

Determination of Causes of Deaths by Verbal Autopsy methods among people living with HIV in Nigeria

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Background

In Nigeria, there is a dearth of information on the cause of death (COD) records among people living with HIV on ART treatment due to weak civil registration and vital statistics system, and low issuance of medical certificate of deaths. Cause of death information allows specific interventions to be designed to reduce mortality effectively. A verbal autopsy-based HIV mortality surveillance (MS) system was established to generate computer-assigned COD for PLHIV.

This analysis presents the pattern and distribution of COD obtained using verbal autopsy (VA) among PLHIV in facilities implementing MS.

Methods

Mortality Surveillance system was introduced in 168 facilities across 18 states in Nigeria from August 2021 to September 2022 targeted at PLHIV on ART who died within six months. The 2016 World Health Organization Verbal Autopsy (VA) instrument was administered to 2,061 eligible and consenting primary caregivers/witnesses who were with the deceased in the period leading to death. Outputs from the VA instruments were analyzed by SmartVA-Analyze to generate the cause of death based on the International Classification of Diseases Standards (Version 10).

Descriptive analysis was conducted of assigned COD, disaggregated by sex, age, and viral suppression status of deceased clients.

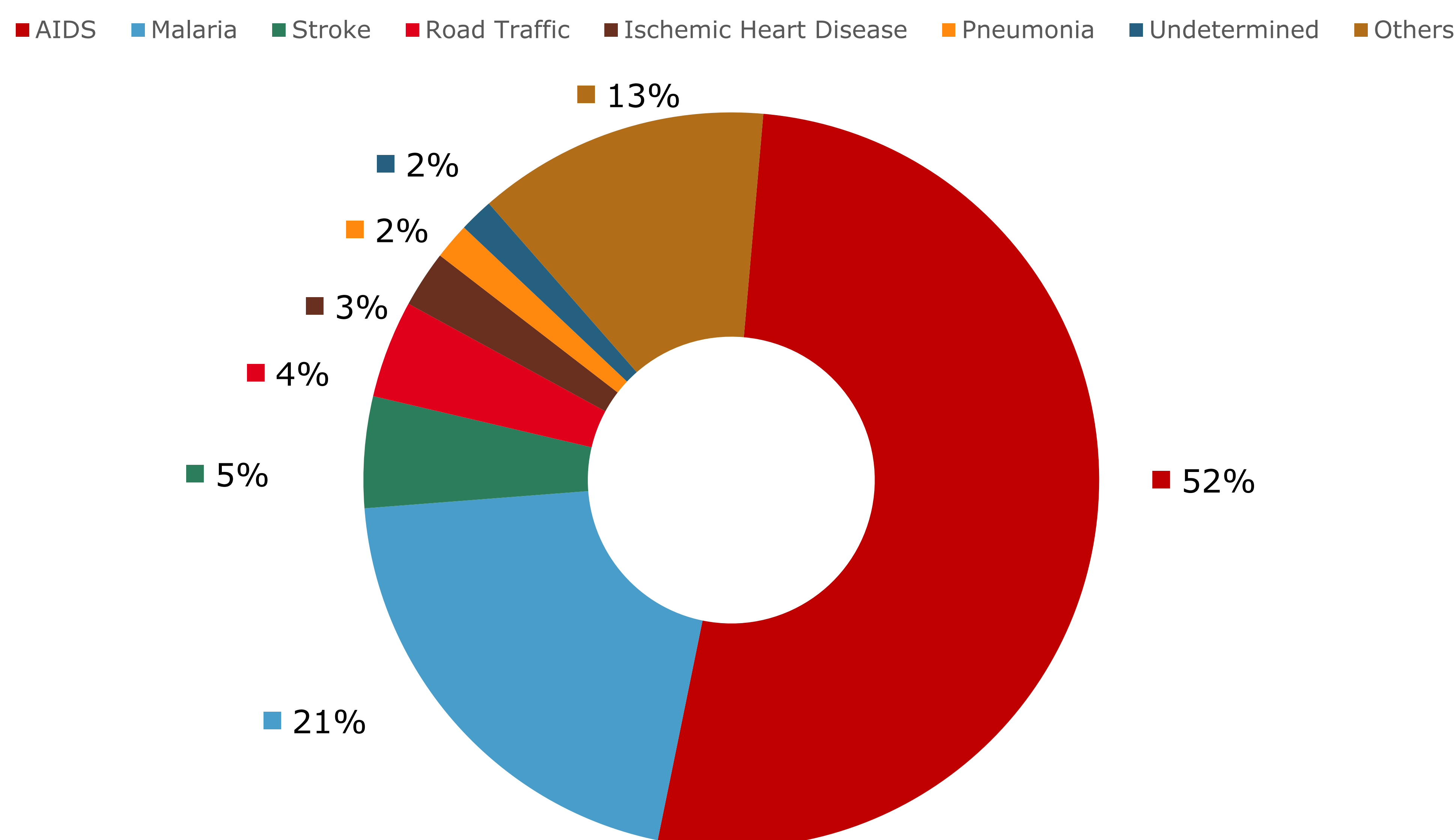


Figure 1: Percentage distribution of causes of deaths among people living with HIV in Nigeria

Results

A total of 2,061 VA were conducted from August 2021 to September 2022, comprising of 1,091 (53%) female and 970 (47%) males. The median age group was 14-19 years with IQR 1-4 years and 20-24 years. The five most common causes of death (COD) contributing 85% of COD were AIDS (52%), malaria (21%), stroke (5%), road traffic accidents -RTA (4%), ischemic heart disease (3%) Figure 1. Other causes including diabetes, diarrhea, falls, TB etc. contributed 15%. Viral non-suppression was higher among clients who died of AIDS compared to non-AIDS COD.

Conclusion

While AIDS and Malaria constituted the two most common CODs, non-infectious diseases contributed to deaths among PLHIV as well. Ascertaining the COD among PLHIVs on ART is critical towards HIV epidemic control and implementing fit-for-purpose interventions to prevent avoidable deaths. To better harness the benefits of MS System, it can be scaled up to increase coverage.