



Determinants of HIV diagnosis in children aged 0-59 months in Tete, 2021

Nicholas Manwere, Dra. Gloria González Azpeitia; Dra. Nieves Jaén Sánchez
UNIVERSITY OF ZEMBEZE; UNIVERSITY OF GRAN CANARIA, LAS PALMAS



Abstract/Intro/Motivation

Introduction Access to early childhood diagnosis (ECD) has improved significantly in recent years, but only 50% of all HIV-exposed children worldwide were tested by the second year of age in 2016 (WHO, 2017). Data on barriers to diagnosis and access to ART in children is limited, however, the main challenges are observed at multiple levels, at the level of the caregiver/patient, provider/institution and local policies implemented.

Objective. Understand the determinants of HIV diagnosis in children aged 0-59 months in Tete province;

Methodology. We conducted a cross-sectional, descriptive and quantitative study in 4 districts of Tete Province, namely Angonia, Changara, Tsangano and Chiuta as they have the lowest rates of pediatric ART. A questionnaire was administered to randomly selected caregivers of children aged 0-59 months and healthcare providers between September and October 2021.

Results and Discussion: 843 caregivers and providers participated, of which 50.5% (421) were female and 49.5% (413) male, with an average age of 23.84 years, 47.2% (394) of these had primary school level, 35.5% (296) had secondary education and 16.9% (141) had no school education, of which 0.4% (3) were participants with higher education. Also 94.0% (784) of the participants were unemployed and only 3.6% (30) had some type of job and 1.0% (8) were students. After factorial and bivariate analysis, some factors showed a statistically significant relationship with an adequate diagnosis, these include access to a US ($p < .000$), situation of social disadvantage ($p < .009$), quality of filling out the child's card ($p < .002$). It was noted that not being in a situation of social disadvantage (95% CI OR 0.684 (0.493-0.949) $P < 0.023$), easy access to health services (95% CI OR 0.454 (0.333-0.62) $P < 0.000$) and Well Completed Card (95% CI OR 2.408 (1.767-3.282) $P < 0.000$) increases diagnostic opportunities in children aged 0-59 months.

Conclusion: However, for a timely, correct and updated diagnosis, determinants such as easy access to a US, social disadvantage and filling out the child's card are crucial. To scale the first 95% of the WHO 95-95-95 strategy in the pediatric population, interventions in these described axes and others must be imperative, depending on each context.

Keywords: DETERMINANTS, DIAGNOSIS, HIV; CHILDREN, TETE

Background

In 2013, while 37% of adults living with HIV/AIDS received ART, only 24% of children with this condition had access to treatment.

Due to the rapid progression of HIV in children, they have a 50% chance of dying before their second birthday in the absence of adequate therapy (UNAIDS, 2014).

At the end of 2015, it was estimated that 5 million children had died from AIDS-related causes and more than 90% of these lived in sub-Saharan Africa.

Available information states that only 64% of children exposed to HIV in Mozambique in 2010 received postpartum antiretroviral prophylaxis (De Schacht et al., 2014).

Methods

We conducted a cross-sectional, descriptive and quantitative study in 4 districts of Tete Province, namely Angonia, Changara, Tsangano and Chiuta as they have the lowest rates of pediatric ART. A questionnaire was administered to randomly selected caregivers of children aged 0-59 months and healthcare providers between September and October 2021 in the health centers. The questionnaire included information on what the caregivers consider as obstacles to accessing health care services to their children. Data was collected through the Open Data Kit in smartphone devices. A total of 967 caregivers were included in the study. Sampling was carried out in multiple successive stages. To describe the sociodemographic characteristics of children aged 0-59 months exposed to HIV, a descriptive analysis was carried out

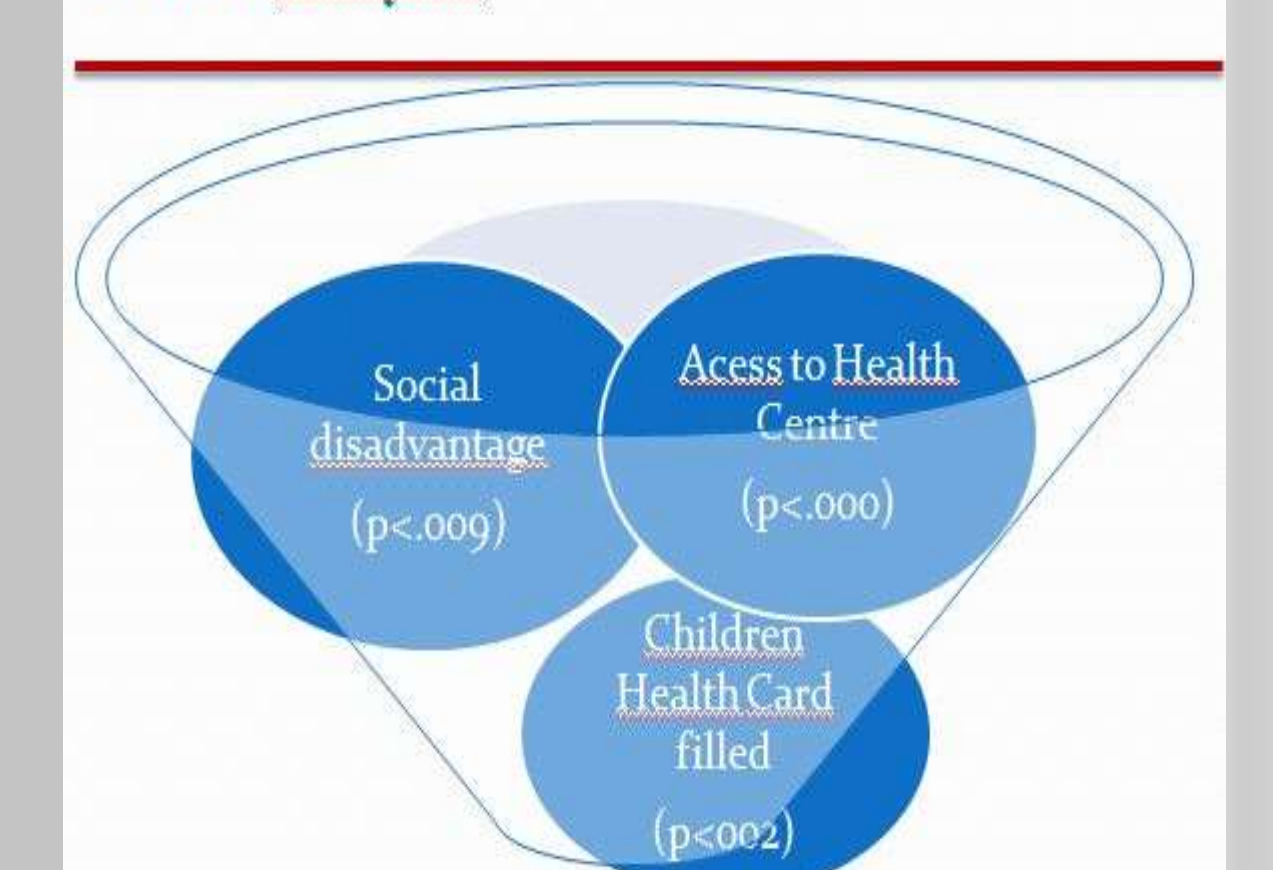
Once the variables that determine the appropriate and inappropriate diagnosis was determined by the child's serology, testing criteria and updated testing. Secondly a Binary logistic regression for children in positive and negative situations was performed with SPSS version 25 and Excel.

Results/Discussion

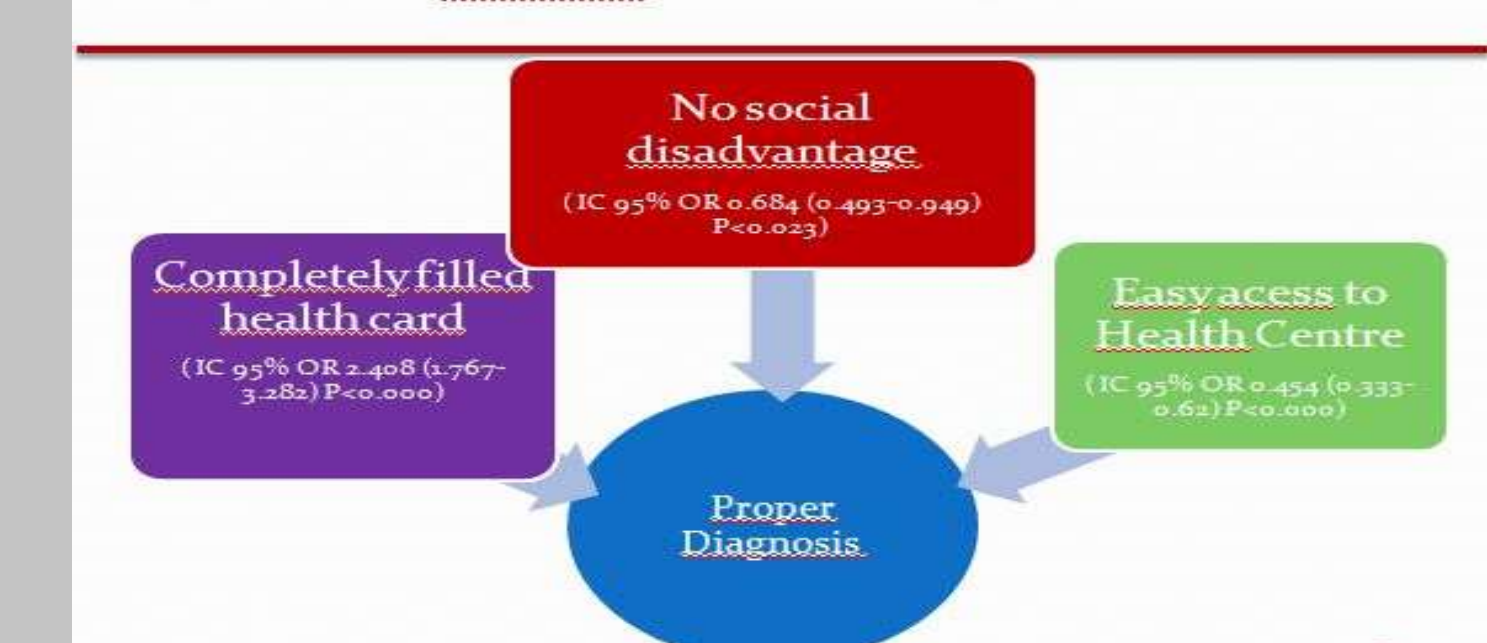
We managed to reach 843 caregivers of which 421 (50.5%) were female and 413 (49.5%) , 824 were male. 394 of the caregiver participants had primary education level, 296 had Secondary level education, only 3 had University level and 141 had no information regarding their educational level. 833 were parents and only 10 were non-parents caregivers The lowest caregiver age was 15 and 50 being the oldest, and the mean age was just below 24 years old, 23,84 to be specific. 92.1% were married or lived maritally and only 66 lived separately

Sociodemographic data of children	n	%
Sex		
Female	421	50.5
Male	413	49.5
Siblings		
None	374	44.8
Yes	460	55.2
Number of siblings		
Less than 5	773	92.7
5 or more	61	7.3
Child has health card		
Yes	705	84.5
No	129	15.5

Factor analysis



Predictive Model



Conclusions

However, for a timely, correct and updated diagnosis, determinants such as easy access to a US, social disadvantage and filling out the child's card are crucial for this.

To scale the first 95% of the WHO 95-95-95 strategy in the pediatric population, an imperative of interventions must be derived in these described axes and others depending on each context.

Objectives

- Understanding the determinants of HIV diagnosis in children aged 0-59 months in Tete province