

BACKGROUND

- March 2014: beginning of the Ebola epidemic.
- 1st June 2016: the World Health Organization declared the end of the Ebola virus disease (EVD) epidemic in Guinea.
- EVD impact from March 2014 to June 2015: 3800 Ebola probable or confirmed cases and 67% of deaths.
- Health worker Ebola infections: 200 cases and 56% of deaths.
- Specificity of the EVD: rapid transmission and high mortality rate.
- Fear of being contaminated among the population had:
 - disrupted supply and quality of routine health activities.
 - made patients reluctant to seek treatment in health facilities, particularly patients infected with chronic diseases such as HIV.

OBJECTIVE

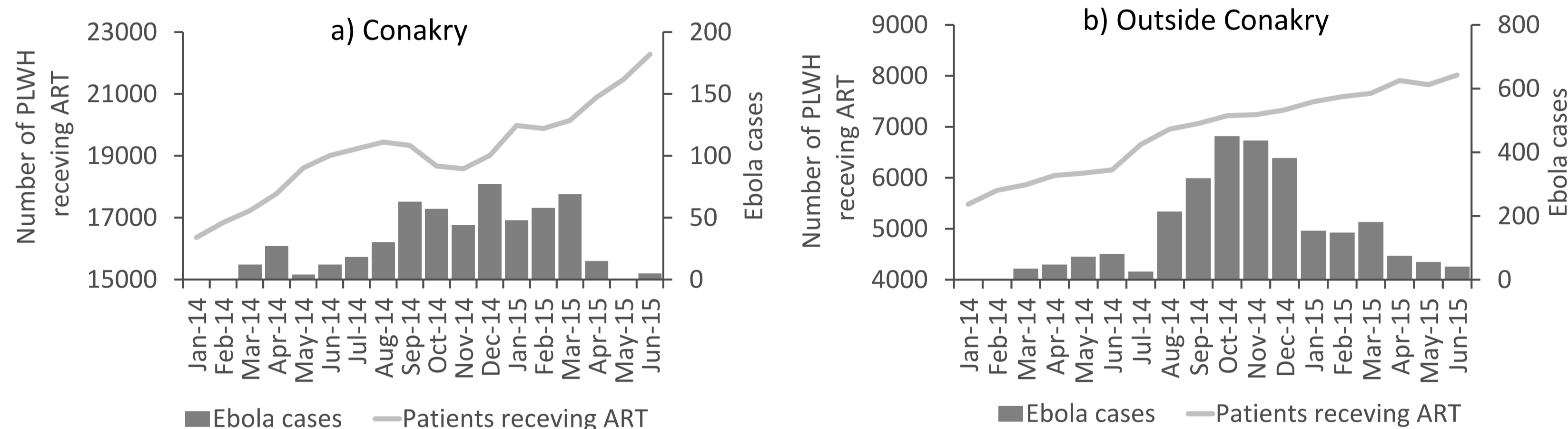
We analysed the impact of EVD on the retention of people living with HIV (PLWH) in antiretroviral treatment (ART) care in Conakry, where 75% of people receiving ART in Guinea live.

METHODS

- We used two databases:
 - The nationwide database including the number of PLWH receiving ART managed by the National programme of HIV health care of the Ministry of health and public hygiene of Guinea.
 - The database with repeated visits of PLWH receiving ART during January 2014 to June 2015 at Donka national hospital (DNH) of Conakry. DNH is the largest HIV facility in Guinea and hosted one of the Ebola treatment centres.
- To assess the impact of EVD epidemic on the retention in ART care during January 2014 to June 2015 in Conakry, we:
 - Compared the evolution of the monthly number of PLWH receiving ART inside and outside Conakry during January 2014 to June 2015.
 - Used survival analysis method.
- Survival analysis method:
 - a patient was defined as not retained in ART care if they did not attend the last scheduled visit at least 30 days after a given time point. The threshold of 30 days was used to increase the sensitivity of the Ebola epidemic on the continuity of HIV care.
 - Kaplan-Meier method was used to estimate the probability of being retained in ART care. This probability was compared between groups. Cox models were used to identify factors associated with retention in ART care.
- Stata 11.0 was used for analysis.

RESULTS

- Evolution of monthly number of people living with HIV (PLWH) receiving ART in Conakry (a) and outside Conakry (b) during January 2014 to June 2015 compared with Ebola virus disease reported cases

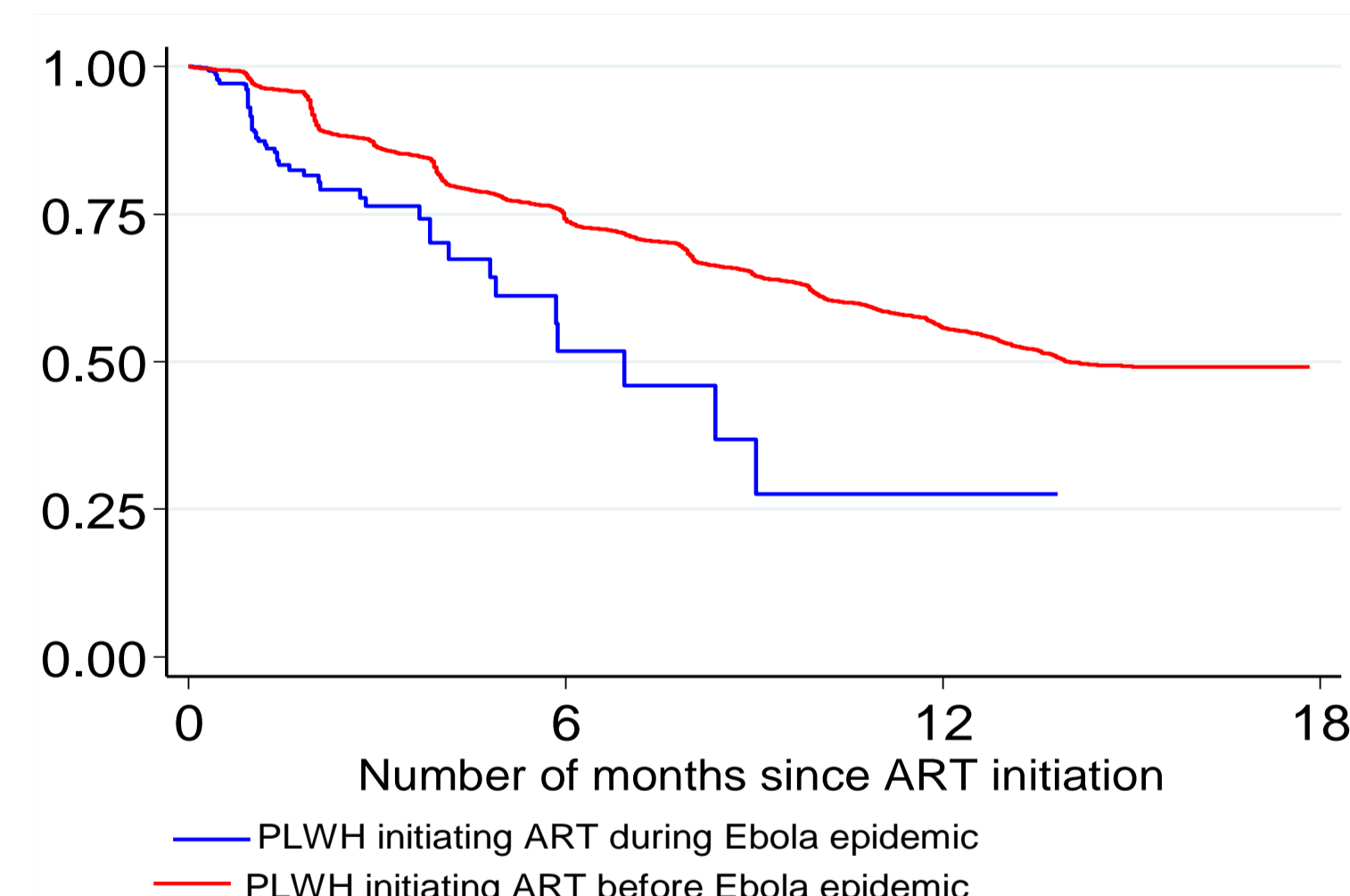


- The number of PLWH receiving ART in Conakry increased from 16,400 to 19,400 between January 2014 and August 2014 and then decreased to 18,600 in November 2014. Since December 2014, the number of PLWH on ART increased slightly.
- The period of September to December 2014 corresponds to the peak of Ebola epidemic in Conakry.
- The number of PLWH receiving ART outside Conakry increased from 5,500 to 7,300 during January 2014 to June 2015.

- Characteristics of PLWH receiving ART at Donka national hospital during January 2014 to June 2015

	Patients=13939 Visits=44518
Gender, women (%)	8800 (63%)
Median age at the first visit during 2014-2015 (IQR)	37 years (30-46)
Number of PLWH initiating ART before Ebola epidemic (before March 2014) during Ebola epidemic (from March 2014)	12930 (93%) 1009 (7%)
Median duration follow-up per patient (IQR)	2 months (0-12)
Median duration between two successive visits (IQR)	60 days (33-83)

- Kaplan-Meier probability of retention in ART care among PLWH receiving ART during January 2014 to June 2015 at Donka national hospital



The median duration of retention in ART care was longer among PLWH initiating ART before Ebola epidemic compared to PLWH initiating ART during Ebola epidemic (13 versus 7 months; $p < 0.001$).

- Cox regression models of the probability of not being retained on HIV care during January 2014 and June 2015 at Donka national hospital

	Univariate analysis		Multivariate analysis ^{#,&}	
	HR	P-value	aHR	P-value
Gender				
women	1			
men	1.07	0.055	1.07	0.152
Age at the first visit during January 2014 to June 2015				
<16	1.37	0.002	1.36	0.003
16-30	1.06	0.251	1.06	0.593
31-45	1		1	
45+	1.03	0.624	1.02	0.313
Initiation of ART:				
before Ebola epidemic (before March 2014)	1		1	
during Ebola epidemic (from March 2014)	2.70	<0.001	2.76	<0.001

- [#]No interaction; [&]the variable « type of service » was not included in the Cox regression models because the proportional hazard assumption was not verified. Nevertheless, this variable was significant in a Weibull regression model.
- In multivariate analysis, initiating ART during the Ebola epidemic versus before, being a children and being followed in a pediatric or general medicine ward increased the risk of not being retained in ART care.

CONCLUSION

The number of PLWH receiving ART declined during the recent Ebola epidemic in Conakry compared to others health districts. This decrease is likely due to the quality of healthcare provision available. This study will contribute to improve epidemics preparedness.