Health Information System (HIS)

Module 3 - Outbreak Alert and Response

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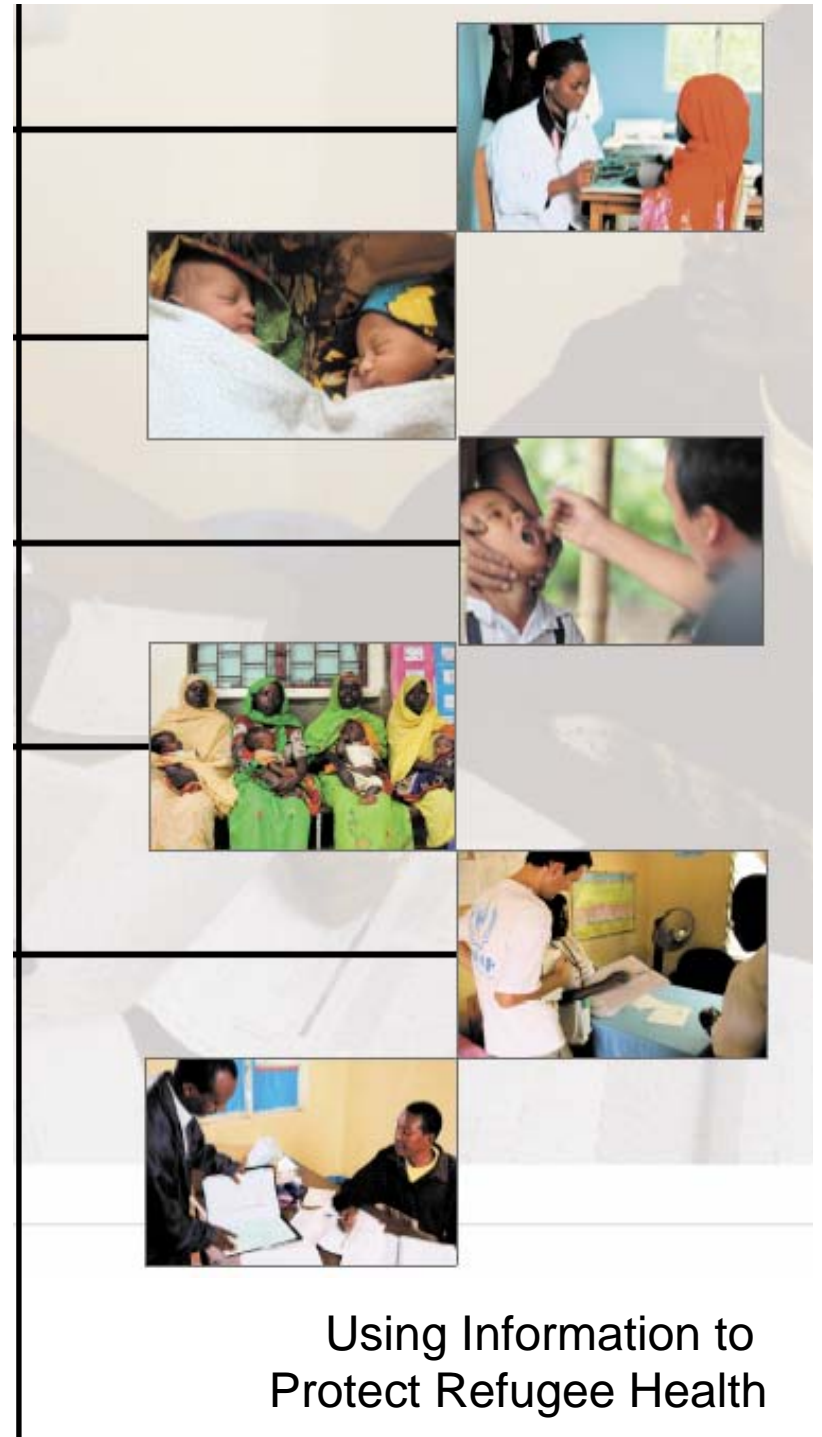
Using Information to
Protect Refugee Health

Learning Objectives

At the end of the module, you should be able to:

- **Know the function of the HIS in outbreak alert**

- **Understand how to collect and use early warning data**

- **Interpret the data and apply it to public health practice**

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>1 What are the tools used for data collection?

- Primary Tools

  - **Daily Tally Sheet**

  - **OPD Register**

  - **Outbreak Alert Form**

  - **Weekly + Monthly Morbidity Report**

- Secondary Tools

  - **Patient Records**

>2 Who is responsible for collecting the data?

- Clinical Officers in each camp should take responsibility for monitoring thresholds each day

- Clinical Officer in-charge is responsible for compiling and monitoring thresholds within Weekly Morbidity Report

>3 What data should be collected and how?

- Daily Tally Sheet:

    - **Diseases with outbreak potential marked with single asterisk**

    - **Each has corresponding alert threshold:**

        - 1. On reverse of tally sheet

        - 2. On reverse of weekly form

        - 3. In case definitions

Diseases of outbreak potential in the HIS

- 1. * Malaria

- 8. * Watery diarrhoea (and Suspected cholera)

- 9. * Bloody diarrhoea

- 12. * Polio

- 13. * Measles

- 14. * Meningitis

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Alert threshold

- Defined number of cases of disease which, if exceeded, should lead to immediate action being taken

- This is the basis on which the decision to report an outbreak is made

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Weekly Alert Thresholds

Weekly Alert Thresholds for each Health Facility:

Malaria	1.5 times the baseline*
Watery Diarrhoea	1.5 times the baseline*
Suspected Cholera	1 case
Bloody Diarrhoea	5 cases
Acute Flaccid Paralysis / Polio	1 case
Measles	1 case
Meningitis	5 cases or 1.5 times the baseline*

If weekly thresholds are exceeded:

1. Report to clinic supervisor

2. Complete Outbreak Alert Form

* Baseline = average weekly number of cases of the disease calculated over the past 3 weeks

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Case Definitions

12. * Acute Flaccid Paralysis (AFP) / Polio

Classification	Source
Suspected case	**WHO**

Weekly Alert Threshold
1 case

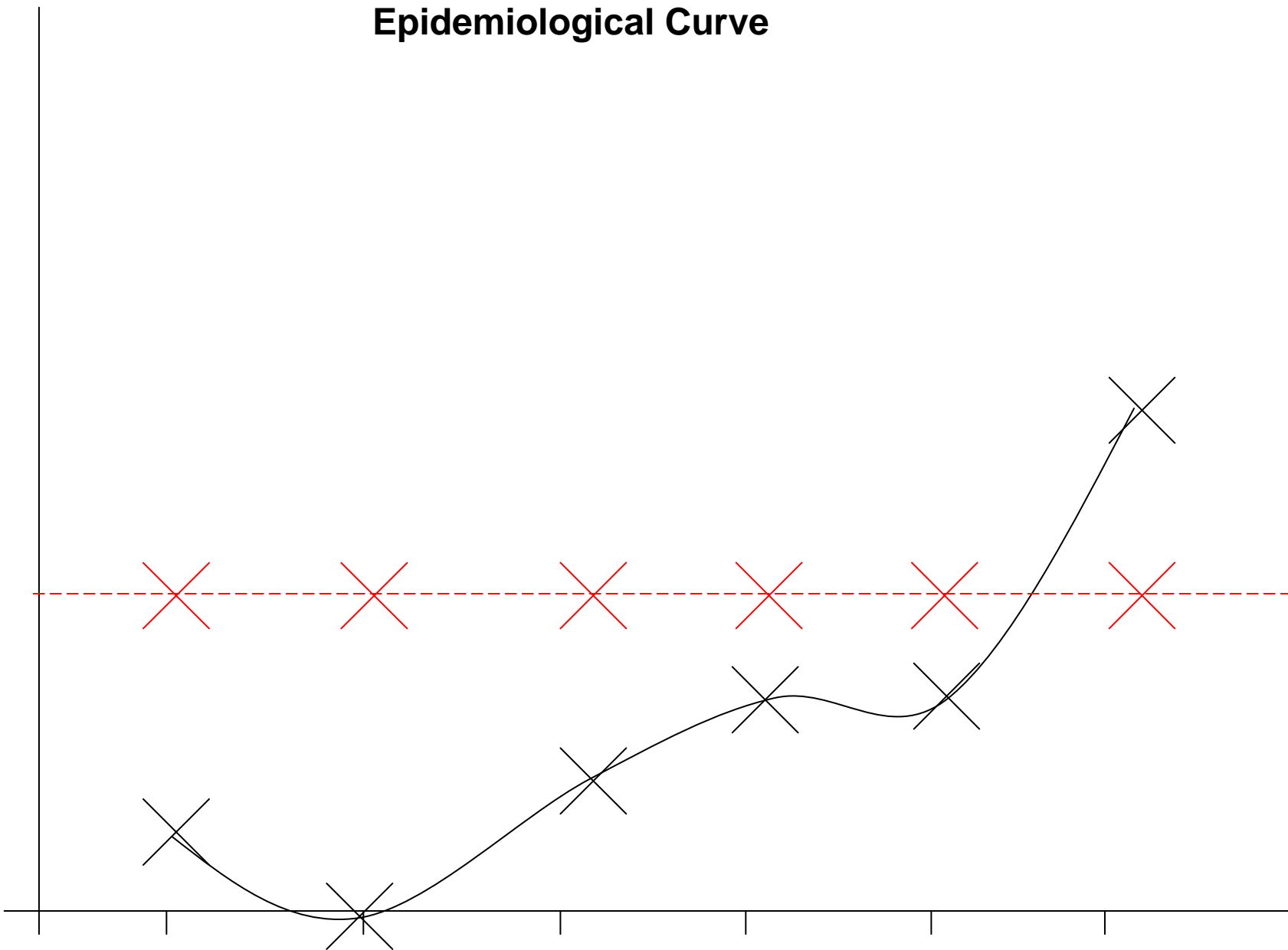| Case Definition |
|---|
| Acute flaccid paralysis in a child aged < 15 years, including Guillain-Barre syndrome **or** any paralytic illness in a person of any age **or** a person of any age in whom the clinician suspects polio. |

Alert Thresholds

- Apply Alert Thresholds at the end of each day/week in each health facility

- Use graphs to promote timely and predictable intervention

- System should also include zero reporting

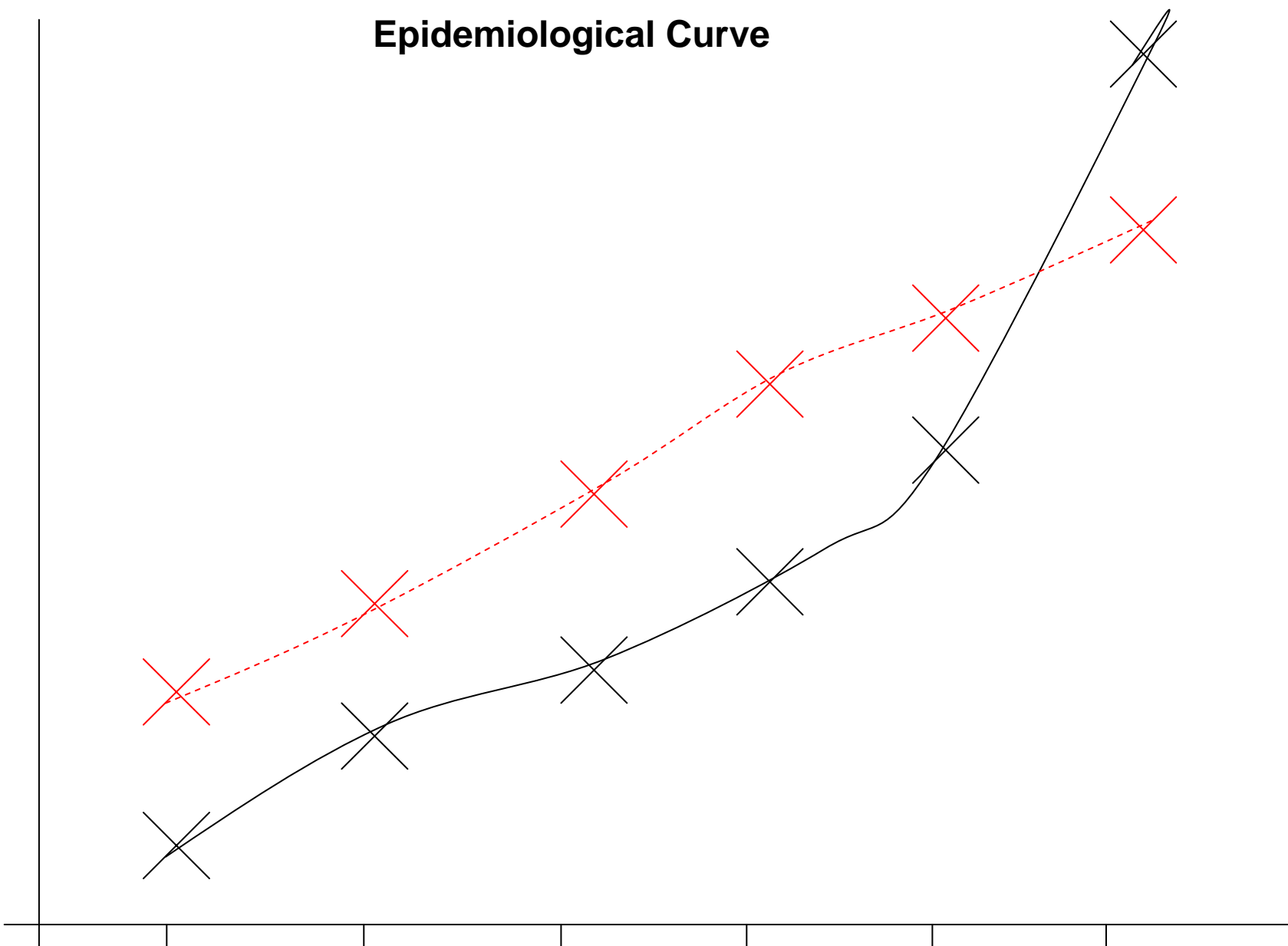**Epidemiological Curve**

Number of Cases

Week
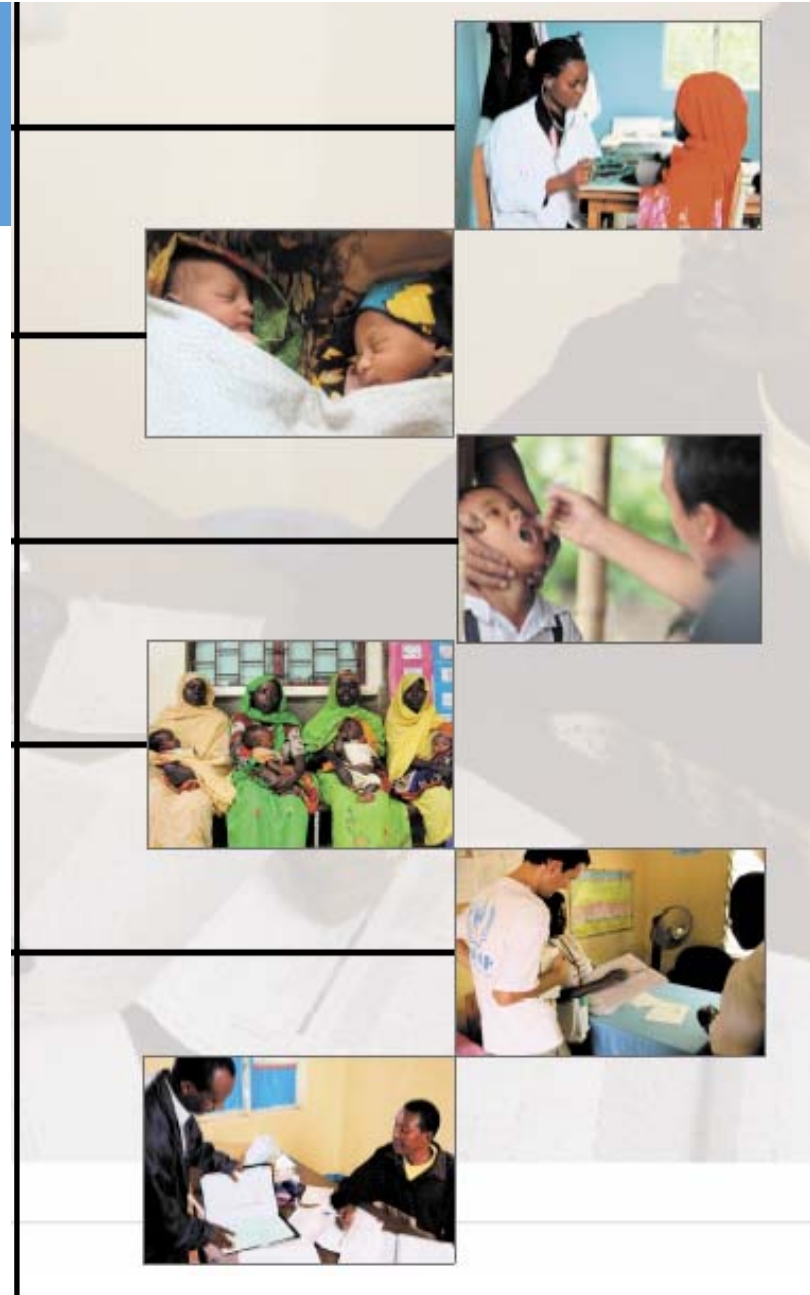
Epidemiological Curve

Exercise Work

Health Information System (HIS)
Module 3: Part 2 – Outbreak Alert and Response

Question 4

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>3 What data should be collected and how?

- ## Outbreak form

  - Includes each of the diseases of outbreak potential in HIS

  - To be completed if alert thresholds exceeded in any one health facility in any one week

  - Contains information for active tracing of suspected cases

- ## Obtained from Daily OPD Register:

  - Complete line-listing of case-based data

  - Permits analysis of at risk groups / areas; number of lab confirmed cases; case fatality rates etc…

Health Information System

3.0 Outbreak Alert Form

Name of Organisation _____

Name of Camp & Unit _____

Date _____ / _____ / _____

Name of reporting officer:

Suspected Disease / Syndrome (Tick **ONE** box only)	Symptoms and Signs (You can tick several boxes)
❏ Malaria	❏ Watery or loose stool
❏ Watery diarrhoea	❏ Visible blood in stool
❏ Cholera	❏ Acute paralysis or weakness
❏ Bloody diarrhoea	❏ Fever
❏ Polio (Acute Flaccid Paralysis)	❏ Rash
❏ Measles	❏ Cough
❏ Meningitis	❏ Vomiting
	❏ Neck stiffness
Total number of cases reported (refer to weekly thresholds): ☐	❏ Other (describe): _____ _____

Line listing (continue on separate sheet)

Serial No.	Age	Sex (M / F)	Address	Date of onset	Lab. specimen taken (Y / N)	Treatment given	Outcome (I / R / D)*	Final Classification (S / C)**

* Outcome:
    I = currently ill
    R = recovering or recovered
    D = died

** Final Classification:
    S = suspected case with clinical diagnosis
    C = confirmed case with laboratory diagnosis

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Essential epidemiological capabilities

- **Timeliness / completeness** of reporting

- Proportion of reported cases / outbreaks that are **investigated**

- Proportion of investigated cases / outbreaks that are followed with a **response**

100% of outbreak alerts to be followed by timely and complete response

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>4 How and when should the data be reported?

- Number of outbreaks reported (and investigated) should be entered into Weekly Morbidity Report

- Include any narrative reports from Outbreak Investigation

3.3 Outbreak Alert and Response

Number of outbreaks reported	
Number of reported outbreaks investigated within 48 hours	

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>5 How should the data be interpreted and used?

Not to be discussed in detail here, but includes:

- Investigation

  - **Application of active case finding techniques**

  - **Outbreak team convened to understand determinants of disease outbreak**

- Confirmation

- Control

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