Figure 1. Algorithm for detection of ZIKV infection using both syndromic surveillance and EBS

**Case definition of suspected “cluster” of ZIKV infection met (See Table 3)**

First level (initial screening)

Collect detailed epidemiological and clinical information in a line list and check for the warning signs (See Table 2) such as:

- Cluster of acute febrile syndrome with conjunctivitis and maculopapular rash (see Table 1)
- Positive travel history in majority of cases
- Unusual deaths with history of fever and conjuctivites in some of the patients
- Cluster of AFP (in excess)
- Cluster of Congenital Zika Syndrome in pregnant women (in excess and not seen before in the area)

Some of the warning signs are met

Triangulate the information by verifying the information collected through other sources such as:

- Is the area known to have established Aedes population
- Any information available on density of Aedes mosquitoes. If not available, collect some mosquitoes from the areas reporting the cluster to detect Aedes species and its density

Collect blood samples from febrile cases (within 5 days of onset illness) and do the following:

- Check for ZIKV RNA using RT-PCR
- If blood samples are collected after 5 days onset illness, then check for IgG and IgM antibodies and if found positive follow up with Plaque Reduction Neutralization Test
- If facilities are available for testing, collect urine and serum specimens from pregnant women, newborns, symptomatic GBS patients and patient with positive travel history and test for ZIKV using molecular detection assay

Confirm the diagnosis following positive test result and scale up vector control measures:

- Repeat the test by collecting more good quality samples
- Think of sending the samples to a reference laboratory if the lab test is repeatedly negative but there is a strong suspicion of existence of ZIKV infection

None of the above warning signs are seen/observed

Check for other indices such as:

- Endemicity of the area to other arboviruses and/or other diseases with similar overlapping signs and symptoms
- Entomological surveillance data to rule out existence of high density competent vectors for malaria and also for Aedes populations

Conduct further field investigation and collect blood sample to do the laboratory test for:

- Other arboviral diseases, including
- Malaria
- Measles
- Typhoid fever
- Leptospirosis
- Influenza, and
- Other viral haemorrhagic fever

Establish a diagnosis other than ZIKV infection or rule out any pathological cause associated with the cluster