

# East Africa Public Health Laboratory Networking Project Strengthens Disease Surveillance using Regional Web Based Reporting System in the East Africa



**East Africa Public Health Laboratory Network Project**

*Controlling the Spread of Communicable Diseases in Eastern  
Africa through Improved Diagnostic and Surveillance Capacities*





# Rationale for Developing the System

ECSCA Health Community and EAC Through EAPHLNP

EAPHLNP in collaboration with EAIDSNet coordinated the design, development and deployment of the system

Regional Surveillance TWG noted the need for developing an electronic information management system that collates surveillance and laboratory data

To facilitate timely data collection and reporting, All the EAC countries are moving to electronic reporting system

Data sharing is critical in surveillance and planning for joint response to outbreaks,

IDSR Strategy aims to create a coordinated approach to the collection, analysis, interpretation, use and dissemination of surveillance data,

Data for six prone diseases were agreed for sharing: MDR-TB, Malaria, Cholera, Bloody Diarrhea, Meningitis, and Measles



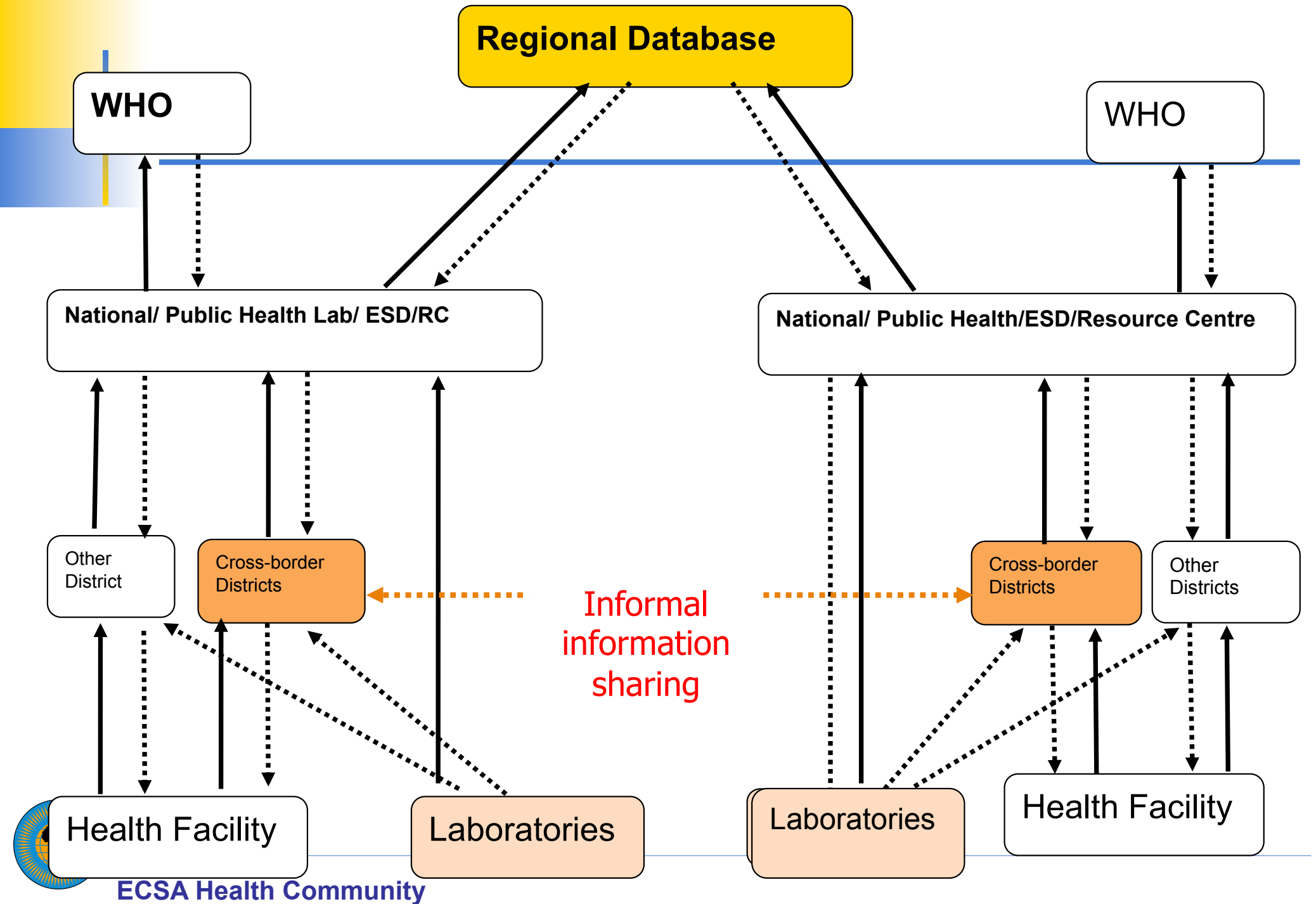
# The system captures

- All health facilities, all districts from five countries in which health facilities belongs with GIS coordinates and shape files
- Weekly Data (cases, tested, positive, death) are collected at Health Facility level for 5 to 6 days (weekly basis) and are sent to district level where they are aggregated and approved
- After aggregated and approved at district level, they are sent to National level for final approval
- When they are approved at national level they are then shared to Regional level in automated way using Application Programming Interfaces (API) from e-EAIDSNet Regional



System

# MECHANISMS FOR SHARING EPIDEMIOLOGICAL INFORMATION



# The e-EAIDSNet System



Electronic East Africa Integrated Disease Surveillance System Network (eEAIDSNet)

Home

Logout

🚩 About twenty people from Burundi passed away because of Malaria



Home

Administration ▾

Surveillance ▾

Import Data ▾

Maps

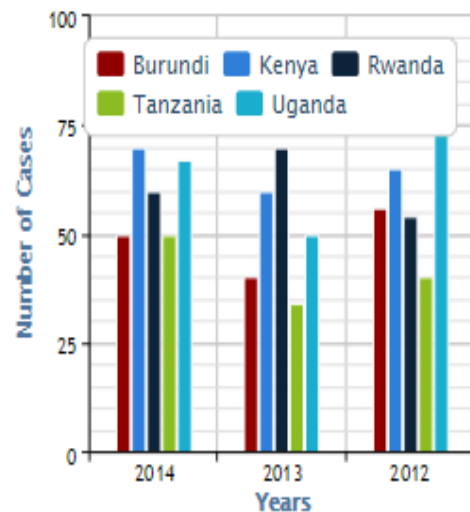
SMS Communication ▾

Reports ▾

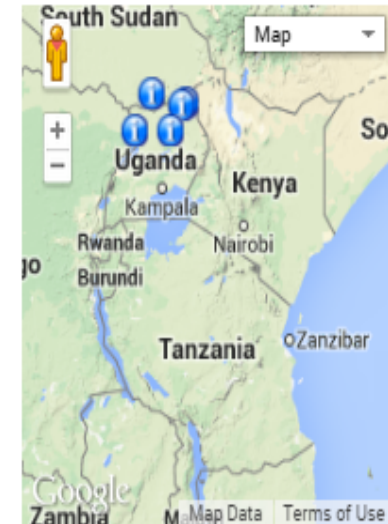
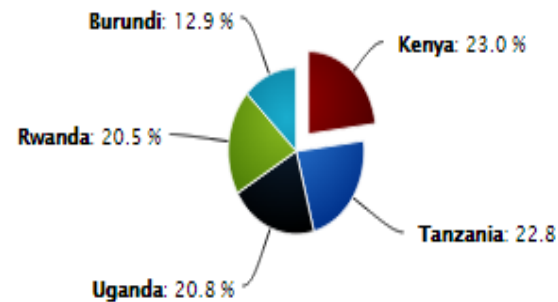
📌 Home->Dashboard

👤 Username: Christian Budoya

Number of malaria cases



Death Cases for Malaria, 2014



# The Reports Generated by the System

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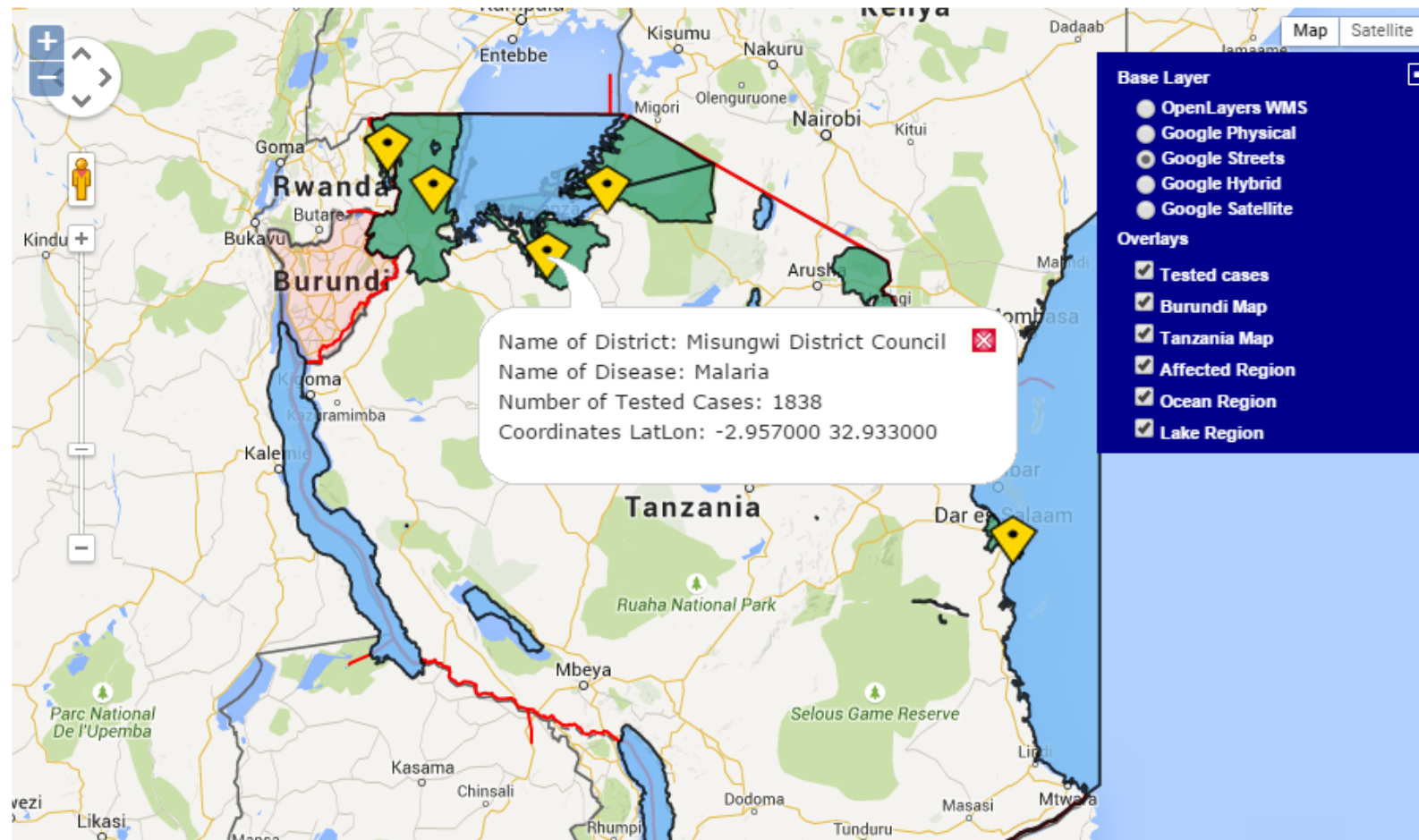
The e-EAIDSNet can:

- Generate GIS report showing surveillance confirmed cases from districts geographically
- Send outbreak alert sms and emails to Regional Surveillance Team
- Generate various aggregate and graphical reports for supporting decision making



# The Reports Generated by the System

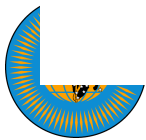
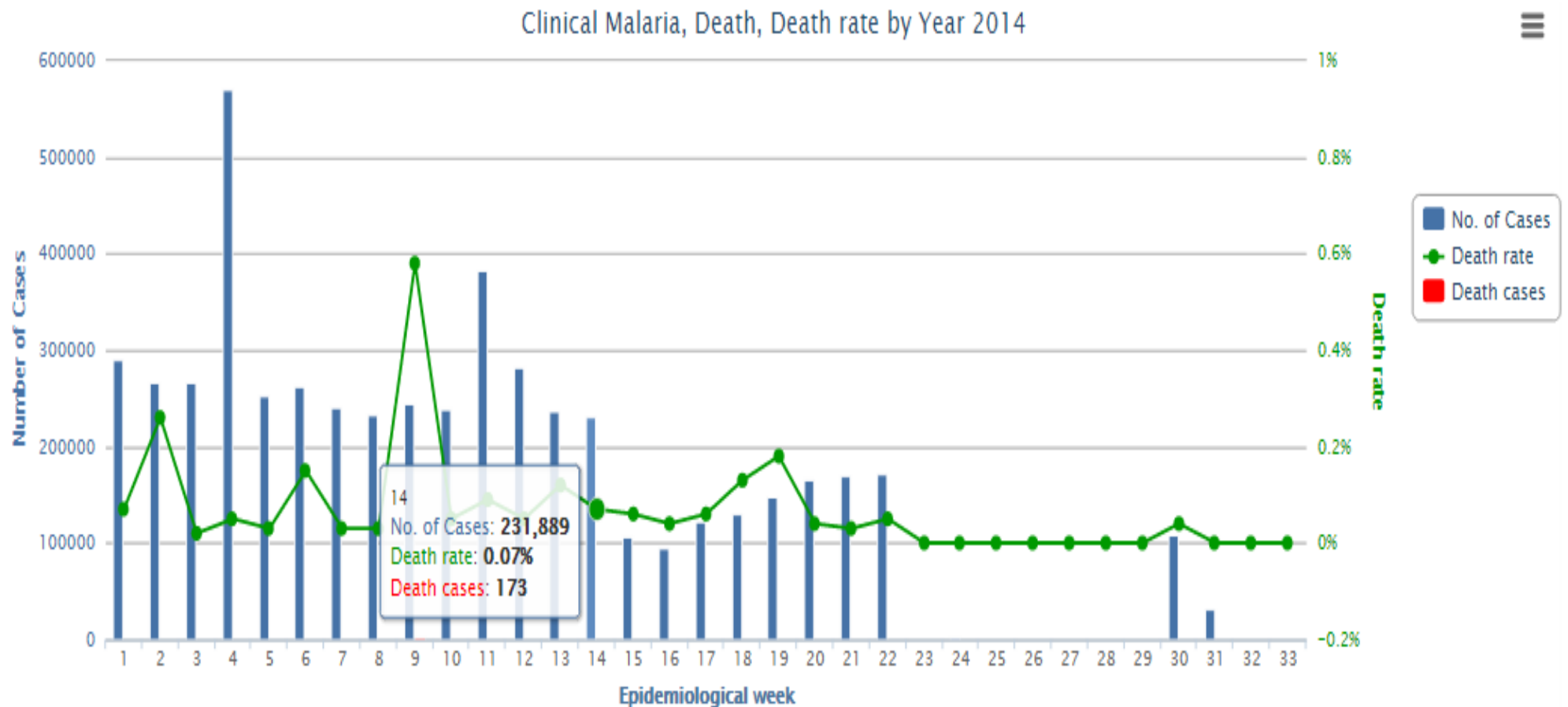
(a) GIS report showing surveillance confirmed cases from districts





# The Reports Generated by the System

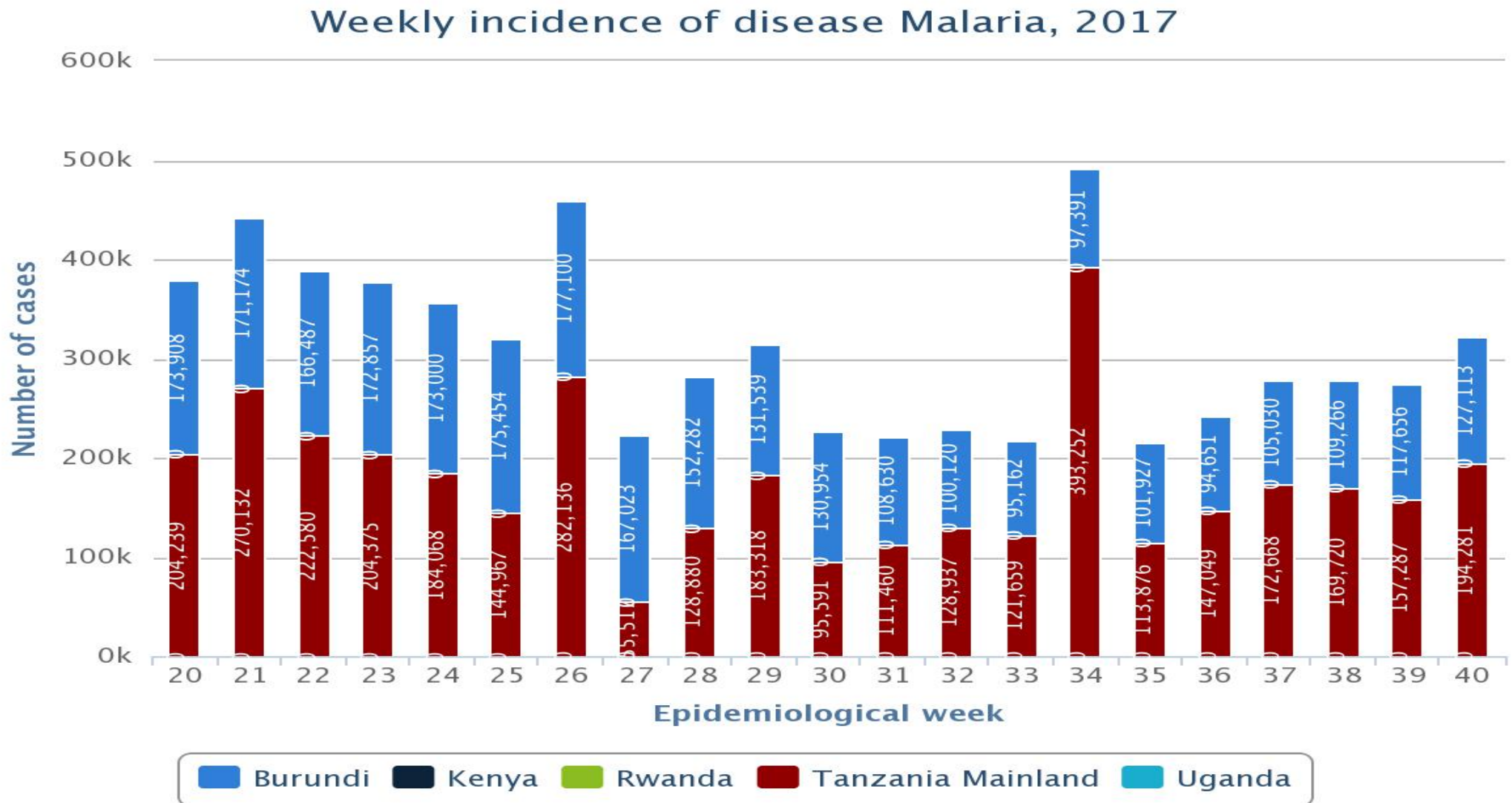
(b) Graphical Report: Trend of No. of cases, death, and death rate per range of weeks



# The Reports Generated by the System

## (c) Graphical Report: Weekly Incidence of Diseases

“Increased Malaria cases btn Burundi and Tanzania”



# Challenges

1. Change of Country Surveillance System: Some countries were in transition period by the time they were visited and connected to the Regional System
2. Regular change of connection credentials: Some countries change their system access credentials (username & password) without informing the Regional Administrator of e-EAIDSNet.
3. Regular change of country ICT focal personnels.



## Lessons learned

- The Web-Based electronic reporting system has strengthened timely sharing of disease surveillance data among EAC partner states and provided a platform for mounting prompt and coordinated joint response to public health emergencies.
- *The system detected increased cases of malaria reported in Burundi and Tanzania between week 20-40 of 2017, ECSCA-HC and EAC coordinated a cross border joint response to the outbreak by involving cross border districts of the two countries*
- This puts the region at a better level to respond to public health events due to infectious diseases.





Thank you