

Rabies on the Rise: Integrated Outbreak Investigation in Kiambu County, Kenya, 2026

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BACKGROUND

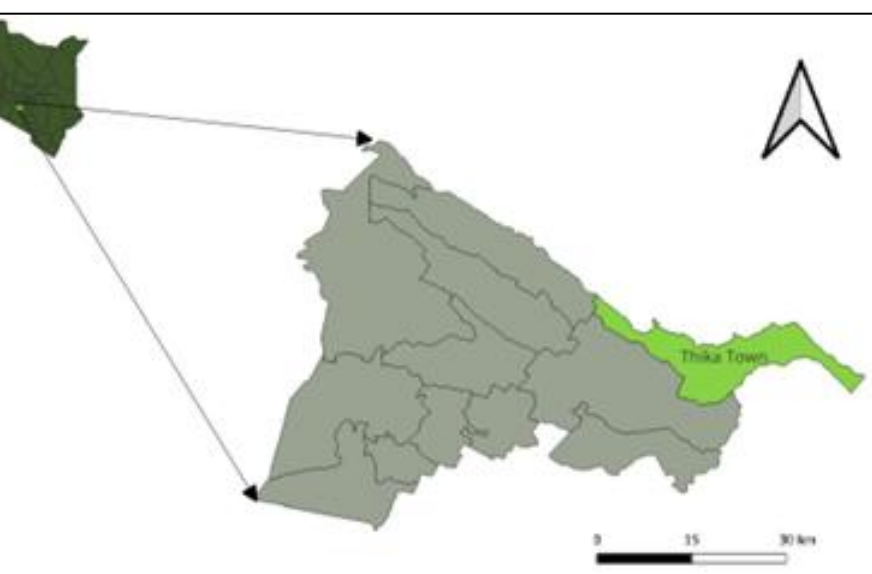
- ❑ Rabies is a neglected zoonotic viral disease that is almost invariably fatal once symptoms appear
- ❑ It is caused by *Lyssavirus* and transmitted primarily through bites or scratches from infected dogs
- ❑ Global burden: An estimated 59,000 deaths occur annually, with the majority in Africa and Asia
- ❑ Kenya (*KHIS* 2017–2025): Reported 602,927 dog bites and 591 human rabies deaths, highlighting a persistent public health challenge
- ❑ Recent outbreak: In February 2026, Kiambu County experienced multiple dog bite incidents, including a fatal case in an 8-year-old boy, underscoring the urgent need for integrated outbreak investigation and response

OBJECTIVE:

- ❑ To quantify animal bites and rabies cases in humans and animals in Thika
- ❑ To evaluate health workers' knowledge, attitudes, and practices on rabies prevention and control
- ❑ To assess rabies exposure drivers and promote prevention measures

METHODOLOGY:

STUDY AREA: Thika Subcounty, Kiambu County — densely populated, urban/peri-urban mix with high human–animal interactions



STATISTICAL ANALYSIS:

- ❑ **Quantitative:** Frequencies, proportions, descriptive statistics; outputs in tables, graphs
- ❑ **KAP scoring:** Good (80–100%), Moderate (60–79%), Fair (50–59%), Poor (<50%)

STUDY DESIGN AND SAMPLING

- ❑ **Mixed-methods:** records review, KAP surveys and field observations
- ❑ **Sampling:** Purposive targeting healthcare workers, Animals and human records

Figure 1: Map showing Thika Town subcounty

RESULTS

Table 1: Demographic characteristics of bite-related cases, Thika Sub-County, October to March, 2025-2026 (N=46)

Age_group(yrs)		Count (n)	Proportion (%)
0-4		0	0.0
5-14		13	28.3
15-24		11	23.9
25-34		7	15.2
35-44		6	13.0
45-54		4	8.7
55-64		3	6.5
65- 74		2	4.4
Bite type	Animal type	count (n)	Proportion (%)
	Cat bite	2	4.4
	Dog bite	38	82.6
	Human bite	5	10.9
	Rat bite	1	2.2
PEP status	Received	count (n)	Proportion (%)
	No	19	41.3
	Yes	27	58.7

Table 2: Distribution of Confirmed Rabies cases Species, Kiambu County, 2021-2024 (N=35)

Species	Samples	Frequency	Proportion (%)
Bovine	3	2	8.6
Porcine	1	1	2.9
Canine	24	19	68.6
Feline	6	1	17.1
Hyena	1	1	2.9

Drivers of Exposure (Transect Walk)

- ❑ Poor waste disposal attracting dogs, Dog congregation at food vending sites and Free roaming/unrestrained domestic dogs.

Table 3: Knowledge, Attitudes, and Practices on Rabies Prevention and Control among healthcare workers, Thika subcounty, 2026 (N=56)

Domains		
Knowledge	Attitude	Practice
Clinical (n=42), Medical Officers, Clinical Officers, Nursing Officers		
<ul style="list-style-type: none"> ▪ RIG indication 17.1 ▪ Causative organism 70.7 	<ul style="list-style-type: none"> ▪ Confidence in wound management 78.1 	<ul style="list-style-type: none"> ▪ Administer RIG when indicated 73.2
Public health/ Preventive (n=9), PHOs, HRIOs, Surveillance Officers		
		<ul style="list-style-type: none"> ▪ Routine review of animal bite data 55.6 ▪ Reporting cases to higher levels 44.4 ▪ Whether participated in outbreak investigation 22.2 ▪ Providing feedback to facilities 55.6
Diagnostic/Supportive(n=5), Lab. Officers, Pharmacists		
<ul style="list-style-type: none"> ▪ Vaccine storage 40 ▪ Specimen timing 60 		<ul style="list-style-type: none"> ▪ Regular reports on stock levels 60.0 ▪ Handled suspected rabies specimen 40.0

DISCUSSION

- ❖ **Human burden:** >80% of exposures from dog bites; children (5–14 yrs) most affected, consistent with regional/global evidence
- ❖ **PEP coverage:** Only 58.7% received post-exposure prophylaxis, below WHO recommendations; gaps linked to vaccine access and weak follow-up at peripheral facilities
- ❖ **Animal surveillance:** Canines responsible for ~70% of confirmed cases (2021–2024); occasional spillover into livestock and wildlife populations highlights One Health importance
- ❖ **KAP findings:** Health workers showed positive attitudes but gaps in knowledge (esp. RIG use, symptom recognition) and practices (reporting, vaccine management)
- ❖ **Overall:** High bite incidence, insufficient vaccination, weak surveillance, and low community awareness mirror challenges in other endemic regions

CONCLUSION

- ❖ Rabies outbreak in Thika underscores ongoing threat of canine-mediated rabies in Kenya with children and young adults remain most vulnerable. There is need to strengthen health worker training and implementation of Kenya's rabies elimination strategy.

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