



# Immune Suppression and Anemia as Predictors of Opportunistic Infections in Children Living with HIV in the Dominican Republic

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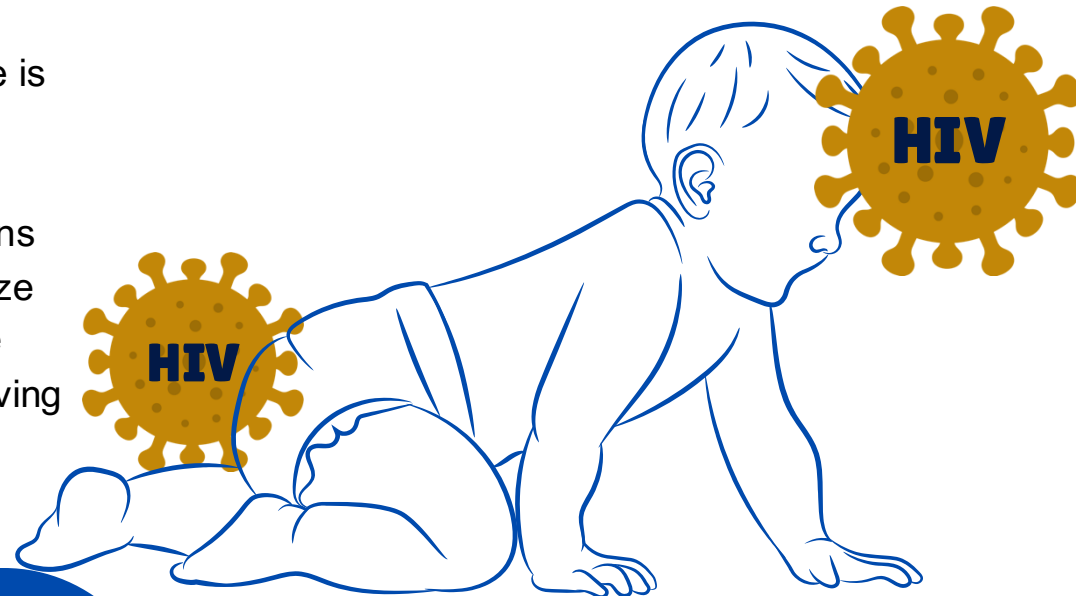
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## Background

In the Dominican Republic (DR), there is a critical lack of localized research exploring the clinical and social determinants of Opportunistic Infections (OIs). This study aimed to contextualize the clinical factors associated with the development of OIs among children living with HIV in the DR.

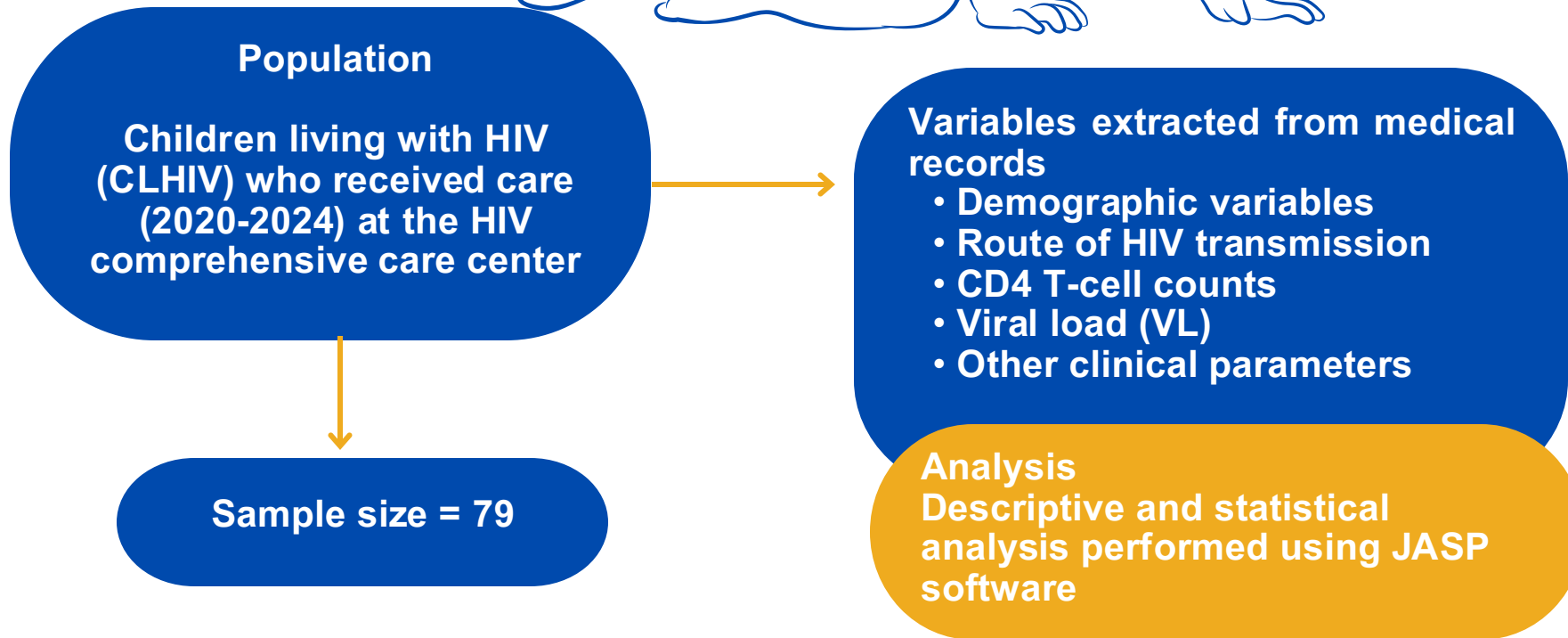


During the four-year study period, 70.89% developed at least one OI, with pneumonia (Figure 1) identified as the most common infection (35.44%).

Statistical analysis revealed that lower CD4 counts were significantly associated with the occurrence of OIs (ANOVA:  $F(1,72) = 4.007$ ,  $p = 0.049$ ; Pearson's  $r = -0.271$ ,  $p = 0.019$ ).

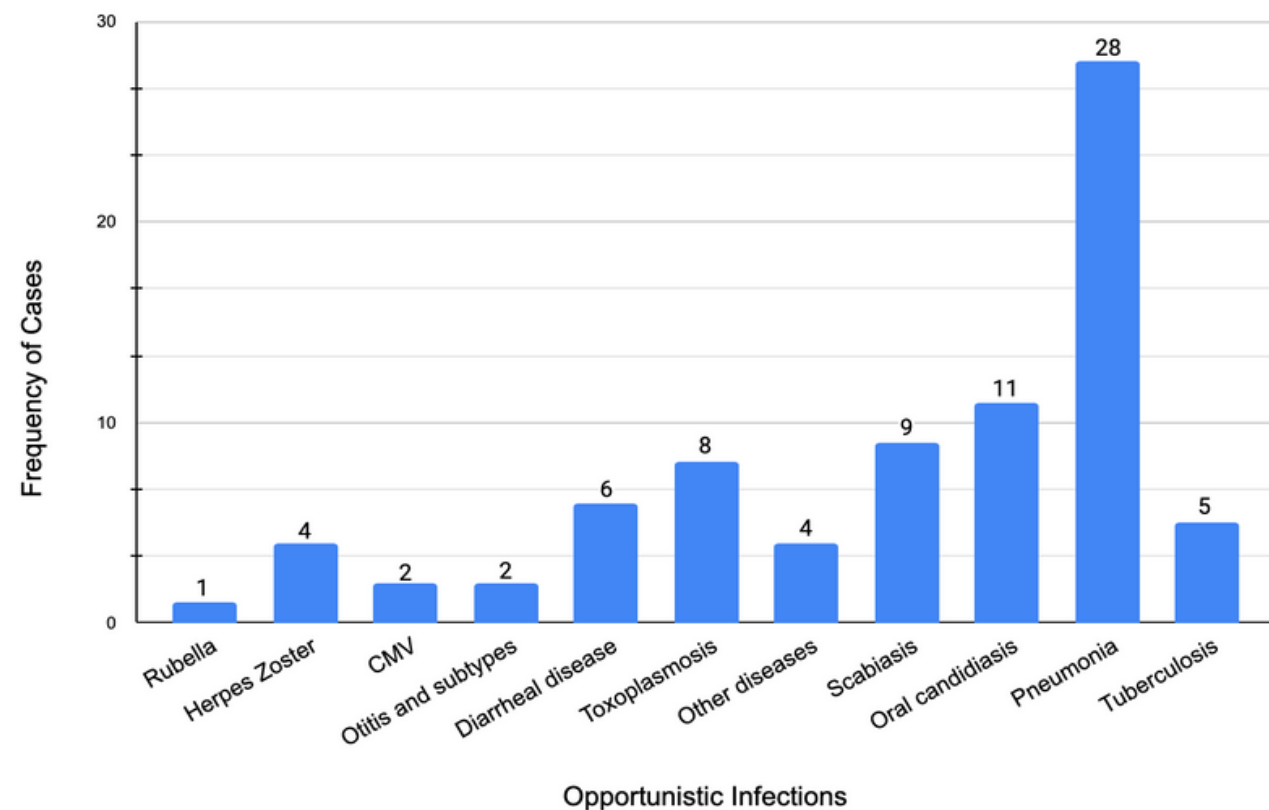
Hemoglobin levels were also significantly lower among those with OIs (ANOVA:  $F(1,73) = 4.599$ ,  $p = 0.035$ ), no significant association was observed between current VL and the presence of OIs.

## Methods



## Results

Opportunistic Infections in children/adolescents living with HIV during 2020-2024 follow-up period



## Conclusions

This study underscores the urgent need for enhanced pediatric HIV care, including strengthened prenatal HIV screening, earlier initiation of antiretroviral therapy, and robust longitudinal monitoring to mitigate the risk of OIs and improve clinical outcomes in this vulnerable population.

