




MINISTRY OF HEALTH



World Health
Organisation

Standard Case Definitions for Priority Diseases in Kenya

**Integrated Disease Surveillance
and Response (IDSR)**



Foreword

Communicable diseases are the most common causes of ill health, disability and death in Kenya. While these diseases present a threat to the well being of communities, there are well-known interventions that are known to control and prevent them. Surveillance is a continuous collection, analysis, interpretation and dissemination of health data for the purpose of, monitoring health problems and their determinants and using the information to improve or maintain the health of the population. A functional disease surveillance system is essential for defining health problems and taking appropriate action. This is therefore the role of Integrated Disease Surveillance and Response (IDSR).

Clinicians are frontline health workers, they are the first level of contact with the patient after the community. A clinician has the responsibility to make diagnose and offer treatment to patients in a public or private health facility. They can be doctors, clinical officers or nurses. It is important for the clinicians to be actively involved in disease surveillance because they play a crucial role in detection, reporting and management of cases.

The role of a clinician in IDSR is to;

1. Detect cases of priority diseases using the recommended standard case definitions
2. Report to the next level using recommended reporting forms
3. Collect and send specimens to the laboratory to confirm the diagnosis.
4. Institute appropriate management of cases using recommended management guidelines.
5. Take appropriate preventive measures

Detection of cases using standard case definitions is a critical step in disease surveillance. It is a first step of an important process aimed at detecting cases of priority diseases for further

action. It is important to correctly detect, summarize and report cases to the next level. A standard case definition is an agreed upon set of criteria used to label an individual as having a condition of interest or not. Why are case definitions important?

1. Cases are identified using standard criteria.
2. Facilitates early case detection, treatment and prompt prevention measures
3. Improves quality of surveillance information
4. Facilitates quick screening of suspects in a short duration of time
5. Can be applied even when laboratory services are not available.

The purpose of this Booklet is to introduce health personnel involved in clinical work to the IDSR strategy, and improve their skills in identifying and reporting priority diseases using the standard case definitions. This booklet is intended to assist clinicians who manage patients in public, or private health facilities in their day-to-day work. The booklet is designed to fit into a pocket-size to facilitate quick reference.

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KENYA'S INTEGRATED DISEASE SURVEILLANCE AND RESPONSE (IDSR) FOR PRIORITY DISEASES

The Ministry of Health Kenya identified 18 Communicable diseases and conditions for Integrated Disease Surveillance and Response (IDSR). The Criteria for selection used;

- Are top causes of high morbidity and mortality in Kenya (for example malaria, Pneumonia, diarrhoeal diseases, TB and HIV/AIDS)
- Have epidemic potential (for example cholera, Measles, meningococcal meningitis and yellow fever,)
- Surveillance required Internationally (for example Polio, Yellow Fever and cholera)
- Have national intervention programmes for prevention and control, eradication or elimination of the diseases (for example Polio and NNT)
- Can easily be identified using simple case Definitions

IDSR priority diseases (18) In Kenya

The Eighteen (18) priority communicable diseases are divided into the following three broad categories;

1. Epidemic Prone Diseases

Cholera Dysentery Plague Yellow Fever	Typhoid Fever Meningococcal Meningitis Measles Other Viral Haemorrhagic Fevers
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2. Diseases earmarked for Eradication/elimination

Leprosy Poliomyelitis	Dracunculiosis Neonatal Tetanus
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3. Diseases of Public Health Importance

Malaria New AIDS Cases Tuberculosis	Childhood Pneumonia Childhood Diarrhoea Sexually Transmitted Infections
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REPORTING REQUIREMENTS FOR PRIORITY DISEASES

1. Report immediately (within 24 hours)

Any suspected case of Cholera, Meningococcal Meningitis, Yellow fever, Measles, Viral haemorrhagic fever, AFP/polio, Guinea worm disease, Neonatal tetanus, Plague and any other outbreak. Use the Integrated Case based surveillance Form MOH 502. In addition, line list all suspected cases using a health facility line listing form MOH 503.

2. Weekly IDSR Reporting

All summarized data should be reported to the National level on weekly basis using the Epidemic (Weekly) Monitoring Form MOH 505. A week starts on a Monday and ends on a Sunday. All weekly reports should be sent to the National Integrated Disease Surveillance & Response (IDSR) Unit by every Wednesday.

Targeted diseases for weekly reporting are;

1. Cholera
2. Typhoid
3. Dysentery
4. Measles
5. Meningococcal Meningitis
6. Plague
7. Yellow fever
8. Viral hemorrhagic fevers, (VHFs)
9. Acute Flaccid Paralysis (AFP)
10. Neonatal Tetanus (NNT)
11. Malaria

And any other suspected disease outbreak

3. Monthly surveillance reporting

Every month report all the 18 priority diseases using the monthly surveillance Form MOH 504. The form has more detail information that is required on monthly basis.

STANDARD CASE DEFINITION

In order to improve case identification and eventual response, standard case definition should be used. A case definition is a standard set of criteria used to decide if a person has a particular disease, or if the case can be considered for reporting and investigation.

When districts and Health care facilities use the same case definition, the country's public health surveillance system ensures efficient tracking of particular diseases or conditions. The Health staffs who analyze data will be able to know the trends of diseases under surveillance.

How to use the standard case definition

Use the standard case definition to Identify priority diseases or conditions that present in outpatient and inpatient services.

- Patient comes to consulting room
- Ask about symptoms and duration
- Conduct physical examination and record findings on OPD card
- Make diagnosis based on signs and symptoms
- Match signs and symptoms with that of case definition
- Record information about suspected cases in clinic register and patient card.
- Report case-based information for immediately notifiable diseases using the IDSR reporting tools

In addition

- Use local laboratory capacity to diagnose suspected cases
- Use standard protocols to process laboratory specimens
- Collect and transport clinical specimens for laboratory evaluation

EPIDEMIC - PRONE DISEASES- Notify immediately

Conditions present at first contact	Suspect
<p>Profuse effortless watery diarrhoea (i.e. more than in 3 motions in 24 hours of sudden onset with or without vomiting in a person over 5 years old.</p> <p>In an area experiencing an epidemic, all cases with acute watery diarrhoea including the 2-5 year age range are considered as cases.</p> <p>A sudden increase in the number of dehydrated cases (including Children aged 2-5 years) resulting from acute watery diarrhoea should raise suspicion of a possible cholera outbreak.</p>	Cholera
<p>Any person with diarrhoea and visible blood in the stool.</p>	Diarrhoea with blood (dysentery)
<p>Rapid onset of fever, headache, vomiting and either neck stiffness or altered consciousness or bulging fontanelle (in less than one-year olds with or without petechial or purpurial rash. (Confirmation by turbid cerebrospinal fluids (CSF) and isolation of gram-negative intracellular diplococci (Neisseria Meningitides).</p>	Meningococcal Meningitis (Epidemic)
<p>Insidious and sustained fever, severe headache/Malaise, nausea and constipation (which is more common than diarrhoea in adults) with isolation of salmonella species in blood or stool of a patient.</p>	Typhoid Fever

Conditions present at first contact	Suspect
<p>Acute fever, chills, headaches, severe malaise prostration with painful swollen lymph nodes (buboic type) or cough with blood stained sputum, chest pain, difficulty in breathing (pneumonic type). (Confirm diagnosis by isolation of Gram Negative bipolar Coccobacilli in clinical material (bubo aspirate, sputum, tissue and blood).</p>	<p>Plague</p>
<p>Acute onset of fever, jaundice, and may be associated with bleeding from body orifices, altered consciousness, and renal failure (reduced urine output , proteinuria, haematuria).</p>	<p>Yellow Fever</p>
<p>Acute onset of fever, for at least 72 hours, with headaches, nausea, unexplained bleeding tendencies with the following signs: bloody stools, vomiting blood, bleeding from gums, nose, vagina, skin, or eyes. WHILE other causes of haemorrhagic tendencies have been ruled out. Confirmation by a positive Elisa for IGM for viruses known to cause haemorrhagic fever).</p>	<p>Other Viral Haemorrhagic fevers</p>

**DISEASES TARGETED FOR ERADICATION AND
ELIMINATION Notify immediately**

Conditions present at first contact	Suspect
Any case with weakness or floppiness of the limbs of sudden onset, not due to trauma in a child less than 15years of age.	Acute flaccid paralysis (AFP) Polio
Person with fever and maculopapular (non-vesicular)generalized rash and cough, coryza or conjunctivitis (red eyes) or any person in whom a clinician suspects measles. A measles death is a death occurring within 30 days of onset rash.	Measles
Any person with one of the following cardinal signs: skin patch with loss of sensation one or more enlarged nerves, and presence of leprosy bacilli with or without bacteriological diagnostic confirmation and requiring chemotherapy (excluding patients released from treatment	Leprosy
Any newborn with a normal ability to suck or cry during the first two days of life, and who, between 3 and 28 days of age, cannot suck normally and has generalized stiffness/ or spasms.	Neonatal tetanus
Any person with a history of skin lesion and emergence of guinea worm within one year of the skin lesion.	Dracunculiasis (Guinea Worm)

OTHER DISEASES OF PUBLIC IMPORTANCE
Report Monthly

Conditions present at first contact	Suspect
<p>Any child less than 5 years of age with diarrhoea and two or more of the following:</p> <ul style="list-style-type: none"> • Restless or irritable • Sunken eyes • Drinks eagerly, thirsty • Skin pinch goes back slowly. 	<p>Diarrhoea with some dehydration in children less than 5 years of age</p>
<p>Any child less than 5 years of age with diarrhoea and two or more of the following:</p> <ul style="list-style-type: none"> • lethargic or unconscious • sunken eyes • not able to drink or drinking poorly • skin pinch goes back slowly. 	<p>Diarrhoea with severe dehydration in children less than 5 years of age</p>
<p>Any child aged 2 months up to 5 years of age with cough or difficult breathing and</p> <ul style="list-style-type: none"> • breathing 50 breaths or more per minute in an infant 2 months up to 1 year • breathing 40 breaths or more per minute for a child aged 1 to 5 years <i>(Infants less than 2 months with fast breathing 60 breaths or more per minute are referred for serious bacterial infection.)</i> 	<p>Pneumonia in children less than 5 years of age</p>

OTHER DISEASES OF PUBLIC IMPORTANCE
Report Monthly

Conditions present at first contact	Suspect
<p>Any child aged 2 months up to 5 years with cough or difficult breathing, and with any general danger sign, or chest indrawing, or stridor in a calm child. General danger signs are: unable to drink or breast-feed, vomits everything, convulsions, lethargy or unconsciousness.</p>	<p>Severe Pneumonia in children less than 5 years of age</p>
<p>Either: Severe acute unexplained respiratory illness with fever of $\geq 38^{\circ}\text{C}$ plus cough or sore throat and difficulty in breathing.</p> <p>Severe: Moderate - to - severe respiratory illness: lower respiratory tract illness(temperature greater than 38°C cough, shortness of breath, or difficulty breathing with or without evidence (clinical or radiological) of pneumonia. All hospitalized cases are considered severe by definition.</p> <p>Unexplained: clinical, epidemiological, or laboratory evaluation does not determine a cause or etiological agent, such as tuberculosis.</p> <p>Decision to investigate influenza A/H5 or SARS will depend on:</p> <ul style="list-style-type: none"> • Clinical presentation • Contact with a person with unexplained acute respiratory illness that later resulted in death. 	<p>Unexplained severe acute respiratory disease (SARD)</p>

OTHER DISEASES OF PUBLIC IMPORTANCE

Report Monthly

Conditions present at first contact	Suspect
<ul style="list-style-type: none"> Living in an area in which there are rumours /reports of deaths of domestic fowls. <p>OR: Any person requiring hospitalization due to influenza like illness (ILI). Any individual presenting with fever (temperature $\geq 38^{\circ}\text{C}$) cough, sore throat and shortness of breath.</p> <p>Other symptoms may include: chills, myalgia, muscle pains and headache.)</p> <p>N/B: Oropharyngeal swab should be taken for testing in selected sentinel surveillance sites for cases of influenza like illness and SARD.</p>	<p>Unexplained severe acute respiratory disease (SARD)</p>
<ul style="list-style-type: none"> Above 5 yrs excluding pregnancy: Any person with fever or fever with headache, back pains, joint pains, chills, sweats, myalgia, nausea and vomiting with presence of peripheral parasitaemia. Below 5yrs: Any child below 5 years with fever, chills, sweating, diarrhoea, nausea, vomiting , irritability and refusal to feed diagnosed clinically. 	<p>Unexplained severe acute respiratory disease (SARD)</p>

OTHER DISEASES OF PUBLIC IMPORTANCE

Report Monthly

Conditions present at first contact	Suspect
<ul style="list-style-type: none"> • Malaria in pregnancy: A pregnant woman with signs and symptoms of uncomplicated malaria 	Unexplained severe acute respiratory disease (SARD)
<p>Adults: The case definition for AIDS is fulfilled if at least 2 major signs and at least 1 minor sign are present. The presence of either generalized Kaposi sarcoma or cryptococcal Meningitis is sufficient for the case definition of AIDS.</p> <p>Children <12yrs: The case definition for AIDS is fulfilled if at least 2 major signs and at least 2 minor signs are present (if there is no other known cause of immunosuppressant). Confirmed HIV infection in the mother counts as a minor criterion.</p> <p>MAJOR SIGNS</p> <ul style="list-style-type: none"> • Weight loss >10% of body weight or abnormally slow growth in children • Chronic diarrhoea for more than 1 month • Prolonged fever for more than 1 month 	New AIDS Cases

OTHER DISEASES OF PUBLIC IMPORTANCE
Report Monthly

Conditions present at first contact	Suspect
<p>MINOR SIGNS</p> <ul style="list-style-type: none"> ● Persistent cough for more than 1 month ● Generalized pruritic dermatitis ● History of herpes zoster ● Oropharyngeal candidiasis ● Chronic progressive or disseminated herpes virus infection ● Generalized lymphadenopathy ● Recurrent common infections, e.g. ear infection, pharyngitis (children) 	<p>New AIDS Cases</p>
<p>Chronic cough (of more than three weeks) with sputum smear positive for mycobacterium tubercle.</p>	<p>Tuberculosis</p>
<p>Suspected Case</p> <ul style="list-style-type: none"> ● Genital ulcer syndrome (non-vesicular): Any male with an ulcer on the penis, scrotum, or rectum, with or without inguinal adenopathy, or any female with ulcer on Labia, vagina or rectum, with or without inguinal adenopathy. ● Urethra discharge syndrome: Any male/female with urethra discharge with or without dysuria. 	<p>Sexually Transmitted Infections</p>

OTHER DISEASES OF PUBLIC IMPORTANCE

Report Monthly

Conditions present at first contact	Suspect
<p>Confirmed case</p> <ul style="list-style-type: none"> • Genital ulcer syndrome (non-vesicular): Any suspected case confirmed by a diagnostic laboratory procedure. • Urethral/vaginal discharge syndrome: Any suspected case confirmed by a diagnostic laboratory procedure method (for example Gram stain showing intracellular Gram-Negative diplococci) 	<p>Sexually Transmitted Infections</p>

Types of reporting tools and when to use

1. IDSR Weekly form to be used for weekly reporting of priority diseases.
2. IDSR - Case based, used for diseases that require immediate reporting.
3. IDSR Monthly - to use for reporting IDSR priority diseases on monthly basis.
4. IDSR Line list - used for line listing cases/deaths reported in an outbreak.

Reference manual

IDSR National Technical guidelines.

Threshold Levels for IDSR priority Diseases

	Cholera
Alert Threshold	If a single case is suspected.
Action Threshold	If a suspected case is confirmed
	Typhoid fever
Alert Threshold	Observed increase in number of cases or deaths over a period of time.
Action Threshold	Observed above alert with at least one case confirmed by culture.
	Dysentery (Diarrhoea with blood)
Alert Threshold	Observed increase in number of cases or deaths over a period of time.
Action Threshold	Observed above alert with at least one case confirmed by culture.

Alert Threshold	Diarrhoea with dehydration in children less than 5 years of age
	Observed increase in number of cases or deaths over a period of time.
Action Threshold	Two folds increase in cases or deaths compared to a similar period in the past.
Alert Threshold	Dracunculiasis
	If a single case is suspected.
Action Threshold	If the single case is confirmed by the emergence of a guinea worm from a skin lesion.
Alert Threshold	Leprosy
	If a single case is suspected.
Action Threshold	If a suspected case is confirmed.
Alert Threshold	Malaria
	Malaria ALERT threshold is attained when the number of weekly Malaria cases observed crosses above the THIRD QUARTILE level for the last 5 years. When computing the Alert thresholds, it is not necessary to exclude epidemic years as quartiles and percentiles are not affected by extreme observations. An ALERT threshold indicates that there is possible malaria upsurge and need for confirmation through investigations is needed.

Action Threshold	<p>Malaria ACTION threshold is attained when there is a steady increase of weekly Malaria cases observed above the Mean + 1.5SD (Standard Deviation) level for the last 5 years.</p> <p>When computing Action thresholds, it is important to exclude epidemic years as the Mean and SD are severely affected by extreme observations. An ACTION threshold indicates that there is serious Malaria upsurge to epidemic proportions. The district epidemic team need to initiate outbreak investigations and effect control measures.</p>
Alert Threshold	<p>Measles</p> <p>If 5 or more cases of suspected measles in a district in a month are reported, an outbreak is suspected.</p>
Action Threshold	<p>If 3 or more cases are laboratory confirmed as IgM positive measles cases in a district in a month, an outbreak is reported.</p>
Alert Threshold	<p>Epidemic Meningitis</p> <p>5 cases per 100 000 inhabitants per week (Population >30 000: In one week) 2 cases in 1 week (Population <30 000).</p>
Action Threshold	<p>10 cases per 100 000 inhabitants per week.</p>

	Neonatal tetanus
Alert Threshold	If a single case is suspected.
Action Threshold	If a case is confirmed through investigation.
	New AIDS Cases
Alert Threshold	Observed increase in number of new cases over a period of time.
Action Threshold	Observed increase in number of new cases over a period of time.
	Plague
Alert Threshold	If a single case is suspected.
Action Threshold	If the suspected case is confirmed.
	Pneumonia
Alert Threshold	Observed increase in number of cases or deaths over a period of time.
Action Threshold	Two folds increase in cases or deaths compared to a similar period in the past.
	Poliomyelitis (Acute flaccid paralysis)
Alert Threshold	If a single case is suspected.
Action Threshold	If a case is confirmed.

	Sexually transmitted infections
Alert Threshold	Observed increase in number of cases over a period of time.
Action Threshold	Two folds increases in number of cases compared to a similar period in the past.
	Tuberculosis
Alert Threshold	Observed increase in number of cases or deaths over a period of time.
Action Threshold	Two folds increase in cases or deaths compared to a similar period in the past.
	Viral haemorrhagic fevers
Alert Threshold	If a single case is suspected.
Action Threshold	If a single case is confirmed.
	Yellow fever
Alert Threshold	If a single case is suspected.
Action Threshold	If a single case is confirmed.

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