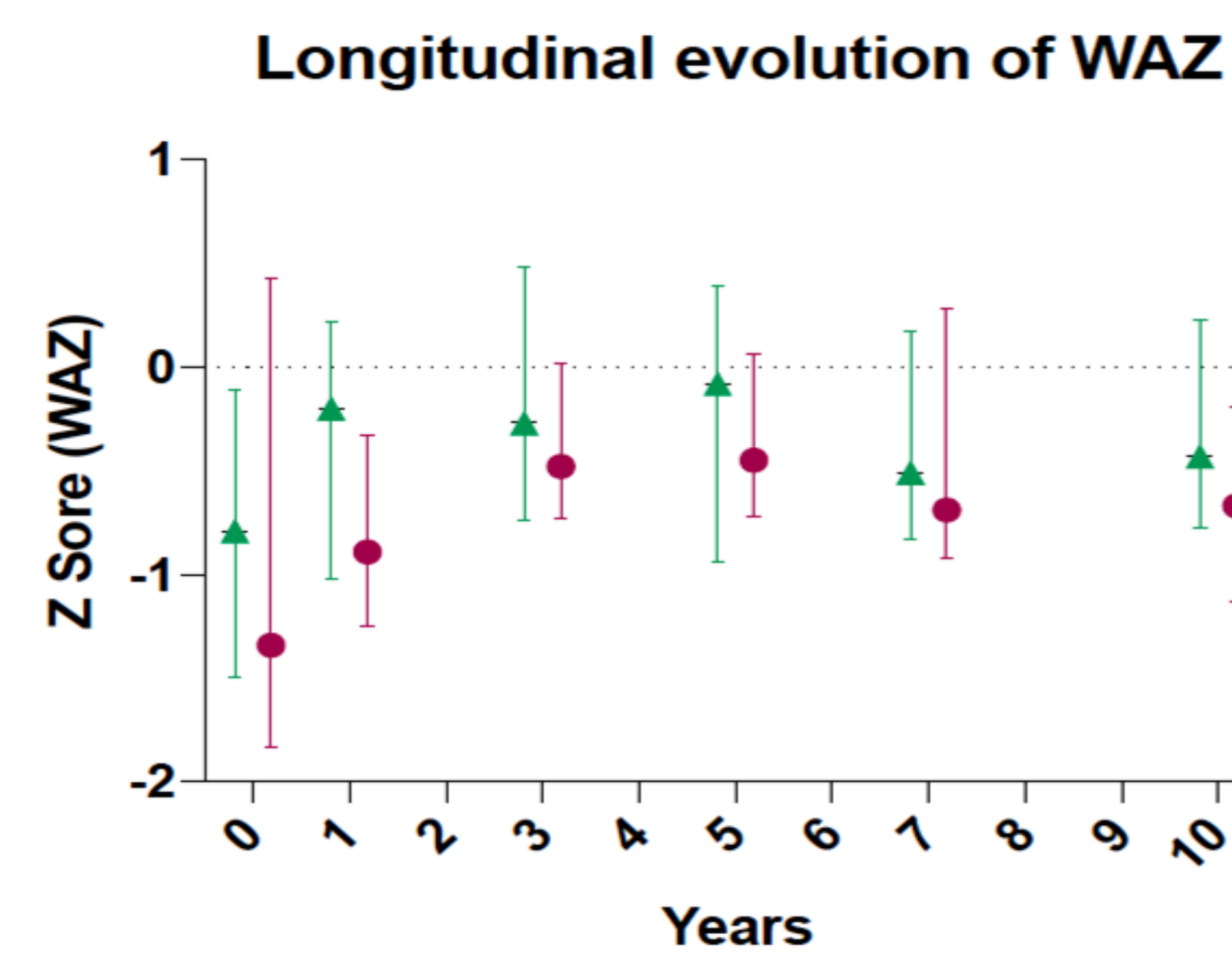
LONGITUDINAL EVOLUTION OF WAZ HAZ and BAZ



Early vs. Late diagnosis



Early suppressed vs. persistent replication



CONCLUSIONS

- our study in an European cohort, prompt ART initiation improved but not fully normalize growth pattern of HIV-infected children.
- The impact of ART is strongest during the first years and slows down after this period.
- In this study, persistent low level viremia did not seem to have an impact on long-term growth. The small sample size of patients with ten years follow up may have limited our ability to detect the effect of viral replication.
- Larger studies are warranted to evaluate the role of different treatment strategies and further assess the impact of viral suppression on long-term growth of children living with HIV.

