

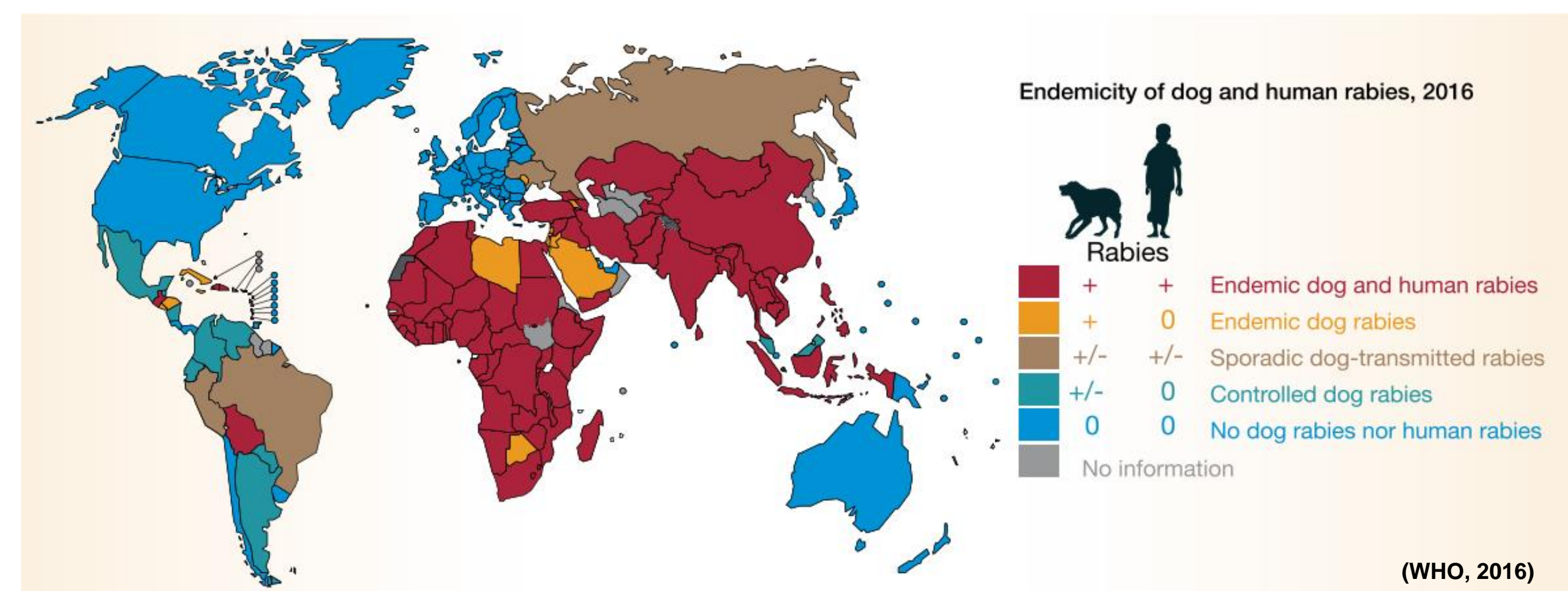
# Improving surveillance of human and animal rabies in Centre region of Cameroon from 2019 to 2020

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Abstract Reference  
PP21

Rabies is a **public and animal health problem** in Cameroon and despite many efforts, the current surveillance system remains **unable to determine the actual burden of rabies** in the Centre region of Cameroon. Good surveillance system is essential for **rabies control and elimination** in Cameroon.

## BACKGROUND



Rabies is a worldwide distributed zoonotic disease that is responsible of approximately 60,000 human deaths annually. This encephalitis remains neglected in most African countries, where the burden of disease is suspected to be high. Our recent data from routine rabies surveillance in Cameroon suggested that most cases occur in the Centre region; particularly in the capital city Yaounde. Nevertheless, the existing rabies surveillance system is still weak and does not display the actual burden of rabies in Cameroon; thus preventing the allocation of resources for rabies control at national.

This study aimed to estimate the human and animal rabies burden from October 2019 to March 2021 in the Centre region of Cameroon considered to be the most affected base on available data

## METHODS

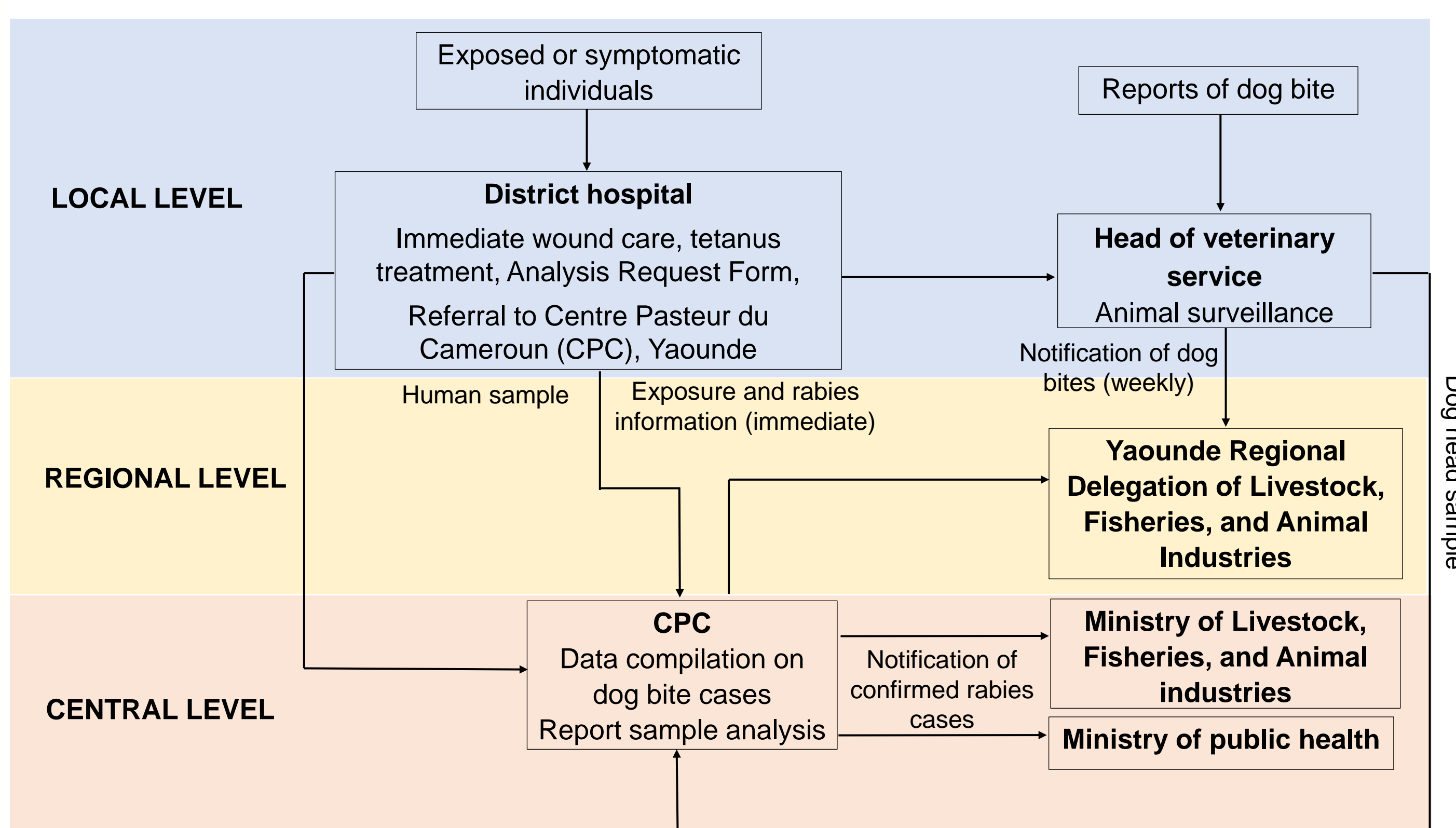


Figure 1. Structure of the reinforced surveillance network in centre region of Cameroon.

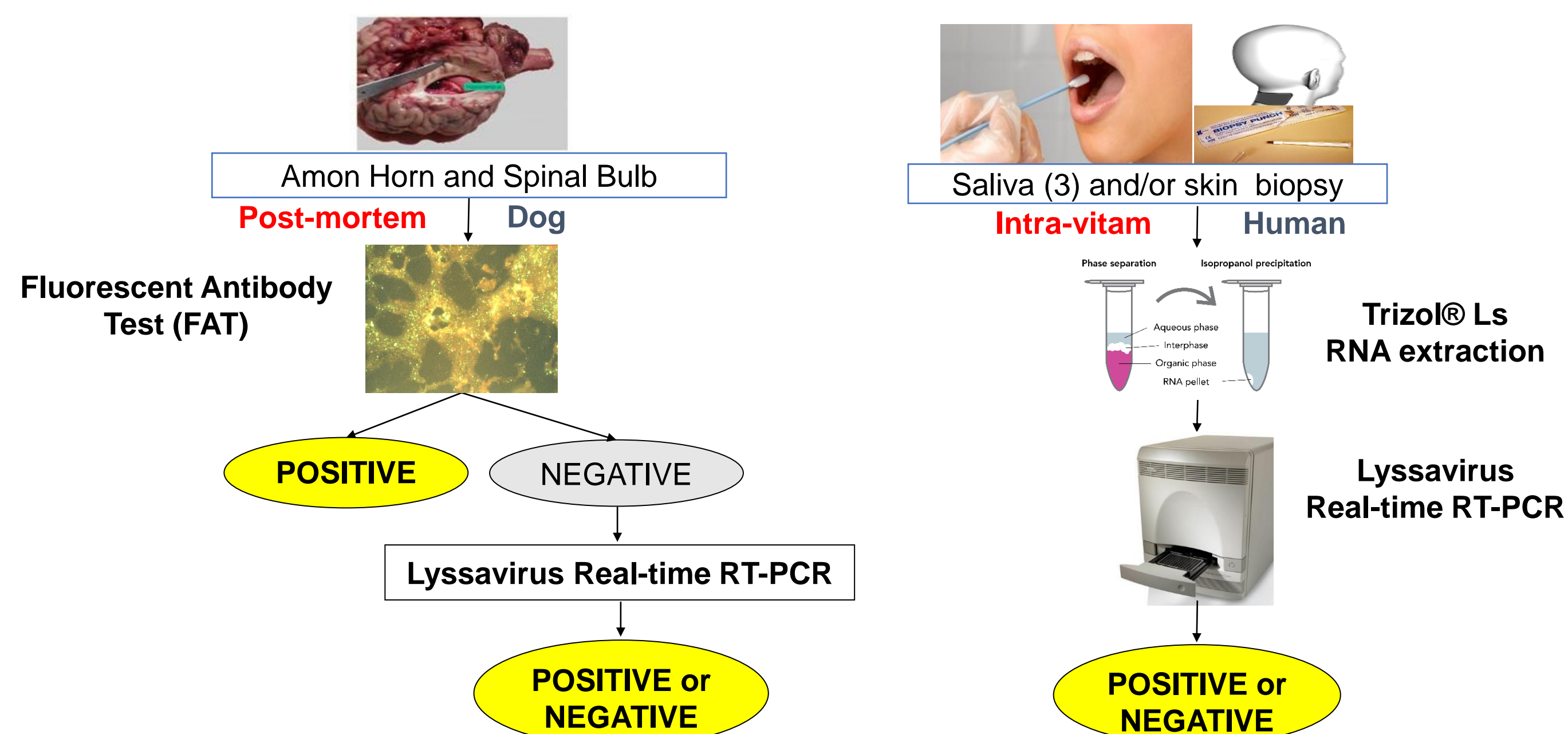


Figure 2. Diagnosis of human and canine rabies at the Centre Pasteur du Cameroun (CPC)

## RESULTS

Table 1. Number of dog exposures reported at the Centre regional delegation of the ministry of Livestock, Fisheries and Animal Industries of Cameroon between October 2019 and March 2021

Location Centre region (Departments)	Population	Number of exposure			Total	%	Annual incidence per 100,000		
		October-December 2019	2020	January-March 2021			October-December 2019	2020	January-March 2021
Haute Sanaga	115 020	6	11	7	24	12,70	5,22	9,56	6,09
Lekie	327 859	-	10	2	12	6,35	-	3,05	0,61
Mbam & Inoubou	216 541	2	6	8	16	8,47	0,92	2,77	3,69
Mbam & Kim	120 933	1	14	4	19	10,05	0,83	11,58	3,31
Mefou & Afamba	144 445	1	10	2	13	6,88	0,69	6,92	1,38
Mefou & Akono	67 643	2	8	1	11	5,82	2,96	11,83	1,48
Mfoundi	2 765 568	1	44	4	49	25,93	0,04	1,59	0,14
Nyong & Kelle	148 793	16	13	4	33	17,46	10,75	8,74	2,69
Nyong & Mfoumou	119 782	-	3	2	5	2,65	-	2,50	1,67
Nyong & So'o	132 909	-	6	1	7	3,70	-	4,51	0,75
<b>Total</b>	<b>5 209 493</b>	<b>29</b>	<b>125</b>	<b>35</b>	<b>189</b>	<b>100,00</b>	<b>0,56</b>	<b>2,40</b>	<b>0,67</b>

\* INS 2013: <https://ins-cameroun.cm/statistique/evolution-de-la-densite-de-la-population-du-cameroun-par-region-et-par-departement-entre-1987-et-2013/>

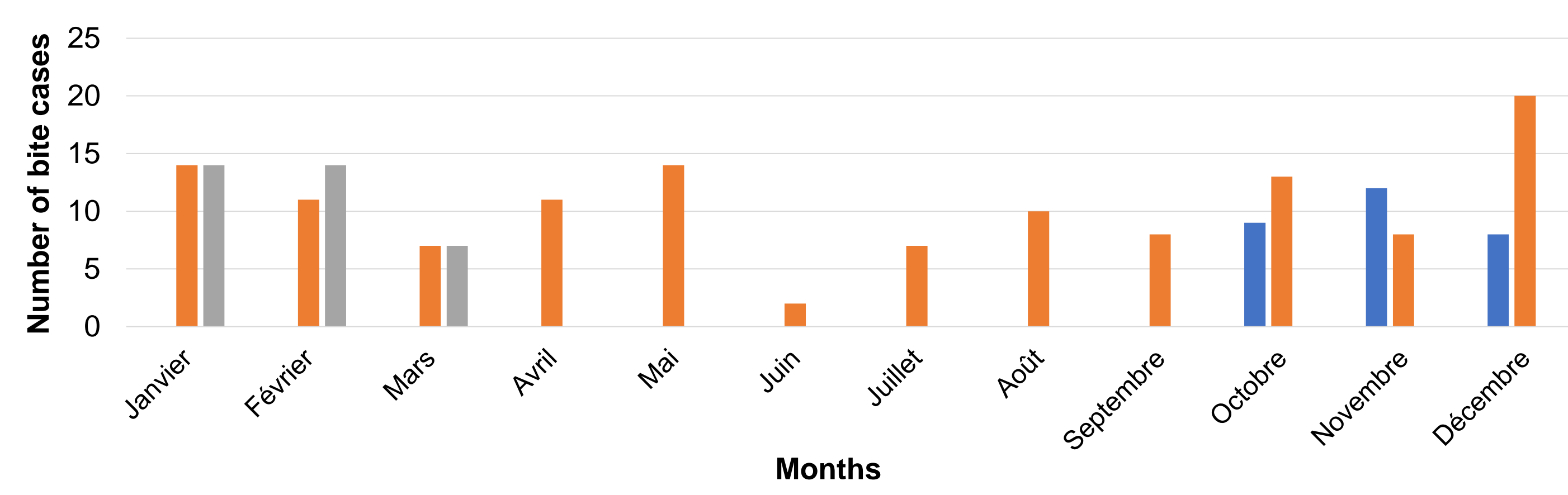


Figure 1. Monthly distribution of dog bites per years at the Centre regional delegation of the ministry of Livestock, Fisheries and Animal Industries of Cameroon between October 2019 and March 2021

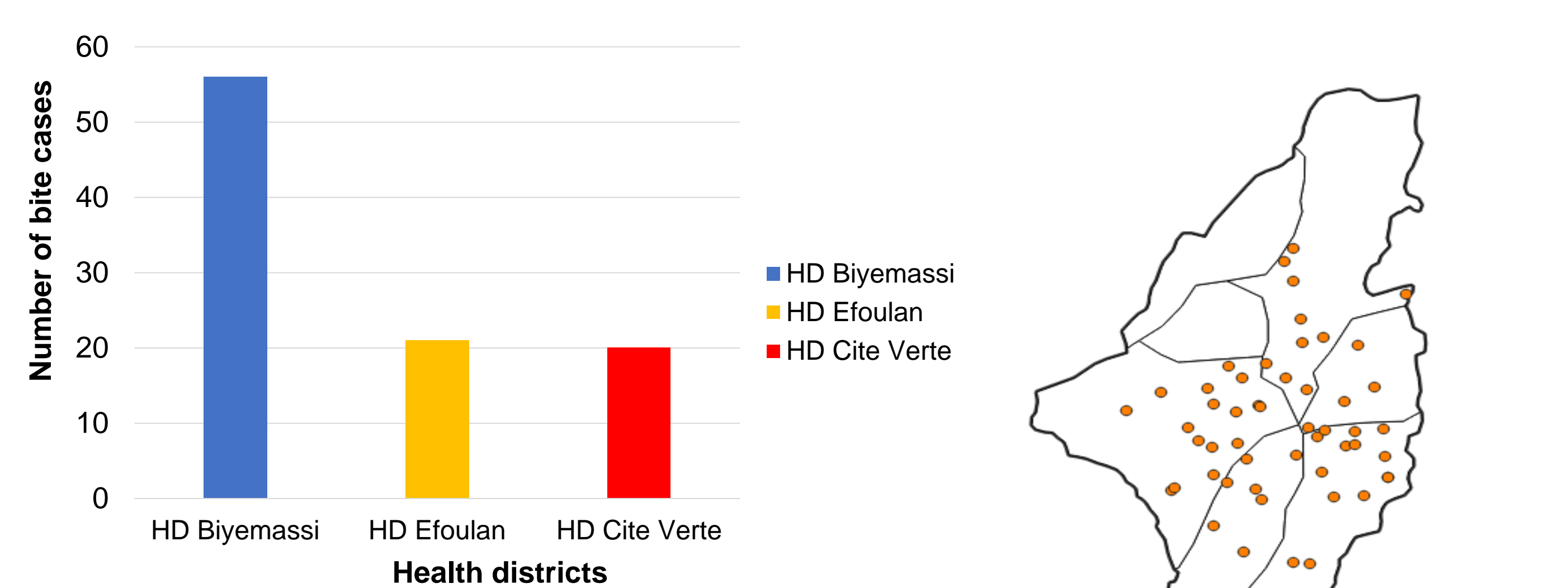


Figure 2. Number of domestic animal bite cases registered at three health districts of Yaounde between July 2020 and March 2021

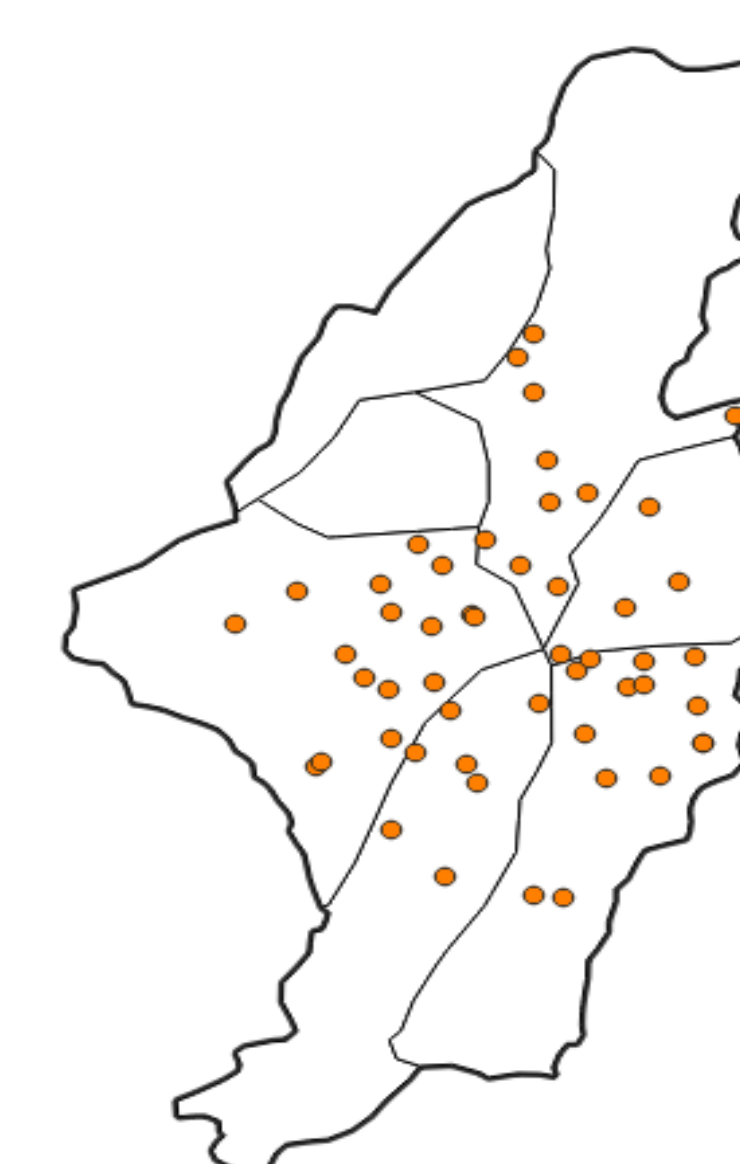


Figure 3. Distribution of animal bite cases in the city of Yaounde from October 2020 to March 2021 reported at the rabies Center of CPC

Table 2. Human and canine rabies confirmation at the CPC

Dog rabies suspicion nationwide			
Samples received (head)	Oct-Dec 2019	2020	Jan-Mac 2021
Dog	N= 1 1 Positive (100%)	N= 7 3 Positive (37.5%)	N= 0 0 Positive (00%)
Dog rabies suspicion at the Centre region			
Samples received (head)	Oct-Dec 2019	2020	Jan-Mac 2021
Dog	N= 1 1 Positive (100%)	N= 5 2 Positive (33.3%)	N= 0 0 Positive (00%)
Human rabies suspicion at the city of Yaounde			
Samples received (Skin biopsy/saliva)	Jul-Dec 2020	Jan-Mac 2021	
Human	N= 1 0 Positive (00%)	N= 1 0 Positive (00%)	

## CONCLUSIONS

This study provided comprehensive data on the potential rabies exposures in the urban and semi-urban areas of the Centre region of Cameroon. Despite the systematic follow up of dogs that have bitten humans, the study did not find and increase the clinical detection of rabid dog or laboratory confirmation of dog rabies. The study underscores the need of integrated and coordinated rabies surveillance system in the Centre region of Cameroon.

## ACKNOWLEDGEMENTS

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