Announcement of the winning posters

73th Conference of the international Scientific Council for Trypanosomiasis Research and Control

15-19 September 2025

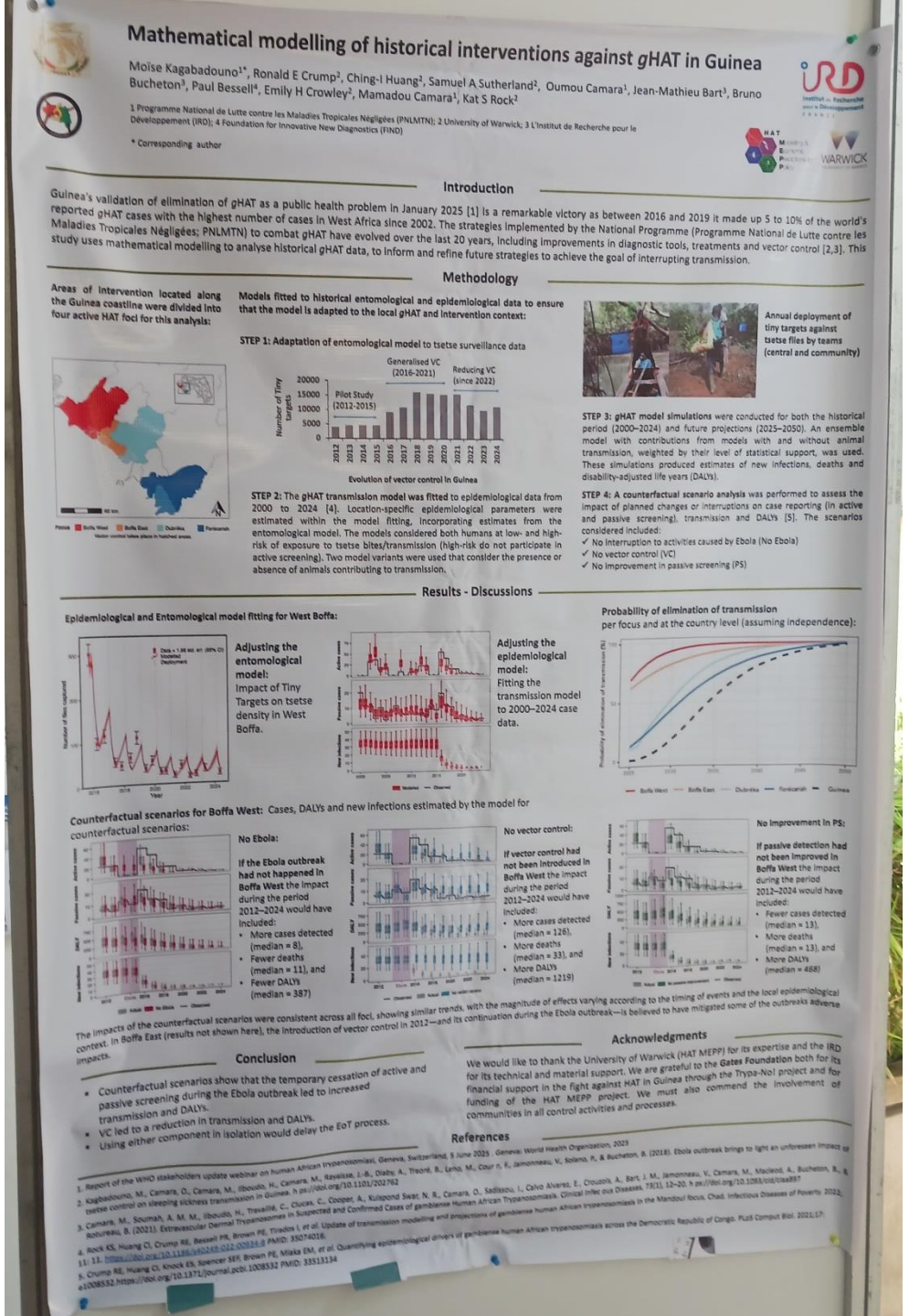
Nairobi, Kenya

Evaluation criteria

- Author, institutional affiliation & address (/8)
- Corresponding author with asterisk (/2)
- Introduction stating the purpose of the study (/10)
- Materials & methods (/20)
- Results (text and illustrations) (/25)
- Conclusions/recommendations (/20)
- References (/5)
- Simple and easy to read (/5)
- Space allocated to the posters (/5)

5th prize

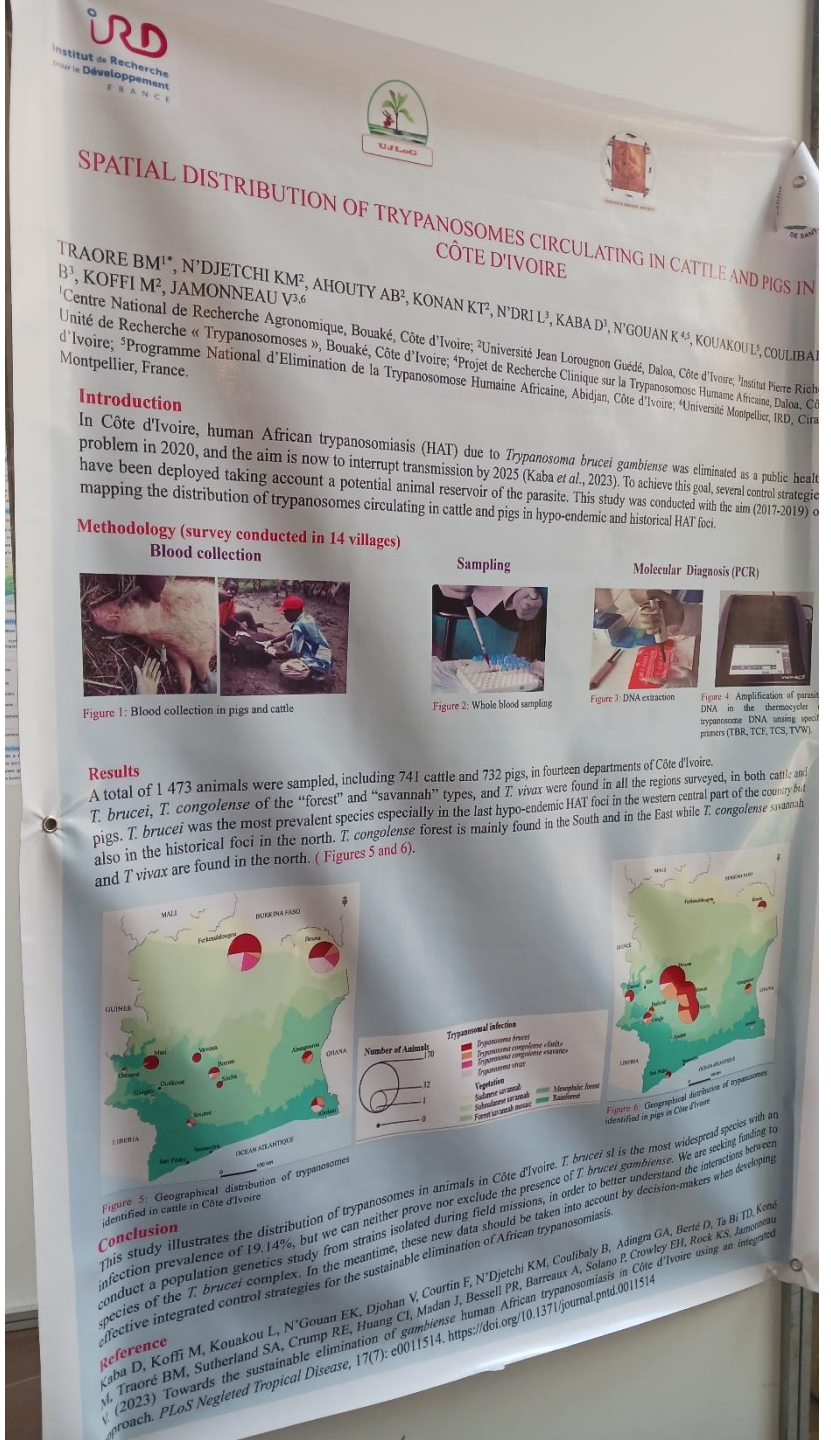
- Mathematical modelling of historical interventions against gHAT in Guinea
- Moïse Kagabadouno et al



4th prize

- Spatial distribution of trypanosomes circulating in cattle and pigs in Côte d'Ivoire

- Traore BM et al.



SPATIAL DISTRIBUTION OF TRYPANOSOMES CIRCULATING IN CATTLE AND PIGS IN CÔTE D'IVOIRE

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Introduction

In Côte d'Ivoire, human African trypanosomiasis (HAT) due to *Trypanosoma brucei gambiense* was eliminated as a public health problem in 2020, and the aim is now to interrupt transmission by 2025 (Kaba *et al.*, 2023). To achieve this goal, several control strategies have been deployed taking account a potential animal reservoir of the parasite. This study was conducted with the aim (2017-2019) of mapping the distribution of trypanosomes circulating in cattle and pigs in hypo-endemic and historical HAT foci.

Methodology (survey conducted in 14 villages)

Blood collection | **Sampling** | **Molecular Diagnosis (PCR)**

Figure 1: Blood collection in pigs and cattle

Figure 2: Whole blood sampling

Figure 3: DNA extraction

Figure 4: Amplification of parasite DNA in the thermocycler using specific trypanosome DNA unsing specific primers (TBR, TCF, TCS, TVW).

Results

A total of 1 473 animals were sampled, including 741 cattle and 732 pigs, in fourteen departments of Côte d'Ivoire. *T. brucei*, *T. congolense* of the "forest" and "savannah" types, and *T. vivax* were found in all the regions surveyed, in both cattle and pigs. *T. brucei* was the most prevalent species especially in the last hypo-endemic HAT foci in the western central part of the country but also in the historical foci in the north. *T. congolense* forest is mainly found in the South and in the East while *T. congolense* savannah and *T vivax* are found in the north. (Figures 5 and 6).

Figure 5: Geographical distribution of trypanosomes identified in cattle in Côte d'Ivoire

Figure 6: Geographical distribution of trypanosomes identified in pigs in Côte d'Ivoire

Conclusion

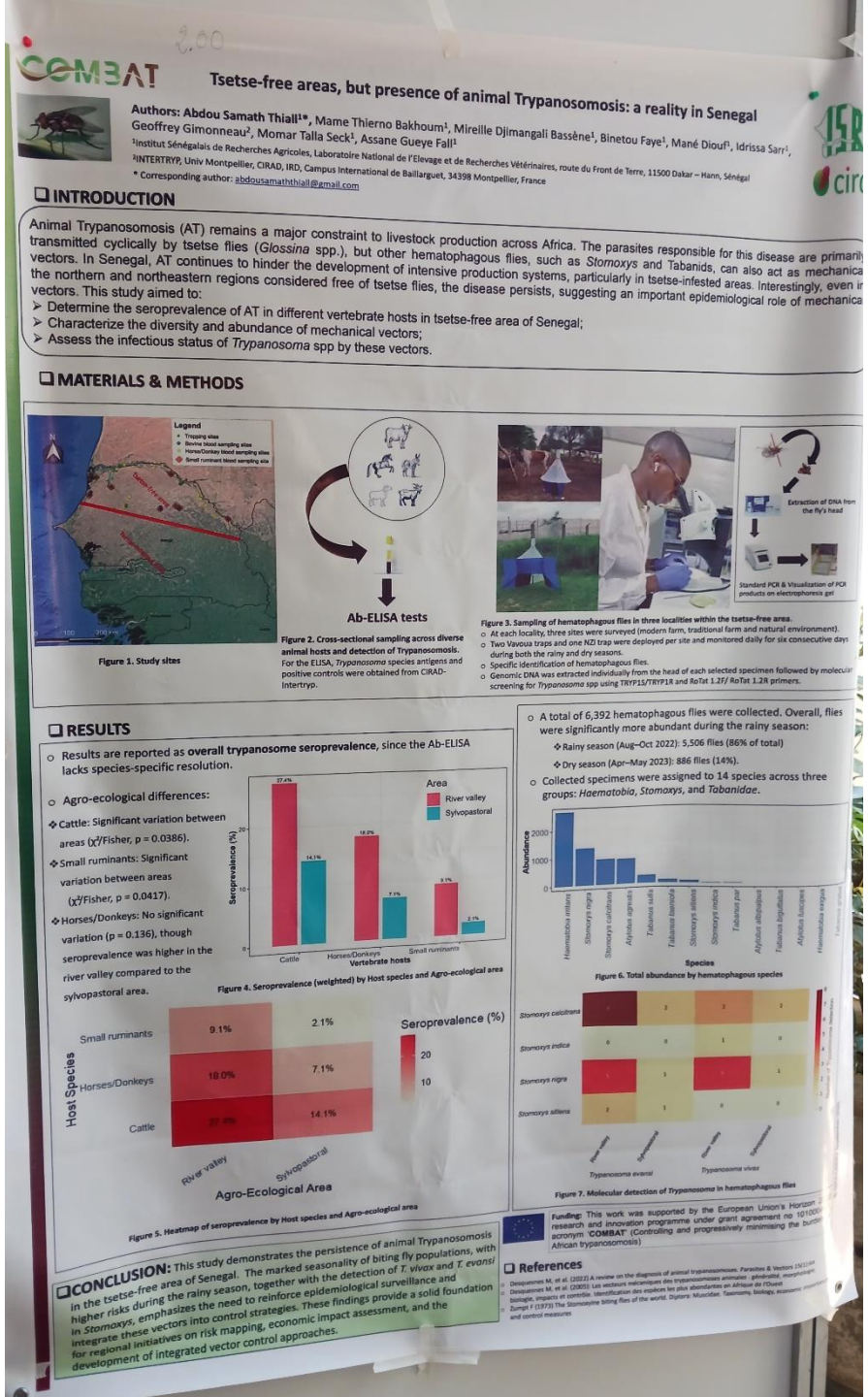
This study illustrates the distribution of trypanosomes in animals in Côte d'Ivoire. *T. brucei* sl is the most widespread species with an infection prevalence of 19.14%, but we can neither prove nor exclude the presence of *T. brucei gambiense*. We are seeking funding to conduct a population genetics study from strains isolated during field missions, in order to better understand the interactions between species of the *T. brucei* complex. In the meantime, these new data should be taken into account by decision-makers when developing effective integrated control strategies for the sustainable elimination of African trypanosomiasis.

Reference

Kaba D, Koffi M, Kouakou L, N'Gouan EK, Djohan V, Courtin F, N'Djetchi KM, Coulibaly B, Adingra GA, Berté D, Ta Bi TD, Koné M, Traoré BM, Sutherland SA, Crump RE, Huang CI, Madan J, Bessell PR, Barreaux A, Solano P, Crowley EH, Rock KS, Jamonneau V. (2023) Towards the sustainable elimination of *gambiense* human African trypanosomiasis in Côte d'Ivoire using an integrated approach. *PLoS Negleted Tropical Disease*, 17(7): e0011514. https://doi.org/10.1371/journal.pntd.0011514

3th prize

- Tsetse-free areas, but presence of animal Trypanosomosis: a reality in Senegal
- Abdou Samath Thiall et al.



1st prize *ex aequo*

- Mapping the progressive control pathway for African Animal Trypanosomosis in Burkina Faso
- L. Percoma et al.

- Analysis of passive screening data for Human African Trypanosomiasis in Cameroon: Sentinel site performance from 2022-2024
- R. Bamo et al.

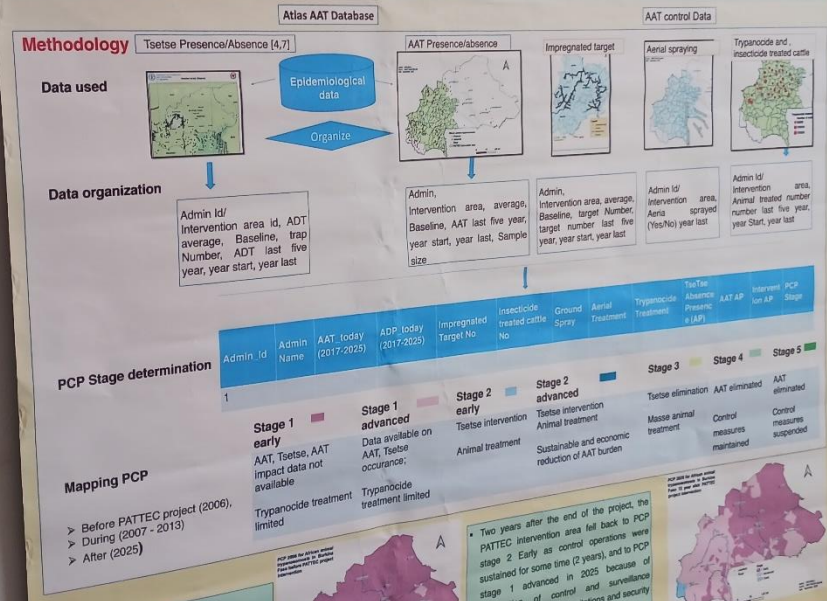
Mapping the progressive control pathway for African animal trypanosomosis in Burkina Faso

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Bakground

- In 1999 at Mombasa, Kenya, the 25th International Scientific Council for Trypanosomiasis Research and Control (ISCTRC) recommended Pan-African initiative against tsetse and trypanosomiasis idea [1].
- This recommendation was endorsed by African Heads of States and Government at the 36th African Union Summit in 2000 through the creation of PATTEC [1].
- Six countries (Burkina Faso, Ghana, Mali, Ethiopia, Kenya and Uganda) benefited from the first phase of PATTEC project.
- In Burkina Faso, PATTEC activities took place from 2006 to 2013 through an integrated control strategy including the use of insecticide-impregnated target, ground and aerial spraying, insecticide treated cattle and trypanocidal treatments [2].
- From 2013 to 2016, entomological monitoring using Challier Laveissière biconical traps [3] continued before being interrupted due to security challenges.
- A national atlas of tsetse and AAT [4] was developed with financial and technical support from the FAO from 2016 to 2022.
- Since 2021, within the framework of the European Union-funded COMBAT project [5], the atlas was enhanced and updated, and a national strategy document for the control of AAT was developed.
- The mapping of progressive control pathway (PCP) in Burkina Faso is part of this strategy document, with the objective of contributing to the definition of control strategies based on evidence [6]

Methodology



Result and discussion

- Before PATTEC project, very little information existed on AAT and it vector occurrence (PCP stage 1 early : 77% of the territory) (i.e. no known control activities, no information on trypanocidal treatments).
- With PATTEC project advent, 2007–2013, 38,470.82 km² of area were targeted for the elimination of AAT and its tsetse vector (PCP stage 3) using 42,138 impregnated targets, aerial and ground spraying, insecticide treated cattle and mass trypanocide treatments [2]. Producers covered more than 4,045.09 km² of area with target for AAT control (PCP stage 2



- Two years after the end of the project, the PATTEC intervention area fell back to PCP stage 2 Early as control operations were sustained for some time (2 years), and to PCP stage 1 advanced in 2025 because of interruption of control and surveillance activities due to budget limitations and security concerns.



Conclusions

- Comprehensive management and mapping of epizootic, entomological and control data was carried out in the framework of the national atlas initiative enabled a time-series of PCP maps to be generated for Burkina Faso
- The retrospective PCP maps presented here effectively synthesize 20 years of AAT surveillance and control activities at the national level and lay a solid foundation for the development of future PCP workplans and roadmaps.
- Success of AAT and vectors elimination and the maintenance of its achievements require the constant of resources mobilization (financial, material) and the constant commitment of authorities of ministries in charge of animal resources.

References

1. Bouyer J, et al. Trypanosomiasis Control and Surveillance Programme of the World Health Organization 2000–2009: The Way Forward. PLoS Negl Trop Dis. 5: e1007
2. Franco JR, Simarro PP, Diarra A, et al. (2014). Epidemiology of human African trypanosomiasis. Clinical Epidemiology, 6: 257–275
3. World Health Organization (2025). Trypanosomiase humaine africaine (maladie du sommeil). Available at: https://www.who.int/data/gho/data/themes/topics/human-african-trypanosomiasis (Accessed 12 May 2025)

Analysis of passive screening data for Human African Trypanosomiasis in Cameroon: Sentinel site performance from 2022 - 2024

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Background

- Human African Trypanosomiasis (HAT) remains a public health problem in Cameroon[1, 2]
- Despite progress towards elimination, HAT persists in certain areas
- Passive screening via sentinel sites is an essential pillar of the 2030 elimination strategy[3]
- Evaluating the performance of sentinel sites is crucial to strengthening surveillance

Objectives

- Assess the performance of passive screening for HAT in sentinel sites in Cameroon between 2022 and 2024
  Specifically:
  - Describe annual trends in the number of people screened by Rapid Diagnostic Test (RDT)
  - Estimate the proportion of serologically suspect cases
  - Analyze trypanolysis positive results

Methods

- Design: Retrospective descriptive study
- Setting: Cameroon National Program for the Control of Human African Trypanosomiasis (NHATCP)
- Period: January 01, 2022 to December 31, 2024

Description of annual trends in the number of people screened by RDT
- Analysis of the number of RDTs done each year
- Comparison of annual screening trends (2022-2024)

Estimation of the proportion of serologically suspect cases
- Ratio of positive RDTs to total number of RDTs performed for each year
- Trends : Interannual comparison

Trypanolysis confirmation results analysis
- Proportion of trypanolysis confirmed cases out of total RDT+ cases
- Comparative analysis 2022, 2023 and 2024

- Data from monthly reports and the NHATCP database
- Administrative authorization from the NHATCP
- Data confidentiality
- Data entry and analysis: MS Excel 2021, QGIS
- Results: in maps and figures

Results

Cameroon HAT sentinel sites 2022 - 2024

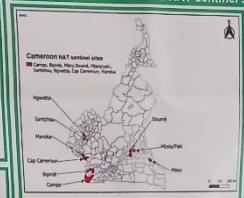


Figure 1: Cameroon HAT sentinel sites from 2020 to 2024

Regions	HAT sentinel sites
South	Campo
	Bipindi
East	Mbay
	Doume
	Mbala/Paki
West	Santchou
	Ngwatta
Littoral	Manoka
	Cap-Cameroun

Description of annual trends in the number of people screened by RDT

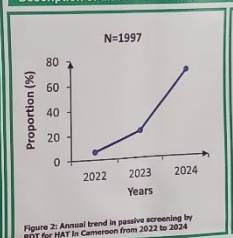


Figure 2: Annual trend in passive screening by RDT for HAT in Cameroon from 2022 to 2024



Picture 1: Realization of RDT at Manoka District Hospital, February 2024

Estimation of the rate of serologically suspect cases

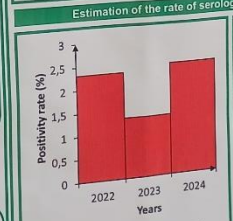


Figure 3: Rate of serological positivity by RDT in Cameroon from 2022 to 2024



Picture 2 : Verification of RDT-positive cases in the monthly report and RDT register at Doume District Hospital, August 2024

Trypanolysis confirmation results analysis



Figure 4 : Rate of trypanolysis confirmation of positive RDTs in Cameroon from 2022 to 2024

Conclusion

- RDT testing use and positive rates increased in the sites over the years while trypanolysis positive rates decreased
- Number of false-positive serologies tends increased with the growing use of RDTs
- These false positives are eliminated at the trypanolysis stage, which reduces the confirmation rate among serological cases

Recommendations

- Strengthen HAT case definition in sentinel sites and improve the quality of healthcare
- Strengthen training of on-site personnel in the handling and interpretation of RDTs
- Strengthen supervision and technical feedback to local teams

Limitations

- Low number of confirmed cases: The small number of trypanolysis-positive cases limits the statistical power for in-depth or comparative analyses
- Lack of qualitative data: The study did not include a qualitative assessment of the perception and commitment of local players, which is essential for local ownership

References

- Simarro PP, Diarra A, Postigo JAR, et al. (2011). The Human African Trypanosomiasis Control and Surveillance Programme of the World Health Organization 2000–2009: The Way Forward. PLoS Negl Trop Dis. 5: e1007
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