



Food and Agriculture Organization  
of the United Nations



# The Role of In-Service Applied Veterinary Epidemiology Training (ISAVET) in Rabies Management



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## In Service Applied Veterinary Epidemiology Training (ISAVET) - Overview

**A field epidemiology training programme** that focuses on applied veterinary –specific competencies and skills.

***One Health Focus*** ; Animal- Human – Wildlife interface is one of the key pillars.

Three levels (Frontline, Intermediate and Advanced)





# Importance of Frontline Veterinarians and Veterinary Professionals in Rabies Control

## Goal

*To create a veterinary workforce equipped with applied veterinary epidemiology competencies and skills needed across multiple livestock production systems and value chains that impact animal health, welfare, farmer livelihoods, food security, safe trade and ensure public health*

## Objectives

- To provide essential veterinary services at local, sub-national and national levels
- To develop the knowledge and skills in applied epidemiology for ISAVET graduates incorporating the One Health approach
- To train a workforce to target zoonotic and priority diseases in partner countries
- To strengthen animal health surveillance systems.
- To strengthen emergency response to natural and man-made disasters including emerging disease outbreak investigations/management
- To train trainers and mentors to scale-up ISAVET at national level







# Importance of Frontline Veterinarians and Veterinary Professionals in Rabies Control

## Why the Frontline Veterinarians and Veterinary Paraprofessionals?

1. Have strong ties to the community level where disease events occur
2. Are at the leading edge of an animal disease outbreak
3. Have the best access to field data
4. Have high quality field data for analysis and risk factors for disease prevention and control
5. Are the primary source of epidemiological information for decision making and action

***Targets veterinarians and animal health workers in the field working at local level who are responsible for collecting data, reporting, detecting outbreaks and applying initial control measures and interventions against animal diseases.***



## Frontline ISAVET Components

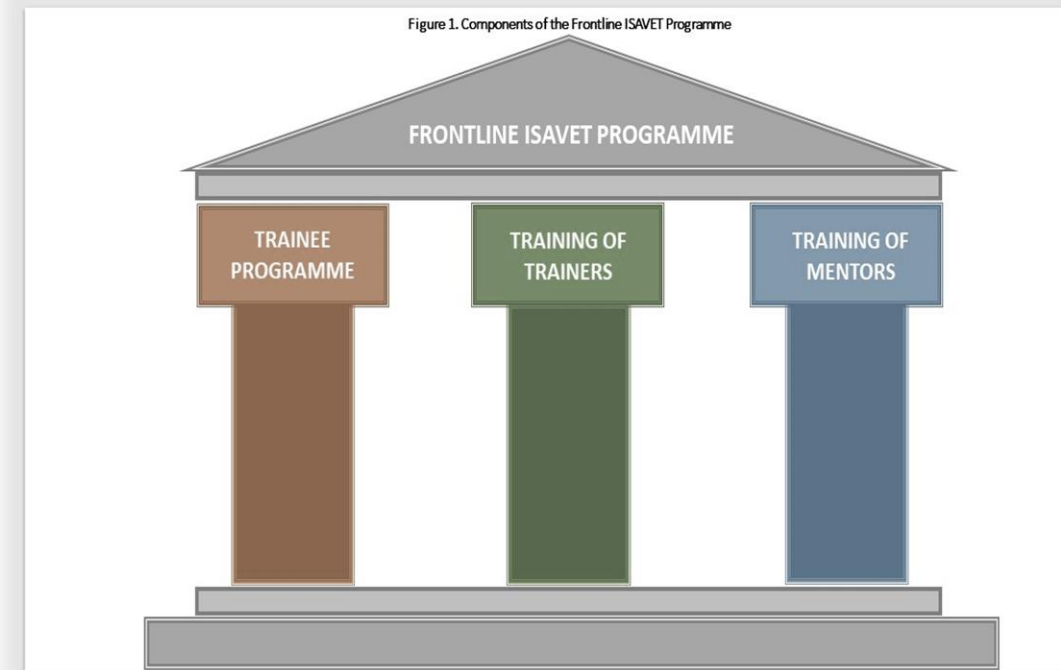
### **Component 1: *Four-Month Frontline ISAVET Programme for frontline animal health workers***

### **Component 2: Training of Trainers:**

- One week training Workshop and four months post training follow –up

### **Component 3: Training of Mentors:**

- One week training Workshop and four months post training follow –up





# Current structure of Frontline ISAVET

## Formal training (4 consecutive training weeks)

Week 1	Week 2	Week 3	Week 4	Deliver Group Report
<b>Epidemiological surveillance</b> Classroom lectures and exercises	<b>Field investigation and response</b> Classroom lectures and exercises	<b>Preparedness Disease Prevention and Response Communications Ethics and Professionalism</b> Classroom lectures and exercises	<b>Hands-on exercises and field visits in nearby district</b> Topic to be based on priorities in the host district Learning by doing approach	<b>Report to District</b> Deliver written report Deliver PowerPoint presentation Receive feedback

## Home-based field project

Month 1	Month 2	Month 3	Deliver project report	<b>CERTIFICATE OF COMPLETION</b>
<b>Organize and initiate field project</b> Organized and initiate field study with ongoing support of academic and institutional mentor	<b>Develop field project</b> Collect, analyze and display data	<b>Prepare report of field project</b> Prepare a field study report and PowerPoint presentation	<b>Deliver report of field project</b> Deliver written report Deliver PowerPoint presentation in workshop Receive feedback	

**47 skills within 14 core competencies determined by an FAO technical working group of experts from animal health, human health and wildlife health disciplines and sectors.**



## ISAVET Structure in Kenya

### National ISAVET Programme Steering Committee (NIPSC)

Composition of National ISAVET Programme Steering Committee		
Institution/ organization	Section	No
Ministry of Agriculture , Livestock, Fisheries & Cooperatives	Principal Secretary - State Department of Livestock	1
	Directorate of Veterinary Services (DVS)	3
Council of Governors	Agriculture Caucus	2
Academia	University of Nairobi	1
Development Partners	FAO	1
	Non-governmental Organizations	3
Professional Bodies	KVA, KVPA, KVB	11

### ISAVET Technical Working Group (ITWG)

Composition of ISAVET TECHNICAL WORKING GROUP		
Institution/ organization	Section	No
Ministry of Agriculture , Livestock, Fisheries & Cooperatives	Zoonotic Disease Unit	1
	Field Epidemiology and Laboratory Training Programme	1
	Training Division	1
County Veterinary Services	County Directorate of Veterinary Services (Mentor)	1
Academia	University of Nairobi	1
Research	Core Unit Trainer	1
Development Partners	Food and Agriculture Organization	1





# ISAVET trainings in Kenya – Past and Current

## Training of Trainer (ToT) AND Training of Mentors (ToM) Workshops

- November 2019 -5 ToTs and 5 ToMs
- January 2021 – 15 ToTs and 15 ToMs

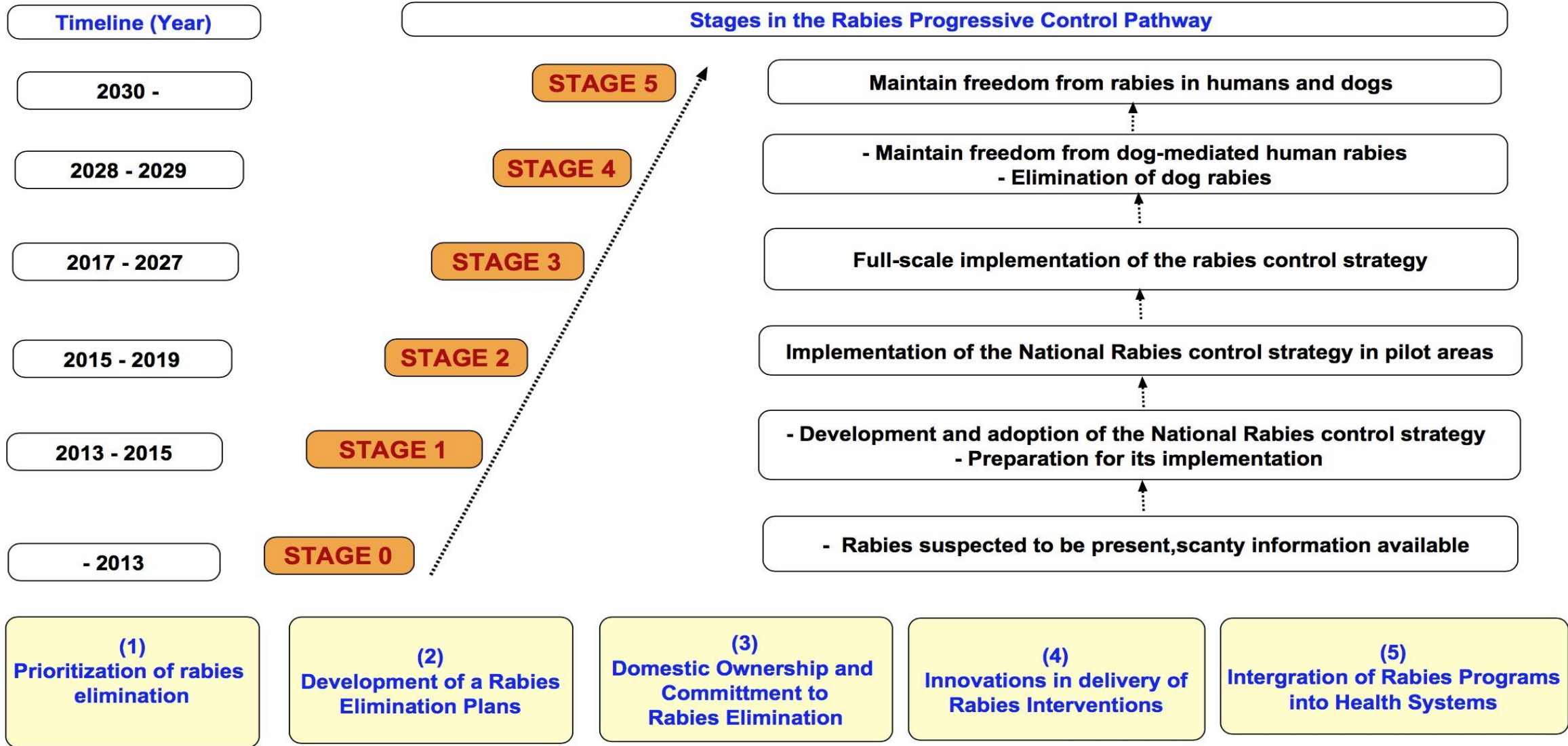
## Training of Frontline Animal Health workers

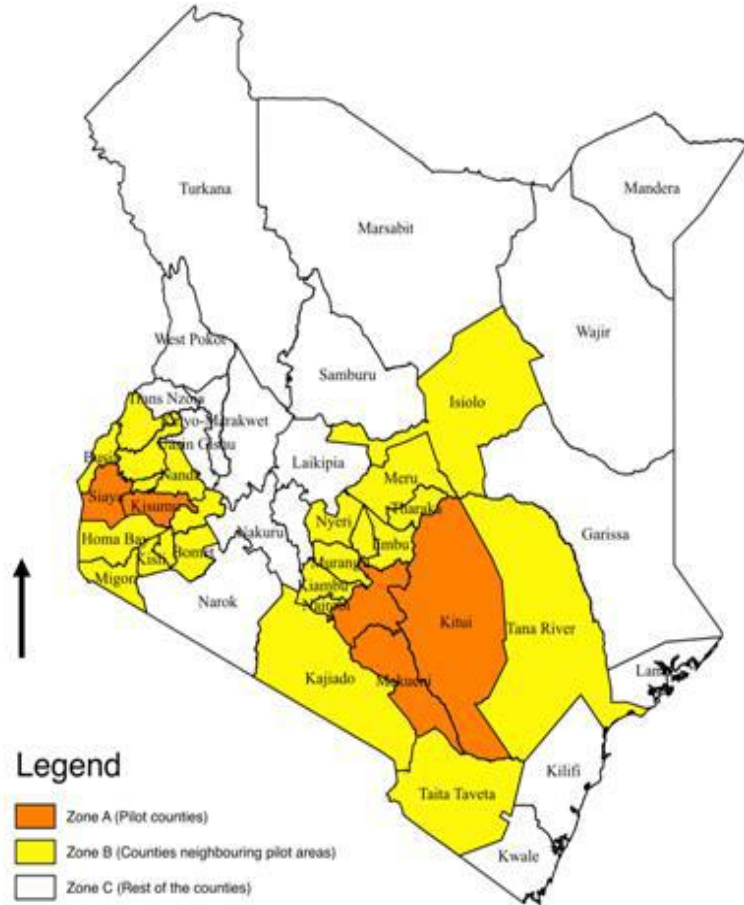
- 25 ISAVET trainees (9 female; 36%) from 24 counties
- Didactic Phase- June 7, to 2nd July 2021
- Field based training- Ongoing
- 6 were border counties (Mandera, Migori, Turkana, Wajir, West Pokot and Kajiado)

***Currently undergoing a three months of home-based mentored field projects at trainee duty stations.***









**Estimated human population 50 million people**

- **2.5 - 5.2 million dogs - Rural Kenya**
- **850,000 dogs – Urban Kenya**

Mass dog vaccination

Prompt provision of PEP

Public Health Education and awareness on rabies

Enhanced surveillance for rabies in humans and animals

Advocacy, Communication and Social Mobilization



## ISAVET Competencies and skills critical for **Elimination** of Human Rabies in Kenya (Pillars)

Enhanced surveillance for Rabies in Humans and Animals	Competency	Skills
Epidemiological Surveillance	Communicate the purpose and characteristics of animal health and public health surveillance systems	Describe the role of animal health and public health surveillance systems <b>One Health approach</b>
	Identify and report cases and clusters of diseases or clinical syndromes of animal health and public health importance to the community	List the diseases and conditions reportable in your jurisdiction- Line List, Report cases and clustering of disease and clinical syndromes of <b>animal health and public health interest</b> to the <b>appropriate governmental authorities</b>
	Monitor, assess, report and provide feedback about the quality of local animal health and public health surveillance data	Data quality audits to assess the quality of surveillance data- feedback on data contributors concerning <b>timeliness, completeness &amp; quality of surveillance data</b>
	Summarise, analyse, and interpret surveillance data and notify stakeholders regularly	Descriptive epidemiology ( <b>animal</b> or person host, <b>time</b> , and <b>place</b> characteristics including clinical signs) Describe <b>thresholds for action</b> and <b>describe trends</b> including a sudden increase in cases or health events. Notify authorities immediately of suspected priority diseases including <b>incidence that exceed expected threshold levels</b>
	Produce surveillance summary reports that describe patterns of disease occurrence and provide information that is useful for decision-making	Use surveillance data and <b>evidence to propose solutions for improving</b> prevention and control





## ISAVET Competencies and skills critical for **Elimination** of Human Rabies in Kenya (Pillars)

Enhanced surveillance for Rabies in Humans and Animals	Competency	Skills
Field Investigation and Response	Contribute to the <b>detection and diagnosis</b> of cases of diseases of animal health and public health importance	Establish communication - supporting <b>two-way and four-way linkage</b> Use <b>appropriate diagnostic methods</b> for case detection and diagnosis
	Apply proper biosafety and biosecurity methods	<b>PPE</b> - when conducting <b>field investigations</b> and <b>handling infectious material</b> , Apply accepted standards of biosafety and biosecurity to dispose of infectious materials
	Conduct outbreak/health event investigations	Apply the <b>steps of a systematic field investigation</b> in response to a report or an even. Recommend and implement basic outbreak prevention and control measures continuously during all phases of field investigation
	Summarise, analyse, and interpret surveillance data and notify stakeholders regularly	Summarise surveillance data using descriptive epidemiology (animal or person host, time, and place characteristics including clinical signs) Describe thresholds for action and describe trends including a sudden increase in cases or health events, Notify authorities immediately of suspected priority diseases including incidence that exceed expected threshold levels
	Produce surveillance summary reports that describe patterns of disease occurrence and provide information that is useful for decision-making	Use surveillance data and evidence to propose solutions for improving prevention and control





## ISAVET Competencies and skills critical for **Elimination** of Human Rabies in Kenya (Pillars)

Mass dog vaccination and Prompt provision of PEP	Competency	Skills
<b>Ethics and Professionalism</b>	Act in accordance with accepted standards of ethics and professionalism	Interact with colleagues, stakeholders, the general public, and government officials with respect and professionalism, Be an effective team member, adopting the role needed to contribute constructively to the accomplishments of tasks by the group, Follow ethical and welfare principles in both human and animal interactions, Adhere to regulations, guidelines and procedures for ethical principles regarding data collection, conflicts of interest and confidentiality
<b>Disease Prevention and Control</b>	Contribute to disease prevention and control activities – (e.g.) vaccination campaigns	Explain and apply the principles that are utilized in animal disease prevention and control programmes including zoonoses
	Communicate the purpose of routine disease control and prevention and characteristics of a functional control programme.	Explain the roles and responsibilities of frontline personnel in health promotion as well as disease prevention and control activities
<b>One Health</b>	<b>Cross-cutting collaboration, coordination and cooperation at the human-animal-environmental interface</b>	<b>Skills noted for surveillance, field and outbreak investigation, emergency preparedness and response and risk communication</b>







## ISAVET Competencies and skills critical for **Elimination** of Human Rabies in Kenya (Pillars)

Advocacy, Communication and Social Mobilization	Competency	Skills
<b>Communication</b>	Communicate effectively with technical and non-technical audiences	Promote good rapport and open lines of two-way communication with stakeholders in your jurisdiction
		Convey disease transmission risks to diverse audiences
		Prepare and deliver a written report and/or oral presentation to technical and non-technical audiences
<b>Public Health Education and awareness on Rabies</b>		
<b>Preparedness</b>	Apply regulations and standard operating procedures in the context of preparedness	Describe the Emergency Management Cycle, Demonstrate knowledge about regulations and standard operating procedures relevant to one's office and position, Map local value chains with community stakeholders for each animal production system during peace time, Contribute to post-incident assessments
<b>Disease Prevention and Control</b>	Contribute to disease prevention and control activities – (e.g.) vaccination campaigns	Explain and apply the principles that are utilized in animal disease prevention and control programmes including zoonoses,
	Communicate the purpose of routine disease control and prevention and characteristics of a functional control programme.	Explain the roles and responsibilities of frontline personnel in health promotion as well as disease prevention and control activities









## “ISAVETees” work on Rabies in Kenya

County	Research Topic	Research Objectives
<b>Kericho</b>	Assessment of Rabies Cases in domestic animals as presented in Kericho RVIL for the period 2016 – 2021	To determine the incidence of rabies disease in domestic animal sample specimens submitted to Kericho RVIL.
		To describe the distribution of rabies in domestic animals per the samples submitted to the RVIL in Kericho in terms of animal, place and time.
<b>Kilifi</b>	To assess the magnitude of dog bite cases and the subsequent uptake of Rabies Post Exposure Prophylaxis In Kilifi County	To determine the magnitude of dog bite cases seeking treatment in the Kilifi County referral hospital.
		To characterize cases of dog bites seeking medical treatment in the in Kilifi county referral hospital.
		To determine the uptake of rabies PEP vaccine among the cases, time administered and completion of recommended doses.



# Thank you