



# DECISION-MAKING TOOL FOR PUBLIC HEALTH EMERGENCIES (DMT-PHE) IN KENYA



User Guide for  
Sub-National Surveillance Officers

October 2025

©2025KNPHI

KNPHI copyright this publication. It is licensed for use under the Creative Commons Attribution-Non-Commercial-Share Alike 3.0 Unported License. To view this license, visit <http://creativecommons.org/licenses/by-nc-sa/3.0/> . Unless otherwise noted, you are free to copy, duplicate, or reproduce, and distribute, display, or transmit any part of this publication or portions thereof without permission, and to make translations, adaptations, or other derivative works under the following conditions:

Any part of this document may be freely reviewed, quoted, reproduced or translated in full or in part, provided that the source is properly acknowledged. It may not be sold or used in conjunction with commercial purposes or for profit.

**Suggested citation:** Kenya National Public Health Institute (KNPHI). *Decision-Making Tool for Public Health Emergencies (DMT-PHE)*: National Guideline. Nairobi: KNPHI; 2025.



Published by:  
Kenya National Public Health Institute -NPHI  
Afya Annex  
KNH Grounds-Hospital Road,  
P.O. Box 31-00202  
NAIROBI-KENYA  
Website: [www.nphi.go.ke](http://www.nphi.go.ke)

## TABLE OF CONTENTS

1. PURPOSE AND OVERVIEW .....	5
Acknowledgements.....	6
How to use this Pocket-Book.....	7
2. DECISION INSTRUMENT FOR PUBLIC HEALTH EMERGENCIES.....	8
A. How to use the Decision Instrument for Event Notification.....	9
3. ESCALATION FLOW FOR DMT-PHE.....	10
B. How to use the escalation flow for DMT PHE.....	11
4. DECISION TREE AND ALGORITHM FOR ESCALATION .....	13
C. How to use the Decision Tree and Algorithm for Escalation Decision Points. ....	14
5. DISEASE TRIGGER CARD TEMPLATE. ....	15
D. How to Use the Disease Trigger Card.....	16
6. Annex 1 Consolidated Trigger Cards for 16 Priority Diseases/Events.....	17
7. INTEGRATING THE DMT-PHE JOB AID .....	36
8. FIELD REMINDERS FOR SURVEILLANCE OFFICERS.....	37

## List of Tables

Table 1: Escalation flow Decision Making.....	10
Table 2: Algorithm for Escalation Decision Points.....	12
Table 3: DMT Disease Trigger Card Template.....	13
Table 4: Public Health Event of Initially Unknown Etiology (PHEIUE) – ETC. ....	16
Table 5: Filoviruses (Ebola Virus Disease / Marburg Virus Disease) – ETC.....	17
Table 6: Yellow fever – Escalation Trigger Card (ETC).....	18
Table 7: Dengue / Dengue Hemorrhagic Fever (DHF)– Escalation Trigger Card (ETC). ....	19
Table 8: Crimean–Congo Hemorrhagic Fever (CCHF) - Escalation Trigger Card (ETC).....	20
Table 9: RVF Escalation Trigger Card (ETC).....	21
Table 10: Anthrax Escalation Trigger Card (ETC).....	22
Table 11: Cholera Escalation Trigger Card (ETC).....	23
Table 12: Measles/Rubella Escalation Trigger Card.....	24
Table 13: SARI/ILI Escalation Trigger Card.....	25
Table 14: Mpox -Escalation Trigger Card.....	26
Table 15: Polio-Escalation Trigger Card.....	27
Table 16: CBRNE Events -Escalation Trigger Card.....	28
Table 17: Foodborne Disease Outbreak Escalation Trigger Card.....	29
Table 18: Zoonotic Spillover/Animal Mass Mortality- Escalation Trigger Card.....	30
Table 19: Acute Jaundice Syndrome -Escalation Trigger Card.....	31
Table 20: Kalar-azar -Escalation Trigger Card.....	32
Table 21: Chikungunya Escalation Trigger Card.....	33
Table 22: Meningococcal Meningitis- Escalation Trigger Card.....	34
Table 23: Rabies Escalation Trigger Card.....	35

## List of Figures

Figure 1: KNPHI Decision Making Tool adaptation of IHR Annex.....	8
Figure 2: Surveillance Officers job aid- Escalation flow for DMT-PHE. ....	10
Figure 3: Escalation Flowchart – Decision Tree for Response .....	12

## EXECUTIVE SUMMARY

The Decision-Making Tool for Public Health Emergencies (DMT-PHE) represents a major milestone in strengthening Kenya's epidemic intelligence, early warning, and coordinated response capacity. Developed under the leadership of the Kenya National Public Health Institute (KNPHI), the tool standardizes how public health events are detected, verified, escalated, and managed across national and county levels.

Anchored on the International Health Regulations (IHR, 2005) and Kenya's Integrated Disease Surveillance and Response (IDSR) framework, the DMT-PHE provides a structured, evidence-based approach to ensure that no signal goes unverified and no outbreak escalates unnoticed. It integrates the 7-1-7 performance benchmark detect and confirm within seven days, notify within one day, and respond effectively within seven days promoting speed, accountability, and transparency in decision-making.

This User Guide translates the DMT-PHE framework into an operational pocketbook for frontline surveillance officers. It outlines clear decision instruments, escalation algorithms, and disease-specific trigger cards for 20 priority diseases and events, including zoonoses and chemical or radiological hazards. The guide further embeds One Health principles, aligning human, animal, and environmental health sectors within a unified national emergency response system.

Through this tool, KNPHI seeks to empower sub-national teams to make rapid, data-driven decisions, strengthen coordination between counties and national structures, and enhance Kenya's readiness to prevent, detect, and respond to outbreaks and other public health emergencies. The DMT-PHE therefore embodies Kenya's commitment to achieving resilient health security and full compliance with IHR core capacities.



**Dr. Kamene Kimenye 'ndc'(K).**  
**Ag. Director General**  
**Kenya National Public Health Institute (KNPHI)**

## ACKNOWLEDGEMENTS

The development of the Decision-Making Tool for Public Health Emergencies (DMT-PHE) is the result of a collaborative effort and a shared commitment to strengthening Kenya's public health emergency preparedness and response capacity.

The **Kenya National Public Health Institute (KNPHI)**, in collaboration with the Ministry of Health, extends sincere appreciation to the technical working group that guided the conceptualization, drafting, and validation of the tool and this user guide. Special recognition goes to the county health teams, national disease surveillance officers, emergency operations center staff, and representatives from line ministries whose practical insights and experiences greatly enriched the design of the tool.

We wish to specifically acknowledge the contributions of:

- **KNPHI: Dr. Kamene Kimenye**, Ag. Director General, for conceptualization and overall guidance of the process; Dr. Victoria Kanana for technical coordination; and Dr. Samuel Kadivane, Dr. Elizabeth Nzioka, and Dr. Francis Muoka for their valuable inputs in reviewing and guiding the simulation exercises.
- **TDDAP2: Dr. Kadondi Kasera** for his technical and logistical support throughout the process.
- **Center for Global Health and Pandemic Intelligence (CGP): Dr. Mark Nanyingi** for drafting, writing, and integrating evidence-based approaches that shaped the DMT-PHE.

We also appreciate the invaluable contributions of our partners, including WHO-Kenya, Africa CDC, FAO, UNICEF, UNEP, IOM, Amref, Kenya Red Cross, Palladium, and other development partners who provided technical guidance and peer review during this process.

Our gratitude further goes to academic and research institutions, professional associations, and members of the One Health community who offered critical perspectives to ensure that the DMT-PHE is robust, contextually relevant, and aligned with global standards.

Finally, we recognize the dedication of the drafting and editorial team, whose tireless efforts ensured the production of this document. Their commitment reflects Kenya's collective resolve, strengthened by KNPHI's technical leadership and multi-stakeholder collaboration, to build a resilient health system capable of timely, coordinated, and evidence-based responses to public health emergencies.

This work was made possible with the financial and technical support of Palladium through the Tackling Deadly Diseases in Africa (TDDAP2) programme

# 1. PURPOSE AND OVERVIEW

The Decision-Making Tool for Public Health Emergencies (DMT-PHE) provides a standardized, evidence-based framework to guide Kenya’s public health system in the detection, assessment, escalation, and response to potential and confirmed public health events.

It ensures that surveillance officers and emergency managers across all levels—national, county, sub-county, and facility apply a consistent, data-driven approach to decision-making during emergencies.

The DMT-PHE builds upon the International Health Regulations (IHR, 2005) Annex 2 Decision Instrument, adapting it to Kenya’s devolved governance structure, where counties serve as the first line of defense for outbreak detection and initial response.

By providing clear thresholds, decision pathways, and escalation triggers, the tool enables seamless coordination between the County Health Management Teams (CHMTs) and the Kenya National Public Health Institute (KNPHI).

The tool operationalizes the 7-1-7 performance benchmark, a global metric for epidemic readiness and rapid response:

- 7 days to detect and confirm an event after onset or signal detection.
- 1 day to notify and acknowledge the event through formal reporting channels; and
- 7 days to mount an effective public health response that contains or mitigates the threat.

This framework supports timely decision-making, transparency, and accountability across the entire response chain ensuring that no signal goes unverified and no outbreak escalates unnoticed. It also promotes **One Health collaboration**, integrating human, animal, and environmental health surveillance, while aligning national efforts with Africa CDC’s Event-Based Surveillance (EBS), WHO’s Early Warning, Alert and Response (EWAR), and IDSR systems.

Ultimately, the DMT-PHE aims to:

- Strengthen early warning and risk assessment capacities at the sub-national level.
- Promote standardized escalation procedures across counties and sectors.
- Enable faster mobilization of support from KNPHI and national partners.
- Reinforce Kenya’s compliance with IHR (2005) core capacities and pandemic preparedness goals.

## How to use this Pocket-Book

This pocket-book is designed as a practical, quick-reference guide for surveillance officers at county, sub-county, and health facility levels. Each section translates the components of the DMT-PHE into simple, step-by-step actions that can be applied in real time during outbreak detection and response.

Use it to:

- Understand how to apply the Decision Instrument when determining which events require notification.
- Follow the escalation flow and decision tree to decide when to seek higher-level support.
- Consult the disease trigger cards to interpret thresholds and initiate timely action.
- Reference the Annex on priority diseases and events for guidance on escalation triggers and support packages.

Keep this guide readily available in your field kit or office. It complements existing IDSR guidelines, IHR (2005) procedures, and KNPHI notification protocols, serving as your go-to tool for structured, evidence-based decision-making during public health events.

## 2. DECISION INSTRUMENT FOR PUBLIC HEALTH EMERGENCIES

The Decision Instrument for Event Notification provides a structured approach to determine whether a public health event should be notified immediately to KNPHI through the existing IDSR channels. It guides surveillance officers in systematically assessing the seriousness, unusualness, and potential for spread of any detected event, ensuring that notifications are made promptly and based on objective criteria rather than uncertainty. By following this instrument, counties can make consistent, evidence-based decisions on what to report, when to escalate, and how to maintain timely situational awareness across all levels of the health system.

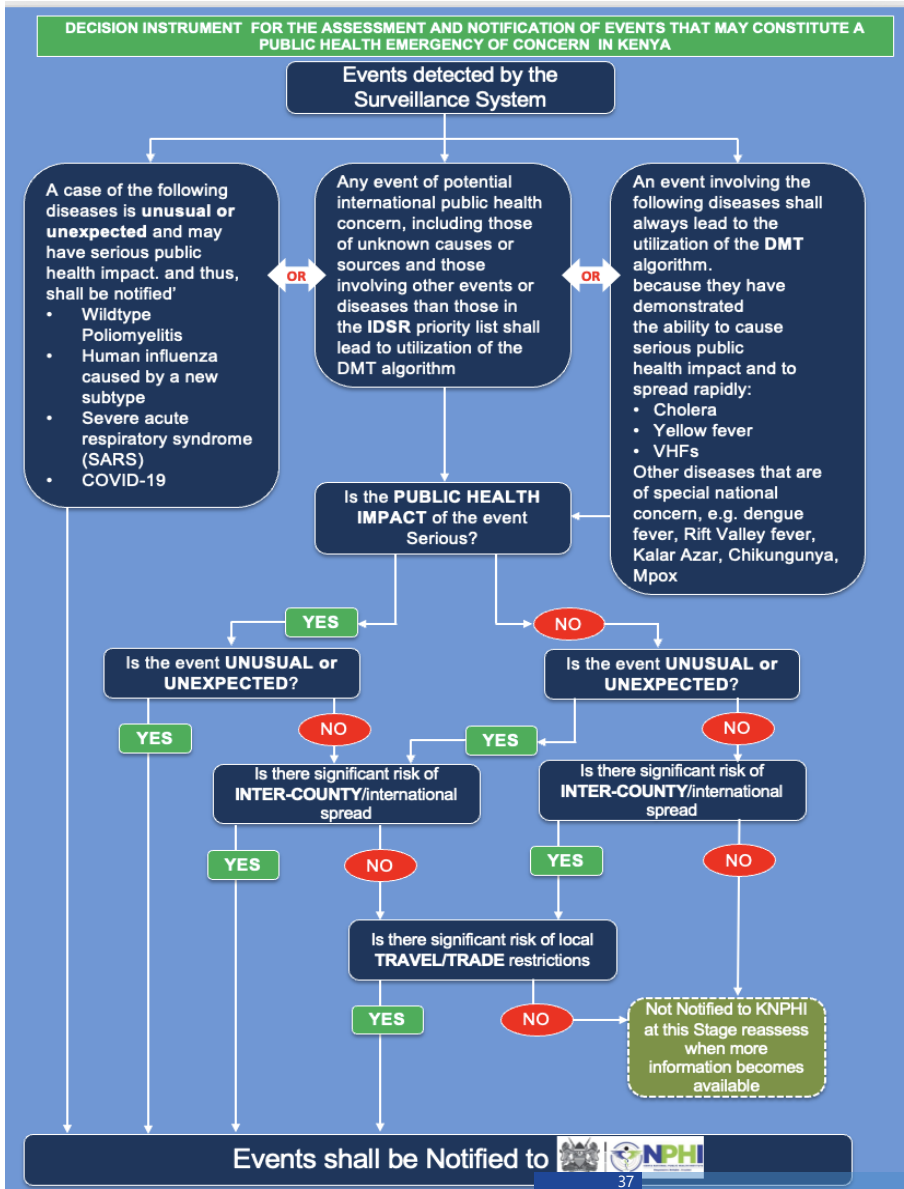


Figure 1: KNPHI Decision Making Tool adaptation of IHR Annex 2

## 7. INTEGRATION

- Keep the Decision Instrument for Ever
- Document every alert and escalation
- Notify KNPHI IMS within 24 hours on
- Track and report performance against

## A. How to use the Decision Instrument for Event Notification:

### 1. Step 1. Starting Point – Event Detection

- o The process begins when any event is detected by the surveillance system at the county, sub-county, or health facility level.

### 2. Step 2. Check if Event Falls in the Immediate Notification Categories

An event should always be notified if it is:

- o An unusual or unexpected case of:
  - Wildtype poliomyelitis
  - Human influenza caused by a new subtype
  - Severe acute respiratory syndrome (SARS)
  - COVID-19
- o An event of potential international concern (unknown causes/sources, or not in the IDSR list).
- o A case of epidemic-prone diseases with demonstrated rapid spread and public health impact, e.g.:
  - Cholera
  - Yellow fever
  - Viral haemorrhagic fevers (VHFs)
  - Other nationally important diseases (e.g., dengue, Rift Valley fever, kala-azar, chikungunya, mpox).

### 3. Step 3. Assess the Public Health Impact

Ask: Is the event serious in terms of morbidity, mortality, disruption of services, or public concern?

- o If YES → continue to assess.
- o If NO → proceed to assess unusualness/unexpectedness.

### 4. Step 4. Assess Event Characteristics

- o Is it unusual or unexpected?
  - If YES → notify immediately.
  - If NO → check next criterion.
- o Is there a significant risk of inter-county or international spread?
  - If YES → notify immediately.
  - If NO → check next criterion.
- o Is there significant risk of local travel or trade restrictions?
  - If YES → notify immediately.
  - If NO → keep under monitoring, reassess when new information emerges.

### 5. Step 5. Notification

## GETTING THE DMT-PHE JOB AID

... must be notified immediately to KNPHI through the channels.

If all answers are NO → Do not notify at this stage. Instead, continue monitoring and reassess if the notification with your Site/Coverages.

Outbreak Notification Template.

Thresholds are met.

7 indicators

### 3. ESCALATION FLOW FOR DMT-PHE

The escalation flow provides a structured approach for determining when and how an event should be managed at county, inter-county, or national level. It ensures that outbreaks receive the right level of support and coordination without delay.



Figure 2: Surveillance Officers job aid- Escalation flow for DMT-PHE

## B. How to use the escalation flow for DMT PHE:

### Step 1. Identify the Current Situation

- o Begin by assessing whether the event is confined to a single health facility or sub-county, spreading across sub-counties, or affecting multiple counties or cross-border areas.

### Step 2. Evaluate the Response Capacity at County Level

Ask:

- o Are available county resources (human, technical, logistics, and finances) sufficient to manage the event?
- o Are surveillance, laboratory, and case management systems functional?

If **YES**, continue to respond at Level 1 (County Response).

If **NO**, proceed to Step 3.

### Step 3. Determine if External or National Support Is Required

Check whether:

- o The outbreak has crossed into neighboring sub-counties or counties.
- o Laboratory confirmation, specialized expertise, or supplies are needed beyond county capacity.

If **YES**, escalate to Level 2 (Inter-County/National Support) within 24 hours through the KNPHI IMS.

### Step 4. Assess for Multi-County or Cross-Border Spread

- o If cases are reported in multiple counties or near international borders, or if the event has a high case-fatality rate or major social/economic disruption, escalate to Level 3 (National/Regional Surge).

At this stage, the PHEOC is activated, and national partners are mobilized.

### Step 5. Coordinate and Document the Escalation

- o Ensure communication flows through the established IDSR channels (County → KNPHI → MoH). Document all escalation decisions in the Outbreak Notification Template, including justification and date/time of communication.

### Step 6. Review and De-Escalate When Appropriate

- o Once containment is achieved and county systems regain capacity, the response may be downgraded to a lower level following joint assessment with KNPHI IMS and partners.

For Summary interpretation and use refer to the [Table1](#) below

**Table 1: Escalation flow Decision Making**

Level	Lead Actor	Scenario	Key Actions
● Level 1 - County Response	CHMT & Sub-County Teams	Localized outbreak; manageable with available resources.	Verify, contain locally, monitor closely.
● Level 2 - Inter-County/National Support	KNPHI IMS & TWG	Cross-county spread, capacity exceeded, or lab support needed.	Escalate to KNPHI within 24 hours; request support package.
● Level 3 - National/Regional Surge	National IMS / PHEOC / MoH	Multi-county outbreak, high CFR, or cross-border threat.	Activate PHEOC, mobilize national surge and partners.

## 4. DECISION TREE AND ALGORITHM FOR ESCALATION

The Decision Tree and Algorithm for Escalation translate the escalation flow into a step-by-step analytical process that helps surveillance officers decide when and why an event should move from one level of response to another. It serves as a practical guide for interpreting event data, weighing public health impact, and ensuring that escalation decisions are evidence-based, timely, and proportional to the risk. By following this algorithm, counties can avoid delays, ensure rapid mobilization of resources, and strengthen coordination between local and national response structures.

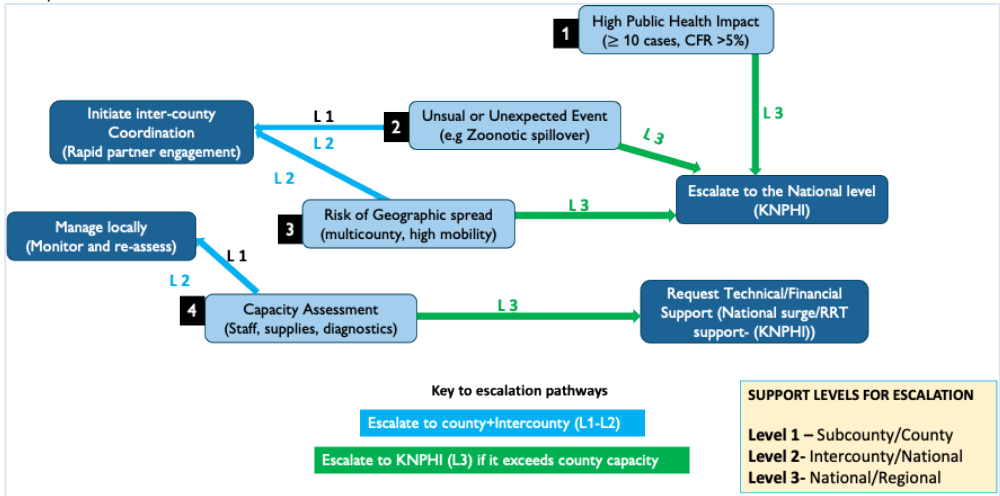


Figure 3: Escalation Flowchart – Decision Tree for Response

### C. How to Use the Decision Tree and Algorithm for Escalation Decision Points

#### Step 1. Start with Event Verification

- o Confirm that the event is legitimate and supported by epidemiological or laboratory evidence. Validate case definitions and initial reports from the facility or community.

#### Step 2. Assess the Public Health Impact

- o Ask: Does the event involve a large number of cases, high case-fatality rates, or affect vulnerable groups?

If YES → escalate immediately to KNPHI (High Public Health Impact).

If NO → proceed to Step 3.

#### Step 3. Determine if the Event is Unusual or Unexpected

- o Assess whether the disease is appearing in a new area, season, or population group, or presenting with unusual symptoms or severity.

If YES → escalate for national investigation.

If NO → continue to Step 4.

#### Step 4. Evaluate the Risk of Geographic Spread

- o Review whether cases are appearing in multiple sub-counties, along borders, or near areas with high mobility.

If YES → initiate inter-county coordination and inform KNPHI.

If NO → proceed to Step 5.

#### Step 5. Assess County Response Capacity

- o Determine whether the county has sufficient human resources, logistics, and supplies (e.g., RRTs, PPE, diagnostics, finances) to manage the event.

If NO → escalate to request national technical or financial support.

If YES → continue local response and strengthen monitoring.

#### Step 6. Document the Escalation Decision

- o Record all assessments and decisions in the Outbreak Notification and Situation Report Templates. Ensure communication with KNPHI and partners occurs within 24 hours of escalation.

#### Step 7. Reassess Regularly and De-escalate When Appropriate

- o Monitor trends in cases, response performance, and available resources.

Once the event is controlled and county capacity restored, de-escalate following a joint review with KNPHI IMS.

For Summary interpretation and use refer to the Table 2 below

Table 2: Algorithm for Escalation Decision Points

Step	Description and Action	Action Required	Responsible Actor	Example
1. High Public Health Impact	≥10 cases, CFR >5%, vulnerable groups affected.	Escalate to national level.	CHMT, KNPHI, IMS	Cholera with CFR >2% (Turkana, 2019).
2. Unusual or Unexpected Event (PHEIUE)	New syndrome, outbreak in non-endemic area.	Escalate for national investigation.	County Surveillance, KNPHI	First Mpox cluster (Nakuru, 2024).
3. Risk of Geographic Spread	Multiple sub-counties or border zones affected.	Initiate inter-county coordination.	KNPHI, IMS, CHMTs	RVF across Garissa, Wajir, Marsabit.
4. Capacity Assessment	Workforce, lab, or PPE gaps identified.	Request national technical/financial support.	CHMT, KNPHI, IMS	Isiolo request for surge RRT (RVF, 2021).

#### Decision Logic:

If any one criterion is affirmative → escalate to the national level.

- If risk of spread is high but county capacity exists → initiate inter-county coordination using SOPs.
- If capacity is inadequate → submit a formal request for national surge support.
- If none are met → continue local response and closely monitor for deterioration or new triggers

## 5. DISEASE TRIGGER CARD TEMPLATE

The Disease Trigger Card Template serves as a quick, standardized reference for surveillance officers during outbreak verification and response.

Each card summarizes the key thresholds, escalation triggers, and required actions for a specific disease or event, aligning local decisions with national standards.

By using these cards consistently, officers can quickly determine when to alert, when to escalate, and what immediate steps to take, ensuring uniform and timely responses across counties.

Table 3: DMT Disease Trigger Card Template

Section	Content
Disease/Event	-----
Case Definitions	<ul style="list-style-type: none"> <li>• Suspected:-----</li> <li>• Probable:-----</li> <li>• Confirmed:-----</li> </ul>
Alert Thresholds	<ul style="list-style-type: none"> <li>• Early signals (e.g., unusual death, sudden cluster, doubling of cases, rumor/event-based)</li> </ul>
Escalation Triggers	<ul style="list-style-type: none"> <li>• Level 1 (Subcounty/County):-----</li> <li>• Level 2 (National support):-----</li> <li>• Level 3 (Regional/International):-----</li> </ul>
Required Actions & Timelines (7-1-7)	<ul style="list-style-type: none"> <li>• ≤24h: Notification, acknowledgement, initial investigation, specimen collection, risk communication</li> <li>• ≤72h: RRT deployment, resource mobilization, SITREPs</li> <li>• ≤7d: Containment measures (CTCs, vaccination, vector control, etc.)</li> </ul>
Support Package Menu	<ul style="list-style-type: none"> <li>• Technical:-----</li> <li>• HR:-----</li> <li>• Logistics/Lab:-----</li> <li>• Financial:-----</li> <li>• RCCE:-----</li> </ul>
Support Package Menu	<ul style="list-style-type: none"> <li>• Key indicators (timeliness, CFR, % contacts traced, lab turnaround)</li> <li>• Exit criteria: sustained decline below threshold ≥2 incubation periods</li> </ul>

## D. How to Use the Disease Trigger Card

### Step 1. Identify the Event or Disease

- o Start by determining the suspected disease or event. Match it to the corresponding Trigger Card based on the initial clinical signs, lab results, or epidemiological pattern (e.g., watery diarrhea ☒ Cholera, haemorrhagic symptoms ☒ VHF).

### Step 2. Review the Case Definitions

- o Read the suspected, probable, and confirmed case definitions on the card.

Ensure that case classification follows national IDSR standards before proceeding to alert or escalation.

### Step 3. Check the Alert Thresholds

- o Look for the early warning indicators listed on the card (e.g.,  $\geq 1$  confirmed case, doubling of baseline, or occurrence in a non-endemic area).

If any threshold is reached ☒ initiate verification and alert the County Surveillance Officer immediately.

### Step 4. Determine the Escalation Level (Level 1–3)

Assess whether the event meets escalation triggers at:

- o Level 1 (County Response): Localized and manageable.
- o Level 2 (National Support): Exceeds county capacity or affects neighboring counties.
- o Level 3 (National/Regional Surge): Multi-county, high fatality, or cross-border spread.

Refer to the card’s “Escalation Triggers” column for exact numeric or situational thresholds.

### Step 5. Apply the Required Actions (7-1-7 Framework)

- o Implement the actions prescribed within 24 hours (notification), 72 hours (response activation), and 7 days (containment).

Examples: case investigation, sample collection, community sensitization, and line listing.

### Step 6. Mobilize the Support Package

- o Consult the card’s “Support Package” section to identify what assistance (technical, human, logistics, financial, RCCE) can be requested from KNPHI or partners.

Initiate formal requests through the IMS as guided by escalation level.

### Step 7. Track Progress and Exit Criteria

- o Use the “Monitoring and Exit Criteria” section to monitor indicators such as timeliness, case-fatality rate, contact tracing success, and outbreak duration.

De-escalate only after at least two incubation periods with no new cases and after a joint review with KNPHI IMS.

Please note that each Trigger Card provides standardized outbreak thresholds, actions, and support. For specific disease/event kindly refer to the trigger cards in [Annex 1](#)

# Annex 1: Consolidated Escalation Trigger Cards (ETC) for 20 Priority Diseases/Events

Table 4: Public Health Event of Initially Unknown Etiology (PHEIUE) – ETC

Priority Disease / Event	Case Definitions & Outbreak Definition	Alert Thresholds (Early Signals)	Escalation Triggers (Tiered – 3 levels)	Required Actions & Timelines (7-1-7)	Support Package (Technical/HR/Logistics/Finance/RCC)	Responsible Actors	Monitoring & De-escalation / Exit Criteria
<b>Public Health Events of Initially Unknown Etiology (PHEIUE)</b>	<b>Suspected:</b> Any acute cluster of severe illness, deaths, or unusual clinical presentations not explained by known endemic diseases after initial testing.	Unusual cluster of unexplained illness or deaths in a community/facility.  Severe illness not fitting existing case definitions.	<b>Level 1</b> – Subcounty/ County managed: Small localized cluster (<3 cases) under investigation with local lab capacity and services coping.	≤ 24 h – Notify immediately (≤ 2 h if necessary); initiate rapid verification; isolate/separate cases; collect and store appropriate specimens; alert national/EAC/Africa CDC/WHO if needed.	<b>Technical:</b> Epidemiologists, clinicians (syndromic mgmt), lab scientists, IPC, veterinarians, risk communication.  <b>HR:</b> Surge RRT, contact tracers, community health workers, community disease reporters.	<b>Sub-County HMT/CHMT</b> -Detection, verification, and rapid notification. <b>COHU + CHPs/CDRs</b> - Community awareness, early alerts, rumor tracking, and joint human-animal linkage. <b>KNPHI PHEOC</b> - Incident coordination and information management. <b>KNPHI EPR</b> - Technical oversight, analytics, and escalation to national and regional networks. <b>KEMRI / NPHL</b> - Reference diagnostics and testing. <b>DVS / CVL</b> - Animal sampling and zoonotic surveillance. <b>NEMA</b> - Environmental sampling and waste management. <b>NDOC / DRM</b> - Logistics and multisector coordination. Security agencies- quarantine enforcement, and crowd control. <b>Partners</b> - (WHO, Amref, KRCS, AFENET, etc.) – Surge support, technical assistance, RCCE, and field logistics.	<b>Indicators:</b> Time from detection→ notification→ RRT deployment; % specimens tested within 7 days; CFR; # secondary cases.  <b>De-escalation / Exit:</b> Cause identified OR no new unexplained cases for 2 incubation periods; epidemiologic curve stabilized and system capacity restored.
	<b>Probable:</b> Cluster of epidemiologically linked unexplained illness/deaths with common exposure but no confirmed etiology.	Failure of standard diagnostics to identify cause. Signals from media/social media/rumors of “mystery disease or Disease X.”	<b>Level 2</b> – Inter-county/National support: ≥3 cases with rapid spread, severe illness/deaths, or cross-subcounty cluster; local labs unable to confirm etiology within 72 h.	≤ 72 h – Deploy multidisciplinary RRT (clinical, epidemiology, lab, IPC, vets); expand surveillance; activate risk communication; initiate safe sample referral to national/regional reference labs.	<b>Logistics:</b> PPE, broad-spectrum diagnostics (PCR panels, viral culture, metagenomics referral), specimen collection/transport kits, isolation space.  <b>Finance:</b> Emergency funds for investigations, specimen referral, isolation.		
	<b>Confirmed:</b> Laboratory confirmation of a novel/unknown pathogen OR sustained unexplained transmission despite exhaustive testing.		<b>Level 3</b> – National/Regional surge: Multi-county or cross-border spread; high CFR; health-system stress; or suspicion of deliberate/unusual event requiring advanced reference labs or international support	≤ 7 d – Preliminary etiology ruled in/out; control measures adapted to findings; ongoing SITREP to national/international partners.	<b>RCCE:</b> Transparent messaging to reduce rumors, promote early reporting, emphasize unknown cause under investigation.		
	<b>Outbreak definition:</b> ≥2 epidemiologically linked unexplained illnesses/deaths, especially if severe, rapidly progressive, or spreading						

**Table 5: Filoviruses (Ebola Virus Disease / Marburg Virus Disease) – ETC**

Priority Disease / Event	Case Definitions & Outbreak Definition	Alert Thresholds (Early Signals)	Escalation Triggers (Tiered – 3 levels)	Required Actions & Timelines (7-1-7)	Support Package (Technical/HR/Logistics/Finance /RCCE)	Responsible Actors	Monitoring & De-escalation / Exit Criteria
<b>Filoviruses (Ebola Virus Disease / Marburg Virus Disease)</b>	<p>Suspected: Any person with acute fever <math>\geq 38^{\circ}\text{C}</math> and any of the following: severe headache, muscle pain, vomiting, diarrhea, abdominal pain, or unexplained bleeding.</p> <p>Probable: A suspected case with an epidemiological link to a confirmed case or death consistent with EVD/MVD, or any unexplained community death with bleeding.</p> <p>Confirmed: Laboratory confirmation of Ebola or Marburg virus infection by RT-PCR or serology.</p> <p>Outbreak Definition: One laboratory-confirmed case of Ebola or Marburg Virus Disease.</p>	<ul style="list-style-type: none"> <li>Any single case meeting the suspected case definition.</li> <li>Unexplained death with hemorrhagic signs.</li> <li>Clusters of febrile illness with bleeding or sudden deaths among health workers or household contacts.</li> </ul>	<p>Level 1- Subcounty/C ounty Response: Single suspected case or death with bleeding symptoms, managed locally with isolation and basic IPC capacity.</p> <p>Level 2 - County/Nati onal Response: Two or more epidemiologically linked suspected cases, or cluster among health workers, requiring County RRT deployment and testing at KEMRI/NPHL</p> <p>Level 3 - National/Re gional Surge: Laboratory-confirmed case(s), multi-county spread, or cross-border risk, triggering national activation and international notification.</p>	<p><math>\leq 24</math> h – Isolate suspected case, notify KNPHI PHEOC and County IMS, initiate contact listing, and collect blood for RT-PCR.</p> <p><math>\leq 72</math> h – Deploy County RRT (Clinical, Epi, Lab, IPC, RCCE); enhance IPC; initiate safe burial arrangements; begin community risk communication.</p> <p><math>\leq 7</math> d- Confirm diagnosis; expand contact tracing, monitoring, and follow-up; conduct situation analysis and daily SITREP updates ; coordinate partner response.</p>	<p>Technical: Epidemiologists, clinicians, laboratory scientists, IPC officers, burial teams, RCCE staff.</p> <p>HR: County RRT, sub-county teams, community health promoters, and contact tracers.</p> <p>Logistics: PPE, body bags, disinfectants, ambulances, specimen transport kits, isolation space.</p> <p>Finance: Rapid emergency funds for RRT deploy ment, training, and supplies.</p> <p>RCCE: Continuous engagement with communities on safe burials, IPC, and stigma reduction.</p>	<p>Sub-County HMT / CHM T- Case detection, isolation, notification, and initial contact tracing.</p> <p>COHU + CHPS- Community sensitization , rumor tracking, and early alerts.</p> <p>KNPHI PHEOC- National coordination, activation of nationalRRT , and situation reporting.</p> <p>KNPHI EPR- Technical oversight, analytics, and international liaison.</p> <p>KEMRI / NPHL- RT-PCR testing and result confirmation. NEMA- Waste management and decontamination oversight in affected facilities. NDOC / DRM- Multisect or logistics coordination and partner engagement.</p> <p>Security Agencies- Security, movement control, and support to safe burial teams. Partners (WHO, AFENET, KRCS, Amref, etc.) – Surge staffing, technical support, RCCE, and training.</p>	<p>Indicators: Case fatality rate, % contacts traced within 48 h, # HCWs infected, time to isolation and notification.</p> <p>De-escalation / Exit: No new confirmed cases for 42 days (two incubation periods) after last case tests negative and all contacts complete follow-up</p>

**Table 6: Yellow fever – Escalation Trigger Card (ETC)**

Priority Disease / Event	Case Definitions & Outbreak Definition	Alert Thresholds (Early Signals)	Escalation Triggers (Tiered – 3 levels)	Required Actions & Timelines (7-1-7)	Support Package (Technical/HR/ Logistics/Finance /RCCE)	Responsible Actors	Monitoring & De-escalation / Exit Criteria
<b>Yellow Fever (YF)</b>	<p>Suspected: Any person with acute onset of fever and jaundice appearing within 14 days of onset of first symptoms.</p> <p>Probable: A suspected case with an epidemiologic link to a confirmed case or occurrence in a known risk area.</p> <p>Confirmed: Detection of yellow fever virus nucleic acid or antigen in blood or tissue by PCR/ELISA, or IgM antibody confirmed by neutralization test.</p> <p>Outbreak Definition: A single laboratory-confirmed case of yellow fever in a non-endemic area or evidence of local transmission in an endemic area.</p>	<ul style="list-style-type: none"> <li>Any suspected case reported from a health facility or community.</li> <li>Two or more suspected cases with epidemiologic links in a sub-county.</li> <li>Deaths with jaundice and bleeding symptoms.</li> <li>Reports of monkey die-offs or unusual mosquito density</li> </ul>	<p>Level 1- Sub-county Response: Single suspected case under investigation with no secondary cases; local lab testing available.</p> <p>Level 2- County / National Support: Two or more linked suspected cases or cluster of fever and jaundice cases; lab confirmation pending; requires County RRT deployment.</p> <p>Level 3 – National / Regional Surge: Confirmed case or multi-sub-county spread triggering national vaccine response and international notification.</p>	<p>≤ 24 h: Notify KNPHI PHEOC; collect samples for IgM/PCR; start contact listing and line-listing.</p> <p>≤ 72 h: Deploy County RRT for field investigation and entomological assessment; launch vector control measures and risk communication.</p> <p>≤ 7 d: Confirm diagnosis and mobilize vaccine response; implement targeted immunization and community awareness campaigns; provide daily SITREP updates.</p>	<p>Technical: Epidemiologists, clinicians, entomologists, EPI officers, lab scientists, PHOs.</p> <p>HR: County RRT, vector control staff, community mobilizers.</p> <p>Logistics: Sample kits, transport, cold chain equipment, vaccines, PPE, insecticides.</p> <p>Finance: Rapid funding for RRT deployment, vector control, vaccine delivery.</p> <p>RCCE: Community education on mosquito control and immunization importance.</p>	<p>Sub-County HMT / CHMT- Detection, notification, and coordination of RRT activities.</p> <p>COHU + CHPs-Community mobilization for vaccination, vector control, and rumor management.</p> <p>KNPHI PHEOC- National coordination and situation analysis.</p> <p>KNPHI EPR – Technical oversight and vaccine guidance.</p> <p>KEMRI / NPHL-PCR and IgM testing for confirmation.</p> <p>DVS – Surveillance of non-human primates for epizootic activity.</p> <p>NEMA – Environmental control of vector breeding sites and waste management.</p> <p>Partners (WHO, UNICEF, Amref, KRCS) – Vaccine supply, cold chain support, and RCCE.</p>	<p>Indicators: % suspected cases investigated within 24 h; % samples tested within 72 h; vector indices (Aedes density); vaccine coverage.</p> <p>De-escalation / Exit: No new cases for 28 days after last confirmed case; vector indices below threshold; ≥ 95 % target population vaccinated.</p>

**Table 7: Dengue / Dengue Hemorrhagic Fever (DHF)– Escalation Trigger Card (ETC)**

Priority Disease / Event	Case Definitions & Outbreak Definition	Alert Thresholds (Early Signals)	Escalation Triggers (Tiered – 3 levels)	Required Actions & Timelines (7-1-7)	Support Package (Technical/HR/ Logistics/Finance /RCCE)	Responsible Actors	Monitoring & De-escalation / Exit Criteria
<b>Dengue / Dengue Hemorrhagic Fever (DHF)</b>	<p>Suspected: Any person with acute febrile illness (2–7 days) with two or more of: headache, retro-orbital pain, myalgia, arthralgia, rash, or hemorrhagic manifestations, and residence/travel in Aedes-infested area. Probable: A suspected case with positive NS1 antigen or IgM serology. Confirmed: Laboratory confirmation of dengue virus infection by RT-PCR or seroconversion in paired samples.</p> <p>Outbreak Definition: Two or more laboratory-confirmed cases in the same area within 14 days or evidence of local transmission.</p>	<ul style="list-style-type: none"> <li>• Single suspected case reported from a health facility or community</li> <li>• Cluster (≥3 cases) of acute febrile illness with rash and bleeding tendency within 7 days.</li> <li>• Laboratory confirmation of dengue virus infection or detection of Aedes breeding increase in risk areas.</li> </ul>	<p>Level 1- Sub-county Response: Single suspected or probable case detected and managed locally with routine surveillance and vector control.</p> <p>Level 2- County / National Support: Cluster of cases or confirmed dengue in a sub-county requiring County RRT deployment and enhanced surveillance.</p> <p>Level 3- National / Regional Surge: Multi-county spread or rising CFR prompting KNPHI PHEOC activation and partner coordination.</p>	<p>≤ 24 h: Notify County IMS and KNPHI PHEOC; verify case; collect samples for NS1/IqM/PCR testing; start line-listing and case mapping.</p> <p>≤ 72 h: Deploy RRT; conduct vector survey and control; enhance clinical management; issue public risk communication messages.</p> <p>≤ 7 d: Confirm diagnosis; implement integrated vector management (source reduction, larviciding, community clean-ups); release SITREPs.</p>	<p>Technical: Clinicians, entomologists, lab technologists, public health officers.</p> <p>HR: RRTs, vector control teams, CHPs.</p> <p>Logistics: Diagnostic kits (NS1, IgM/IgG), sprayers, insecticides, PPE, transport.</p> <p>Finance: Rapid disbursement for vector control and RCCE.</p> <p>RCCE: Awareness on mosquito breeding prevention and early care-seeking</p>	<p>Sub-County HMT / CHMT – Detection, notification, and coordination of RRT response.</p> <p>COHU + CHPs-Community sensitization and household source reduction campaigns.</p> <p>KNPHI PHEOC – National coordination, data analysis, and partner updates.</p> <p>KNPHI EPR – Technical oversight, analytics, and policy guidance.</p> <p>KEMRI / NPHL – Lab confirmation by PCR or serology. NEMA – Oversight on waste management and vector habitat control.</p> <p>NDOC / DRM – Coordination of logistics and inter-agency support. Partners (WHO, Amref, KRCS) – Technical assistance, RCCE, and entomology support.</p>	<p>Indicators: % suspected cases confirmed; vector indices (Breteau Index, Container Index); CFR; timeliness of response.</p> <p>De-escalation / Exit: No new confirmed cases for 14 days (two incubation periods); vector indices below threshold; community surveillance active.</p>

**Table 8: Crimean-Congo Hemorrhagic Fever (CCHF) - Escalation Trigger Card (ETC)**

Priority Disease / Event	Case Definitions & Outbreak Definition	Alert Thresholds (Early Signals)	Escalation Triggers (Tiered – 3 levels)	Required Actions & Timelines (7-1-7)	Support Package (Technical/HR/Logistics/Finance /RCCE)	Responsible Actors	Monitoring & De-escalation / Exit Criteria
<b>Crimean-Congo Hemorrhagic Fever (CCHF)</b>	<p>Suspected: Acute febrile illness with severe myalgia /headache ± GI symptoms progressing to bleeding manifestations (petechiae, hematuria, hematemesis) in a person with tick exposure or contact with livestock/abattoir /animal products from an endemic area.</p> <p>Probable: Suspected case with epidemiologic link to a confirmed case or animal/tick exposure plus thrombocytopenia and elevated liver enzymes.</p> <p>Confirmed: Detection of CCHFV RNA by RT-PCR or seroconversion (IgM/IgG) in a suspected/probable case.</p> <p>Outbreak Definition: ≥1 laboratory -confirmed human case or a cluster of epidemiologically linked probable cases.</p>	<ul style="list-style-type: none"> <li>Any single suspected human case with tick/livestock exposure.</li> <li>Clusters of febrile illness with bleeding among abattoir workers, herders, or healthcare workers.</li> <li>Reports of increased Hyalomma tick activity or animal illness/deaths in endemic zones.</li> </ul>	<p>Level 1- Sub-county Response: Single suspected case; local isolation and IPC feasible; limited contacts.</p> <p>Level 2- County / National Support: ≥2 epi-linked suspected cases; cases among abattoir/health-care workers; need for County RRT and national lab confirmation (KEMRI/NPHL).</p> <p>Level 3- National / Regional Surge: Laboratory-confirmed case(s); rising CFR; multi-sub-county spread or cross-border risk; healthcare-associated transmission; require KNPHI PHEOC activation and multi-agency support.</p>	<p>≤ 24 h: Notify SCHMT/CHMT and KNPHI PHEOC; isolate suspect; collect blood for RT-PCR; begin line-listing and contact tracing; institute strict IPC (droplet/contact) and safe phlebotomy.</p> <p>≤ 72 h: Deploy joint One Health RRT (clinical/epi/lab/IPC/vet/entomology); conduct exposure/source assessment (ticks, abattoir, markets); initiate tick-control measures; provide PPE and post-exposure guidance for HCWs/abattoir workers; targeted RCCE to at-risk groups.</p> <p>≤ 7 d: Confirm diagnosis; expand contact follow-up (14 days); reinforce occupational safety at abattoirs and livestock markets; review quarantine/animal movement controls where indicated; daily SITREPs and risk communication.</p>	<p>Technical: Clinicians, epidemiologists, laboratorians (BSL-2/3 workflows), IPC officers, veterinary officers, entomologists, PHOs.</p> <p>HR: County &amp; sub-county RRTs; CHPs and CDRs for community/animal alerts; contact tracers.</p> <p>Logistics: PPE (incl. face shields), tick-control supplies (acaricides), specimen/transport kits, ambulances, disinfection supplies.</p> <p>Finance: Emergency funds for RRT deployment, lab referral, tick-control campaigns, abattoir IPC upgrades.</p> <p>RCCE: Risk messaging to herders, traders, abattoir workers, and HCWs on tick avoidance, safe animal handling, and early care-seeking.</p>	<p>Sub-County HMT / CHMT: Detection, notification, isolation, initial investigation, and contact tracing.</p> <p>COHU + CHPs/CDRs: Community alerts in pastoral/market settings; linkage of human and animal reports; support for behavior change (tick avoidance, PPE use).</p> <p>KNPHI PHEOC: National incident coordination, information management, daily SITREPs, partner tasking.</p> <p>KNPHI EPR: Technical oversight, analytics, deployment support, and international liaison.</p> <p>KEMRI / NPHL: RT-PCR/serology confirmation, biosafety guidance, packaging/transport.</p> <p>DVS / County Veterinary Dept / CVL: Animal/tick surveillance and testing; quarantine/movement control; abattoir inspections; guidance on acaricide use.</p> <p>NEMA: Environmental waste management and decontamination oversight for contaminated materials.</p> <p>NDOC / DRM: Multisector logistics and resource mobilization to hotspots (e.g., markets, abattoirs).</p> <p>Partners (FAO, WHO, Amref, KRCS, AFENET): Joint investigation, surge staffing, RCCE, and logistics.</p>	<p>Indicators: Time to isolation and lab confirmation; % contacts traced within 48 h; CFR; # HCW/abattoir-linked infections; tick indices in affected foci. De-escalation / Exit: No new confirmed/probable cases for 28 days after last case; all contacts complete follow-up; occupational risks mitigated (abattoir IPC verified) and tick indices below threshold.</p>

Table 9: RVF Escalation Trigger Card (ETC)

Priority Disease / Event	Case Definitions & Outbreak Definition	Alert Thresholds (Early Signals)	Escalation Triggers (Tiered – 3 levels)	Required Actions & Timelines (7-1-7)	Support Package (Technical/HR/Logistics/Finance /RCCE)	Responsible Actors	Monitoring & De-escalation / Exit Criteria
<b>Rift Valley Fever (RVF)</b>	<p>Suspected (Human): Acute febrile illness with headache, myalgia, arthralgia, photophobia, or visual disturbances with history of contact with livestock, animal tissues, or mosquito exposure from affected areas.</p> <p>Probable: A suspected case with unexplained hemorrhagic manifestations, hepatitis, or encephalitis in an endemic area.</p> <p>Confirmed: Detection of RVF virus RNA by RT-PCR or IgM/IgG seroconversion in serum.</p> <p>Animal Case: Unexplained abortion storms, neonatal mortality, or hemorrhagic signs in livestock.</p> <p>Outbreak Definition: <math>\geq 1</math> laboratory-confirmed human or animal case, or linked cluster of unexplained livestock abortions/deaths in a high-risk area following heavy rains.</p>	<ul style="list-style-type: none"> <li>• Reports of abortion storms, livestock deaths, or hemorrhagic symptoms in animals.</li> <li>• Human febrile illness clusters following animal exposure/slaughter r.</li> <li>• Unusual mosquito density or flooding in high-risk counties (e.g., Garissa, Tana River, Baringo, Kajiado).</li> <li>• Sentinel surveillance showing seroconversion (IgG) in livestock.</li> </ul>	<p>Level 1- Sub-county / County Response: Localized livestock abortions or a single suspected human case detected; adequate local RRT and lab referral possible.</p> <p>Level 2- County / National Support: Multiple human and animal cases or deaths across sub-counties; requires joint RRT activation and national lab confirmation.</p> <p>Level 3- National / Regional Surge: Confirmed human-animal transmission with cross-county spread or risk of export to neighboring countries; requires full One Health activation and international notification.</p>	<p><math>\leq 24</math> h: Notify COHU, KNPHI PHEOC, and DVS; verify signal; collect blood samples (animal and human); implement animal movement restrictions; enhance mosquito surveillance.</p> <p><math>\leq 72</math> h: Deploy joint human-animal RRT; coordinate One Health risk assessment; initiate vector control; provide PPE and training to animal handlers and HCWs; launch RCCE on safe slaughtering and mosquito protection.</p> <p><math>\leq 7</math> d: Confirm laboratory results; continue joint surveillance; initiate vaccination of livestock where feasible; ensure daily SITREP to partners and authorities.</p>	<p>Technical: Epidemiologists, clinicians, veterinarians, entomologists, lab technologists, RCCE officers.</p> <p>HR: Joint RRTs (human + animal health), entomology teams, CHPs/CDRs.</p> <p>Logistics: PPE, sampling kits, mosquito traps, transport vehicles, cold chain for sera, insecticides, vaccination supplies.</p> <p>Finance: Emergency funding for RRT deployment, lab referral, vector control, and livestock vaccination.</p> <p>RCCE: Risk messaging to farmers, butchers, herders on safe slaughter, milk boiling, vector avoidance, and early health-seeking.</p>	<p>Sub-County HMT / CHMT-Detect, report, and support local RRT investigation.</p> <p>COHU + CHPs/CDRs- Coordinate One Health surveillance, community alerts, and vector control mobilization.</p> <p>KNPHI PHEOC-Lead national incident coordination and partner engagement.</p> <p>KNPHI EPR -Technical oversight, data analytics, and regional liaison. KEMRI / NPHL - RT-PCR testing for human specimens and support to CVL for animal samples. DVS / County Vet Dept / CVL- Livestock sampling, quarantine, vector control, and vaccination.</p> <p>NEMA – Environmental risk monitoring (flooding, vector breeding sites). NDOC / DRM- Logistics and resource mobilization for joint RRTs and vector control.</p> <p>Security Agencies – Enforcement of animal movement control and market closures where applicable.</p> <p>Partners (FAO, WHO, Amref, KRCS, AFENET) – Joint investigation, vector surveillance, RCCE, and training support.</p>	<p>Indicators: # of human and animal cases; CFR; vector indices; timeliness of notification; % animal vaccination coverage.</p> <p>De-escalation / Exit: No new human or animal cases for 28 days post-last confirmation; vector indices below threshold; animal movement restrictions lifted and surveillance resumed to routine.</p>

**Table 10: Anthrax Escalation Trigger Card (ETC)**

Priority Disease / Event	Case Definitions & Outbreak Definition	Alert Thresholds (Early Signals)	Escalation Triggers (Tiered – 3 levels)	Required Actions & Timelines (7-1-7)	Support Package (Technical/HR/ Logistics/Finance /RCCE)	Responsible Actors	Monitoring & De-escalation / Exit Criteria
<b>Anthrax</b>	<p>Suspected Human Case: Any person with a skin lesion (papule, vesicle, or eschar) after handling animals or animal products (skin, wool, meat) from an affected area (cutaneous form); OR acute respiratory illness with dyspnea and chest pain after exposure to animal by-products (inhalational); OR acute GI illness after eating undercooked contaminated meat (intestinal).</p> <p>Probable: Suspected case epidemiologically linked to confirmed animal case/outbreak or lab evidence of <i>Bacillus anthracis</i> without isolation.</p> <p>Confirmed: Laboratory confirmation by culture or PCR of <i>B. anthracis</i> in human or animal specimen.</p> <p>Animal Case: Sudden death of animal with unclotted dark blood from natural openings and failure to rigor mortis.</p> <p>Outbreak Definition: ≥ 1 laboratory confirmed human case linked to animal exposure or ≥ 2 linked suspected human/animal cases in a defined area within 14 days.</p>	<ul style="list-style-type: none"> <li>Unexplained sudden livestock deaths with bloody discharges.</li> <li>Clusters of skin lesions (eschar) or GI illness after slaughter/consumption of sick animal.</li> <li>Media/rumors of "dead animals being eaten" or illegal meat trade.</li> <li>Positive animal carcass smear/PCR at field lab.</li> </ul>	<p>Level 1- Sub-county Response: Single suspected animal or human case identified and contained locally; specimens collected and submitted to CVL / NPHL for testing.</p> <p>Level 2- County / National Support: ≥ 2 epidemiologically linked human cases and/or multiple animal cases across wards requiring County RRT deployment and joint One Health investigation.</p> <p>Level 3- National / Regional Surge: Confirmed human and animal cases across counties or cross-border trade routes requiring KNPHI PHEOC activation and international notification.</p>	<p>≤ 24 h: Notify SCHMT/CHMT, COHU, and KNPHI PHEOC; collect human and animal samples; isolate cases; stop slaughter/sale of suspect animals; enforce carcass safety measures.</p> <p>≤ 72 h: Deploy joint human-animal RRT; initiate ring vaccination of livestock; conduct household/community sensitization on safe handling and meat disposal; implement RCCE to curb panic and misinformation.</p> <p>≤ 7 d: Confirm lab results; continue surveillance and animal vaccination; coordinate safe carcass burial/burning under supervision; issue daily SITREP.</p>	<p>Technical: Clinicians, veterinarians, epidemiologists, public health officers, lab scientists, RCCE teams.</p> <p>HR: County RRT, sub-county health/vet officers, CHPs, CDRs.</p> <p>Logistics: PPE, sampling kits, formalin and chlorine, vaccines for livestock, incineration supplies, transport support.</p> <p>Finance: Emergency funds for RRT response and livestock vaccination.</p> <p>RCCE: Messages on safe handling of carcasses, avoidance of meat from dead animals, and seeking medical care early.</p>	<p>Sub-County HMT / CHMT- Detect and report suspected cases; coordinate RRT activation and local risk assessment. COHU + CHPs/CDRs-Community awareness and early alerts on animal deaths or human cases; support RCCE and safe disposal messaging.</p> <p>KNPHI PHEOC-Incident coordination and partner engagement.</p> <p>KNPHI EPR-Technical oversight and analytics. KEMRI / NPHL-Confirmation of <i>B. anthracis</i> in human specimens.</p> <p>DVS / CVL / County Vet Dept - Animal sampling, field diagnosis, ring vaccination, and safe carcass disposal.</p> <p>NEMA- Supervision of environmental decontamination and safe burial/burning sites. NDOC / DRM-Support with transport, security, and resource mobilization.</p> <p>Security agencies -Enforcement of movement restrictions and meat inspection regulations. Partners (FAO, WHO, Amref, KRCS, AFENET)-Technical support, RCCE, and livestock vaccine supply.</p>	<p>Indicators: # human and animal cases; time to notification; % ring vaccination coverage; carcasses disposed safely; CFR.</p> <p>De-escalation / Exit: No new cases for 21 days after last case; ring vaccination completed; community sensitization verified; livestock movement ban lifted by DVS/County.</p>

Table 11: Cholera Escalation Trigger Card (ETC)

Priority Disease / Event	Case Definitions & Outbreak Definition	Alert Thresholds (Early Signals)	Escalation Triggers (Tiered – 3 levels)	Required Actions & Timelines (7-1-7)	Support Package (Technical/HR/ Logistics/Finance /RCCE)	Responsible Actors	Monitoring & De-escalation / Exit Criteria
<b>Cholera / AWD</b>	<p>Suspected:</p> <ul style="list-style-type: none"> <li>– Area without known cholera: ≥ 5 yrs with AWD &amp; severe dehydration OR death from acute watery diarrhea.</li> <li>– Area with known cholera: ≥ 2 yrs with AWD</li> </ul> <p>Probable: Suspected case with epidemiologic link to a confirmed case/outbreak area.</p> <p>Confirmed: Isolation of <i>Vibrio cholerae</i> O1/O139 from stool.</p> <p>Outbreak definition: Non-endemic area: ≥ 1 confirmed case. Endemic area: increase above baseline/seasonal threshold or epi-linked cluster.</p>	<p>Early signals:</p> <ul style="list-style-type: none"> <li>– Single suspected cholera death.</li> <li>– ≥ 2 suspected cases with epidemiologic link (household/school /camp) within 48–72h.</li> <li>– Doubling of suspected cases within 48h in a facility/ward.</li> <li>– Abrupt increase in AWD with severe dehydration, or RDT positivity where used.</li> </ul> <p>County baseline (source: MoH-505 weekly data): 5-year median = ___; seasonal high weeks = ___; alert if weekly count &gt; ___</p> <p>IDSR thresholds: Alert: A single suspected cholera case or death. Action: ≥ 1 confirmed case in a non-endemic area OR increase above baseline in endemic area.</p>	<p>Level 1 Subcounty/County managed:</p> <ul style="list-style-type: none"> <li>– 1–4 suspected in 7 days, no deaths, services coping (beds &lt;80%; ORS/IV ≥7d).</li> </ul> <p>Level 2 Inter-county/National support:</p> <ul style="list-style-type: none"> <li>– ≥ 1 confirmed in new area; ≥ 5 suspected/7d in one sub-county; any cholera death; spread to second sub-county; contamination of a water system; stockouts/HR gaps impeding response.</li> </ul> <p>Level 3 National/Regional surge:</p> <ul style="list-style-type: none"> <li>– Multi-county spread or cross-border threat; rapid rise with CFR ≥ 2%; camps/IDP settings; concerning lab signals (e.g., resistance).</li> </ul>	<p>≤24 h: Notify SCHMT/CHMT &amp; KNPHI PHEOC; triage and set up oral rehydration points (ORPs) and isolation bays; collect/transport stool for culture/PCR; map water sources; start IPC and chlorination at point-of-use.</p> <p>≤72 h: Deploy County RRT (Clinical/Epi/Lab/IPC/WASH/RCCE); establish Cholera Treatment Units (CTUs) where needed; ensure continuous ORS/IV supplies; coordinate water trucking/chlorination; initiate household disinfection and safe burial SOPs; targeted RCCE.</p> <p>≤7 d: Confirm etiology; expand case area-mapping and line-listing; strengthen WASH interventions (source repair, pipe flushing, latrine hygiene); consider reactive OCV per national guidance; daily SITREPs with epi curves and WASH indicators.</p>	<p>Technical: Clinicians, IPC nurses, epidemiologists, lab techs, environmental health/WASH officers, RCCE officers.</p> <p>HR: RRT surge staff, CHPs, volunteers for ORPs, logisticians.</p> <p>Logistics: Cholera kits (ORS, IV fluids, antibiotics per protocol), PPE, specimen containers/ Cary-Blair media, chlorine (HTH/NaDCC), hand-washing stations, tents/beds. Finance: Emergency funds for CTUs, WASH fixes, water trucking, transport. RCCE: Clear messages on early rehydration, safe water, food hygiene, hand-washing, safe burial.</p>	<p>Sub-County HMT /CHMT: Detection, notification, CTU/ORP setup support, initial case investigation, local logistics.</p> <p>CHPs: Household visits for ORS use, water treatment, hygiene promotion, rapid rumor management. KNPHI PHEOC: National coordination, partner tasking, SITREP consolidation, threshold monitoring.</p> <p>KNPHI EPR: Technical oversight, analytic support, OCV recommendation coordination.</p> <p>KEMRI / NPHL: Culture/PCR confirmation, antimicrobial sensitivity, test-and-transport guidance.</p> <p>NEMA: Environmental oversight of waste disposal, decontamination, and safe chlorination practices. NDOC / DRM: Inter-agency logistics (water trucking, tents, stocks), cross-county coordination.</p> <p>Water Service Providers / County Water Dept: Source repair, chlorination, residual testing. Partners (UNICEF, WHO, KRCS, Amref, NGOs): WASH supplies, CTU staffing support, RCCE, potential OCV logistics.</p>	<p>Indicators: CFR &lt;1%; % cases with stool collected/transported within 24–48 h; % patients receiving ORS at triage; stock-out days (ORS/IV/antibiotics); water residual chlorine levels; # functional ORPs/CTUs; OCV coverage (if used).</p> <p>De-escalation / Exit: No new confirmed cases for 14 days and attack rates declining; safe water indicators sustained (residual chlorine within target); CTUs decongested; WASH corrective actions completed and verified.</p>

**Table 12: Measles/Rubella Escalation Trigger Card**

Priority Disease / Event	Case Definitions & Outbreak Definition	Alert Thresholds (Early Signals)	Escalation Triggers (Tiered – 3 levels)	Required Actions & Timelines (7-1-7)	Support Package (Technical/HR/ Logistics/Finance /RCCE)	Responsible Actors	Monitoring & De-escalation / Exit Criteria
<b>Measles /Rubella</b>	<p>Measles suspected: Any person with fever and maculopapular rash and cough, coryza, or conjunctivitis.</p> <p>Rubella suspected: Any person with fever and maculopapular rash and cervical/occipital lymphadenopathy or arthralgia/arthritis (esp. women); or suspected CRS in infants.</p> <p>Probable: Epidemiologic link to confirmed case/outbreak.</p> <p>Confirmed: Measles- or rubella-specific IgM positive or PCR/virus detection/genotyping; or epidemiologic linkage to a lab-confirmed case.</p> <p>Outbreak Definition: ≥2 lab-confirmed cases of measles or rubella (or epi-linked) in the same sub-county within 30 days; OR one lab-confirmed case in a congregate/high-risk setting.</p>	<ul style="list-style-type: none"> <li>Two or more suspected rash-fever cases presenting within 7–14 days from the same village/school/camp/health facility.</li> <li>Zero-dose or under-immunized clusters; long periods without SIAs; low routine MCV1/MCV2 coverage.</li> <li>Admission spikes for severe measles/pneumonia or reports of CRS</li> </ul>	<p>Level 1 Sub-county Response: Single suspected case or a small cluster manageable locally; samples collected and shipped; routine EPI and surveillance functioning.</p> <p>Level 2 County / National Support: ≥2 epi-linked suspected/confirmed cases across wards, health-facility or school cluster; requires County RRT, enhanced surveillance, and targeted reactive immunization.</p> <p>Level 3 National / Regional Surge: Multi-sub-county or multi-county spread; high CFR/severe cases; vaccine stockouts/cold chain constraints; requires KNPHI PHEOC activation and large-scale reactive SIAs with partner support.</p>	<p>≤24 h: Notify SCHMT/CHMT and KNPHI PHEOC; isolate suspect at triage; collect serum/throat swab/urine as per guideline; line-list and map cases/contacts; verify vaccination status; alert schools/camps as needed.</p> <p>≤72 h: Deploy County RRT (EPI/Epi/Lab/IPC/RCCE) ; enhance contact tracing and ring vaccination where appropriate; verify cold chain; conduct facility and community sensitization; issue initial SITREP.</p> <p>≤7 d: Confirm diagnosis; implement targeted reactive immunization or SIA per risk assessment; expand active case search; differentiate measles vs rubella and investigate CRS signals; daily SITREPs with epi curves and coverage updates.</p>	<p>Technical: EPI officers, epidemiologists, clinicians/paediatricians, IPC nurses, lab technologists, RCCE officers, data managers.</p> <p>HR: RRT nurses/vaccinators, CHPs/community mobilizers, logisticians, supervisors.</p> <p>Logistics: Vaccines (MCV/Rubella), syringes/safety boxes, cold chain (ICE packs, carriers, fridges), transport, PPE.</p> <p>Finance: Emergency funds for reactive vaccination, per diems, fuel, microplanning.</p> <p>RCCE: Social mobilization, zero-dose tracking, school/faith/community engagement, rumor management.</p>	<p>Sub-County HMT / CHMT: Detection, notification, sample collection/shipment, RRT activation, microplanning for reactive vaccination.</p> <p>COHU + CHPs: Community mobilization, zero-dose identification, defaulter tracing, school outreach. KNPHI PHEOC: National coordination, situation analysis, SITREP consolidation, partner tasking. KNPHI EPR: Technical oversight, analytics, SIA guidance, monitoring/coverage validation.</p> <p>KEMRI / NPHL: IgM/PCR confirmation, genotyping where feasible, sample referral QA.</p> <p>NDOC / DRM: Inter-agency logistics and transport support for vaccination teams.</p> <p>Security agencies: Security and crowd management during mass vaccination in high-density settings. Partners (WHO, UNICEF, Amref, KRCS, AFENET): Vaccine/ice pack support, social mobilization, independent monitoring, training/supervision.</p>	<p>Indicators: Suspected cases investigated within 48 h; % samples with results within 7 d; routine coverage (MCV1/MCV2) and SIA coverage; % zero-dose children reached; CFR; timeliness of response.</p> <p>De-escalation / Exit: No new lab-confirmed/epi-linked cases for 42 days (two measles incubation periods) after last case onset; reactive vaccination/SIA achieves ≥95% target coverage; sustained facility/community surveillance with zero-dose mop-up completed.</p>

Table 13: SARI/ILI Escalation Trigger Card

Priority Disease / Event	Case Definitions & Outbreak Definition	Alert Thresholds (Early Signals)	Escalation Triggers (Tiered – 3 levels)	Required Actions & Timelines (7-1-7)	Support Package (Technical/HR/Logistics/Finance /RCCE)	Responsible Actors	Monitoring & De-escalation / Exit Criteria
<p><b>Severe Acute Respiratory Infection (SARI) /</b> Influenza-like illness (ILI) (including COVID-19 &amp; seasonal/novel influenza)</p>	<p>ILI (clinical): Acute respiratory illness with measured fever <math>\geq 38^{\circ}\text{C}</math> and cough with onset within the last 10 days.</p> <p>SARI (clinical): ILI requiring hospitalization or presenting with dyspnea/hypoxia/pneumonia.</p> <p>COVID-19 suspected/probable: Compatible symptoms with epidemiologic link/exposure or imaging suggestive of COVID-19.</p> <p>Confirmed (COVID-19 / Influenza): Pathogen detection by RT-PCR/Ag (COVID-19) or RT-PCR/rapid molecular assay (influenza).</p> <p>Outbreak definition: (i) Facility or community cluster of <math>\geq 3</math> epi-linked cases within 7 days or (ii) SARI/ILI rates exceeding seasonal/baseline thresholds or (iii) detection of a novel/variant strain with transmission potential.</p>	<ul style="list-style-type: none"> <li>• Abrupt rise in ILI consultations above baseline in facilities/sentinels.</li> <li>• Increase in SARI admissions, oxygen use, or unexplained pneumonia deaths.</li> <li>• Facility/closed-setting clusters (schools, prisons, camps, workplaces).</li> <li>• Detection of unusual/novel strain or antigenic drift/shift signal from lab.</li> </ul>	<p>Level 1 Sub-county Response: Localized facility or school/ward cluster; manageable bed/oxygen demand; routine lab referral possible.</p> <p>Level 2 County / National Support: Multi-ward/sub-county clusters; rising SARI admissions/oxygen demand; HCW infections; need County RRT and surge supplies; variant under investigation.</p> <p>Level 3 National / Regional Surge: Multi-county spread, rapid <math>R_t &gt; 1</math> with health-system stress (ICU/oxygen stockouts), or confirmation of variant/novel strain; KNPHI PHEOC activation, expanded lab and oxygen surge.</p>	<p><math>\leq 24</math> h: Notify SCHMT/CHMT &amp; KNPHI PHEOC; initiate IPC (masking, triage, cohorting); collect specimens (NP/OP swabs) for RT-PCR/Ag (COVID-19) and flu PCR; start line-list, exposure mapping; review bed/oxygen status.</p> <p><math>\leq 72</math> h: Deploy County RRT(Clinical/Epi/Lab/IPC /RCCE/Logistics); enhance sentinel sampling; verify oxygen &amp; pulse oximetry capacity; initiate clinical guidance (triage, steroids/antivirals per protocol, oxygen therapy); targeted RCCE for testing/isolation; protect HCWs (fit-testing where applicable).</p> <p><math>\leq 7</math> d: Confirm etiology/strain; expand contact tracing or targeted testing where indicated; implement surge (beds/oxygen) and referral pathways; update treatment &amp; IPC guidance; daily SITREPs incl. admissions, ICU/oxygen metrics, and test positivity; coordinate vaccination/antivirals if indicated.</p>	<p>Technical: Physicians/paediatricians, emergency &amp; ICU nurses, epidemiologists, lab scientists (PCR/Ag), IPC officers, biomedical engineers (oxygen).</p> <p>HR: RRT, triage staff, data managers, CHPs for community follow-up.</p> <p>Logistics: Sample kits/transport media, Ag/PCR supplies, PPE (surgical/N95), oxygen cylinders/concentrators, pulse oximeters, ventilators/CPAP as available.</p> <p>Finance: Emergency funds for oxygen, PPE, diagnostics, surge staffing/transport.</p> <p>RCCE: Risk communication on masking when indicated, ventilation, vaccination (COVID-19/flu), early care-seeking for danger signs.</p>	<p>Sub-County HMT / CHMT: Detection, notification, facility triage re-organization, initial cluster investigation. CHPs: Community alerts, support for isolation guidance, home-based care follow-up where policy allows, referral triggers. KNPHI PHEOC: National incident coordination, oxygen/bed situational analysis, partner tasking, SITREP consolidation. KNPHI EPR: Technical oversight, analytics (Rt, test positivity), guidance on vaccination/antivirals and variant investigations. KEMRI / NPHL: PCR/Ag confirmation, genomic surveillance/variant analysis, QA for sentinel labs. NDOC / DRM: Logistics for oxygen/bed surge, inter-county transfers as needed. NEMA: Healthcare waste mgmt &amp; ventilation/air-quality guidance for facilities. Security agencies: Crowd/queue management at high-demand sites if required (Quarantine). Partners (WHO, Africa CDC, UNICEF, Amref, KRCS, AFENET): Technical support, diagnostics/oxygen donations, RCCE, vaccination ops support.</p>	<p>Indicators: ILI &amp; SARI rates vs baseline; test positivity; admissions/ICU occupancy; oxygen consumption days; HCW infections; turnaround time for results; vaccination coverage (if applicable).</p> <p>De-escalation / Exit: Sustained decline to/below seasonal baseline for <math>\geq 14</math> days; ICU/oxygen demand normalized; no new clusters or variant under investigation impacting severity; sentinel surveillance stable and routine IPC resumed.</p>

**Table 14: Mpox -Escalation Trigger Card**

Priority Disease / Event	Case Definitions & Outbreak Definition	Alert Thresholds (Early Signals)	Escalation Triggers (Tiered – 3 levels)	Required Actions & Timelines (7-1-7)	Support Package (Technical/HR/ Logistics/Finance /RCCE)	Responsible Actors	Monitoring & De-escalation / Exit Criteria
<b>Mpox</b>	<p>Suspected: Acute, unexplained rash (vesicular/pustular) with one or more prodromal symptoms (fever, lymphadenopathy, myalgia, headache) OR epidemiologic link to a probable/confirmed case in the 21 days before symptom onset.</p> <p>Probable: Suspected case with epidemiologic link (household/sexual/social contact, healthcare exposure), characteristic lesions, and no alternative diagnosis.</p> <p>Confirmed: Laboratory detection of mpox virus DNA by RT-PCR from skin lesion material or appropriate specimen; sequencing if indicated.</p> <p>Outbreak Definition: ≥2 lab-confirmed or epi-linked probable cases in a defined setting within 21 days or a single lab-confirmed case with onward local transmission.</p>	<ul style="list-style-type: none"> <li>Any single suspected case with characteristic vesiculo-pustular rash/lymphadenopathy.</li> <li>Cluster of rash illness among close contacts, households, congregate settings, or healthcare workers.</li> <li>Reports of animal exposure (wild/kept mammals) or imported case/contact.</li> </ul>	<p>Level 1 Sub-county Response: Single suspected/confirmed case; facility can isolate; contacts limited and traceable; routine lab referral feasible.</p> <p>Level 2 County / National Support: ≥2 epi-linked confirmed/probable cases, HCW infection, or transmission in congregate settings; County RRT required; need for enhanced diagnostics and IPC.</p> <p>Level 3 National / Regional Surge: Multi-sub-county transmission, rising CFR/severe complications, or importation with cross-county spread; KNPHI PHEOC activation and multi-agency coordination.</p>	<p>≤ 24 h: Notify SCHMT/CHMT &amp; KNPHI PHEOC; isolate patient (contact/droplet + lesion precautions); collect lesion swabs for RT-PCR at KEMRI/NPHL; begin line-listing and contact identification (21-day follow-up).</p> <p>≤ 72 h: Deploy County RRT(Clinical/Epi/Lab/IPC /RCCE); assess exposure settings (household, workplace, school, facility); reinforce IPC (PPE, cleaning of fomites); provide clinical guidance (pain control); treat secondary infections; special populations' care).</p> <p>≤ 7 d: Confirm diagnosis; expand contact tracing and monitoring; evaluate need for ring-fencing measures per national guidance; release daily SITREPs; targeted RCCE to reduce stigma and promote early care-seeking.</p>	<p>Technical: Clinicians/dermatology /paediatrics, epidemiologists, lab technologists (PCR), IPC officers, PHOs, RCCE officers.</p> <p>HR: County/sub-county RRTs, contact tracers, CHPs for community follow-up.</p> <p>Logistics: PPE (gloves, gowns, eye protection), specimen/transport kits, disinfectants for environment/fomites, dedicated isolation area, transport support.</p> <p>Finance: Emergency funds for diagnostics, IPC supplies, surge staffing.</p> <p>RCCE: Focused messaging on symptom recognition, reduced contact during rash phase, household cleaning of linens/fomites, and non-stigmatizing communication with at-risk networks.</p>	<p>Sub-County HMT / CHMT: Detection, notification, isolation support, initial case investigation and contact listing. COHU + CHPs: Community education, contact follow-up support, rumor management, linkage to services.</p> <p>KNPHI PHEOC: National incident coordination, SITREP consolidation, partner tasking.</p> <p>KNPHI EPR: Technical oversight, analytics, guidance on clinical/IPC and exposure settings; assessment of vaccination/antivirals if policy allows.</p> <p>KEMRI / NPHL: RT-PCR confirmation, sequencing support, QA for specimen handling. NDOC / DRM: Logistics and inter-agency support if multiple sites affected. NEMA: Healthcare waste oversight and environmental cleaning guidance.</p> <p>Security agencies: Security/crowd management if required in high-traffic clinics or during contact tracing operations.</p> <p>Partners (WHO, Africa CDC, UNICEF, Amref, KRCS, AFENET): Technical assistance, training, RCCE materials, surge support.</p>	<p>Indicators: Time from detection → isolation; % contacts traced and completing 21-day follow-up; proportion of HCW exposures with appropriate PPE; lab turnaround time; # severe cases/complications. De-escalation / Exit: No new confirmed/epi-linked cases for 21 days after last case isolation; all contacts complete follow-up; facility/community IPC adherence verified and sustained.</p>

Table 15: Polio-Escalation Trigger Card

Priority Disease / Event	Case Definitions & Outbreak Definition	Alert Thresholds (Early Signals)	Escalation Triggers (Tiered – 3 levels)	Required Actions & Timelines (7-1-7)	Support Package (Technical/HR/Logistics/Finance/RCCE)	Responsible Actors	Monitoring & De-escalation / Exit Criteria
<b>Polio</b> (WPV/ VDPV)/ Acute Flaccid Paralysis (AFP)	<p>AFP Suspected Case: Any child &lt;15 years with acute flaccid paralysis (AFP) or any person with paralytic illness where polio is suspected.</p> <p>Probable: AFP case epidemiologically linked to a lab-confirmed poliovirus.</p> <p>Confirmed: Isolation of WPV/VDPV/Sabin-like virus in two adequate stool specimens 24–48 h apart within 14 days of paralysis onset, or from an environmental sample linked by sequencing.</p> <p>Outbreak Definition: Detection of WPV or VDPV in a human AFP case or in environmental surveillance with evidence of local circulation.</p>	<ul style="list-style-type: none"> <li>Any AFP case reported (especially zero-dose or undervaccinated).</li> <li>Detection of poliovirus (WPV/VDPV) in environmental samples.</li> <li>Cluster of AFP cases in a ward/sub-county within 2 weeks.</li> <li>Declining AFP performance indicators (non-polio AFP rate, stool adequacy).</li> </ul>	<p>Level 1 Sub-county Response: Single AFP case under investigation; two stools collected within 14 days; local search for additional AFP; facility and community sensitization.</p> <p>Level 2 County / National Support: Lab detection of poliovirus (Sabin-like/VDPV under investigation) or ≥2 AFP cases in a ward/sub-county; requires County RRT, expanded active case search, and environmental sampling review.</p> <p>Level 3 National / Regional Surge: Sequence-confirmed WPV/VDPV circulation, multi-sub-county spread, or exportation risk; KNPHI PHEOC activation, large-scale SIAs, cross-county coordination, and international notification.</p>	<p>≤ 24 h: Notify SCHMT/CHMT &amp; KNPHI PHEOC; line-list AFP case(s); ensure two adequate stools (≥8 g, 24–48 h apart) collected within 14 days; ship to NPHL/KEMRI with cold chain; start active case search in facilities/communities and review ES sites.</p> <p>≤ 72 h: Deploy County RRT (EPI/Epi/Lab/RCCE/Logistics); verify AFP surveillance quality (NPAPF rate, stool adequacy); enhance environmental surveillance where feasible; prepare microplans for targeted SIAs; commence risk communication to caregivers and communities.</p> <p>≤ 7 d: Confirm virus type and sequencing; finalize response strategy (mOPV2/bOPV/Sabin vaccine as guided); implement targeted SIA rounds; intensify zero-dose tracking and defaulter tracing; daily SITREPs (AFP detection, lab results, SIA readiness).</p>	<p>Technical: EPI officers, epidemiologists, clinicians/physiotherapists (for AFP exam), lab scientists (virology), data managers, RCCE teams.</p> <p>HR: County/sub-county RRT, vaccinators, supervisors, CHPs for household mobilization and defaulter tracing.</p> <p>Logistics: Stool collection kits/cool boxes/ice packs, vaccine supply (as guided), cold chain, transport (motorbikes/vehicles), tally tools, PPE.</p> <p>Finance: Emergency funds for rapid investigation, ES sampling, SIA rounds, and transport/per diems.</p> <p>RCCE: Demand generation for vaccination, caregiver reporting within 24 h, zero-dose/underimmunized mapping.</p>	<p>Sub-County HMT / CHMT: Immediate AFP notification, stool collection logistics, facility/community active search, SIA microplanning.</p> <p>CHPs: Community mobilization, zero-dose identification, follow-up for AFP reporting, support for SIA implementation.</p> <p>KNPHI PHEOC: National incident coordination, sequencing updates, partner tasking, SITREP consolidation, KNPHI EPR: Technical oversight, analytics (NPAPF rate, stool adequacy, ES positivity), SIA strategy guidance. KEMRI / NPHL: Virus isolation, intratypic differentiation, sequencing, and ES QA. NDOC / DRM: Logistics for SIA supplies and cross-county support. Security agencies Security/crowd management for mass vaccination where needed. Partners (WHO, UNICEF, KRCS, AFENET, Amref): Technical assistance, SIA operations, independent monitoring, social mobilization.</p>	<p>Indicators: NPAPF rate ≥2/100,000 &lt;15 yrs; ≥80% stool adequacy; ES sampling timeliness; SIA coverage ≥95% in target areas; turnaround time for sequencing; # zero-dose children reached.</p> <p>De-escalation / Exit: No new WPV/VDPV detections for ≥ 90 days, AFP/ES indicators sustained, SIA post-campaign monitoring (LQAS/independent monitoring) at target levels, and routine EPI strengthened with documented defaulter mop-up.</p>

**Table 16: CBRNE Events -Escalation Trigger Card**

Priority Disease / Event	Case Definitions & Outbreak Definition	Alert Thresholds (Early Signals)	Escalation Triggers (Tiered – 3 levels)	Required Actions & Timelines (7-1-7)	Support Package (Technical/HR/Logistics/Finance /RCCE)	Responsible Actors	Monitoring & De-escalation / Exit Criteria
<p><b>Chemical Event</b></p> <p>(Toxic Release / Exposure / Contamination)</p>	<p>Suspected Incident: Any report of hazardous chemical release, spill, fire/explosion with potential toxic exposure (industrial, transport, household, agricultural, deliberate) OR unusual cluster of acute symptoms (respiratory distress, ocular irritation, seizures, unconsciousness) near a facility/transport route.</p> <p>Probable: Multiple symptomatic persons with a plausible exposure link or environmental detection (air/water/soil) of hazardous substance</p> <p>Confirmed: Lab verified toxic release/exposure with laboratory/environmental confirmation and clinical correlation(above permissible levels).</p>	<ul style="list-style-type: none"> <li>• Unusual odors/fumes, mass symptoms in a locality/facility/school.</li> <li>• Reports of spills, tanker accidents, warehouse fires, pesticide misuse.</li> <li>• Plant alarms, environmental sensor alerts, dead fish/birds/livestock near water bodies.</li> </ul>	<p>Level 1 Sub-county Response: Localized event; source identified; few casualties manageable locally; containment possible by facility/Fire/EMS; initial tox data available.</p> <p>Level 2 County / National Support: Multi-casualty incident; unknown agent; offsite impact (schools/market); requires County RRT + specialized HAZMAT support; public advisories needed.</p> <p>Level 3 National / Regional Surge: Large-scale release, cross-county plume,</p>	<p>≤ 24 h: Ensure scene safety; establish incident command; isolate area, initiate evacuation/shelter-in-place per plume modelling; triage and decontamination (hot/warm/cold zones); collect exposure histories and environmental samples; notify KNPHI PHEOC/NEMA/NDOC.</p> <p>≤ 72 h: Deploy County RRT (Clinical/Tox/PH/Epi/Environmental/IPC/R CCE) and specialized HAZMAT; complete hazard identification (SDS/MSDS), medical management protocols (airway support, oxygen, bronchodilators, antidotes as indicated), and facility decon; risk communication to public; water/air/soil monitoring with</p>	<p>Technical: Emergency physicians, toxicologists (where available), epidemiologists, environmental/public health officers, lab scientists (toxicology), HAZMAT/Fire/EMS, IPC officers, RCCE specialists. HR: RRT surge staff, decon teams, call centre hotlines, CHPs for community follow-up and risk messaging reinforcement.</p> <p>Logistics: HAZMAT PPE (respirators/SCBA where indicated), decon tents/showers, absorbents/neutralizers, antidotes (e.g., cyanide kits, organophosphate oximes/atropine as guided), air/water monitors, specimen/chain-of-custody materials.</p>	<p>Sub-County HMT / CHMT: Immediate notification, facility triage surge, initial casualty tracking, local coordination with Fire/EMS.</p> <p>COHU + CHPs: Community risk messaging, vulnerable-population checks (animals), household-level guidance (ventilation, water/food safety), rumor management.</p> <p>KNPHI PHEOC: National incident coordination, technical consolidation, SITREP management.</p> <p>KNPHI EPR: Technical guidance on clinical protocols, exposure assessment, surveillance analytics. KEMRI / NPHL: Toxicology/chemical analysis; sample handling protocols; QA/QC.</p>	<p>Indicators: Time to incident command establishment; # exposed/treated; hospital surge capacity; environmental metrics (air/water levels) returning to permissible standards; antidote stock utilization; community compliance with advisories.</p> <p>De-escalation / Exit: Source contained, environmental levels &lt; thresholds, no new exposure-related cases for 14 days, decon complete and certified by NEMA, clear handover to routine monitoring with post-incident review completed.</p>

Priority Disease / Event	Case Definitions & Outbreak Definition	Alert Thresholds (Early Signals)	Escalation Triggers (Tiered – 3 levels)	Required Actions & Timelines (7-1-7)	Support Package (Technical/HR/ Logistics/Finance /RCCE)	Responsible Actors	Monitoring & De-escalation / Exit Criteria
<p><b>Chemical Event</b></p> <p>(Toxic Release / Exposure / Contamination)</p>	<p>Outbreak Definition: Notifiable incident with affected population requiring public health/medical countermeasures or evacuation/shelter-in-place.</p>		<p>Level 3 National / Regional Surge: Large-scale release, cross-county plume, critical infrastructure affected, or suspected deliberate/criminal act; requires KNPHI PHEOC activation, multi-agency command, and international notification where applicable.</p>	<p>≤ 7 d: Confirm agent(s) and exposure pathways; conduct health surveillance of exposed populations; finalize cleanup and waste disposal plans; review occupational/community protection measures; daily SITREPs incl. exposure/clinical outcomes and environmental metrics.</p>	<p>RCCE: Clear, actionable, non-alarmist instructions (shelter-in-place, evacuation routes, water safety, food advisories).</p>	<p>NEMA: Lead environmental assessment, monitoring, cleanup standards, hazardous waste oversight. NDOC / DRM: Multi-agency logistics, evacuation support, inter-county coordination.</p> <p>Security agencies : Scene security, perimeters, crowd/traffic control; criminal investigation liaison if applicable. County Fire &amp; HAZMAT / EMS: First response, containment, decon, rescue. Partners (UNEP, WHO, Amref, KRCS, industry operators): Technical support, equipment/antidote donations, specialist advice, and community liaison.</p>	

**Table 17: Foodborne Disease Outbreak Escalation Trigger Card**

Priority Disease / Event	Case Definitions & Outbreak Definition	Alert Thresholds (Early Signals)	Escalation Triggers (Tiered – 3 levels)	Required Actions & Timelines (7-1-7)	Support Package (Technical/HR/Logistics/Finance /RCCE)	Responsible Actors	Monitoring & De-escalation / Exit Criteria
<p><b>Foodborne Disease Outbreak</b></p> <p>(e.g., Typhoid / Salmonella)</p>	<p>Suspected: ≥2 persons with acute GI illness (fever, abdominal pain, nausea/vomiting, diarrhea) after sharing a common meal/source within 72 h.</p> <p>Probable: Suspected case(s) epi-linked to a common food/water source with compatible clinical picture. Confirmed: Isolation/detection of pathogen (e.g., Salmonella, Shigella, E. coli, S. Typhi/Paratyphi, V. parahaemolyticus) from stool/food/water or serology (for typhoid) supporting epi link.</p> <p>Outbreak Definition: ≥ 2 lab-confirmed cases or epi-linked probable cases from a shared food/water source in a defined time/place.</p>	<ul style="list-style-type: none"> <li>• ≥3 compatible GI cases from same event (wedding, school, prison, food premises) within 24–72 h.</li> <li>• Facility spike in acute gastroenteritis.</li> <li>• Reports of contaminated water, food handler illness, or cold-chain failure.</li> </ul>	<p>Level 1 Sub-county Response: Localized cluster in a household/small event; facility can manage rehydration; samples collected; immediate food stop orders feasible.</p> <p>Level 2 County/National Support: Multi-site cluster (school/prison/market), rising admissions or severe dehydration; requires County RRT (Epi/Clinical/Lab/EHS/RCCE) and closure of implicated premises; lab confirmation pending.</p> <p>Level 3 National/Regional Surge: Cross-sub-county spread, wide distribution chain (wholesaler/brand) or high CFR; KNPHEOC activation with multi-agency trace-back and public advisories/recall.</p>	<p>≤ 24 h: Notify SCHMT/CHMT &amp; KNPHEOC; verify signal; line-list cases; collect stool/food/water; cease sale/service of implicated product; initiate clinical management (rehydration/antibiotics per guideline); inspect premises (temperature logs, hygiene, water supply).</p> <p>≤ 72 h: Deploy County RRT; implement control measures (premises closure/cleaning, water chlorination/boiling advisories); start traceback/trace-forward; strengthen ORP/CTU capacity if severe dehydration spikes; targeted RCCE to affected community.</p> <p>≤ 7 d: Confirm pathogen and source; finalize recall and corrective actions; monitor food handlers (exclude symptomatic until cleared per policy); daily SITREPs (epi curve, attack rates, lab results, corrective actions).</p>	<p>Technical: Epidemiologists, clinicians, environmental health officers/inspectors, lab technologists (microbiology), RCCE officers, data managers.</p> <p>HR: County &amp; sub-county RRTs, CHPs for household follow-up, inspectors, sampling teams.</p> <p>Logistics: Stool/food/water sampling kits, Cary-Blair/transport medium, cold boxes, ORS/IV fluids, disinfectants, closures/notice materials.</p> <p>Finance: Emergency funds for inspections, sampling, transport, and CTU surge.</p> <p>RCCE: Clear advice on stop-consumption, safe water/food hygiene, hand-washing, and when to seek care.</p>	<p>Sub-County HMT / CHMT: Immediate notification, inspection orders, sample collection/transport, local enforcement. COHU + CHPs: Household follow-up, risk messaging, early referral, rumor management. KNPHEOC: National coordination, SITREP consolidation, partner tasking. KNPHEOC: National oversight, analytics, recall/traceback guidance. KEMRI / NPHL: Culture/PCR confirmation, AST (as indicated), source testing support. NEMA: Oversight on waste/water contamination remediation. County Trade / Public Works / Water Services: Enforcement of closures, repairs, chlorination. NDOC / DRM: Logistics for multi-site investigations. Security agencies: Enforcement of closure/recall where needed. Partners (WHO, UNICEF, KRCS, Amref, NGOs): WASH/ORS support, RCCE materials, surge staffing.</p>	<p>Indicators: Attack rate; median onset-to-notification; lab confirmation rate; premises compliance with corrective actions; ORS/IV stock-out days; secondary case occurrence.</p> <p>De-escalation / Exit: No new cases for 14 days after control measures; corrective actions verified; implicated source controlled/closed; water quality within standards.</p>

Table 18: Zoonotic Spillover/Animal Mass Mortality- Escalation Trigger Card

Priority Disease / Event	Case Definitions & Outbreak Definition	Alert Thresholds (Early Signals)	Escalation Triggers (Tiered – 3 levels)	Required Actions & Timelines (7-1-7)	Support Package (Technical/HR/Logistics/Finance /RCCE)	Responsible Actors	Monitoring & De-escalation / Exit Criteria
<b>Zoonotic Spillover / Animal Mass Mortality</b>	<p>Suspected: Unusual animal illness/deaths (domestic/wildlife) or human illness with strong animal exposure (handling carcasses, slaughtering, wildlife contact), not explained by routine causes.</p> <p>Probable: Epidemiologic link between human cases and affected animals/locations with compatible clinical signs (e.g., hemorrhagic signs, abortions, neuro/respiratory syndromes).</p> <p>Confirmed: Laboratory confirmation of zoonotic pathogen (human and/or animal specimens) by PCR/serology/culture as appropriate.</p> <p>Event Definition: Any cluster of unexplained animal deaths or mass die-off (fish/birds/mammals) OR detection of a priority zoonotic pathogen with risk to humans.</p>	<ul style="list-style-type: none"> <li>• Reports of multiple sudden animal deaths (livestock/wildlife/poultry/dogs/cats).</li> <li>• Unusual morbidity in animals with abortions/hemorrhage/neurologic signs.</li> <li>• Community rumors of “mysterious animal deaths,” dead wildlife near water sources, or bird/fish die-offs.</li> <li>• Concurrent human illness in those handling animals or consuming meat from dead animals.</li> </ul>	<p>Level 1 Sub-county / County Response: Localized die-off or single-site animal event; limited human exposure; local sampling &amp; safe disposal possible.</p> <p>Level 2 County / National Support: Multi-site animal mortality or human cases epi-linked to animals; requires joint One Health RRT, regional lab support, and movement/quarantine orders.</p> <p>Level 3 National / Regional Surge: Large-scale wildlife/livestock mortality, cross-county spread, or high-risk zoonotic agent; KNPHI PHEOC activation, multi-agency command, and international notification as required.</p>	<p>≤ 24 h: Notify DVS/COHU/KNPHI PHEOC; secure site(s); map carcass locations; collect priority specimens (per pathogen risk) using PPE; implement safe carcass disposal (burial/incineration); restrict animal movement/markets; issue community cautions (no handling/consumption)</p> <p>≤ 72 h: Deploy joint human-animal RRT (Vet/Clinical/Epi/Lab/IP C/Environment/RCCE); expand active search; environmental sampling (water/soil); apply quarantine and vaccination (where available) per DVS guidance; strengthen facility IPC for exposed persons; targeted RCCE for at-risk groups.</p> <p>≤ 7 d: Confirm etiology (animal/human); review and adjust control measures; maintain carcass management and market restrictions; daily SITREPs (animal/human case trends, sites addressed, lab status).</p>	<p>Technical: Veterinarians, wildlife authorities, epidemiologists, clinicians, lab technologists, PHOs, entomologists (as relevant), RCCE officers, environmental officers. HR: Joint One Health RRTs; animal health auxiliaries; CHPs and CDRs for community/animal alerts.</p> <p>Logistics: PPE, sampling &amp; transport kits (animal/human), disinfectants, excavation/cremation supplies, signage/fencing, transport.</p> <p>Finance: Emergency funds for carcass management, lab referral, quarantine enforcement, and vaccination campaigns if indicated.</p> <p>RCCE: Community warnings on avoiding dead animals, reporting unusual events, safe slaughtering, and early health-seeking after exposure.</p>	<p>Sub-County HMT / CHMT: Support human surveillance and exposed-person follow-up; notify &amp; coordinate with vet services. COHU + CHPs/CDRs: Community animal/human event reporting, rumor mgt, household risk messaging; linkage to services. DVS / County Vet Dept / CVL: Lead animal investigation, sampling/testing, quarantine &amp; movement control, vaccination (if available). KNPHI PHEOC: National incident coordination, SITREP consolidation. KNPHI EPR: Technical coordination analytics, and cross-sector policy guidance. KEMRI / NPHL: Lab confirmation (human) and coordination with CVL (animal); biosafety guidance. NEMA: EIA, safe disposal enforcement, and water/soil quality monitoring. NDOC/DRM: Logistics, inter-county coordination. Security agencies: Perimeter security, enforcement of quarantine/market closure. KWS: Wildlife sampling, site control in parks/reserves, visitor advisories. Partners (FAO, WHO, WOH, Amref, KRCS, AFENET): Joint One Health support, RCCE, supplies, training.</p>	<p>Indicators: # animal carcasses managed safely; # human exposures identified and followed; lab confirmation turnaround; quarantine compliance; community reporting rate.</p> <p>De-escalation / Exit: No new animal die-offs/human cases for 28 days; carcass management complete; quarantine lifted per DVS; environmental metrics within standards; routine surveillance resumes.</p>

**Table 19: Acute Jaundice Syndrome -Escalation Trigger Card**

Priority Disease / Event	Case Definitions & Outbreak Definition	Alert Thresholds (Early Signals)	Escalation Triggers (Tiered – 3 levels)	Required Actions & Timelines (7-1-7)	Support Package (Technical/HR/Logistics/Finance /RCCE)	Responsible Actors	Monitoring & De-escalation / Exit Criteria
<b>Acute Jaundice Syndrome (AJS)</b>	<p>Suspected: Any person with acute jaundice (yellow eyes/skin) ± fever, dark urine, pale stool, abdominal pain, anorexia, nausea.</p> <p>Probable: Suspected case epi-linked to a confirmed outbreak/community cluster.</p> <p>Confirmed: Lab evidence (e.g., HAV/HEV IgM, or ALT/AST ≥2x ULN with compatible epi picture) or other pathogen per guideline; exclude malaria/sepsis/hemolysis biliary obstruction/toxin.</p> <p>Outbreak Definition: ≥ 2 epi-linked AJS cases from same village/facility/school/camp within 14–28 days or sustained facility cluster over baseline.</p>	<ul style="list-style-type: none"> <li>• ≥2 AJS cases from one village/school in 14 days.</li> <li>• Spike in jaundice presentations at a facility.</li> <li>• WASH breakdowns, contaminated water reports, flooding/latrine overflow.</li> </ul>	<p>Level 1 Sub-county Response: Localized cluster manageable with routine care; samples collected; water point identified.</p> <p>Level 2 County/National Support: Multi-ward cluster or severe cases (pregnant women at risk for HEV); requires County RRT, expanded labs/WASH action.</p> <p>Level 3 National/Regional Surge: Multi-county spread, camps/urban settlements affected, rising CFR; KNPHI PHEOC activation, partner surge, cross-sector WASH response.</p>	<p>≤24 h: Notify SCHMT/CHMT &amp; KNPHI PHEOC; verify cases; collect blood for LFTs and viral hepatitis panels (A/E ± B/C); map water/latrines; initiate risk communication on safe water and hygiene.</p> <p>≤72 h: Deploy County RRT (Clinical/Epi/Lab/WASH /RCCE); assure safe water (chlorination/boil advisories), latrine sanitation; triage (pregnancy/high-risk flags); start case mapping/line-list.</p> <p>≤7 d: Confirm etiology; intensify WASH remediation; set up ORPs where needed; antenatal screening in affected sites; daily SITREPs with epi curve, LFT/IgM results, WASH indicators.</p>	<p>Technical: Clinicians, hepatology consults (as available), epidemiologists, lab techs (LFTs/IgM), environmental health/WASH officers, RCCE staff.</p> <p>HR: County/sub-county RRT, CHPs, data clerks, sampling teams.</p> <p>Logistics: Sample kits, LFT reagents, IgM tests (A/E), chlorine/HTH, water bladders, handwashing stations, PPE, transport.</p> <p>Finance: Emergency funds for WASH fixes, diagnostics, outreach. RCCE: Messaging on safe water, hand-washing, food hygiene, pregnancy risk (HEV), and early care-seeking for danger signs.</p>	<p>Sub-County HMT / CHMT: Detection, notification, facility readiness, initial investigation.</p> <p>COHU + CHPs: Household hygiene promotion, identification of high-risk (pregnant), rumor management, referral. KNPHI PHEOC. National coordination, SITREPs, partner tasking.</p> <p>KNPHI EPR: Technical oversight, analytics, lab/WASH prioritization. KEMRI / NPHL: Hepatitis panels (A/E±B/C), LFT QA, confirmatory testing, differential diagnostics. Water Service Provider / County Water Dept: Source testing/repair, chlorination, residual testing.</p> <p>NEMA: Environmental oversight (latrine overflow, sludge disposal). NDOC / DRM: Logistics (water trucking/latrine rehab). Security agencies: Security at water points if crowding. Partners (UNICEF, WHO, Amref, KRCS, NGOS): WASH/RCCE support, supplies, surge staffing.</p>	<p>Indicators: % samples tested within 72 h; LFT/IgM positivity; attack rate; pregnant cases tracked; water residual chlorine; ORP utilization.</p> <p>De-escalation / Exit: No new AJS cases for 28 days; water quality within standards; sanitation fixes verified; clinical caseload back to baseline.</p>

**Table 20: Kalar-azar -Escalation Trigger Card**

Priority Disease / Event	Case Definitions & Outbreak Definition	Alert Thresholds (Early Signals)	Escalation Triggers (Tiered – 3 levels)	Required Actions & Timelines (7-1-7)	Support Package (Technical/HR/ Logistics/Finance /RCCE)	Responsible Actors	Monitoring & De-escalation / Exit Criteria
<b>Kala-azar (VL)</b>	<p>Suspected: Prolonged fever &gt;2 weeks, weight loss, splenomegaly (± hepatomegaly), anemia, from/with travel to endemic foci.</p> <p>Probable: Suspected case with positive rK39/DAT and compatible clinical picture.</p> <p>Confirmed: Parasitological confirmation (tissue aspirate) or strong serologic evidence (per national guideline).</p> <p>Outbreak Definition: ≥3 epi-linked suspected/probable/confirmed VL within 4 weeks in same village/ward or above expected baseline in an endemic focus.</p>	<ul style="list-style-type: none"> <li>Cluster of prolonged fever/splenomegaly in an endemic village.</li> <li>Stock-outs of rK39/antileishmanial drugs with rising suspect cases.</li> <li>Reports of sandfly proliferation near settlements.</li> </ul>	<p>Level 1 Sub-county Response: Single suspected/probable case manageable locally with rK39; referral pathway available.</p> <p>Level 2 County/National Support: Cluster of suspects/probable's; drug/test stock constraints; County RRT and enhanced vector control needed.</p> <p>Level 3 National/Regional Surge: Multi-ward transmission, severe malnutrition/coinfections raising CFR, or treatment failure signals; KNPHI PHEOC activation and partner surge.</p>	<p>≤24 h: Notify SCHMT/CHMT &amp; KNPHI PHEOC; test suspected with rK39; collect labs (CBC/LFT) where feasible; map cases; initiate clinical referral for therapy per national protocol; trigger RCCE on care-seeking and vector avoidance.</p> <p>≤72 h: Deploy County RRT (Clinical/Epi/Lab/Entomology/RCCE); secure antileishmanials; commence integrated vector management (IRS/LLINs/environmental cleanup); active case search in foci; nutrition screening and TB/HIV co-screen per guideline.</p> <p>≤7 d: Confirm outbreak status; ensure uninterrupted diagnostics/drugs; expand vector control; daily SITREPs with admissions, treatment outcomes, and stock status.</p>	<p>Technical: Clinicians (tropical medicine/paediatrics), lab techs (rK39/DAT), epidemiologists, entomologists, PHOs, RCCE teams.</p> <p>HR: County/sub-county RRT, CHPs for community case finding/defaulting tracing, data clerks. Logistics: rK39/DAT kits, antileishmanial drugs (per national policy), LLINs/IRS supplies, PPE, transport.</p> <p>Finance: Emergency funds for diagnostics, drugs, vector control, outreach.</p> <p>RCCE: Targeted messaging in endemic villages on early care-seeking, adherence, and vector avoidance (evening outdoor exposure).</p>	<p>Sub-County HMT / CHMT: Detection, notification, rK39 testing, referral coordination, local stock management. COHU + CHPs: Community case finding, adherence support, defaulter tracing, vector awareness.</p> <p>KNPHI PHEOC: National coordination, partner tasking, SITREP consolidation. KNPHI EPR: Technical oversight, analytics, and guidance on vector control and case management.</p> <p>KEMRI / NPHL: QA for rK39/DAT, confirmatory testing where indicated, training/mentorship.</p> <p>NEMA: Environmental oversight for vector habitat management (waste/vegetation) NDOC / DRM: Logistics support for vector operations and outreach. Kenya Partners (WHO, Amref, MSF, KRCS, AFENET): Technical assistance, commodities, surge staffing, training, independent monitoring.</p>	<p>Indicators: Time to diagnosis; treatment initiation within 24–72 h; defaulter rate; CFR; LLIN/IRS coverage; stock-out days for rK39/drugs.</p> <p>De-escalation / Exit: No new confirmed/probable cases for 28 days; treatment completion ≥ 95%; vector indices reduced; supply chain stabilized; routine surveillance resumed.</p>

**Table 21: Chikungunya Escalation Trigger Card**

Priority Disease / Event	Case Definitions & Outbreak Definition	Alert Thresholds (Early Signals)	Escalation Triggers (Tiered – 3 levels)	Required Actions & Timelines (7-1-7)	Support Package (Technical/HR/Logistics/Finance /RCCE)	Responsible Actors	Monitoring & De-escalation / Exit Criteria
<b>Chikungunya</b>	<p>Suspected: Acute fever (<math>\geq 38^{\circ}\text{C}</math>) with severe arthralgia/arthritis not explained by other conditions, in a person living in/traveling to an area with competent Aedes vectors.</p> <p>Probable: Suspected case with epidemiologic link to a confirmed case/cluster.</p> <p>Confirmed: RT-PCR positive or seroconversion/IgM in paired sera.</p> <p>Outbreak Definition: <math>\geq 2</math> laboratory-confirmed cases or epi-linked probable cases in same locality within 14 days with evidence of local transmission.</p>	<ul style="list-style-type: none"> <li>• Sudden increase of febrile arthralgia cases at facility/community .</li> <li>• Cluster (<math>\geq 3</math>) of fever + joint pains in neighborhood/school/camp.</li> <li>• Reports of abundant Aedes breeding sites after rains.</li> </ul>	<p>Level 1 Sub-county Response: Single suspected/probable case; local vector control feasible; routine lab referral.</p> <p>Level 2 County/National Support: Cluster/confirmed cases; rising absenteeism or health-facility load; County RRT and enhanced vector control required.</p> <p>Level 3 National/Regional Surge: Multi-sub-county spread, severe disease burden or co-circulation with dengue; KNPHI PHEOC activation, partner surge, and regional alerts.</p>	<p><math>\leq 24</math> h: Notify SCHMT/CHMT &amp; KNPHI PHEOC; verify case(s); collect samples for RT-PCR/serology; initiate line-list and case mapping; start source reduction around cases.</p> <p><math>\leq 72</math> h: Deploy RRT (Clinical/Epi/Entomology/Lab/RCCE); implement integrated vector management (source reduction, larviciding/adulticiding as guided); clinical guidance for analgesia/hydration; targeted RCCE to reduce mosquito breeding and protect during peak biting times.</p> <p><math>\leq 7</math> d: Confirm etiology; expand household/community clean-ups; monitor health-facility burden; daily SITREPs with vector indices and clinical trends.</p>	<p>Technical: Clinicians, entomologists, lab technologists, PHOs, epidemiologists, RCCE staff.</p> <p>HR: County/sub-county RRT, vector control teams, CHPs, data clerks.</p> <p>Logistics: PCR/serology kits, sprayers, insecticides, PPE, transport, community clean-up tools.</p> <p>Finance: Rapid funds for vector control, diagnostics, and RCCE.</p> <p>RCCE: Messaging on Aedes breeding (containers/tires/gutter s), personal protection (repellents/LLINs/long sleeves), recognition of warning signs.</p>	<p>Sub-County HMT / CHMT: Detection, notification, vector control coordination, initial investigation.</p> <p>COHU + CHPs: Household source-reduction campaigns, rumor management, referral.</p> <p>KNPHI PHEOC: National coordination, partner tasking, SITREP consolidation.</p> <p>KNPHI EPR: Technical oversight, analytics, integrated vector management guidance.</p> <p>KEMRI / NPHL: PCR/serology confirmation, QA and referral.</p> <p>NEMA: Environmental oversight for waste removal &amp; drainage.</p> <p>NDOC / DRM/DVB: Logistics for large-scale clean-ups and vector ops.</p> <p>Security agencies: Security/crowd management if mass community actions.</p> <p>Partners (WHO, Amref, KRCS, AFENET): Technical support, RCCE, entomology surge.</p>	<p>Indicators: % suspected cases sampled; test positivity; vector indices (Breteau/Container indices); facility load; timeliness of response.</p> <p>De-escalation / Exit: No new confirmed cases for 14 days; vector indices below threshold; community clean-up actions sustained; routine surveillance resumed.</p>

**Table 22: Meningococcal Meningitis- Escalation Trigger Card**

Priority Disease / Event	Case Definitions & Outbreak Definition	Alert Thresholds (Early Signals)	Escalation Triggers (Tiered – 3 levels)	Required Actions & Timelines (7-1-7)	Support Package (Technical/HR/Logistics/Finance /RCCE)	Responsible Actors	Monitoring & De-escalation / Exit Criteria
<b>Meningococcal Meningitis</b>	<p>Suspected: Sudden onset of fever AND neck stiffness OR altered consciousness/meningismus; in infants, bulging fontanelle or irritability.</p> <p>Probable: Suspected case with turbid CSF, positive latex agglutination for <i>Neisseria meningitidis</i> (Nm), or Gram-negative diplococci on smear.</p> <p>Confirmed: Isolation/detection of Nm by culture or PCR in CSF/blood; serogrouping where available (A, C, W, Y, X, B).</p> <p>Outbreak Definition: Two or more lab-confirmed or epi-linked probable cases in the same locality within 7 days or sustained excess incidence above seasonal baseline in a sub-county/district.</p>	<ul style="list-style-type: none"> <li>Cluster of suspected meningitis (≥2–3 cases) in a village/school/camp within 7 days.</li> <li>Weekly meningitis incidence rising above baseline (sentinel/hospital reports).</li> <li>Any lab-confirmed Nm case with secondary cases among close contacts/household/school.</li> <li>Stock-outs of ceftriaxone or lumbar puncture kits during rising case reports.</li> </ul>	<p><b>Level 1</b> Sub-county Response: Single suspected/confirmed case or small cluster manageable locally; CSF collection and empiric therapy available.</p> <p><b>Level 2</b> County / National Support: ≥5 suspected cases in 7 days in a ward/school/camp OR ≥2 confirmed Nm cases; requires County RRT, surge supplies, and enhanced surveillance.</p> <p><b>Level 3</b> National / Regional Surge: Rapidly rising incidence crossing epidemic thresholds, multi-sub-county spread, or strain/serogroup with known epidemic potential; KNPHI PHEOC activation and consideration of reactive vaccination.</p>	<p>≤ 24 h: Notify SCHMT/CHMT &amp; KNPHI PHEOC; isolate with droplet precautions; perform lumbar puncture and collect CSF for Gram stain/latex/PCR/culture; initiate empiric ceftriaxone per national protocol; list/notify close contacts for chemoprophylaxis as indicated.</p> <p>≤ 72 h: Deploy County RRT (Clinical/Epi/Lab/IPC/RCCCE/Logistics); intensify surveillance (daily line lists, ward mapping); secure antibiotics, LP kits, IV fluids/consumables; apply chemoprophylaxis to eligible close contacts per guideline; targeted RCCE (danger signs, early care-seeking).</p> <p>≤ 7 d: Confirm etiology/serogroup; assess thresholds and, if indicated, plan reactive vaccination (appropriate conjugate/polysaccharide vaccine per policy and availability); strengthen facility triage/IPC and referral; produce daily SITREPs (incidence, CFR, bed occupancy, supplies).</p>	<p><b>Technical:</b> Physicians/paediatricians, emergency nurses, epidemiologists, lab technologists (CSF microscopy/culture/PCR), IPC officers, pharmacists, RCCE.</p> <p><b>HR:</b> RRT clinicians/nurses, data managers, CHPs for household follow-up, logisticians. Logistics: Lumbar puncture kits, CSF tubes/transport media, ceftriaxone and adjunct meds, PPE (surgical masks for droplet), IV fluids, transport; cold chain if vaccination required.</p> <p><b>Finance:</b> Emergency funds for antibiotics, diagnostics, surge staffing, and potential reactive vaccination.</p> <p><b>RCCE:</b> Messaging on early presentation for fever/neck stiffness, chemoprophylaxis guidance for contacts, and vaccination information when used.</p>	<p>Sub-County HMT / CHMT: Detection, notification, LP/CSF collection, initial cluster investigation, and local antibiotic/consumable stock management.</p> <p>COHU + CHPs: Household education, contact follow-up, support for chemoprophylaxis adherence and referral of new suspects.</p> <p>KNPHI PHEOC: National coordination, threshold tracking, partner tasking, SITREP consolidation. KNPHI EPR: Technical oversight, analytics (weekly incidence), guidance on reactive vaccination and chemoprophylaxis policies.</p> <p>KEMRI / NPHL: CSF Gram/latex/culture/PCR confirmation, serogrouping, QA and referral testing. Partners (WHO, UNICEF, Amref, KRCS, AFENET): Technical assistance, surge staff, vaccination ops independent monitoring.</p>	<p><b>Indicators:</b> Weekly suspected/confirmed incidence; % suspects with CSF collected; lab turnaround time; CFR; % close contacts receiving chemoprophylaxis; bed occupancy; (if used) vaccination coverage and AEFI reporting.</p> <p><b>De-escalation / Exit:</b> Weekly incidence returns to/below alert threshold for ≥2 consecutive weeks; CFR stabilized below target; no new epi-linked clusters; (if implemented) reactive vaccination achieves coverage target and surveillance returns to routine sensitivity.</p>

**Table 23: Rabies Escalation Trigger Card**

Priority Disease / Event	Case Definitions & Outbreak Definition	Alert Thresholds (Early Signals)	Escalation Triggers (Tiered – 3 levels)	Required Actions & Timelines (7-1-7)	Support Package (Technical/HR/ Logistics/Finance /RCCE)	Responsible Actors	Monitoring & De-escalation / Exit Criteria
<b>Rabies (Human &amp; Anial)</b>	<p>Suspected Human Case: Any person with a history of animal bite/scratch from a suspected rabid animal presenting with hydrophobia, aerophobia, hyper-salivation, agitation, or paralysis.</p> <p>Probable: A suspected case with epidemiologic link to a confirmed animal case or untested biting animal that died/disappeared within 10 days.</p> <p>Confirmed: Laboratory confirmation of Rabies lyssavirus by DFA/RT-PCR/antigen detection in brain tissue, saliva, or CSF.</p> <p>Animal Case: Any animal exhibiting neurological/aggressive behaviour, biting multiple animals/people, dying within 10 days of symptom onset, or confirmed in lab.</p> <p>Outbreak Definition: ≥1 laboratory-confirmed animal or human case, or ≥2 epi-linked probable human/animal cases in a defined locality within 30 days.</p>	<ul style="list-style-type: none"> <li>• Reports of dog bites (≥2 in one village/school/we ek).</li> <li>• Unusual animal aggression or multiple animal deaths.</li> <li>• Lapse in community dog vaccination or animal movement from endemic area.</li> <li>• Death of biting animal before 10-day observation or disappearance.</li> </ul>	<p>Level 1 Sub-county Response: Single animal bite incident; local health/vet teams can trace biting animal and administer post-exposure prophylaxis (PEP); animal observation ongoing.</p> <p>Level 2 County/National Support: Multiple bite incidents, unvaccinated biting animals, or suspected rabid animal deaths; requires joint One Health RRT activation, quarantine, vaccination of contacts and dogs, and enhanced surveillance.</p> <p>Level 3 National / Regional Surge: Confirmed human rabies case(s), cross-county spread, mass animal deaths, or PEP shortages; triggers KNPPI PHEOC activation, inter-county coordination, and partner support.</p>	<p>≤ 24 h: Notify SCHMT/CHMT, DVS, and KNPPI PHEOC; verify bite(s); provide first-aid wound care and start PEP; quarantine/observe biting animal for 10 days; collect animal head sample if dead.</p> <p>≤ 72 h: Deploy joint RRT (Vet + Human Health + RCCE); line-list victims and exposed animals; trace unvaccinated dogs; initiate ring vaccination of dogs in affected area; community sensitization on dog behaviour and safe handling; coordinate specimen submission to CVL/KEMRI for confirmation.</p> <p>≤ 7 d: Confirm lab results; expand mass dog vaccination if indicated; strengthen PEP supply chain and cold chain; ensure daily SITREPs with human/animal bite data and PEP coverage.</p>	<p>Technical: Clinicians, veterinary officers, public health officers, epidemiologists, lab scientists (CVL/KEMRI), RCCE teams.</p> <p>HR: County RRT (joint vet-human health), CHPs/CDRs for community follow-up and awareness, animal control staff. Logistics: PEP (vaccine + HRIG as available), animal vaccines, sampling kits, PPE, cold chain, transport, incineration for specimens.</p> <p>Finance: Emergency funds for PEP procurement, animal vaccination campaigns, surveillance and transport.</p> <p>RCCE: Focus on immediate wound washing, seeking PEP within 24 h, avoiding handling sick animals, and community dog vaccination compliance.</p>	<p>Sub-County HMT / CHMT: Human case detection, notification, PEP management, bite line-listing, referral.</p> <p>COHU + CHPs/CDRs: Bite incident reporting, community awareness, defaulter follow-up for PEP completion, rumor management, KNPPI PHEOC: National coordination, information sharing, SITREP consolidation, partner mobilization, KNPPI EPR: Technical oversight, surveillance analytics, guidance on One Health responses and vaccine distribution.</p> <p>DVS / CVL / County Vet Dept: Animal case investigation, quarantine, ring vaccination, sample collection and lab diagnosis KEMRI / NPHL: Rabies confirmation, lab QA/QC, training and specimen transport support. NEMA: Safe disposal of animal carcasses and biohazardous waste. KVA/MOH-DVI: Mass dog vaccination or PEP procurement during outbreaks. Security agencies: Support for quarantine, dog movement control, County Govt / Vet Services: Animal vaccination campaigns, stray dog control, coordination of vet-public health actions.</p> <p>Partners (FAO, WHO, OIE/WOAH, Amref, KRCS, AFENET): Technical assistance, commodities, training, and joint One Health support.</p>	<p>Indicators: # bites reported and investigated; % bite victims initiating PEP within 24 h; PEP completion rate; # animals vaccinated per campaign; # confirmed rabid animals; # human rabies deaths.</p> <p>De-escalation / Exit: No new human or animal cases for 2 incubation periods (60 days); 100 % PEP completion for all exposed persons; &gt; 70 % dog vaccination coverage achieved; community surveillance sustained for ≥ 3 months.</p>

# 7. INTEGRATING THE DMT-PHE JOB AID

- Keep the Decision Instrument for Event Notification with your **Subject Cases**.
- Document every alert and escalation in the Outbreak Notification Template.
- Notify KNPHI IMS within 24 hours once thresholds are met.
- Track and report performance against 7-1-7 indicators.
- Always involve One Health actors (veterinary, wildlife, environmental) where zoonotic or environmental signals are present.

## 8. FIELD REMINDERS FOR SURVEILLANCE OFFICERS

- When in doubt, always escalate. Early notification saves lives.
- Maintain updated county baselines for diseases without fixed numeric thresholds.
- Use EAR/AAR/IAR reviews to capture lessons for improvement.
- Ensure 24-hour communication between county surveillance units and KNPHI.
- Monitor timeliness, CFR, and response speed using the 7-1-7 dashboards



**Kenya National Public Health Institute (KNPHI)**

Afya Annex

KNH Grounds-Hospital Road,

P.O Box 31-002002

NAIROBI- KENYA

