

INTEGRATED DISEASE SURVEILLANCE AND RESPONSE TECHNICAL GUIDELINES

THIRD EDITION



SECTION 2: REPORT PRIORITY DISEASES, CONDITIONS AND EVENTS

MARCH 2019

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2. REPORT PRIORITY DISEASES, CONDITIONS AND EVENTS

Integrated Disease Surveillance and Response (IDSR) is a system with the potential to ensure a reliable supply of epidemiological information to the national level in order to fulfil IHR 2005 requirements. Ensuring reliable reporting of surveillance data throughout the system is important. Reliable reporting provides information for surveillance officers, district or provincial/regional health authorities, epidemiologists, and competent authority at Point of Entry (PoE) programme managers, the national IHR focal point, the WHO contact point and other health staff to:

- (a) Identify emerging problems or conditions and plan appropriate responses, including informing relevant staff or levels.
- (b) Take action in a timely way.
- (c) Monitor disease trends in the area.
- (d) Evaluate the effectiveness of the response.

This section describes how to report priority diseases, conditions and events within the required timelines. In IDSR, data collection and data reporting follow different timelines for different purposes:

- (a) Immediate reporting of case-based information allows for early detection of unexpected or highly pathogenic/lethal public health events. All the diseases and conditions under immediate reporting should also be reported under aggregated weekly report in the IDSR Weekly Summary Reporting Form.
- (b) Weekly aggregated reporting provides data for monitoring trends of diseases, conditions or events to early detect outbreaks.
- (c) Monthly/quarterly aggregated reporting provides data for monitoring the health status of the population and impact of disease specific programmes, and for planning allocation of resources.

NB: National policy will determine reporting requirements and the public health events to be reported and whether data from the districts and health facilities are to be reported immediately, weekly, monthly, or quarterly.

Paper-based tools are the most commonly used tools for reporting these diseases, events and conditions. While paper-based tools can provide timely information, countries should aim to have electronic tools to facilitate rapid transmission of data to enable timely response to public health threats (eIDSR). The potential benefits of using electronic reporting tools for eIDSR include: more timely reporting, investigation, and response to outbreaks. Electronic reporting may also improve data quality; enhance virtual, near real-time disease and events monitoring capability; may lead to reduced system costs and easily generate automated alerts. In addition, information can be more easily stored and accessed. See Section 9 for electronic IDSR (eIDSR) System Guide for countries,

The targeted public health workforce for IDSR are primarily staff at all levels of the health system (both human and animal), data management personnel who will oversee the Information Communication Technology (ICT) aspect of the system at all levels, supervisory and disease-specific programme personnel at all levels, that is, local, district, regional and decision-makers at the national level. It is important that countries aim at having an interoperable approach of strengthening eIDSR by creating systematic linkages and information-sharing platforms. This can be done by formalizing agreements between Ministries of Health Units, that is, HMIS, IDSR, Maternal (MDSR) and Newborn (PDSR), Health services delivery information system, National and regional public health reference laboratories and laboratory networks and the Ministry of Agriculture/Livestock/Wildlife Units, that is, Surveillance units, and Veterinary facilities/institutions and Surveillance units within the Ministry of Environment units.

2.1 Immediate reportable diseases, conditions and events

Immediate reporting is indicated when an epidemic-prone disease or other potential Public Health Emergency of International Concern (PHEIC) is suspected or is otherwise required under the International Health Regulations (2005). Immediate reporting should also be done for diseases and events considered priorities at the national level which may not necessarily be PHEICs. The diseases, conditions and events requiring immediate notification to the next level are listed in Table 2. Immediate reporting allows timely action to be taken to prevent the re-emergence or rapid transmission of epidemic prone diseases or events or their propagation, especially those due to highly virulent infectious, chemical, biological or radio nuclear agents.

Information that is reported immediately, such as single cases or clusters of reportable events, **will generate an alert and initiate a case-based reporting system**. This means that, specific information about that suspected case, or, if it is a cluster, specific information of each of the cases identified, will be collected thoroughly and reported to the next level. At the same time, an initial investigation will be initiated. For events reported at PoE, information is reported to the

next level (district in which the PoE is situated) as well as simultaneously to the IHR NFP. Reporting units with no diagnostic capacity, will use the suspected case definition given to identify and report diseases, conditions and events. Additionally, information of contacts will be collected. section 4 describes how to conduct contact tracing and also how to report contacts.

For conditions like maternal and perinatal deaths, the circumstances leading to the death need to be gathered and analysed and health providers should use the national Maternal Perinatal Death Surveillance and Response (MPDSR) in consultation with the relevant focal points.

In IDSR, there are two types of thresholds used to initiate response: an alert threshold and an epidemic threshold. These thresholds are normally expressed in terms of the number (or proportion) of cases of a disease and the critical point (threshold) beyond which action must be taken. Trained health-care personnel should always determine the alert and epidemic thresholds. Thresholds for alerts and epidemic for epidemic-prone diseases, conditions or events are shown in section 11.

Please refer to Section 11 for disease-specific information including surveillance case definitions, alert and epidemic thresholds for reporting suspected cases or events.

Table 2.1: Diseases, conditions or events requiring immediate reporting

| | |
|--|---|
| 1. Acute haemorrhagic fever syndrome (Ebola Virus Disease, Marburg, Lassa Fever, RVF, Crimean-Congo) | 16. Neonatal tetanus |
| 2. Adverse effects following immunization (AEFI) | 17. Perinatal death |
| 3. Anthrax | 18. Plague |
| 4. Bacterial meningitis | 19. Poliomyelitis (Acute Flaccid Paralysis) (AFP) |
| 5. Chikungunya | 20. Rabies (Human) |
| 6. Cholera | 21. SARIs |
| 7. Dengue fever | 22. SARS |
| 8. Diarrhoea with blood (<i>Shigellosis</i>) | 23. Smallpox |
| 9. Dracunculiasis (Guinea Worm disease) | 24. Typhoid fever |
| 10. Influenza due to new subtype | 25. Yaws or endemic syphilis or bejel |
| 11. Listeriosis | 26. Yellow fever |
| 12. Maternal death | 27. Zika virus disease |
| 13. Measles | 28. Unexplained cluster of illness/death from human or animal/bird* |
| 14. Middle East respiratory syndrome (MERS) | 29. Any public health event of international concern (infectious, zoonotic, food borne, chemical, radio nuclear or due to an unknown condition) |
| 15. Monkey Pox | |

* Examples of clusters can be:

- any of cluster of illness or deaths among people living in the same community within a specific time period (for example, one week)
- Unexplained cluster of deaths of animals/birds within a specific time period (for example, one week)
- Illness or death among people after exposure to animals
- Health-care worker illness after exposure to patients with similar illnesses
- Unexpected increases in admission to health care facilities of persons with similar severe symptoms
- Sudden illness in a person who has travelled out of the country in the past 14 days
- Any unusual illness or sudden death in the community within a specific time period (for example, one week)
- Unexpected large numbers of children absent from school due to the same illness in the same seven-day period.
- Unexpected large numbers of sales at pharmacies of many people buying medicines for the same kind of illness

NB: Ensure that adequate information is collected for events which are reported. Some of the events might have a link with the Agricultural or Livestock/Wildlife sector or Food or Environment or other sectors, ensure information is also sought from these sectors.

2.1.1 Report case-based information to the next level

If an immediately reportable disease, condition or other public health event is suspected, **the health facility must report case-based information to the next level within 24 hours.**

Information obtained through preliminary investigation of suspected case includes:

- (a) Patient's geographical location
- (b) Health facility or facilities that managed or handled the patient or referred the patient
- (c) Patient's identification and demographic information
- (d) Information about signs and symptoms, including date of onset, history of vaccination (where applicable) and information about any relevant risk factors including contacts
- (e) Laboratory results (if available)
- (f) History of travel
- (g) History of contacts (human or animal)

Any maternal or perinatal death, once it occurs, should also be reported immediately within 48 hours of occurrence. A sample reporting form for both is given in Annex K. Reference should be made to the national integrated Maternal Perinatal Death Surveillance and Response guidelines.

- (a) Make the initial report by the fastest means possible (telephone, e-mail, radiophone, text message, social media). The health facility should contact the district health authority immediately and provide information about the patient or event.
- (b) Follow up the initial verbal report with a written report using a standardized case-based report form. A sample case-based reporting form for recording case-based information is in Annex 2F at the end of this section. If a computer or other electronic device is available for surveillance or case management, complete and submit the form electronically to the next level. On electronic platforms, ensure that you protect the patient's privacy by encrypting patient ID data so only few health staff can access the detailed information, or you can also set up appropriate user rights such as creating a password for your use when using a common office computer.
- (c) If a laboratory specimen is requested at this time, make sure that the patient's identifying information on the specimen, the laboratory investigation form, and the case-based reporting form all match. Ensure proper packaging to ensure reliable results. Ensure also that a copy of the case-based form accompanies the laboratory form and the specimen. A sample laboratory form is included in Annex 2G.
- (d) Disease-specific case-based reporting forms for particular diseases and conditions of concern (for example, AFP, cholera, VHF, maternal death, and MDR/XDR TB) are in the

annex at the end of Section 11. These forms may be used to begin gathering initial information for the case investigation.

- **Note:** Some epidemic-prone diseases or conditions like Maternal or Perinatal deaths have specific reporting requirements, depending on national or regional policies. Please refer to disease-specific conditions and requirements in Section 11 of this guide.
- (e) Ensure that adequate information is available for events which are reported, as some **events might have a link with the Agricultural or Livestock, Wildlife sector or Food or environment or other sectors** including the community. Such information sharing is crucial and should start at the community level, health facility and subsequently at the district and region. At the National level, the IHR National Focal Point (NFP) should notify WHO of an event that is a potential public health emergency of international concern (PHEIC) using the decision instrument in the IHR 2005 (Annex 2A).
- (f) For all events, establish a line listing of suspected cases or events or conditions reported as part of initial and ongoing investigation and ensure it is always updated, while at the same time maintaining the link with appropriate sectors, depending on a particular disease or event. The line list should be kept where there is a suspected outbreak and where an isolation unit has been opened, but if several isolation units have been opened, the district should maintain a combined line list. Refer to Annex 4E for a sample line list.

2.1.2 Notifying a potential Public Health Emergency of International concern under IHR 2005

If a potential Public Health Emergency of International Concern (PHEIC) is suspected (as defined in Annex 2 of the IHR 2005), the District Surveillance Focal Person should report to the National IHR Focal Point immediately using the fastest means of communication and at the same time notify the Regional or Provincial Surveillance Officer. If a potential Public Health Emergency of International Concern (PHEIC) is detected at Point of Entry, immediate reporting should also be made to the National IHR Focal Point, while at the same time notifying the district and region or province (See Annex 2B for a framework of reporting).

The process of notifying WHO of events under IHR 2005 involves the use of the “Decision instrument in the IHR. This is a national level function coordinated by the IHR NFP with the support of appropriate experts, depending on the emergency.

2.1.3 Reporting events from community sources

Any suspected event occurring in the community, including maternal and neonatal events, should be reported immediately. The trigger mechanisms of reporting must be clearly defined and the information must be immediately notified to a community focal person, if already identified, or to a nearby health facility or sub-district head. Minimum information collected should include:

- (a) Date of event and date of report
- (b) Suspected disease, condition, or event
- (c) What happened?
- (d) When did this happen? (day, month, year)
- (e) Where did this happen? (Exact location, Village, District/County, Province/State/Region)
- (f) Who is affected? (age, gender, occupation, etc.)
- (g) How many have been affected?
- (h) Has anyone died? If yes, how many?
- (i) Is the event ongoing?
- (j) Are there any animal deaths/exposures?
- (k) Recent history of travel to an affected area
- (l) Other information you have.
- (m) Name and contact number of the person reporting
- (n) Any action taken

See Annex 2C for a reporting format when an event is identified, Annex 2D for monthly summary and Annex 2E for reporting structure for community alert and verification of events from community sources.

2.2 Summarize immediate and weekly reportable diseases

After an initial case has been detected or an outbreak is suspected or confirmed, summary data are important for analysis and monitoring. For example, at the health facility or district, the surveillance focal point can draw an epidemic curve to see if and when the epidemic thresholds for specific diseases have been crossed. Additionally, these data from epidemic investigation can be used to check whether the case-fatality rate is below, at or above the expected target. The weekly data analysis of the suspected or confirmed epidemic should also help point out possible high-risk groups with regard to a patient's case location or residence, age group, sex, and

exposure during social events (for example, a funeral), occupational hazards (for example, butchering), consuming game meat, or exposure to a contaminated food or beverage.

At the district level, weekly data analysis includes verification of the quality of the data coming from the reporting sites and the completeness and timeliness of these reports. For eIDSR, an identified person should be responsible to ensure that data verification is done and approved for further transmission. Additionally, an in-depth analysis of individual immediate case-based reporting forms received from the reporting sites will also be performed, in addition to the weekly aggregated data. The incidence and case-fatality rates should be calculated and compared with the set alert and epidemic thresholds to determine if it is increasing or decreasing. Epidemic curves should be updated regularly to monitor the trends or evolution of epidemics occurring in the districts. Districts which have computers are encouraged to store the information electronically and forward the surveillance data sets to the next higher level in this format.

I. Weekly reporting of immediate notifiable diseases:

Weekly reporting provides data for monitoring trends of diseases or conditions to early detect outbreaks. It is important to ensure that the WHO weekly reporting format is adhered to across all health facilities and districts to facilitate comparison within and between the facilities and districts.

After immediately reporting to the next level about instances of notifiable diseases, conditions or events, collect and report weekly summary information of the event or disease or condition which you have reported, as well as for other weekly reported priority diseases, conditions and events, as listed in Table 2. See Annex 2H for format for developing a weekly summary form which is an aggregate of case-based forms.

With eIDSR (see section 9), this will be updated automatically in the database, while in countries using paper-based reporting, this will be done manually and entered into a computer. This aggregation is important to understand the trend of the immediate reportable diseases and plan for effective intervention. For early detection of outbreaks via weekly aggregated reporting, it is recommended to keep the number of variables at a minimum, ideally reporting only the number of cases and deaths, to avoid unnecessary burden on the health care facilities and maximize reporting efficiency.

Based on epidemiological evidence, countries may decide to include additional diseases, conditions and events in diseases for weekly reporting, for example, malaria, MDR-TB, Diarrhoea with severe dehydration in children under five years of age, severe malnutrition, and

neonatal deaths. Only diseases or conditions or events which could result in public health action should be considered for entry on the list of aggregated weekly reporting. Some rare but high-risk public health events should be removed from routine aggregated reporting to be reported on an immediate basis. The list of priority public health events to be reported by health-care facilities will be established by a group of relevant stakeholders from and related to the National Public Health Surveillance System.

II. Zero reporting

If no cases of an immediately reportable disease have been diagnosed during the week, record a zero (0) on the reporting form for that disease. If the space is left blank, the staff that receives the report will not be able to develop information from a blank space. Submitting a zero report for each immediately reportable disease when no cases were detected during the week tells the staff at the next level that a complete report has been filled.

2.3 Report monthly and quarterly routine summary information for other diseases of public health importance

At a minimum, report summary data about other endemic diseases to the next level each month. This information is valuable to disease-specific programmes and can be used when monitoring progress with prevention and control activities as well as for detecting any emergent, unexplained or unusual events or disease patterns.

Routinely report the total number of cases and deaths seen in a given period (for example, monthly or quarterly) for other diseases of public health importance. All health facilities including referral or zonal or teaching hospitals should report summary totals to the district under their catchment area. Districts should aggregate reports from all reporting sites and provide summary totals to the provincial, regional or central level. Each level should observe any unusual increases or events seen during analysis of monthly summary reports. The summary results should be analysed and the results used to monitor progress towards disease control targets, measure achievements of disease-prevention activities in the district or region or province, and identify hidden outbreaks or problems so that a response action can be taken.

Table 2.2: Diseases and conditions Requiring Monthly or Quarterly Reporting

| | |
|---|---|
| 1. Acute and chronic viral hepatitis | 11. Malnutrition in children under 5 years |
| 2. Buruli ulcer | 12. Epilepsy |
| 3. Diabetes mellitus (New cases) | 13. Noma |
| 4. Diarrhoea with severe dehydration in children under 5 years of age | 14. Non-neonatal tetanus |
| 5. HIV/AIDS (New Cases) | 15. Onchocerciasis |
| 6. Hypertension (New cases) | 16. Severe pneumonia in children under 5 years of age |
| 7. Injuries (Road Traffic Accidents) | 17. Sexually transmitted diseases (STIs) |
| 8. Leprosy (quarterly) | 18. Schistosomiasis |
| 9. Lymphatic Filariasis | 19. Trachoma |
| 10. Malaria | 20. Trypanosomiasis |
| | 21. Tuberculosis (quarterly) |
| | 22. Underweight neonates (less than 2500 g) |

Note: Based on risk mapping and disease burden, countries may decide to categorize any other diseases, conditions or events into immediate, weekly or monthly or quarterly report.

Each month, the health facility should calculate the total number of cases (suspected and laboratory-confirmed) and deaths due to priority diseases, conditions and events seen in the health facility. Separate totals are calculated for outpatient cases and inpatient cases. The summary totals are recorded on a form (please see Annex 2H) and sent to the district level. The district aggregates the totals from all the health facilities that reported and submit district summary totals to the provincial, regional or central level. In countries with sub-districts, the health facilities can submit data summaries to the sub-districts for onward transmission to the districts.

Special effort should be made to obtain from the health information system, the total number of outpatients and inpatients seen for any health condition (including those not in the IDSR list) during the reported period. On a regular basis (weekly or monthly), review the overall Health Management Information System (HMIS) to ensure that data has been well captured. At least once every month, data validation needs to occur, and periodic edits should be conducted before transmission to the next higher level.

In cases where a computer is available for surveillance or case management, patient records can be analysed to generate the weekly, monthly or quarterly reports. This information is important for producing national and sub-national situation reports. All datasets should be shared with the health authorities with a copy to the respective disease prevention and control programme: this

is important for coordination at the central level, and for the building or strengthening of a national IDSR database system.

Depending on each level of laboratory services, laboratory data should be organized in a register so that it can generate monthly summaries. During outbreaks, submission of the weekly summaries of the specimen processed, the types of specimen and the results should be done to assist in completion of the variables in the line list register. Efforts should be made to also update the laboratory component of the IDSR data and link epidemiological/clinical data. Monthly summaries can include the core tests done for which the country has selected as indicator pathogens on the basis of major PHEIC. This is important, as the analysis can produce important trends which can necessitate further investigations.

2.4 Improve routine reporting practices

In some health facilities, more than one person may be responsible for recording information about patients seen in the facility. For example, the clinician records the patient's name and diagnosis in a clinic register. Later in the day, a nurse tallies the number of cases and deaths seen in an outpatient service. The ward nurse tallies the number of admitted cases.

Each week, month, or quarter, a records clerk or statistician calculates summaries for all the diseases and records them in a standard form. Events should be aggregated separately from diseases. In case the health facility is equipped with computers, individual patient records should be entered, from which the IDSR priority diseases or conditions subset will be extracted and analysed to get the required weekly, monthly or quarterly compilations.

In outbreak scenarios, isolation units that are separate from health facilities can be opened, and they will use a different register to record diseases or events. It is important that this information be captured in the overall IDSR weekly, monthly or quarterly summaries.

2.4.1 Review the flow of information at the reporting site

During supervisory visits to reporting sites, ensure that:

- (a) All reporting sites including secondary and tertiary hospitals in the catchment area of your district are visited
- (b) Clinicians record legibly information in the patient registers using the recommended case definitions so that health workers who tally the cases at the end of the day can reliably record the required diagnoses on the tally sheet.

- (c) Clinicians, ward nurses or other responsible staff should complete the case-based reporting form preferably while the patient is still present.
- (d) Clinicians record laboratory results in the patient registers
- (e) In health facilities with laboratories, laboratories should record results of IDSR priority diseases in the laboratory registers with linkage to epidemiological data
- (f) Integration of laboratory results into the IDSR reporting forms should be conducted at the health facility level
- (g) Records clerks or statisticians have summary forms that contain spaces for recording cases and deaths due to the priority diseases or conditions according to the standard case definitions.
- (h) Health staff review the weekly, monthly and quarterly IDSR data summary totals and provide comments on the forms about results seen during data analysis. (See section 3).
- (i) Health workers record the summary totals on a recommended weekly, monthly and quarterly IDSR summary reporting form (See Annex 2G).

2.4.2 Keeping records and procedures for managing reporting forms

Keep a record of IDSR forms, notifications and reports received at your level. The record you keep is an essential data source for calculating indicators for your country's IHR report and for monitoring performance of the IDSR indicators. A sample IDSR Reports and Data Sharing Log Book form is in Annex 2I.

Periodically check with reporting sites that you supervise (community, health facility, sub-district and district) to ensure that the correct forms and procedures are available to staff so they can record and report the required cases of priority diseases and conditions:

- (a) Take steps to ensure that all health workers know or have access to the standard case definitions recommended by national policy. Establish or modify existing procedures so that all health workers are able to apply the standard case definitions in detecting and reporting priority diseases, conditions, outbreaks or events.
- (b) Sensitize staff on diseases or conditions that require immediate reporting for case-based surveillance, including potential PHEIC and other priority diseases or events of national and regional concern. For example, all the health staff should be aware of epidemic-prone diseases for which a single suspected or probable case is a suspected outbreak requiring immediate action, and of any unusual or unexplained event with potential for affecting human health.

- (c) Review with health staff the role that case-based data plays in determining risk factors and the means of disease transmission or exposure to health risks in a public health event. Make sure the staff has access to a standardized form for reporting case-based information.
- (d) Ensure that the surveillance unit has access to fast communication means (facsimile, internet connection, telephone, text message, electronic mail, telegrams, personal messages, or other rapid communication means). For the district, specify how the district should notify the regional or national levels and who should be contacted at these levels.

2.4.3 Perform periodic checks on data quality

While each provider may have some preferred methods for filling in forms, describing diseases, or abbreviating terms, it is important for every level of reporting (Facility, district, region or province, national) to use a standard approach to recording and reporting, as data that are not comparable, will lead to inappropriate decisions.

Some of the examples of factors which may affect data quality that needs to be periodically checked include:

- (a) Poorly completed forms (missing values, etc.).
- (b) Incomplete forms (for example, presence of blanks).
- (c) Under-reporting or over-reporting of cases.
- (d) Duplicate reporting.
- (e) Unsystematic data collection and reporting.
- (f) Untruthful reporting, (for example, reporting zero, while there is an ongoing outbreak of epidemic prone diseases).
- (g) Inconsistent reporting formats (forms).
- (h) Late submission or reporting.
- (i) Inconsistent reporting periods.
- (j) Calculation errors on aggregate reports.
- (k) Lack of documentation and source data or files are lost.

During supervision, stress the importance of data quality and surveillance; that correct data will lead to analysis, interpretation, and the information that will be communicated will lead to action and evaluation. It is recommended that countries conduct regular data quality audits at the reporting sites. (See Annex 2J for checklist on key elements to assess in data quality audits).

2.4.4 Enhance linkages to strengthen community-based surveillance

A community-based surveillance system relies on the community members' capacity to identify and report public health problems to the nearest health facility or to the district health office. In this system, CBS focal persons identify and report events in the community that have public health significance. CBS focal persons act as community informants, and they report to the health facility, or in the case of a serious event, directly to the district authorities.

Community representatives that can be members of CBS team

Any community member acceptable by the community can be a CBS focal person. Representation could be from basic village-level services such as trained birth attendants, community or village health agents, or similar care providers, community health workers or volunteers, village leaders (religious, traditional or political) or school teachers, veterinarians, health extension workers, chemical sellers, and traditional healers. Once selected, the CBS focal persons should receive training and carry out supportive supervision on how to recognize certain diseases or health conditions for the purpose of reporting suspect cases.

Example: CBS focal persons hear of several cases of acute watery diarrhoea with vomiting in the community. The informant suspects cholera and reports the alert to the local health facility and to the district level health officer by text messaging. Members of the public health emergency rapid response team (RRT) travel to the community to verify and investigate the possible outbreak, and, based on the investigation results, implement control and prevention measures. The outbreak is quickly contained. Thanks to the early warning from the community-based surveillance liaison.

District staff may identify sources in the community with opportunity to know about the community's health status. Examples of community sources include:

- (a) Chemical Sellers
- (b) School teachers
- (c) Staff at private clinics
- (d) Village leaders
- (e) Religious leaders
- (f) Traditional healers
- (g) Birth attendants.
- (h) Community health workers
- (i) Community animal health workers

- (j) Community Based Organizations (CBOs)
- (k) Other societal leaders
- (l) Veterinary health workers
- (m) Any individuals involved in neighbourhood watch or other active surveillance approaches
- (n) Other community resource persons

Depending on the event, resource availability and the context, countries may choose their source of information. The District can organize community-based surveillance focal points by:

- (a) Working with community leaders to identify members of the community to receive relevant training.
- (b) Train and provide job aids (for example, Community Registers, leaflets of case definitions, etc.) on priority diseases and public health events or hazards to community health informants. Give enough information about the disease so that the community source can refer cases to the health facility, or notify the health facility when unusual or unexplained health events occur in the community
- (c) Involve CBS focal persons in risk mapping, emergency simulation exercises and risk communication during outbreaks.
- (d) Ensure that the CBS gives regular and timely feedback of diseases/events reported from the community level. Districts need to ensure that there is sustained commitment by CBS and hence to continuously engage them.
- (e) Disseminate alert and epidemic thresholds.

Please refer to the list in Annex 1B of key signs and symptoms to use in case definitions for community surveillance.

2.4.5 Strengthen linkages between Laboratory and Surveillance information

Public health laboratory system complements the syndromic disease surveillance.

- (a) In case of a public health event, the laboratory where confirmation took place is to report the laboratory results as soon as the confirmation has been done to the respective health facility and surveillance officer, and simultaneously to the National level, as well as district, region or province.
- (b) To strengthen the linkages between epidemiological and laboratory data, the case reported and the laboratory samples should have the same unique ID.

- (c) Submission of the weekly summaries of the samples processed, and the types of samples, as well as the results, should be done whenever there is an outbreak, to assist in completion of the variables in the line list register.
- (d) During supervision at reporting sites, liaise with the Laboratory Focal Person to ensure that the laboratorians record correctly data for diseases under surveillance and also that there is an established register.
- (e) Make sure that the test results are linked with IDSR data at national, regional and district levels.
- (f) The laboratory component of the IDSR Weekly or Monthly Summary Reporting Forms should be regularly updated immediately the respective disease laboratory results are ready.
- (g) Liaise with the animal sector, so as to have a comprehensive report also from the veterinary laboratory, especially if they have recorded any animal information which might have risks to public health.

2.4.6 Promote a multisectoral One Health approach with effective involvement from human, animal, and environmental health sectors as well as other relevant sectors to strengthen reporting

Ensure implementation of the One Health approach to improve reporting of public health risks across all levels, with emphasis also at the community level. Lay emphasis on strengthening the technical and community capacities of staff for all relevant sectors (including human physicians/nurses, veterinarians for livestock or wildlife) and environmental inspectors.

Interoperable and interconnected platforms with emphasis on strengthening information systems within and between the human, animal, and environmental sectors would be ideal in enhancing real time information sharing. There should be a conscious effort to formalize the system of sharing information with other sectors, that is, human health, animal health, environmental health, etc.

The other multisectoral key actors to foster collaboration in reporting and assessment of public health risks include: private sector, civil society, faith-based organizations, defence and security forces, prisons, Internally Displaced Persons (IDP) and refugee camps, technical and financial partners and academic institutions and research institutions. Ensure that they are also included to strengthen routine reporting and analysis of public health risks and events.

2.5 Data protection and security to protect patients confidentially

The public health community recognizes that there might be risks to both individuals and communities, if one uses name-based reporting of private health-related information.

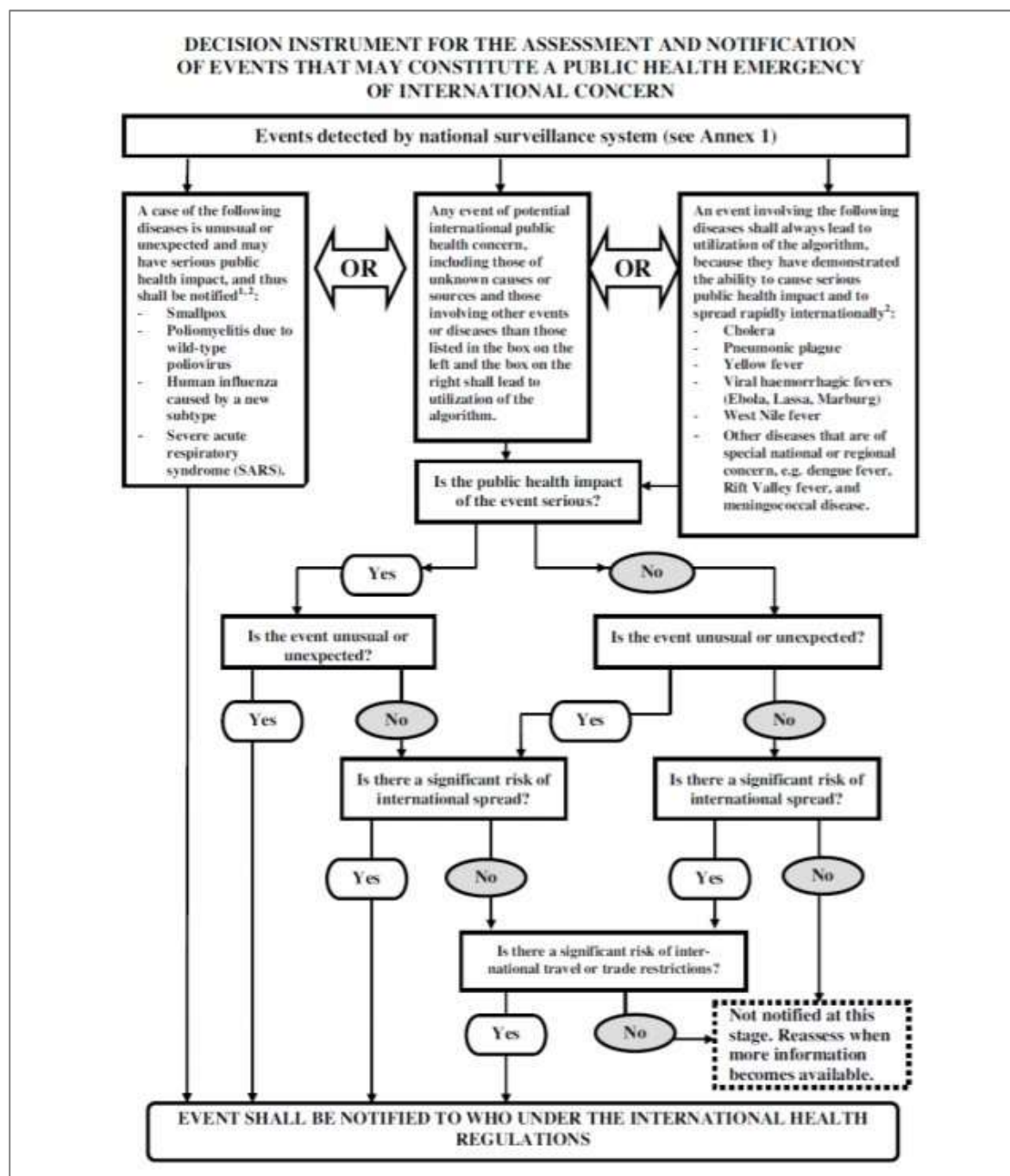
To ensure protection of patient confidentiality and privacy, when reporting, use unique identifiers such as numbers instead of names and this will prevent identities from being inadvertently disclosed. The identifiable data should be however maintained where public health surveillance interventions occur and it is usually at the health facility level. Districts need to have guidelines on privacy and security of health data, which should be guided by the national level guidelines.

Note: Use of names may be required during an outbreak of infectious diseases for the purpose of contact tracing. Refer to section 4 on contact tracing and recording.

2.6 Annexes to Section 2

| | |
|-----------------|--|
| Annex 2A | IHR 2005 Decision Instrument |
| Annex 2B | Algorithm of reporting immediate notifiable events/diseases |
| Annex 2C | Community Alert Form for reporting of events from community sources |
| Annex 2D | Community-Based Surveillance Suspected Diseases and Public Health Events Monthly Log Sheet |
| Annex 2E | Reporting Structure for community alert and verification |
| Annex 2F | IDSR immediate case-based reporting form |
| Annex 2G | IDSR case-based laboratory reporting form |
| Annex 2H | IDSR weekly/monthly summary reporting form |
| Annex 2I | IDSR reports and data sharing log book |
| Annex 2J | District level IDSR Data quality checklist |
| Annex 2K | Maternal deaths, Perinatal deaths reporting form, and Still and neonatal deaths summary reporting form |
| Annex 2L | WHO weekly reporting format |

Annex 2A: IHR 2005 Decision Instrument



¹ As per WHO case definitions.

² The disease list shall be used only for the purposes of these Regulations.

*States Parties that answer "yes" to the question whether the event meets any two of the four criteria above shall notify WHO according to Article 6 of the IHR

WHO

Ministry of Health

Share with other sectors e.g. Veterinary, Environmental health

Region/Province

Share with other sectors e.g. Veterinary, Environmental health

District/County

Share with other sectors e.g. Veterinary, Environmental health

POE **HFs**

Community in general (CHW, Traditional Healers, Traditional Birth attendants etc)

Identify and report immediately all suspected public health events using the community case and event definition

- National Surveillance Officer (NSO) review immediately notifiable diseases and liaise with IHR NFP
- IHR NFP report also liaise with OIE/INFOSAN/other FP depending to a particular event; use Annex 2C and immediately report to WHO
- National SO link with HMIS and other sectors to ensure an integrated approach in data management

- Region/County Surveillance Officer (RSO) reviews the information from all the districts; and liaises with relevant laboratory focal person; report immediately all notifiable diseases within 24 hours to next level and IHR NFP
- Region/County Surveillance officer liaises with HMIS; as well as other sectors like animal and agricultural to have a comprehensive report
- RSO reports to the Region through the District Medical Officer.

- District Surveillance Officer (DSO) reviews the information from all the Health Facilities and PoE; and liaises with laboratory focal person; reports immediately all notifiable diseases within 24 hours to next level; and notify IHR NFP
- District Surveillance Officer liaises with HMIS; as well as other sectors like animal, agricultural and environment to have a comprehensive report
- DSO reports to the Region through the District Medical Officer.

- Identify cases using Standard Case Definition and record cases in a register
- Report information to the district by fastest means possible if you have identified and recorded a notifiable disease (within 24 hours); and ensure you also fill a case-based investigation form
- During outbreaks, initiate a line list form/register and record daily new cases and deaths. Update the line list including lab data
- PoE reports must be also sent to the IHRNFP and the next level simultaneously
- Report weekly summaries of priority diseases
- Report summaries of other IDSR priority diseases

National Reference Lab

Regional

District Lab

Annex 2C: Community alert reporting form

[Send this form immediately to your supervisor or nearby health facility]

Instructions: This form is completed by the CBS focal person and submitted immediately to nearest health facility/sub-district surveillance focal person when he or she identifies disease (s) or public health event as per the community case definition. It is also completed for unusual health events/alerts that are not captured by the given case definition.

| Community alert reporting form [Send this form immediately to your supervisor or nearby health facility] | |
|---|-----------------------------|
| 1. Name of CBS focal person reporting: _____ | |
| 2. Telephone number: _____ Community _____ District _____ | |
| 3. Date reporting (day, month, year) __ __ / __ __ / __ __ __ __ | |
| 4. Type of illness/Condition/Event/Alert (please describe): _____ | |
| 5. When did this happen (Date: Day/Month/Year); Time | __ __ / __ __ / __ __ __ __ |
| 6. Date/time this was detected (Date: Day/Month/Year); Time: | __ __ / __ __ / __ __ __ __ |
| 7. Where did this happen? (Location: community, ward/sub-district, district) | |
| 8. How many people have been affected? | |
| 9. Has anyone died? If yes, how many | |
| 10. Are there sick or dead animals involved? | |
| 11. Is the event ongoing as at the time of this report? | |
| 12. What action has been taken? | |

NB: Countries should adopt this form such that it is used to capture and notify/report the country's priority diseases (Indicator-based surveillance) and events/alerts (event-based surveillance) occurring at the community level. This can be carbonated in the form of a CBS Register or note book with a copy sent to the nearest health facility and copy kept at community with the CBS focal person. Sections of the register should include pictures or images of the community case definitions and the predetermined events/alerts to assist in detection at the community level.

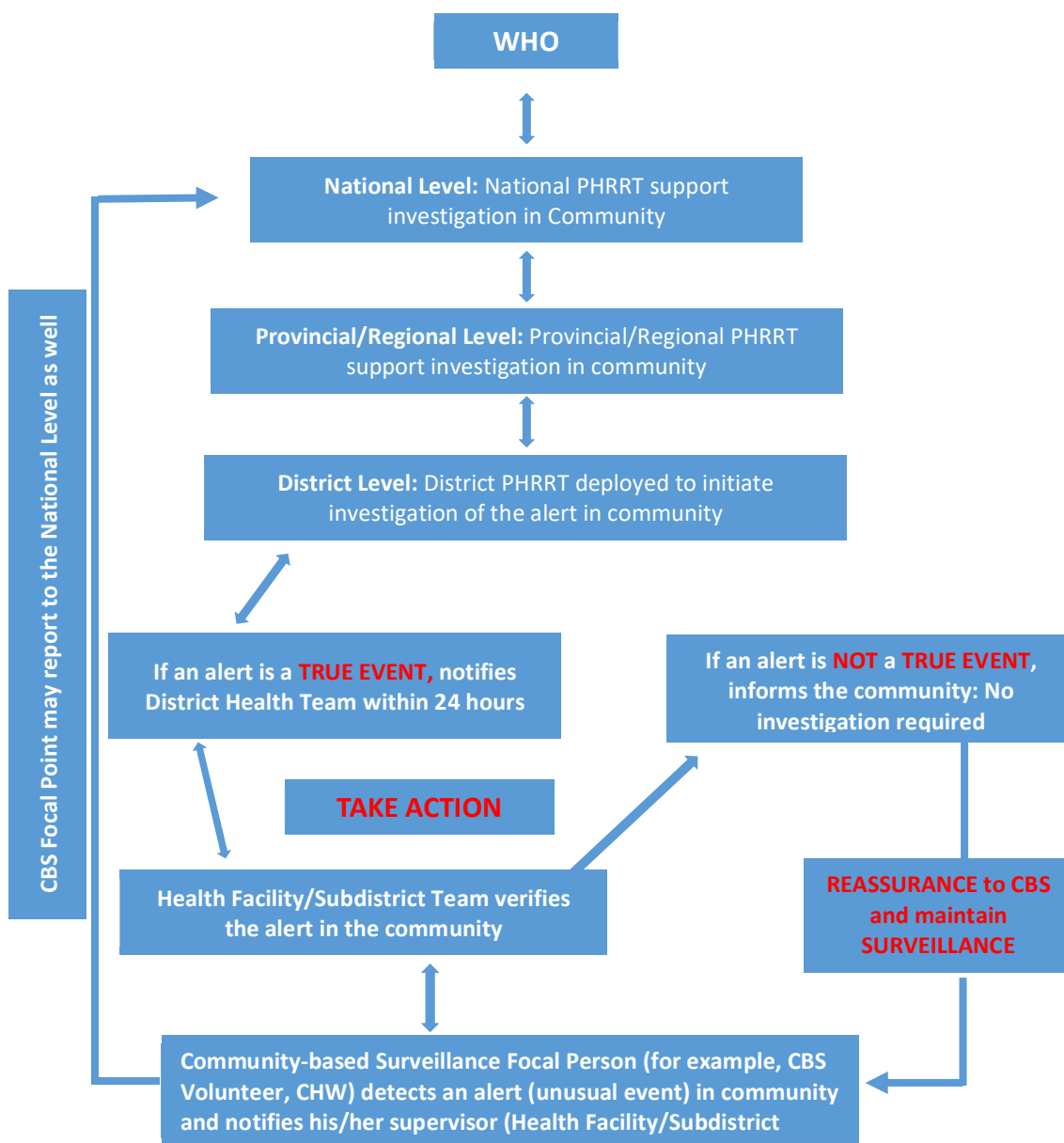
Annex 2D: Community-Based Surveillance (CBS) Suspected Diseases and Public Health Events Monthly Log Sheet

Instructions: This form is a line listing of all the diseases/events/alerts identified during the month. It is completed by the CBS focal person and submitted monthly to nearest health facility/sub-district surveillance focal person every month.

| Community-Based Surveillance Suspected Diseases and Public Health Events Monthly Log Sheet | | | | | | |
|--|---------------------------------------|---------------------------------------|---|------------------------------|----------------|------------------------|
| District _____ Ward/Subdistrict _____ | | | | | | |
| Community: _____ Month _____ Year _____ | | | | | | |
| Serial Number | Type of illness/Condition/Event/Alert | When did this happen? (DD/MM/YYYY) | Where did this happen? (Community, District) | How many have been affected? | How many died? | what action was taken? |
| | | | | | | |
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NB: Countries should adopt this form such that it is used to capture and notify/report the country's priority diseases (Indicator-based surveillance) and events/alerts (event-based surveillance) occurring at the community level. This can be carbonated in the form of a note book with a copy sent to the nearest health facility and copy kept at community with the CBS focal person

Annex 2E: Reporting Structure for community alert and verification



Annex 2F: IDSR immediate case-based reporting form

| IDSR Immediate Case-Based Reporting Form | | |
|--|--|------------------|
| Variables/Questions | | Answers – Case n |
| X | Record's unique identifier (YYYY-WEEK-CCC-PPP-DDD-Case nnn) | |
| 1 | Reporting Country | |
| 2 | Reporting Province/Region | |
| 3 | Reporting District | |
| 4 | Reporting Site (Health Facility, Camp, Village...) | |
| 5 | Disease/Event (diagnosis): * | |
| 6 | Inpatient or Outpatient? | |
| 7 | Date seen at health facility (day/month/year) | ____\ |
| 8 | Patient Name(s) | |
| 9 | Date of Birth (day/month/year) | ____\ |
| 10 | Age (...Years/...Months/...Days). | |
| 11 | Sex: M=Male F=Female | |
| 12 | Patient's residence: Name of Community/ Neighbourhood | |
| 13 | Name of Town/City | |
| 14 | Name of District of residence | |
| 15 | Urban/Rural? (U=Urban R=Rural) | |
| 16 | Address, (cell)phone number ... If applicable, name of mother and father if neonate or child | |
| 17 | Occupation | |
| 18 | Date of onset (day/month/year) of first symptoms | ____\ |
| 19 | Travel history (Y or N), if Yes, state destination | |
| 20 | Number of vaccine doses received in the past against the disease being reported** | |
| 21 | Date of last vaccination | ____\ |
| 22 | Date specimen collected | |
| 23 | Date specimen sent to lab | |
| 24 | Laboratory results | |
| 25 | Outcome: (Alive, Dead, transferred out, Lost to follow-up or unknown) | |
| 26 | Final Classification: Confirmed, Probable, Compatible, Discarded | |
| 27 | Date health facility notified District (day/month/year) | ____\ |
| 28 | Date form sent to district (day/month/year) | ____\ |
| 29 | Person completing form: name, function, signature | |

*** Disease/Event (Diagnosis):**
 AFP, Anthrax, Cholera, Bloody Diarrhoea, Dracunculiasis (Guinea Worm Disease), Neonatal Tetanus, Non-neonatal Tetanus, Measles, Dengue, Chikungunya, Meningitis, Monkey Pox, Yellow Fever, SARS, SARI, Maternal death, Neonatal death, Viral Haemorrhagic Fever, Plague, Typhoid fever, Rabies (Human), Smallpox, death, Influenza due to new subtypes, Adverse Effects following immunization (AEFI), Any event or disease of public health importance (Specify)

**** Measles, Neonatal Tetanus (TT in mother), Yellow Fever, and Meningitis, etc.**
 For cases of Measles, NT (TT in mother), Yellow Fever, and Meningitis; 9=unknown

Annex 2G: IDSR case-based laboratory reporting form

| IDSR case-based Laboratory Reporting Form | | |
|--|--|-------------|
| Part I: Referring health worker to complete this form and a copy sent to the laboratory with the specimen | | |
| | Variables | Answers |
| 1 | Date of specimen collection (day/month/year) | |
| 2 | Suspected Disease or Condition | |
| 3 | Specimen type * | |
| 4 | Specimen unique identifier ** | |
| 5 | Patient Name (s) | |
| 6 | Sex (M= Male F= Female) | |
| 7 | Age (..... Years/ Months/ ... Days). | |
| 8 | Date Specimen sent to laboratory (day/month/year) | _____\ |
| 9 | Phone and email address of clinician | |
| Part II. Laboratory to complete this section and return the form to district and clinician | | |
| | Variables | Answers |
| 1 | Laboratory Name and location | |
| 2 | Date laboratory received specimen (dd/mm/yyyy) | _____\ |
| 3 | Specimen condition: (Adequate/Not adequate) | |
| 4 | Type of test(s) performed | |
| 5 | Final Laboratory Result(s) | |
| 6 | Date (dd/mm/yyyy) laboratory sent results to district | _____\ |
| 7 | Date Results sent to the clinician (dd/mm/yyyy) | _____\ |
| 8 | Date district received laboratory results (dd/mm/yyyy) | _____\ |
| <p>* Blood, Plasma, Serum, Aspirate, CSF, Pus, Saliva, Biopsy, Stool, Urethral/Vaginal discharge, Urine, Sputum, food/water samples</p> <p>** Same as the patient's identifier in the IDSR immediate case-based reporting form</p> | | |

Annex 2H: IDSR weekly/monthly summary reporting form

| IDSR weekly/monthly summary reporting form | | | | | |
|--|---|-----------------------------|--------|---------------------------|---------------------------|
| Year: | | Week: | | Month: | |
| Country: | | Province/Region: | | District: | Population: |
| District ISO code: | | Reporting Site Name: | | Report Unique Identifier: | |
| Officially Expected Reports: | | Number of reports received: | | | Reports received on time: |
| Notifiable Diseases and Events | | Cases | Deaths | Lab confirmed cases | Observations |
| 1 | Acute Flaccid Paralysis | | | | |
| 2 | Acute haemorrhagic fever syndrome | | | | |
| 3 | Acute viral hepatitis | | | | |
| 4 | Adverse Effects following immunization (AEFI) | | | | |
| 5 | Anthrax | | | | |
| 6 | Buruli ulcer | | | | |
| 7 | Bacterial meningitis | | | | |
| 8 | Chikungunya | | | | |
| 9 | Cholera | | | | |
| 10 | Chronic viral hepatitis B (New cases) | | | | |
| 11 | Chronic viral hepatitis C (New cases) | | | | |
| 12 | Dengue fever | | | | |
| 13 | Diabetes mellitus (New cases) | | | | |
| 14 | Diarrhoea with blood | | | | |
| 15 | Diarrhoea with severe dehydration <5 | | | | |
| 16 | Dracunculiasis (Guinea worm disease) | | | | |
| 17 | HIV/AIDS (New cases) | | | | |
| 18 | Hypertension (New cases) | | | | |
| 19 | Influenza-like illness | | | | |
| 20 | Leprosy | | | | |
| 21 | Listeriosis | | | | |
| 22 | Malaria | | | | |

| IDSR weekly/monthly summary reporting form | | | | | |
|--|---|-----------------------------|--------|---------------------------|---------------------------|
| Year: | | Week: | | Month: | |
| Country: | | Province/Region: | | District: | Population: |
| District ISO code: | | Reporting Site Name: | | Report Unique Identifier: | |
| Officially Expected Reports: | | Number of reports received: | | | Reports received on time: |
| Notifiable Diseases and Events | | Cases | Deaths | Lab confirmed cases | Observations |
| 23 | Malnutrition < 5 years | | | | |
| 24 | Maternal deaths | | | | |
| 25 | Measles | | | | |
| 26 | Mental health (Epilepsy) | | | | |
| 27 | Middle East respiratory syndrome (MERS) | | | | |
| 28 | Monkey Pox | | | | |
| 29 | Neonatal tetanus | | | | |
| 30 | Non-neonatal tetanus | | | | |
| 31 | Newborn with low birthweight (less than 2500 g) | | | | |
| 32 | Noma | | | | |
| 33 | Onchocerciasis | | | | |
| 34 | Perinatal deaths | | | | |
| 35 | Plague | | | | |
| 36 | Poliomyelitis (AFP) | | | | |
| 37 | Public health events of international or national concern | | | | |
| 38 | Rabies (Human) | | | | |
| 39 | SARS | | | | |
| 40 | Severe Acute Respiratory Infections (SARIs) | | | | |
| 41 | Severe pneumonia <5 | | | | |
| 42 | Sexually Transmitted Infections | | | | |
| 43 | Smallpox | | | | |
| 44 | Trachoma | | | | |
| 45 | Trypanosomiasis | | | | |

| IDSR weekly/monthly summary reporting form | | | | | |
|--|--------------------------|-----------------------------|--------|---------------------------|---------------------------|
| Year: | | Week: | | Month: | |
| Country: | | Province/Region: | | District: | Population: |
| District ISO code: | | Reporting Site Name: | | Report Unique Identifier: | |
| Officially Expected Reports: | | Number of reports received: | | | Reports received on time: |
| Notifiable Diseases and Events | | Cases | Deaths | Lab confirmed cases | Observations |
| 46 | Typhoid fever | | | | |
| 47 | Viral haemorrhagic fever | | | | |
| 48 | Yellow Fever | | | | |
| 49 | Zika virus disease | | | | |
| Analysis, Interpretation, Decision, Action and Recommendations | | | | | |
| Epidemiological comments | | | | | |
| Decisions and action(s) taken | | | | | |
| Recommendations | | | | | |
| Report date: \ \ \ \ | | Responsible Officer: | | | |
| (dd/mm/yyyy) | | | | | |

Annex 2I: IDSR reports and data sharing logbook

| IDSR Reports and Data Sharing Log book | | | | | | | |
|--|--|---------------------|--------------------|--------------------------------|---------------------------------|---|----------|
| Country: | | | | | | | |
| Province /Region: | | | | | | | |
| District: | | | | | | | |
| Surveillance site name: | | | | | | | |
| Reception Date of the Report or Data set | Report description: pick one from the list below * | Reporting site name | Reported period ** | Report form well filled? (Y/N) | Report received Timely or Late? | Feedback sent to the reporting site? (Yes/No) | Comments |
| | | | | | | | |
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*
Weekly AFP polio; Weekly Epidemic Prone Diseases; Weekly Influenza sentinel sites and labs findings; Monthly IDSR Aggregated data including malaria and Guinea worm disease; Monthly Paediatric bacterial Meningitis surveillance data; Monthly; Measles and yellow fever laboratory data; Monthly Measles, yellow fever and NNT case-based data; Monthly Bacteriology laboratory data; Monthly Rotavirus surveillance data; Quarterly Tuberculosis Report; Quarterly MDR and XDR Tuberculosis Report; Quarterly Leprosy Report; Quarterly Trypanosomiasis Report; Annual HIV Surveillance data, Etc.

**(Use epidemiological notation to record the reporting period, for example: W-2010-18 for weekly data, M-2010-12 for monthly data, Q-2010-02 for quarterly data)

Note: Instructions for completing forms can be printed on the reverse side if a paper form is used or in electronic format if reports are compiled and transmitted by computer

Annex 2J: District level IDSR Data quality checklist

District Level IDSR Data Quality Audit Checklist

Name of Reporting Officer: _____

Contact Phone Number: _____

E-mail: _____

Health Facility: _____

District: _____

Region/Province: _____

Date: ____/____/____

Persons Met and Title

| CORE ACTIVITY | THINGS TO LOOK FOR IN THE FACILITY | | | NOTES |
|--|--|-----|----|-------|
| | General | | | |
| 1. DATA COLLECTION TO IDENTIFY SUSPECTED CASES WITHIN HEALTH FACILITY | 1. Is there an information flow for reporting to the district level (diagram or description)? | | | |
| | 2. How frequently do you review and collect data (for example, daily, weekly, monthly)? | | | |
| | 3. Is there a list of the country's notifiable diseases? | | | |
| | 4. Is there a list of priority reportable diseases/conditions/events? | | | |
| | 5. For each priority reportable disease, condition or event, does this facility have case definitions for suspected and confirmed cases? | | | |
| | 6. Priority Reportable Diseases/conditions/events with case definitions | | | |
| | Disease (examples only. Please modify list for your setting.) | Yes | No | Notes |
| | AFP (Suspected Polio) | | | |
| | Tuberculosis | | | |
| | Viral Haemorrhagic Fever, for example, Ebola | | | |
| | Yellow Fever | | | |
| | Monkey Pox | | | |
| | Others: specify | | | |
| | Case-Based Reporting or Line List Form, IDSR weekly/monthly summary forms | | | |
| | 1) Is the case-based form or line listing form or IDSR weekly/summary form paper-based or electronic? | | | |
| | 2) If paper-based, do you have adequate supply of case-based reporting or line listing forms? | | | |
| | 3) Is your facility using them? | | | |
| | 4) Do you get feedback about the final diagnosis? | | | |

| | | | | |
|--|---|------------|-----------|--------------|
| Thoughts on possible problems in data collection process Examples: <ul style="list-style-type: none"> • Unsystematic data collection and reporting procedures due to HCW not knowing • Lack of laboratory results due to lack of feedback from higher levels or from the requested laboratory | List possible causes of omissions or problems. | | | |
| | List recommended solutions, including target date and person responsible. | | | |
| 2. RECORDING OF CASES | 1. For suspected cases, what material is reviewed to determine suspected cases (for example, patient chart/folder/card, facility record, case-based form, line list)? | | | |
| | 2. For suspected cases, how was diagnosis assessed (for example, laboratory confirmatory tests, patient signs and/or symptoms, patient history, or consultation)? | | | |
| | 3. Are priority reportable diseases recorded in the health facility register or facility line list according to the country | | | |
| | 4. Select randomly 3 priority diseases; verify how they are diagnosed and recorded | | | |
| Thoughts on possible problems in recording of cases, for example: Lack of documentation/recording Data or files are lost Poorly completed forms (missing values, forms not filled, presence of blanks, etc.). | List possible causes of omissions or problems | | | |
| | List recommended solutions, including target date and person responsible | | | |
| 3. REPORTING | 1. Who is responsible for reporting priority reportable diseases (health-care provider, laboratory, institution)? | | | |
| | 2. When was the last time a supervisor made a site visit to your facility? | | | |
| | 3. How often do you report information to the next level? | | | |
| | 4. Is there a standard method for reporting each immediate reportable disease? | | | |
| | 5. Is there a standard method for summary reporting each priority disease? | | | |
| | 6. Is there a standard method of reporting an outbreak? | | | |
| | 7. Is the report case-based or aggregate format? | | | |
| | 8. Is the reporting protocol process mapped out or summarized in narrative format and readily visible in the facility (for example, on the wall)? | | | |
| | 9. For priority diseases, are "0" cases recorded and reported? | | | |
| | 10. Are the number of cases of notifiable diseases seen at the facility within a specified reporting period same as that reported to the district level? (Randomly select 3 notifiable diseases and verify) | | | |
| | 11. Are each of the immediately reportable diseases consistently reported in a timely manner? | | | |
| | Immediately Reportable Diseases | | | Notes |
| | Disease | Yes | No | |
| | | | | |
| | | | | |

| | | | | |
|--|--|--|--|--|
| | | | | |
| | | | | |
| List findings seen For example: Under-reporting or Over-reporting of cases. Duplicate reporting Untruthful reporting, (for example, reporting zero, while there is an ongoing outbreak of epidemic-prone diseases) Inconsistent reporting formats (forms). Late submission/reporting. Inconsistent reporting periods, | | | | |
| Thoughts on Report | List possible causes of omissions or problems | | | |
| | List recommended solutions, including target date and person responsible | | | |

Annex 2K: Maternal death-reporting form and Perinatal death reporting forms

| Maternal Death Reporting Form | | |
|--|---|---------|
| <i>The form must be completed for all deaths, including abortions and ectopic gestation related deaths, in pregnant women or within 42 days after termination of pregnancy irrespective of duration or site of pregnancy</i> | | |
| Questions/Variables | | Answers |
| 1 | Country | |
| 2 | District | |
| 3 | Reporting Site | |
| 4 | How many of such maternal deaths occurred cumulatively this year at this site? | |
| 5 | Date this maternal death occurred (day/month/year) | |
| 6 | Maternal death locality (Village or Town) | |
| 7 | Record's unique identifier (year-Country code-District-site-maternal death rank) | |
| 8 | Maternal death place (Community, health facility, district hospital, referral hospital or private hospital, on the way to health facility or | |
| 9 | Age (in years) of the deceased | |
| 10 | Gravida: how many times was the deceased pregnant? | |
| 11 | Parity: how many times did the deceased deliver a baby of 22 weeks/500g or more? | |
| 12 | Time of death (specify "During pregnancy, At delivery, during delivery, during the immediate post-partum period, or long after | |
| 13 | If abortion: was it spontaneous or induced? | |
| Maternal death history and risk factors | | |
| 14 | Was the deceased receiving any antenatal care? (Yes/No) | |
| | Did she have Malaria? (Yes or No) | |
| 15 | Did she have Hypertension? (Yes or No) | |
| 16 | Did she have Anaemia? (Yes or No) | |
| 17 | Did she have Abnormal Lie? (Yes or No) | |
| 18 | Did she undergo any Previous Caesarean Section? (Yes or No) | |
| 19 | What was her HIV Status? (choose "HIV+; HIV-; or Unknown HIV status") | |
| Delivery, puerperium and neonatal information | | |
| 20 | How long (hours) was the duration of labour | |
| 21 | What type of delivery was it? (choose one from "1=Vaginal non-assisted delivery, 2= vaginal-assisted delivery (Vacuum/forceps), or 3=Caesarean section" | |
| 22 | What was the baby status at birth? (Alive or Stillborn) | |

Maternal Death Reporting Form

The form must be completed for all deaths, including abortions and ectopic gestation related deaths, in pregnant women or within 42 days after termination of pregnancy irrespective of duration or site of pregnancy

| | Questions/Variables | Answers |
|----|--|---------|
| 23 | In case the baby was born alive, is he/she still alive or died within 28 days after his/her birth? (choose 1=Still alive, 2=neonatal death, 3=died beyond 28 days of age) | |
| 24 | Was the deceased referred to any health facility or hospital? (Yes/No/Don't know) | |
| 25 | If yes, how long did it take to get there? (hours) | |
| 26 | Did the deceased receive any medical care or obstetrical/surgical interventions for what led to her death? | |
| 27 | If yes, specify where and the treatment received* | |
| 28 | Primary cause of the Maternal Death | |
| 29 | Secondary cause of the Maternal Death | |
| 30 | Analysis and Interpretation of the information collected so far (investigator's opinion on this death) | |
| 31 | Remarks | |
| 32 | Maternal death notification date (day/month/year) | |
| 33 | Investigator (Title, name and function) | |
| | *Treatment received | |
| | I.V. Fluids; Plasma; Blood Transfusion; Antibiotics; Oxytocin; Anti-seizure drugs; Oxygen; Anti-malarial; Other medical treatment; Surgery; Manual removal of placenta; Manual intra uterine aspiration; Curettage, laparotomy, hysterectomy, instrumental delivery (Forceps; Vacuum), Caesarean section, anaesthesia (general, spinal, epidural, local) | |
| | Definitions | |
| | Gravida: The number of times the woman was pregnant- Parity: Number of times the woman delivered a baby of 22 weeks/500g or more, whether alive or dead | |
| | | |

| Perinatal death – reporting form | | |
|---|--|---------|
| <i>The form must be completed for selected perinatal deaths, comprising stillbirths and early neonatal deaths</i> | | |
| Questions / Variables | | Answers |
| Identification | | |
| 1 | Country | |
| 2 | District | |
| 3 | Reporting site/facility | |
| 4 | Perinatal death locality (village or town) | |
| 5 | Place of death (community, health facility, district hospital, referral hospital or private hospital, on the way to health facility or hospital) | |
| 6 | Date this perinatal death occurred (day/month/year) | |
| 7 | Record's unique identifier (year-country code-district-site) for the mother. | |
| 8 | Record's unique identifier (year-country code-district-site) for the baby (deceased). | |
| Pregnancy progress and care (Perinatal death history and risk factors) | | |
| 9 | Mother's age (in years) | |
| 10 | Type of pregnancy (singleton/twin/higher multiples) | |
| 11 | Did the mother of the deceased receive any antenatal care? (Yes/No/Unknown), | |
| 12 | If yes to 11, how many visits? _____ | |
| 13 | Did the mother of the deceased have malaria? (Yes/No/Unknown) | |
| 14 | If yes to 13, did the mother receive treatment? (Yes/No/Unknown) | |
| 15 | Did the mother of the deceased have pre-eclampsia disease? (Yes/No/Unknown) | |
| 16 | If yes to 15, did the mother receive any treatment? (Yes/No/Unknown) | |
| 17 | Did the mother of the deceased have severe anaemia (HB, 7g/dl)? (Yes/No/Unknown) | |
| 18 | If yes to 17, did the mother receive any treatment? (Yes/No/Unknown) | |
| 19 | Did the mother of the deceased have recommended maternal immunizations (for example, tetanus toxoid) (Yes/ No/Unknown) | |
| 20 | Did the mother of the deceased have Rhesus factor (Rh) or ABO incompatibility? (Yes/ No/Unknown) | |
| 21 | If Rhesus positive, did the mother of the deceased receive Anti-D injection during this baby's pregnancy? (Yes/ No/Unknown) | |

| Perinatal death – reporting form | | |
|---|--|--|
| 22 | Did the deceased present an abnormal lie (including breech presentation)? (Yes/No/Unknown) | |
| 23 | What was the HIV status of the mother? (choose "HIV+; HIV-; or Unknown HIV status") | |
| 24 | What was the status of the syphilis test of mother? (Positive (+) or negative (-) If she was positive for syphilis, did she receive treatment | |
| Labour, birth, puerperium | | |
| 25 | Date of birth (day/month/year) | |
| 26 | Attendance at delivery (Nurse/midwife/doctor/other-specify). | |
| 27 | Was foetal heart rate assessed on admission? (Yes, No) | |
| | What type of delivery was it? (choose one from "1=Vaginal non-assisted delivery, 2= vaginal-assisted delivery (Vacuum/forceps), or 3=Caesarean section | |
| 28 | Sex of the baby (1=male; 2=female, 3=ambiguous) | |
| 29 | Birth weight in grams (≥ 2500 ; 1500-2499 (LBW); 1000-1499g (VLBW); <1000 (ELBW)) | |
| 30 | Did the mother of the deceased have premature rupture of membranes (PROM)? (Yes/No/Unknown) | |
| 31 | Did the mother of the deceased have foul smelling liquor? | |
| 32 | Gestational age (in weeks) Method of estimation: Ultrasound /LMP (DD/MM/YY) | |
| 33 | How long (hours) was the duration of labour? | |
| Information on the death and actions taken before and after the death | | |
| 30 | If stillbirth – gestational age (in weeks) of the deceased | |
| 31 | If neonatal death – age (in days) of the deceased | |
| 32 | If the deceased baby was born alive what was the APGAR Score? | |
| 33 | If the deceased baby was born alive, was resuscitation with bag and mask conducted? | |
| 34 | If the deceased baby was born alive, was he/she referred to any health facility or hospital? (Yes/No/Unknown) | |
| 35 | If the deceased baby was born alive, did he/she receive any other medical care beyond resuscitation? (Yes/No/Unknown) | |
| | If yes, specify where and the treatment received: * I.V. Fluids; Blood/Plasma transfusion; Antibiotics; Oxygen; Other medical treatment | |
| | Primary cause of death: | |
| | Secondary cause of death: | |

| Perinatal death – reporting form | | |
|----------------------------------|--|--|
| | Maternal condition (if applicable) | |
| 34 | Timing of death (1-fresh stillbirth; 2-macerated stillbirth) | |
| 35 | Any physical malformation noted on the deceased? (Yes/No) | |
| | If yes, type of birth defect (with full description): | |
| Investigator's report | | |
| 36 | Analysis and interpretation of the information collected so far (investigator's opinion on this death) | |
| 37 | Perinatal death notification date (day/month/year) | |
| 38 | Investigator (Title, name and function) | |

Stillbirths and neonatal deaths monthly summary reporting form

| The form must be completed for stillbirths and neonatal deaths | | | | | | | | |
|---|-------------------------|--------------|----------------------|--------------------------|-------------------------|-----------------|------|---------|
| Questions/Variables | | | | | | | | Answers |
| Identification | | | | | | | | |
| 1 | Data for the month of | | | | | | | |
| 2 | Country | | | | | | | |
| 3 | District | | | | | | | |
| 4 | Reporting site/facility | | | | | | | |
| 5 | Births | | | | | | | |
| | | Total Births | Stillbirths | | | Neonatal deaths | | |
| | | | Antepartum | Intrapartum | Unknown | Early | Late | |
| | <1000 g (ELBW) | | | | | | | |
| | 1000–1499 g (VLBW) | | | | | | | |
| | 1500–1999 g (LBW) | | | | | | | |
| | 2000–2499 g (MLBW) | | | | | | | |
| | 2500 + g | | | | | | | |
| | Total | | | | | | | |
| Pregnancy progress and care (Perinatal death history and risk factors) | | | | | | | | |
| 6 | Multiple pregnancies | | | | | | | |
| 7 | Born before arrival | | | | | | | |
| 8 | Mode of delivery | | | | | | | |
| | Normal vaginal delivery | Vacuum | Forceps | Caesarean | Unknown | | | |
| 9 | Gestational age | | | | | | | |
| | Term | Post-term | Ext preterm (<1000g) | Very preterm (1000-1499) | Mod preterm (1500-2499) | Unknown | | |
| 10 | HIV status | | | | | | | |
| | Negative | | Positive | | Unknown | | | |
| 11 | Syphilis serology | | | | | | | |
| | Negative | | Positive | | Unknown | | | |
| 12 | Maternal age | | | | | | | |
| | >34 y | 20-34 | 18-19 y | | <18 y | Unknown | | |
| | | | | | | | | |

Annex 2L: WHO Epidemiological week format, 2019-2020

| Week Number | 2019 | 2020 |
|-------------|----------------------|----------------------|
| 01 | 31-12-18 to 06-01-19 | 30-12-19 to 05-01-19 |
| 02 | 07-01-19 to 13-01-19 | 06-01-20 to 12-01-20 |
| 03 | 14-01-19 to 20-01-19 | 13-01-20 to 19-01-20 |
| 04 | 21-01-19 to 27-01-19 | 20-01-20 to 26-01-20 |
| 05 | 28-01-19 to 03-02-19 | 27-01-20 to 02-02-20 |
| 06 | 04-02-19 to 10-02-19 | 03-02-20 to 09-02-20 |
| 07 | 11-02-19 to 17-02-19 | 10-02-20 to 16-02-20 |
| 08 | 18-02-19 to 24-02-19 | 17-02-20 to 23-02-20 |
| 09 | 25-02-19 to 03-03-19 | 24-02-20 to 01-03-20 |
| 10 | 04-03-19 to 10-03-19 | 02-03-20 to 08-03-20 |
| 11 | 11-03-19 to 17-03-19 | 09-03-20 to 15-03-20 |
| 12 | 18-03-19 to 24-03-19 | 16-03-20 to 22-03-20 |
| 13 | 25-03-19 to 31-03-19 | 23-03-20 to 29-03-20 |
| 14 | 01-04-19 to 07-04-19 | 30-03-20 to 05-04-20 |
| 15 | 08-04-19 to 14-04-19 | 06-04-20 to 12-04-20 |
| 16 | 15-04-19 to 21-04-19 | 13-04-20 to 19-04-20 |
| 17 | 22-04-19 to 28-04-19 | 20-04-20 to 26-04-20 |
| 18 | 29-04-19 to 05-05-19 | 27-04-20 to 03-05-20 |
| 19 | 06-05-19 to 12-05-19 | 04-05-20 to 10-05-20 |
| 20 | 13-05-19 to 19-05-19 | 11-05-20 to 17-05-20 |
| 21 | 20-05-19 to 26-05-19 | 18-05-20 to 24-05-20 |
| 22 | 27-05-19 to 02-06-19 | 25-05-20 to 31-05-20 |
| 23 | 03-06-19 to 09-06-19 | 01-06-20 to 07-06-20 |
| 24 | 10-06-19 to 16-06-19 | 08-06-20 to 14-06-20 |
| 25 | 17-06-19 to 23-06-19 | 15-06-20 to 21-06-20 |
| 26 | 24-06-19 to 30-06-19 | 22-06-20 to 28-06-20 |
| 27 | 01-07-19 to 07-07-19 | 29-06-20 to 05-07-20 |
| 28 | 08-07-19 to 14-07-19 | 06-07-20 to 12-07-20 |
| 29 | 15-07-19 to 21-07-19 | 13-07-20 to 19-07-20 |
| 30 | 22-07-19 to 28-07-19 | 20-07-20 - 26-07-20 |
| 31 | 29-07-19 to 04-08-19 | 27-07-20 to 02-08-20 |
| 32 | 05-08-19 to 11-08-19 | 03-08-20 to 09-08-20 |
| 33 | 12-08-19 to 18-08-19 | 10-08-20 to 16-08-20 |
| 34 | 19-08-19 to 25-08-19 | 17-08-20 to 23-08-20 |
| 35 | 26-08-19 to 01-09-19 | 24-08-20 to 30-08-20 |
| 36 | 02-09-19 to 08-09-19 | 31-08-20 to 06-09-20 |
| 37 | 09-09-19 to 15-09-19 | 07-09-20 to 13-09-20 |
| 38 | 16-09-19 to 22-09-19 | 14-09-20 to 20-09-20 |
| 39 | 23-09-19 to 29-09-19 | 21-09-20 to 27-09-20 |

| Week Number | 2019 | 2020 |
|-------------|----------------------|----------------------|
| 40 | 30-09-19 to 06-10-19 | 28-09-20 to 04-10-20 |
| 41 | 07-10-19 to 13-10-19 | 05-10-20 to 11-10-20 |
| 42 | 14-10-19 to 20-10-19 | 12-10-20 to 18-10-20 |
| 43 | 21-10-19 to 27-10-19 | 19-10-20 to 25-10-20 |
| 44 | 28-10-19 to 03-11-19 | 26-10-20 to 01-11-20 |
| 45 | 04-11-19 to 10-11-19 | 02-11-20 to 08-11-20 |
| 46 | 11-11-19 to 17-11-19 | 09-11-20 to 15-11-20 |
| 47 | 18-11-19 to 24-11-19 | 16-11-20 to 22-11-20 |
| 48 | 25-11-19 to 01-12-19 | 23-11-20 to 29-11-20 |
| 49 | 02-12-19 to 08-12-19 | 30-11-20 to 06-12-20 |
| 50 | 09-12-19 to 15-12-19 | 07-12-20 to 13-12-20 |
| 51 | 16-12-19 to 22-12-19 | 14-12-20 to 20-12-20 |
| 52 | 23-12-19 to 29-12-19 | 21-12-20 to 27-12-20 |
| 53 | | 28-12-20 to 03-01-21 |

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