

Background

- On 7th November 2015, the World Health Organization declared the end of the Ebola virus disease (EVD) epidemic in Sierra Leone, 19 months after the first case occurred.
- From March to December 2014, 8018 Ebola probable or confirmed cases were reported in Sierra Leone (WHO 2015), among them about 43% died. During this period more than 360 cases were health care workers.
- The frequency of deaths caused by the recent Ebola epidemic among health-care workers severely disrupted supply and quality of routine health activities.
- The fear of being contaminated by the EVD had made patients reluctant to seek treatment from health facilities, particularly in areas where EVD cases were diagnosed.
- In Sierra-Leone, the effect of the recent EVD epidemic on the continuity of HIV care is unknown.

Objectives

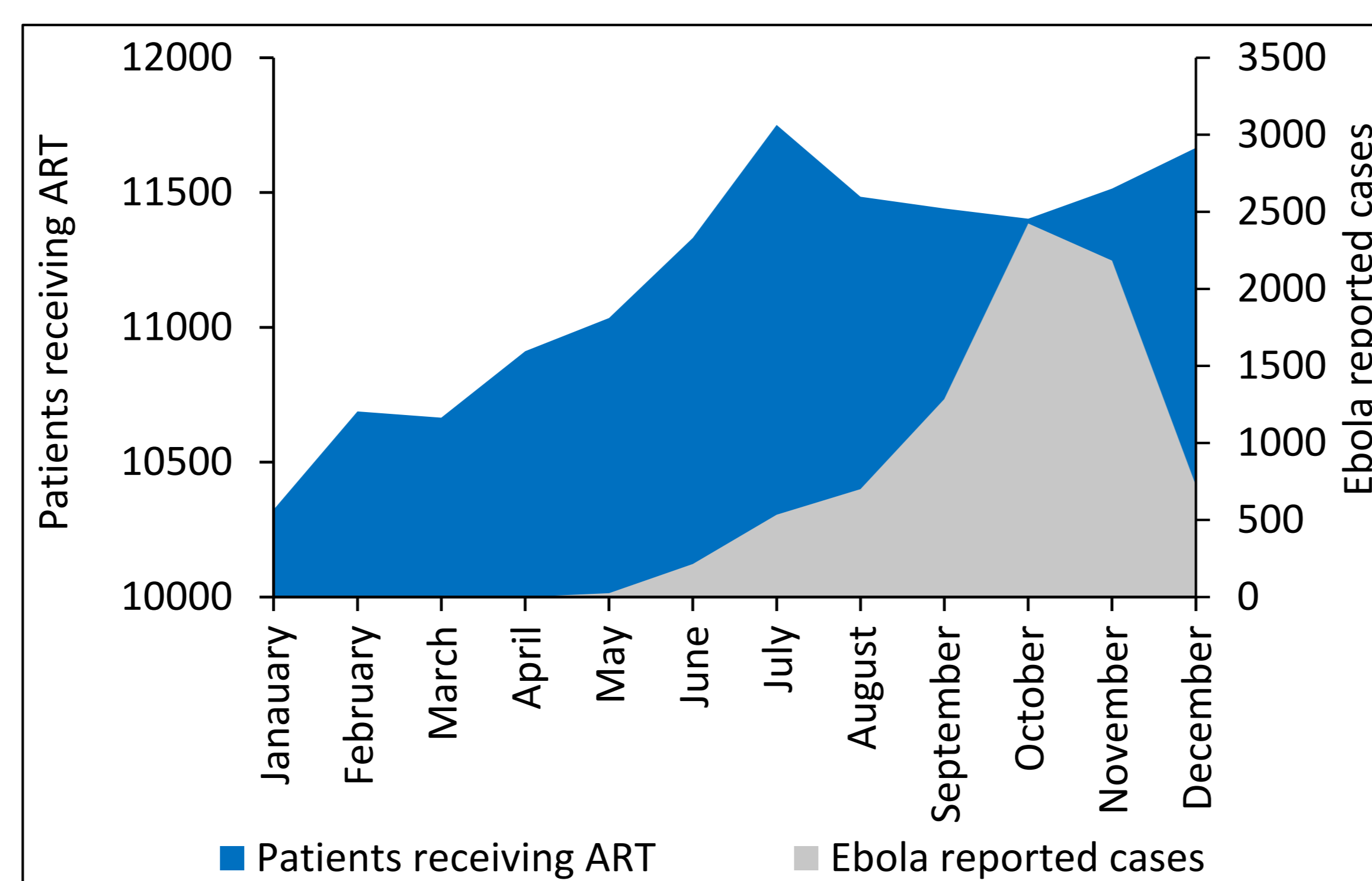
To assess the indirect impact of the EVD epidemic on the continuity of HIV care among people living with HIV in health districts affected by the recent EVD epidemic in Sierra Leone.

Methods

- The National AIDS Control Programme (NACP) of Sierra Leone manages a nationwide database including the number of patients receiving antiretroviral treatment (ART). During 2014, 126 HIV facilities reported data to NACP.
- Missing data for HIV facilities that were still functional during the period was imputed using the multiple imputation method.
- To assess the impact of EVD epidemic on the continuity of HIV care during 2014, we first
 - calculated the rate of change (ROC) between successive months of the number of patients receiving ART,
 - secondly, we calculated the proportion of the number of months (PNM) in which the ROC was negative during the EVD epidemic.
- PNM with negative ROC was used to make comparisons between and within health districts.
- Stata 11.0 was used for analyses.

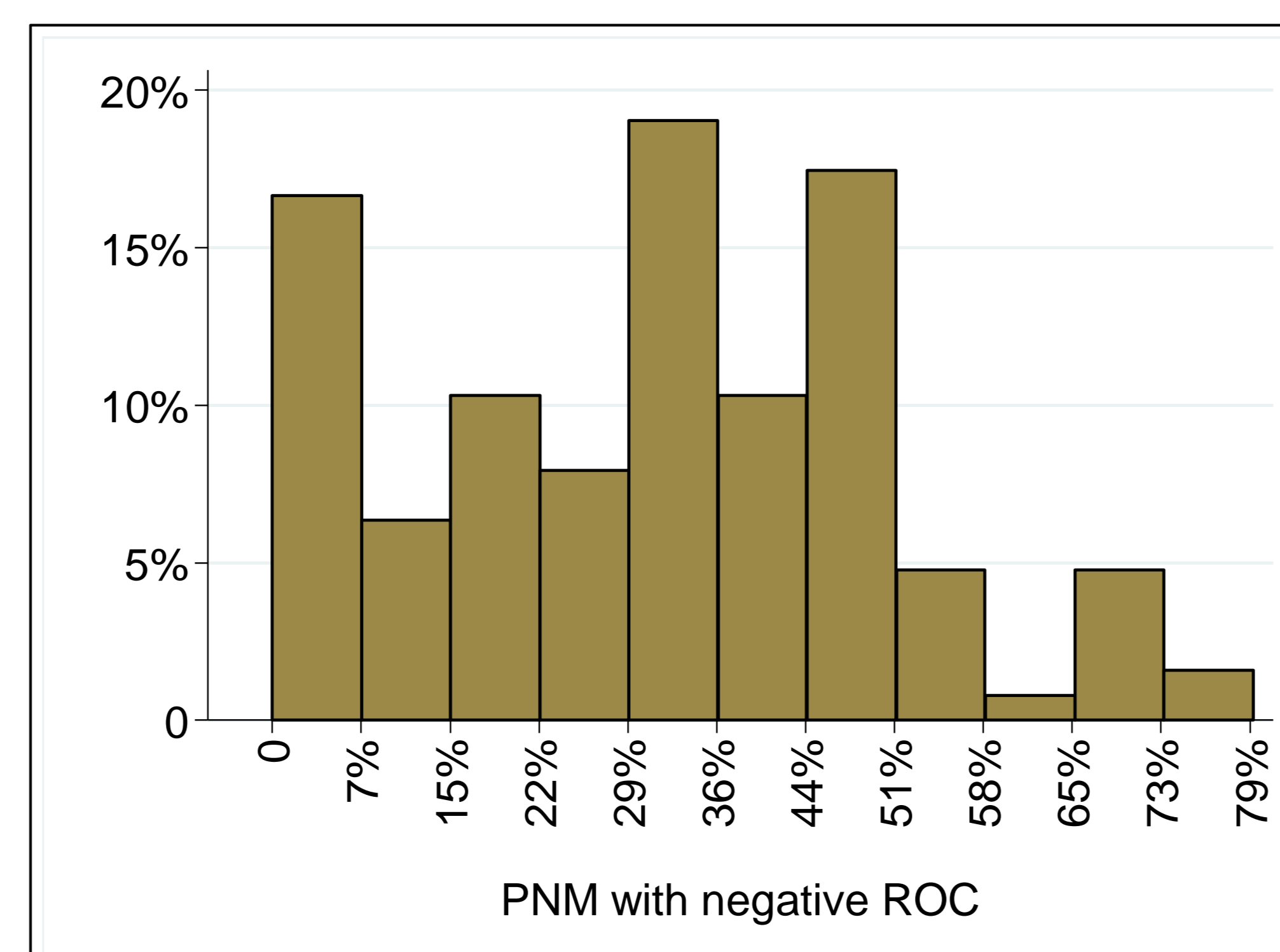
Results

- Evolution of monthly number of patients receiving ART during the year 2014 in Sierra Leone compared with Ebola virus disease reported cases



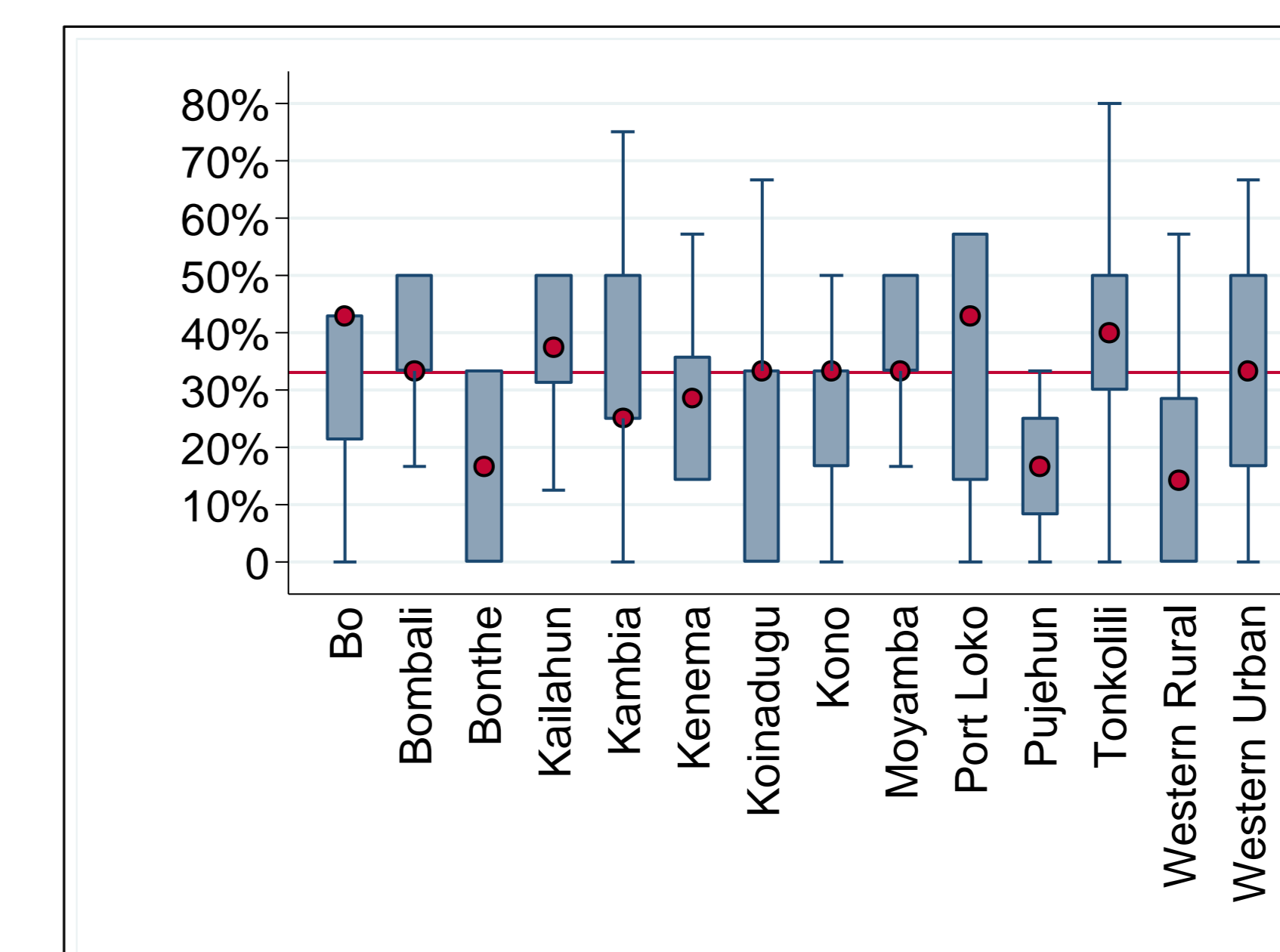
- The number of patients receiving ART increased from 10,300 in January to 11,750 in July followed by a slow decline until October (11,400), and a slow increase until December (11,660).
- The period of July to October corresponds to the peak of the EVD epidemic.

- Distribution of proportion of the number of months (PNM) with negative rate of change (ROC) of the numbers of patients receiving ART in HIV facilities during Ebola virus disease epidemic



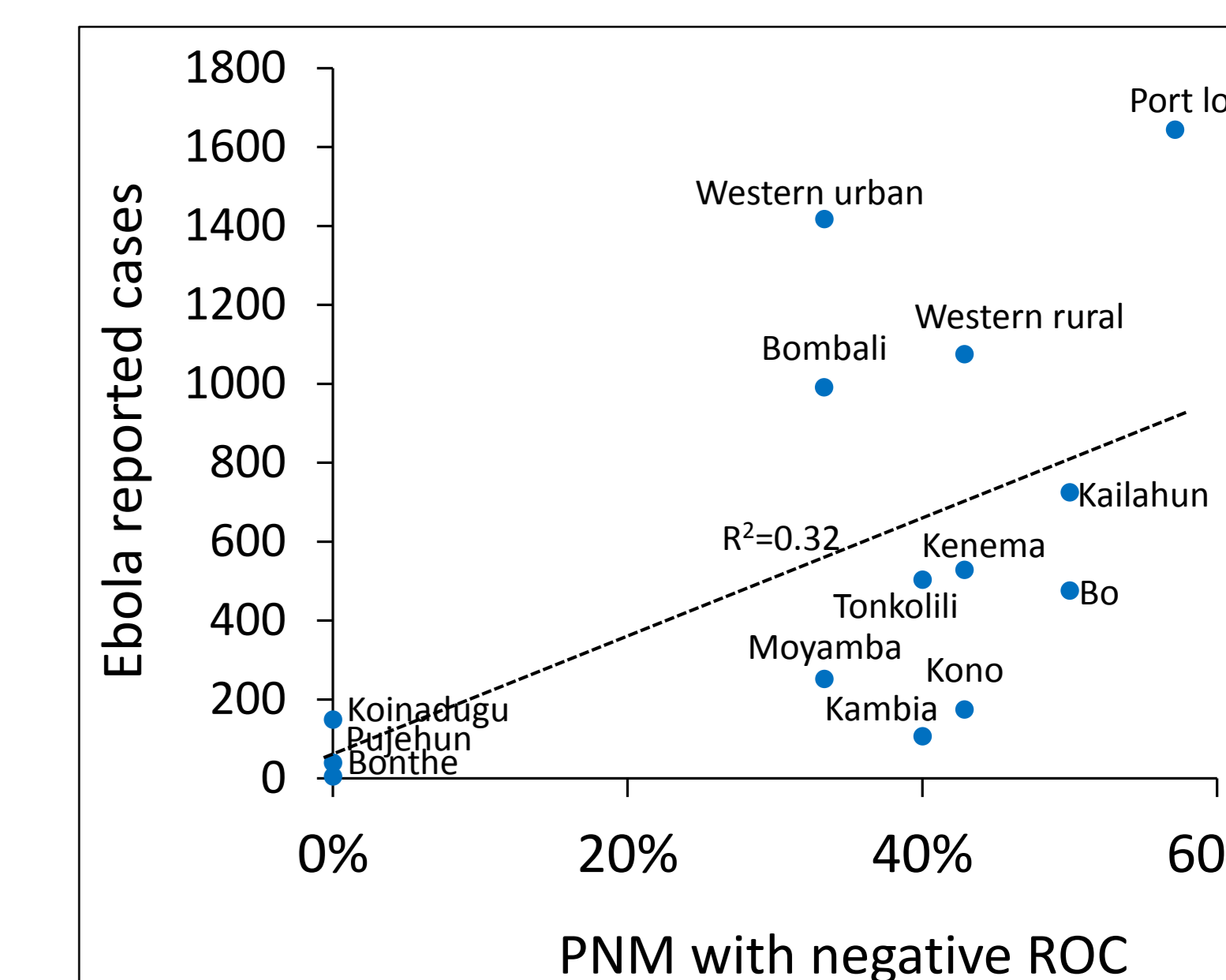
- The median PNM with negative ROC was 33% (interquartile range: 17%-50%).
- HIV facilities with PNM with negative ROC >50% was found in 15 HIV facilities located principally in Port Loko, Western urban, Tonkolili, Kenema, and Western Rural, the health districts most affected by Ebola.

- Distribution of proportion of the number of months (PNM) with negative rate of change (ROC) of the number of patients receiving ART during EVD epidemic by health district



Median PNM with negative ROC was variable between health district ($p < 0.03$) and the highest median of PNM with negative ROC within health district was found at Port Loko. PNM with negative ROC increased with the number of EVD reported cases.

- Correlation between the number of months (PNM) with negative rate of change (ROC) of the number of patients receiving ART during EVD epidemic in health districts and Ebola reported cases



Conclusion

- Our results support the hypothesis that the decline of the number of patients receiving ART during 2014 was attributable to the EVD epidemic in Sierra Leone.
- The impact of Ebola on the continuity of HIV care was variable between and within health districts.
- This study suggest that health-seeking behavior of patients with chronic disease such as HIV has been negatively affected during the recent EVD epidemic and the reasons of low retention could be multifactorial.
- This study will contribute to improve future epidemics preparedness.