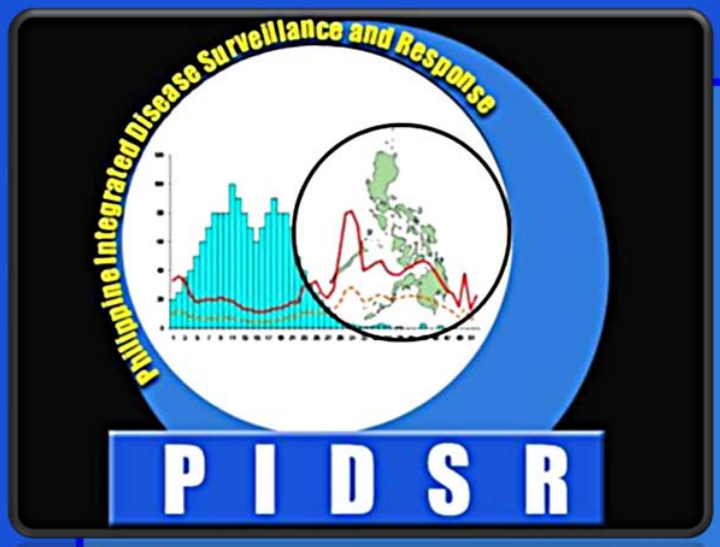

Manual of Procedures for the

Philippine Integrated Disease Surveillance and Response

1st Edition

Department of Health

Manual of Procedures for the

Philippine Integrated Disease Surveillance and Response

March 2008

By the Staff of the National Epidemiology Center of the Department of Health, Philippines

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FOREWORD

The Philippine Integrated Disease Surveillance and Response (PIDSR) System was established to improve the current disease surveillance systems in the Philippines and to comply with the 2005 IHR call for an urgent need to adopt an integrated approach for strengthening the epidemiologic surveillance and response system of each member nation.

PIDSR envisions the integration of all surveillance and response activities at all levels. This integration will provide a more rational basis for decision making and implementing public health interventions that effectively respond to priority diseases and events. The focus of PIDSR is to strengthen the capacity of local government units for early detection and response to epidemics. It emphasizes a standardized proactive nationwide approach to outbreak detection, prevention and control from the community up to the national level. It harmonizes existing systems and synchronizes training, manpower deployment, laboratory and financial support from all levels.

This Manual of Procedures describes in detail the integrated approach of disease surveillance and response and will serve as a practical guide to all who will implement, monitor and support the PIDSR. All disease surveillance coordinators in disease reporting units from hospitals, clinics, rural health units, city health offices, and staff in epidemiology and surveillance units at the provincial, regional, and national levels should be guided by this manual in the management and implementation of their surveillance systems. Likewise communicable disease program managers and managers of the Expanded Program on Immunization at the national and local levels, members of the epidemic investigation and control team, epidemic management committee at the provincial and regional levels, health emergency management staff, medical doctors and nursing personnel, and community health volunteers will find this manual as a useful reference.

We would like to acknowledge and appreciate the frontline health workers who have in their own way dedicated their work and lives in the field of disease detection, control and prevention in the Philippines.

We also extend our heartfelt gratitude to all our partners in health especially the Local Government Units, Non-Government Organization and other Government and Civil Societies who are always supporting the works of the Department of Health.

Lastly, we also express our sincerest gratitude to all the staff at the regional, provincial, city and municipal health offices, whose dedication and commitment have contributed to the realization of this manual of procedures.

FRANCISCO T. DUQUE III, MD, MSc
Secretary of Health

ACRONYMS

AFP	Acute Flaccid Paralysis
AEFI	Adverse Events Following Immunization
AFRIMS	Armed Forces Research Institute of Medical Sciences
AI	Avian Influenza
AIDS	Acquired Immune Deficiency Syndrome
BFAD	Bureau of Food and Drugs
BFAR	Bureau of Fisheries and Aquatic Resources
BHS	Barangay Health Station
CESU	City Epidemiology and Surveillance Unit
CFR	Case Fatality Rate
CHD	Center for Health Development
CHO	City Health Office / City Health Officer
CSF	Cerebro-spinal Fluid
DA-BAI	Department of Agriculture-Bureau of Animal Industry
DA-RADDL	Department of Agriculture-Regional Animal Disease Diagnostic Laboratories
DOH	Department of Health
DOH-PCREID	Department of Health Management Committee on Prevention and Control of Emerging and Re-emerging Infectious Diseases
DOST	Department of Science and Technology
DRA	Disease Reporting Advocate
DRU	Disease Reporting Unit
DSC	Disease Surveillance Coordinator
DSO	Disease Surveillance Officer
EID	Emerging Infectious Disease
EPI	Expanded Program on Immunization
EREID	Emerging And Re-Emerging Infectious Disease
ESR	Epidemiological Surveillance and Response
ESSC	Epidemiology and Surveillance Sub-Committee
ESU	Epidemiology and Surveillance Unit
F1	*FOUR*mula *ONE* for Health
FETP	Field Epidemiology Training Program
FHSIS	Field Health Service and Information System
GIS	Geographical Information System
HEMS	Health Emergency Management Staff

HIS	Health Information System
HIV	Human Immunodeficiency Virus
HMN	Health Metrics Network
IDSR	Infectious Disease Surveillance and Response
IEC	Information Education Communication
IHR	International Health Regulations
ILI	Influenza-like Illness
ITR	Individual Treatment Record
LCE	Local Chief Executives
LGU	Local Government Unit
MHO	Municipal Health Office / Municipal Health Officer
NDRS	Notifiable Disease Reporting System
NEC	National Epidemiology Center
NESSS	National Epidemic Sentinel Surveillance System
NT	Neonatal Tetanus
PHEIC	Public Health Emergency of International Concern
PhilHealth	Philippine Health Insurance Corporation
PHO	Provincial Health Office / Provincial Health Officer
PHSID	Public Health Surveillance and Informatics Division
PIDSR	Philippine Integrated Disease Surveillance and Response
PRIMEX	Pacific Rim Innovation and Management Exponents, Inc.
RIG	Rabies Immunoglobulin
RESU	Regional Epidemiology and Surveillance Unit
RHU	Rural Health Unit
RITM	Research Institute of Tropical Medicine
SACCL	STD/AIDS Cooperative Central Laboratory
SARS	Severe Acute Respiratory Syndrome
SMS	Short Message Service
STI	Sexually Transmitted Infection
TCL	Target Client List
UP- NPMCC	University of the Philippines National Poison Management and Control Center
VPD	Vaccine Preventable Disease
VPDISS	Vaccine Preventable Diseases and Immunization Safety Surveillance
WHO	World Health Organization
WNDR	Weekly Notifiable Disease Report

GLOSSARY

Active Surveillance – refers to public health officers either collect the data themselves or seek reports from participants in the surveillance system on a regular basis, rather than waiting for the reports.

Alert Threshold – refers to the level of occurrence of disease that serves as an early warning for epidemics. An increase in the number of cases above the threshold level should trigger an investigation, check epidemic preparedness and implement appropriate prevention and control measures.

Case-based Surveillance - refers to the collection of specific data on each case (e.g. collecting details on each case of acute flaccid paralysis [AFP]) as determined by the national coordinating body.

Cluster - refers to the aggregation of relatively uncommon events or diseases in space and/or time in magnitude that is believed or perceived to be greater than could be expected by chance.

Disease – refers to a specific illness or medical condition, irrespective of origin or source that directly presents or has the potential to present significant harm to humans.

Disease Reporting Unit (DRU) - refers to any health facility where cases of notifiable diseases are identified and reported (e.g., hospitals, clinics, Municipal Health Offices [MHO], City Health Offices [CHO], Barangay Health Stations [BHS], community, Quarantine Stations).

Disease Reporting Advocates (DRA) – refers to health workers and other individuals (e.g. community leaders, private practitioners) who have attended orientation on PIDSR and are committed to actively participate in reporting cases.

Disease Surveillance Coordinator (DSC) - refers to staff of government and non-government health facilities (e.g. hospitals, clinics, RHUs) who have received training on PIDSR with an official designation as disease surveillance coordinator by the head of the facility.

Disease Surveillance Officer (DSO) - refers to a fulltime staff of the Epidemiology and Surveillance Unit (ESU) of the CHOs (chartered cities), PHOs and CHDs who has received training on basic epidemiology, public health surveillance and PIDSR with an official designation as disease surveillance officer by the head of office. Ideally, a DSO should either be a physician or a nurse.

Epidemic - refers to the occurrence in a community or region of cases of an illness, specific health-related behavior, or other health-related events clearly in excess of normal expectancy. The community or region and the period in which the cases occur are specified precisely. The number of cases indicating the presence of an epidemic varies according to the agent, size, and type of population exposed; previous experience or lack of exposure to the disease; and time and place of occurrence. (Adapted from Last JM, Ed. *A Dictionary of Epidemiology*, 1997). A community may refer to specific groups of people (e.g., those attending a social function and got ill from food poisoning).

Epidemic threshold - refers to the level of occurrence of disease above which an urgent response is required. The threshold is specific to each disease and depends on the

infectiousness, other determinants of transmission and local endemicity levels. For some diseases, such as poliomyelitis or SARS, one case is sufficient to initiate a response.

Epidemiology - refers to the study of the distribution and determinants of health-related states or events in specified populations, and the application of this study to the control of health problems.

Epidemiology and Surveillance Unit - refers to the unit established in the Centers for Health Development (CHD), Provincial Health Offices (PHO), City Health Offices (CHO) and Rural Health Units (RHU) that provide services on public health surveillance and epidemiology.

HIV/AIDS Registry - refers to the registry of all HIV-AIDS cases in the Philippines that are reported from both public and private hospitals, laboratories, and other agencies.

Integrated Disease Surveillance and Response - refers to the process of coordinating, prioritizing, and streamlining of core surveillance activities (e.g., data collection, reporting, laboratory and epidemiological confirmation, analysis, feedback), support functions (e.g., training, monitoring, financial and logistics) and response (e.g., epidemic investigation) with the aim of making the system more efficient and effective in providing timely, accurate and relevant information for action.

International Health Regulations (IHR) of 2005 - refers to the international legal instrument that binds all WHO Member States to implement a set of international standards with the aim to prevent, protect against, control and provide a public health response to the international spread of disease in ways that are commensurate with and restricted to public health risks, and which avoid unnecessary interference with international traffic and trade.

Isolation – refers to the separation of ill or contaminated persons or affected baggage, containers, conveyances, goods or postal parcels from others in such a manner as to prevent the spread of infection or contamination.

National Epidemic Sentinel Surveillance System (NESSS) - refers to the hospital-based surveillance system that monitors 15 diseases with outbreak potential that are either laboratory-confirmed (e.g. cholera, hepatitis A, hepatitis B, malaria, measles, typhoid fever) or clinically-diagnosed (e.g., dengue, diphtheria, leptospirosis, meningococcal disease, non-neonatal tetanus, neonatal tetanus, pertussis, rabies).

National IHR Focal Point- refers to the national center, designated by each State Party, which shall be accessible at all times for communications with WHO IHR Contact Points under the 2005 IHR

Notifiable Disease Reporting System (NDRS) - refers to the component of the Field Health Service Information System (FHSIS) that provides the Department of Health (DOH) with field-based surveillance and program management information on the different public health programs. It monitors 17 diseases and 7 syndromes. Data are generated from the barangay health stations, rural health units and municipal or city health centers.

Notifiable Disease - refers to the disease that, by legal requirements, must be reported to the public health or other authority in the pertinent jurisdiction when the diagnosis is made.

Outbreak – synonymous with epidemic; when used in a sentence, refers to an epidemic limited to localized increase in the incidence of a disease, e.g., in a village, town, or closed institution. (Adapted from Last JM, Ed. *A Dictionary of Epidemiology*, 1997).

Passive surveillance – refers to a surveillance system in which reports are awaited and no attempt is made to seek reports actively from the participants in the system.

Point of Entry – refers to a passage for international entry or exit of travelers, baggage, cargo, containers, conveyances, goods and postal parcels as well as agencies and areas providing services to them on entry or exit.

Public Health Surveillance - refers to the ongoing, systematic collection, analysis, interpretation and timely dissemination of health data for the planning, implementation and evaluation of public health program. The use of information based from these data to disease prevention and health promotion program completes the surveillance cycle in public health.

Public Health Emergency of International Concern – refers to an extraordinary event which is determined, as provided in the 2005 IHR: 1) to constitute a public health risk to other states through the international spread of disease and 2) to potentially require a coordinated international response.

Quarantine – refers to the restriction of activities and/or separation from others of suspect persons who are not ill or of suspect baggage, containers, conveyances, or goods in such a manner as to prevent the possible spread of infection or contamination.

Surveillance Report - refers to the regular publication with specific information on the disease under surveillance. It contains updates of standard tables and graphs as well as information on epidemics. In addition it may contain information on the performance of participants using agreed performance indicators.

Syndrome - refers to a symptom complex in which the symptoms and/or signs coexist more frequently than would be expected by chance on the assumption of independence.

Syndromic report – refers to the notification of a health event under surveillance for which the case definition is based on a syndrome not on a definite disease (e.g. acute hemorrhagic fever syndrome, acute respiratory syndrome).

Vaccine Preventable Diseases and Immunization Safety Surveillance - refers to the intensive case-based, hospital-based surveillance for diseases targeted for eradication and elimination. This includes acute flaccid paralysis or suspected polio, measles and neonatal tetanus and adverse events following immunization (previously known as Expanded Program on Immunization (EPI) Surveillance)

Zero Case Reporting – refers to the reporting of “zero case” when no cases have been detected by the reporting unit.

Section 1: Introduction to PIDSR

This section discusses the:

- Purpose of the manual of procedures
- Integrated approach to disease surveillance and response
- Philippine Integrated Disease Surveillance and Response (PIDSR) system
- Policies that support PIDSR
- Scope, goal and objectives of PIDSR
- Basic features and the conceptual framework of PIDSR
- Priority diseases, syndromes and conditions targeted for surveillance

1.0 Introduction

Disease surveillance is recognized as the cornerstone of public health decision-making and practice. Surveillance data provide information which can be used for priority setting, policy decisions, planning, implementation, resource mobilization and allocation, prediction and early detection of epidemics. A surveillance system can also be used for monitoring, evaluation and improvement of disease prevention and control programs.

There is a need to strengthen disease surveillance and response system in the Philippines. The revised International Health Regulations (IHR), adopted by the World Health Assembly in May 2005, gives further impetus to this issue. Strengthening surveillance and response systems starts with developing policies and strategies that would make the system more efficient and effective. In order to achieve this, the Philippine Department of Health is adopting an integrated approach to surveillance of priority communicable diseases and conditions. This approach aims at coordinating and streamlining all surveillance activities and ensuring timely provision of surveillance information for action.

This manual defines and discusses the various steps of an integrated disease surveillance and response process, from collecting data that will help to identify problems, through data analysis that leads to an appropriate response, to evaluating and improving the response and the system as a whole.

1.1 Purpose Of The Manual

The manual provides general guidance on surveillance and response. It is intended for use as:

- a general reference for surveillance activities across all levels
- a resource for developing training, supervision and evaluation of surveillance activities
- a guide for improving early detection and preparedness activities for improved and timely response

1.1.1 Who should use this manual?

This manual is intended for use primarily of disease surveillance coordinators in disease reporting units (hospitals/clinics, RHU/CHO) and staff in epidemiology and surveillance units at the provincial, regional, and national levels. Other users of this manual include:

- Communicable disease program managers and managers of the Expanded Program on Immunization at the national and local levels
- Members of the epidemic investigation and control team
- Epidemic management committee at the provincial and regional levels
- Health emergency management staff
- Medical doctors and nursing personnel
- Community health volunteers

1.2 Paradigm Shift: An Integrated Approach To Surveillance

1.2.1 What is integrated disease surveillance?

It is a process of coordinating, prioritizing, and streamlining of multiple disease surveillance systems into a unified national disease surveillance system that combines core surveillance activities and support functions into a single integrated activity for the purpose of making the system more efficient and effective in providing timely, accurate and relevant information for action.

In an integrated system:

- All surveillance activities are coordinated and streamlined. Rather than using scarce resources to maintain separate surveillance activities, resources are combined to collect information from a single focal point at each level.
- Several activities are combined into a single integrated activity and take advantage of similar surveillance functions, skills, resources and target populations. For example, surveillance activities for acute flaccid paralysis (AFP) can address surveillance needs for other diseases (e.g., encephalitis and meningitis). Thus, health staff who routinely monitors AFP cases can also review health facility records for information about other priority diseases.
- Surveillance focal points at the local and national levels collaborate with epidemic response committees at each level to plan relevant public health response actions and actively seek opportunities for combining resources.
- It emphasizes standardized nationwide preparation rather than ad hoc reactions to outbreaks; that is, it secures human and financial resources needed to operate an ongoing, effective system; monitors disease outbreaks particularly at the local level; confirms diagnoses if necessary through laboratory tests; reports outbreaks in a timely manner; responds with the most effective public health intervention based on hard evidence; takes action to prevent future outbreaks; and evaluates the performance of both the intervention and the surveillance system itself.

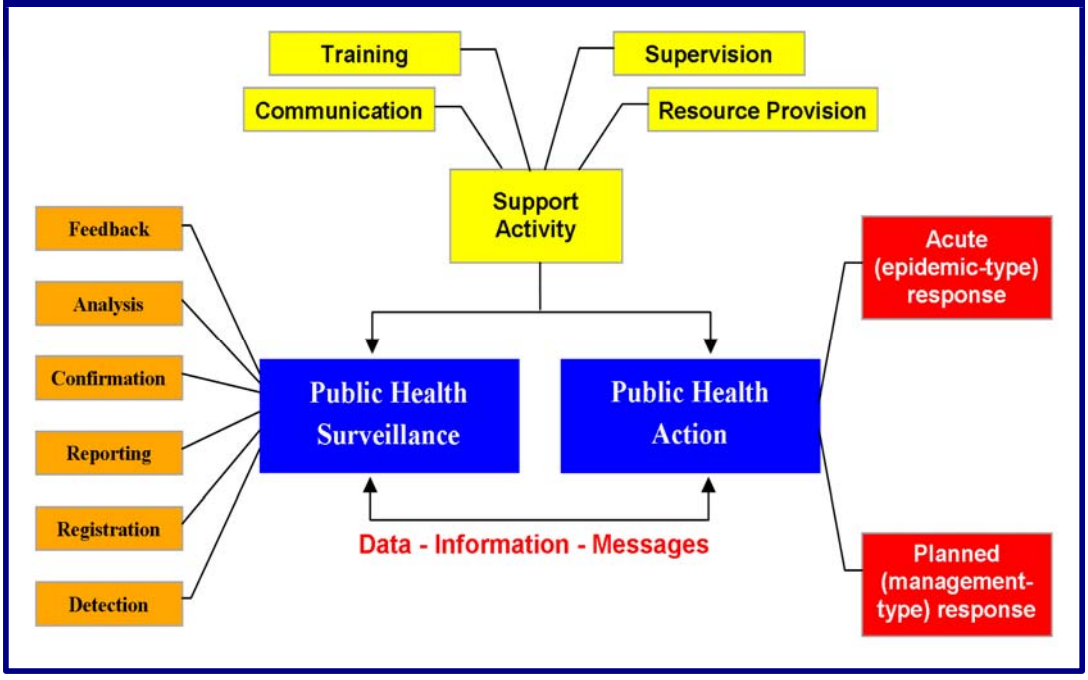
1.2.2 Framework of public health surveillance and action

The conceptual framework presented in Figure 1 below serves as a guide for strengthening the diseases surveillance system in the Philippines. The framework emphasizes the six surveillance core activities (detection, registration, reporting, confirmation, analysis and feedback) that should be maintained in any public health surveillance system. However, in order for the system to run effectively, it needs the support of four activities which are training, communication, supervision and resource- provision. The four support activities promote or improve the core activities by enhancing their performance through more efficient and effective functioning. Core activities can and do occur with or without support activities. Generally, the more support, the better the performance.

Two core public health actions of acute (epidemic-type) and planned (management-type) responses rely upon messages derived from surveillance. Acute (epidemic-type) responses occur directly, reactively, and generally include immediate public health actions (e.g. epidemic investigation, contact follow-up or targeted interventions

to stop the ongoing transmission of disease). Planned (management-type) responses occur with periodicity over time and require a vision of future needs. Examples of such responses include community public health education, purchasing next year's immunization supplies, ordering tuberculosis medication in anticipation of future needs, or reallocating public health personnel and resources in response to changing trends of disease. Public health actions, in turn, must be monitored and evaluated. The results of these will be used to measure and modify the control and prevention measures taken, and to guide future modifications in public health surveillance.

Figure 1: Framework of Public Health Surveillance and Action



1.3 The Philippine Integrated Disease Surveillance And Response (PIDSR)

- Administrative Order No. 200-0036 “Guidelines on the Philippine Integrated Disease Surveillance and Response (PIDSR) Framework” is shown in Annex 1.

1.3.1 Major problems of the current disease surveillance system

Currently, there are four major disease surveillance systems that exist in the country. These are the following: 1) The Notifiable Disease Reporting System (NDRS) that generates information on 17 diseases and 7 syndromes. The data in this system are used to estimate morbidity rates; 2) The National Epidemic Sentinel Surveillance System (NESSS), a hospital-based surveillance system that yields information on admitted cases of diseases with outbreak potential in sentinel hospitals and which can serve as an early warning system for epidemics in the community; 3) The Expanded Program on Immunization Surveillance System (EPI Surveillance) focuses on the monitoring of priority vaccine-preventable diseases targeted for eradication

and elimination, namely: poliomyelitis, measles and neonatal tetanus; 4) The HIV-AIDS Registry keeps track of the number of HIV-AIDS cases through a voluntary testing program. Vertical disease surveillance systems have also been established as a component of specific disease intervention programs.

These disease surveillance systems with their own data collection and reporting flows, hardware and software requirements, and procedures for processing and analysis at different levels produce a lot of inefficiencies, redundancies and duplication of efforts. This leads to extra costs and training requirements, and often results in health workers becoming overloaded and unmotivated.

The inadequacy of the current disease surveillance systems in the Philippines and the need to comply with the 2005 IHR calls for an urgent need to adopt an integrated approach for strengthening the Philippine ESR system.

1.3.2 Policies that support PIDSR

The PIDSR is supported by the following legal mandates and policies:

1. Administrative *Order No. 2007-0036 (Guidelines on the Philippine Integrated Disease Surveillance and Response (PIDSR) Framework"),* This Administrative Order provides the framework for PIDSR to guide its implementation at all levels of the health care delivery system as well as both the public and private sectors.
2. *Republic Act 3573* (Law of Reporting of Communicable Diseases – An Act providing for the prevention and suppression of dangerous communicable diseases…) [November 26, 1929]; requires all individuals and health facilities to report notifiable diseases to local and national health authorities.
3. *Resolution WHA48.13 (1995)* urges Member States to strengthen national and local programs of active surveillance for infectious diseases, ensuring that efforts were directed towards early detection of epidemics and prompt identification of new, emerging and re-emerging infectious diseases.
4. *International Health Regulations of 2005, Article 5-1 Surveillance*, urges Member States to develop, strengthen and maintain, as soon as possible but no later than five years from the entry into force of these Regulations, the capacity to detect, assess, notify and report events in accordance with these Regulations.
5. *Administrative Order No. 2005-0023 (Implementing Guidelines for Fourmula One for Health as Framework for Health Reforms), Section C2.c.iii*, states that, "Disease surveillance shall be intensified to ensure that the targets for disease elimination, prevention and control are attained".
6. *Department Personnel Order No. 2005-1585* (Creation of a Management Committee on Prevention and Control of Emerging and Re-emerging Infectious Diseases or DOHMC-PCREID) creates the Epidemiology and Surveillance Sub-Committee (ESSC) in which one of its major functions is to "…formulate and recommend policies, standards, procedures, guidelines and systems on the early detection, contact tracing, surveillance, investigation and follow-up of emerging and re-emerging infectious disease (EREID) suspects and the timely and accurate recording, reporting and collation of epidemiological data on EREID."

1.3.3 Scope of PIDSR

The scope in the implementation of PIDSR applies to the following:

- Entire health sector, to include public and private, national agencies and local government units, external development agencies, and the community involved in disease surveillance and response activities;
- Routine surveillance of priority diseases and events identified by the Department of Health.

1.3.4 Goal and Objectives of PIDSR

Goal

To reduce morbidity and mortality through an institutionalized, functional integrated disease surveillance and response system nationwide (Philippine Integrated Disease Surveillance and Response).

Objectives

1. To increase the number of LGUs able to perform disease surveillance and response.
2. To enhance capacities at the national and regional levels to efficiently and effectively manage and support local capacity development for disease surveillance and response.
3. To increase utilization of disease surveillance data for decision making, policy-making, program management, planning and evaluation at all levels.

1.3.5 Guiding Principles

The PIDSR is guided by the following principles:

1. The PIDSR shall be consistent with the technical leadership role of the DOH in health and shall contribute to the achievement of the National Health Objectives and the country's Millennium Development Goals.
2. The PIDSR shall respect and support priorities established under the "*Fourmula One"* framework for health reforms, particularly towards more responsive health system.
3. The PIDSR shall be faithful to the spirit of decentralization and recognize the vital role of local government units on all matters related to health.
4. The PIDSR shall be adequately compatible with the 2005 IHR surveillance and response standards and be guided by the country's commitments and obligations.
5. The PIDSR shall build on the strength and learn from the weakness of existing disease surveillance systems.

6. The PIDSR shall comply with the overall guiding principles of usefulness, simplicity and flexibility of the system, orientation to a specific action, and integration.
7. The PIDSR shall recognize and adopt the principle of partnership and shared responsibility. A partnership is a voluntary agreement between two or more parties to work cooperatively toward a set of shared outcomes in disease surveillance. Partnership includes the public and private sectors, national agencies and local government units, external development agencies, and the community involved in disease surveillance and response activities. The principle of shared responsibility recognizes that disease surveillance and response is the responsibility of all sectors and governments at all levels.
8. The privacy and confidentiality of patient's information should be maintained. Privacy is the right of patients to choose what information they will release about themselves and to whom. Confidentiality is the obligation of public health workers to keep information about individuals restricted only to those persons who absolutely need it for the health of the community. Patients have the right to know why they are providing information, to refuse to provide information, and to expect that information will be handled as confidential.
9. Public trust should be maintained. To perform public health functions, including surveillance, it is essential that there is public support. Trust is an expression of confidence that public health workers will be fair, reliable, ethical, and competent.
10. Public health workers must conduct themselves in a manner demanded by their positions. Professionalism must be maintained at all times.
11. Public health actions must be guided by highest ethical standards.

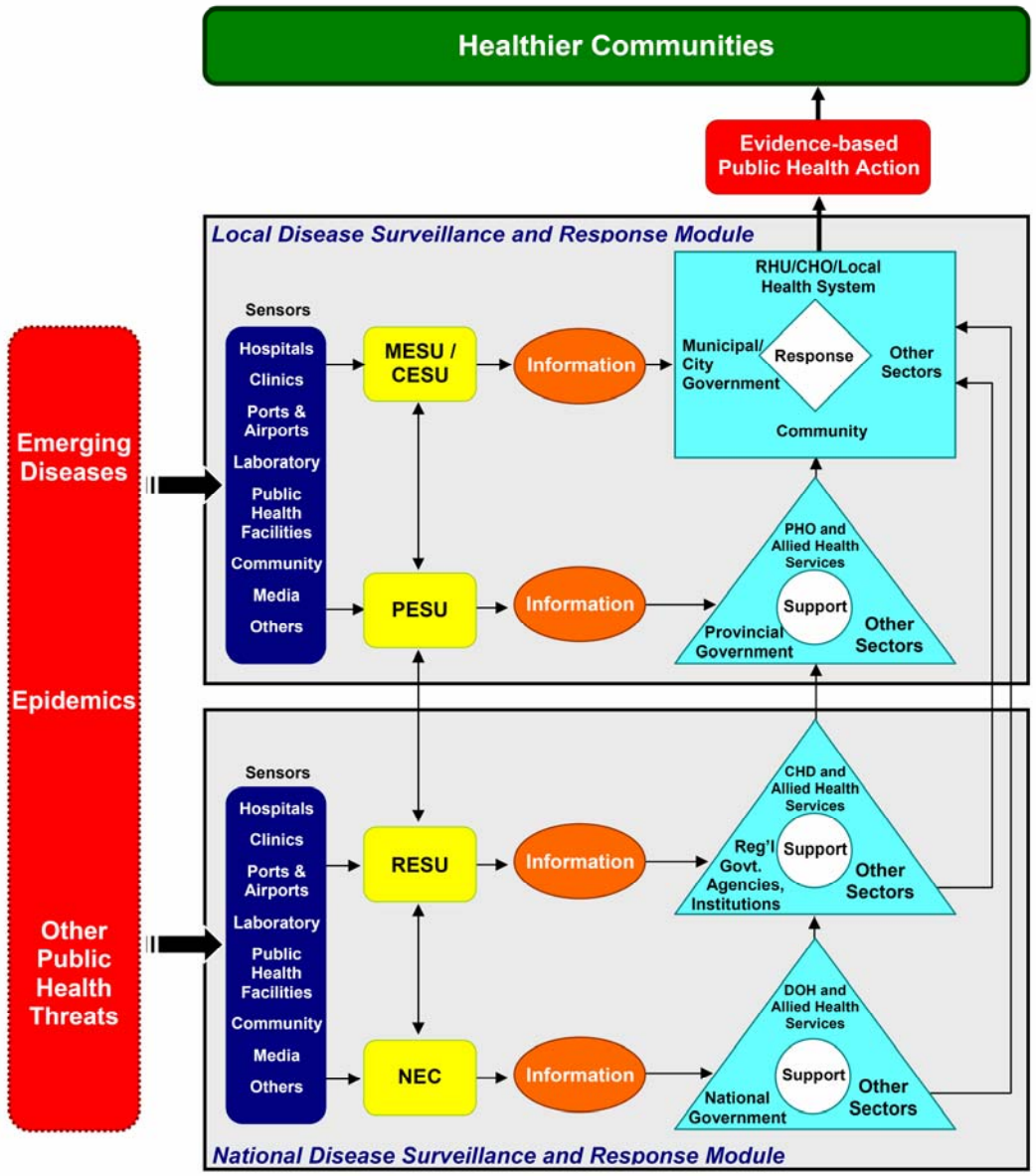
1.3.6 Basic Features of PIDSR

The basic features of PIDSR are the following:

1. Disease surveillance systems are integrated in terms of the use of standard case definitions, surveillance core activities (detection, registration, reporting, confirmation, analysis, feedback) and resources.
2. Early detection and response to epidemics.
3. Integrated response to epidemics and other public health threats.
4. Utilizes case-based, laboratory-based and event-based surveillance approaches to enhance sensitivity and specificity of the system.
5. Strengthened local capacity for surveillance and response. This includes involvement of the community in disease surveillance activities. The primary role of the LGU is to provide appropriate intervention to emerging diseases, epidemics and other public health threats.
6. Established capacity of laboratories and strengthened involvement in disease surveillance system.
7. Efficient and effective surveillance data management (e.g., collection, analysis, interpretation and dissemination) and use of information for decision-making, including monitoring and evaluation of intervention programs at all levels.
8. Open lines of communication are established at all levels. There is an established feedback loops at all levels.

1.3.6.1 PIDSR Conceptual Framework

Figure 2: Conceptual Framework for the Philippine Integrated Disease Surveillance and Response (PIDSR)



Acronym:

CESU – City Epidemiology and Surveillance Unit
CHO – City Health Office
MESU – Municipal Epidemiology and Surveillance Unit
PESU – Provincial Epidemiology and Surveillance Unit
RESU – Regional Epidemiology and Surveillance Unit
CHD – Center for Health Development
DOH – Department of Health
NEC – National Epidemiology Center
PHO – Provincial Health Office
RHU - Rural Health Unit

1.3.7 Surveillance Approach

1.3.7.1 Integration of Surveillance Systems

The NESSS, EPI Surveillance and NDRS shall be merged into one surveillance system. The merger of these three systems shall be the foundation of PIDSR. The aggregated report from PIDSR shall be incorporated into the FHSIS annual morbidity report.

All other existing disease/syndromic surveillance systems shall be integrated with the PIDSR. These include program-based surveillance systems, special and/or pilot surveillance systems and other disease surveillance systems. A practical mechanism for integration shall be developed that would improve the flow, accuracy, completeness and timeliness of disease surveillance information, reduce the workload of surveillance staff (e.g. data collection, reporting, encoding) and efficient utilization of personnel and resources. The mechanism for integration shall address the core surveillance activities, support functions and public health actions.

Creation of new disease surveillance and response systems requires clearance from the Epidemiology and Surveillance Sub-Committee (ESSC) of the DOH Management Committee on Prevention and Control of Emerging and Re-emerging Infectious Diseases (DOHMC-PCREID) (DPO No. 2005-1585).

1.3.7.2 Fundamental Surveillance Procedures

In order to enhance the coverage of reporting, a facility and community-based surveillance approach shall be utilized. This means, cases or events seen or detected from the health facilities and communities should be reported. In this approach, the sources of reports shall be coming from the Disease Reporting Units (DRU) that includes the following:

1. Community
2. Barangay Health Stations (BHS)
3. Rural Health Units (RHU)
4. City Health Offices (CHO)
5. Government and private hospitals or clinics
6. Government and private laboratories
7. Ports and airports

Case-based data collection shall be utilized. This means that, a set of data is collected for every case of notifiable disease/syndrome seen or detected. Two types of case-based surveillance shall be used:

1. *Intensive Case-based*

This type of surveillance shall apply to diseases targeted for elimination (e.g. measles, neonatal tetanus), eradication (e.g.

AFP/poliomyelitis) and other priority diseases as determined by the DOHMC-PCREID. This means that, a comprehensive set of data is collected for every case of diseases/syndromes detected using a standard case-investigation form.

2. *Line list Case-based*

For other notifiable diseases/syndromes, a minimum set of data is collected using a line list.

The system shall adopt a combination of active and passive type of surveillance. Active surveillance shall be required in health-care facilities and other DRUs considered as "silent". Silent DRUs are those that have not submitted weekly notifiable disease report for 3 or more morbidity weeks.

1.3.8 Priority Diseases, Syndromes and Conditions Targeted For Surveillance

The priority diseases/syndromes/conditions targeted for surveillance (Table 1) were selected based on one or more of the following categories:

1. Epidemic-prone diseases
2. Diseases targeted for eradication and elimination
3. Other diseases of public health importance as determined by the DOHMC-PCREID or those required by the IHR

Table 1. Priority Diseases/Syndromes And Conditions Targeted For Surveillance

Epidemic-Prone Diseases	Diseases Targeted For Eradication Or Elimination	Other Diseases Or Conditions Of Public Health Importance
1. Acute Bloody Diarrhea 2. Acute Encephalitis Syndrome 3. Acute Hemorrhagic Fever Syndrome 4. Acute Viral Hepatitis 5. Anthrax 6. Cholera 7. Dengue 8. Human Avian Influenza 9. Influenza-like Illness 10. Leptospirosis 11. Malaria 12. Meningococcal Disease 13. Paralytic Shellfish Poisoning 14. Severe Acute Respiratory Syndrome (SARS) 15. Typhoid And Paratyphoid Fever	1. Poliomyelitis (Acute Flaccid Paralysis) 2. Measles 3. Neonatal Tetanus	1. Adverse Events Following Immunization (AEFI) 2. Diphtheria 3. Non-Neonatal Tetanus 4. Pertussis 5. Rabies

Section 2: Roles and Responsibilities

This section describes the roles and responsibilities of the following agencies:

- Department of Health
  - National Epidemiology Center
  - Bureau of Quarantine
  - National Center for Disease Prevention and Control
  - Health Emergency Management Staff
  - Center for Health Development
- Local Government Units
  - Provincial Health Office
  - Municipal/City Health Office
- Philippine Health Insurance Corporation (PhilHealth or PHIC)

2.0 Roles and Responsibilities

The local, provincial, regional, and national levels shall have the following basic roles and responsibilities for surveillance and response:

2.1 Department of Health

2.1.1 National Epidemiology Center

a. Assess all reported epidemics within 48 hours.
b. Notify WHO when the assessment indicates that the event is a public health emergency of international concern (PHEIC).
c. Determine rapidly the control measures required to prevent domestic and international spread of disease.
d. Provide support through specialized staff and logistical assistance during epidemic investigation and response.
e. Establish effective networking with other relevant government agencies at the national level and local level.
f. Provide direct operational link with senior health and other officials at the national and local levels to approve rapidly and implement containment and control measures.
g. Facilitate the dissemination of information and recommendations from DOH Central office and WHO regarding local and international public health events to the concerned agencies and institutions.
h. Initiate the development and implementation of the integrated national epidemic preparedness and response plan.
i. Facilitate the budget allocation for surveillance and response at the regional health offices.
j. Oversee the design and implementation of PIDSR.

2.1.2 Bureau of Quarantine

a. Develops and ensures compliance to protocols and field operation guidelines on entry/exit management of persons, conveyances and goods in coordination with airport and port authorities.
b. Conducts surveillance in ports and airports of entry and sub-ports as well as the airports and ports of origin of international flights and vessels.
c. Monitors public health threats in other countries.
d. Provides effective networking and collaboration among the Bureau of Quarantine stakeholders.
e. Assist in the development and implementation of the integrated national epidemic preparedness and response plan.

2.1.3 National Center for Disease Prevention and Control

a. Provides updates, technical advice and recommendations on the recognition, prevention and control of diseases.

b. Assist in the development and implementation of the integrated national epidemic preparedness and response plan.

c. Organize the DOH Management Committee for the Prevention and Control of Emerging and Re-emerging Infectious Diseases.

2.1.4 Health Emergency Management Staff

a. Acts as the DOH coordinating unit and operations center for all health emergencies, disasters and incidents with potential of becoming an emergency.

b. Assist in the development and implementation of the integrated national epidemic preparedness and response plan.

2.1.5 Center for Health Development

a. Provide on-site assistance (e.g., technical, logistics, and laboratory analysis of samples) as requested to supplement local epidemic investigations and control.

b. Establish, operate and maintain a regional epidemic preparedness and response plan, including the creation of multidisciplinary/multisectoral teams to respond to events that may constitute a public health emergency of local and international concern.

c. Assess reported epidemics immediately and report all essential information to DOH central office.

d. Provide direct liaison with other regional government agencies.

e. Provide a direct operational link with senior health and other officials at the regional level.

f. Facilitate submission of weekly notifiable disease surveillance reports from public and private hospitals.

g. Provide technical and logistical assistance in the establishment of ESUs at the provincial/city/municipal health offices. (See Annex 2: Guide in the Establishment and/or Strengthening Of Epidemiology And Surveillance Units)

h. Ensure the functionality of the regional disease surveillance and response system.

i. The Hospital Licensing Team at the CHDs shall track and monitor the compliance of public and private hospitals in the implementation of PIDSR as part of the requirements for renewals of license to operate. The team will inform the CHDs/PHOs/LGUs of activities taken against non-complying hospital institutions. Likewise, CHOs/MHOs/PHOs shall report to the CHDs hospitals and related facilities that fail to comply with the PIDSR reporting requirements. The regional director shall issue a regional order to enforce compliance.

j. Create Epidemic Management Committee (EMC) at the regional level.

2.2 Local Government Units

2.2.1 Provincial Health Office

a. Set up and maintain a functional provincial disease surveillance system equipped with the necessary resources and adequate local financial support. Financial support may come from the disaster, calamity or other appropriate funding sources as determined by the provincial government officials. (See Annex 2: Guide In The Establishment and/or Strengthening Of Epidemiology And Surveillance Units)

b. Collect, organize, analyze and interpret surveillance data in their respective areas.

c. Report all available essential information (e.g., clinical description, laboratory results, numbers of human cases and deaths, sources and type of risk) immediately to the next higher level.

d. Assess reported epidemics immediately and report all essential information to CHD and DOH central office.

e. Provide on-site assistance (e.g., technical, logistics, and laboratory analysis of samples) as requested to supplement local epidemic investigations and control.

f. Facilitate submission of weekly notifiable disease surveillance reports from public and private hospitals.

g. Establish, operate and maintain a provincial epidemic preparedness and response plan, including the creation of multidisciplinary/multisectoral teams to respond to events that may constitute a public health emergency of local and international concern

h. Create Epidemic Management Committee (EMC) at the provincial level.

2.2.2 Municipal/City Health Office

a. Set up and maintain a functional municipal/city/community disease surveillance system equipped with the necessary resources and adequate local financial support. Financial support may come from the disaster, calamity or other appropriate funding sources as determined by the municipal/city government officials. (See Annex 2: Guide In The Establishment and/or Strengthening Of Epidemiology And Surveillance Units)

b. Collect, organize, analyze and interpret surveillance data in their respective areas.

c. Report all available essential information (e.g., clinical description, laboratory results, numbers of human cases and deaths, sources and type of risk) immediately to the next higher level.

d. Implement appropriate epidemic control measures immediately.

e. Establish, operate and maintain a municipal/city epidemic preparedness and response plan, including the creation of multidisciplinary/multisectoral teams to respond to events that may constitute a public health emergency.

f. Facilitate submission of weekly notifiable disease surveillance reports from public and private hospitals.

2.3 Philippine Health Insurance Corporation (PHIC)

a. The Philippine Health Insurance Corporation shall support the implementation of PIDSR in hospitals and private practitioners by using its accreditation authority and reimbursement of claims as a leverage to encourage compliance. A letter or memorandum from PHIC shall be issued to this effect.

Section 3: Identifying Cases

This section describes the following:

- Using Standard Case Definitions for diseases, syndromes and events under surveillance
- Partners in detecting and reporting cases
- PIDSR Case Investigation and Reporting Forms
- Ensuring quality data collection
- Laboratory Diagnosis of Surveillance Diseases
- Specimen collection, storage and transport

3.0 Identifying Cases

3.1 Use Standard Case Definitions for Surveillance

- A standard case definition for surveillance is a set of criteria that is used to determine if a person has a particular disease, syndrome or condition and if the case should be included in reporting and investigation.
- Using the same case definition throughout the entire surveillance system allows data from all reporting units to be compared consistently and ensures accurate tracking of particular diseases, syndromes or conditions.
- The DRUs should strictly use the standard case definitions for each of the notifiable diseases, syndromes or conditions. This is to ensure a consistent and accurate identification of cases throughout the system.
- Cases are further classified to indicate whether cases are suspect, probable or confirmed. The standard case definitions are presented in Annex 3. These definitions were designed for surveillance purposes only and are not intended for use in managing cases nor to indicate intention to treat.
- Note that Case definitions are not sufficient for establishing a medical diagnosis and should not be relied upon to initiate therapy.
- A 3-tiered system with the following levels is used:
  - **Suspected case**: indicative clinical picture without being a confirmed or probable case
  - **Probable case:** clear clinical picture, or linked epidemiologically to a confirmed case;

    Note: A "**case with an epidemiological link**" is a case that has either been exposed to a confirmed case, or has had the same exposure as a confirmed case (e.g. eaten the same food, stayed in the same hotel, etc).

  - **Confirmed case:** verified by laboratory analysis.

    Note: The classification on these different levels might vary according to the epidemiology of the individual diseases.

- Unless specifically stated, only symptomatic cases are to be reported. Asymptomatic infections are to be regarded as cases, however, if the infection has therapeutic or public health implications.

3.2 Distribute simplified case definitions to the community

- Simplified case definitions are to be used by the DRAs (e.g. Barangay health workers, community leaders) for early referral or reporting of any suspected disease or condition to the DRUs. A list of these simplified definitions is given in Annex 4.
- Cases reported by the DRAs using the simplified case definitions will have to be validated by the DSCs according to the official standard case definitions.

3.3 Where do we expect to see cases?

3.3.1 Disease Reporting Units (DRUs)

- Case detection will be done by the Disease Reporting Units (DRUs) which are the following:
  - Barangay Health Stations
  - Rural Health Units
  - MHO/CHO
  - Local hospitals (district hospitals, provincial hospitals, regional hospitals)
  - Private Clinics
  - Sea Ports (Human Quarantine Stations)
  - Airports (Human Quarantine Stations)

- The DRUs are expected to:
  - Use standard case definitions to identify notifiable and immediately notifiable diseases or syndromes in inpatient and outpatient services, and community reports.
  - Record Information about suspected cases in clinic registers.
  - Use local laboratory capacity to diagnose suspected cases.
  - Use standard protocols to process laboratory specimens.
  - Collect and transport clinical specimens for laboratory investigation.
  - Update list of DRUs in the area.
- List of DRUs should be updated annually to determine status of report submission at every level of health facility. This will further validate increase or decrease in the number of cases reported.

3.4 Who are our partners in detecting and reporting cases?

3.4.1 Disease Reporting Advocates (DRA)

- Disease Reporting Advocates are health workers and other individuals who have attended orientation on the PIDSR and committed to actively participate in reporting. They can be any of the following:
  - Community leaders – e.g. Barangay Captain, Tribal Leader
  - Barangay Health Worker
  - Faith Healer/Traditional Healer
  - Private Practitioners

- DRAs will report cases of notifiable diseases detected in their areas to the DRU. Referral to report these cases is possible when:
  - A member of the community reports a single suspect case, a cluster of deaths and or an unusual health event in the community.
  - A school has increasing number of absentees due to similar signs and symptoms.
  - Attendees of a festival or any gathering become ill with similar signs and symptoms.
  - A member of the community reports on information obtained from the radio, television and newspaper of a rare or unexplained health event in the area.

3.4.2 Disease Surveillance Coordinators (DSC)

- Disease Surveillance Coordinators are staff of government and non-government health facilities (hospitals, private clinics, RHUs) officially designated as disease surveillance coordinator by the head of the facility and are trained on PIDSR.
- The roles of DSCs are the following:
  - Notify the next higher level case/s of disease/syndrome/event classified as "immediate notification" within 24 hours of detection.
  - Notify the next higher level of suspect epidemics within 24 hours of detection and perform preliminary investigation.
  - Conduct preliminary investigation of suspect epidemics in their respective areas.
  - Assist in epidemic investigation conducted by PESUs, RESUs or NEC.
  - Record in the Weekly Notifiable Disease Report (WNDR) all cases of notifiable diseases admitted in the hospital/clinic or seen in the community/ RHU/CHO.
  - Submit PIDSR report forms to the next higher level. Retain a copy of PIDSR forms and perform regular basic data analysis (time, place, and person).
  - Prepare and disseminate weekly/monthly disease surveillance reports.
  - Participate in workshops, seminars, training, scientific meetings and other surveillance-related activities.

3.4.3 Disease Surveillance Officers (DSO)

- Disease Surveillance Officers are fulltime staff of the Epidemiology and Surveillance Unit (ESU) of the CHOs (chartered cities), PHOs and CHDs who has received training on basic epidemiology, public health surveillance and PIDSR; and, are officially designated as Disease Surveillance Officer by the head of office. Ideally a DSO should either be a physician or a nurse.

- The roles of DSOs are the following:
  - The DSO shall be responsible in the collection of PIDSR forms from the hospitals at their level (levels: 1 –clinics or infirmaries; 2 –primary hospitals; 3 – secondary hospitals and 4 –tertiary hospitals). However, hospital DSC and provincial DSO may agree on other means of submission or collection of PIDSR appropriate to their local condition.

- Encode data into the computer and maintain a file of the case investigation forms.
- Consolidate data from the different DRUs for weekly submission to the next higher level.
- Analyze and Interpret data to provide weekly and/or monthly disease surveillance report to the next higher level.
- Provide technical assistance in outbreak investigations and response to their respective DRUs when necessary.
- Disease Surveillance Officers (DSO) at the Provincial or Regional Epidemiology and Surveillance Units shall provide technical assistance to DSCs on safe collection, storage and transport of laboratory specimens for confirmatory testing. Laboratory results should be provided to the clinical staff and the patient.
- Conduct regular monitoring and assessment of DRUs to determine AND verify "silent" DRUs.
- Conduct regular technical assistance visits of DRUs with the epidemiologist.
- Manage logistics needed in the surveillance operations at their level.

3.5 Where will the patient's information be recorded?

3.5.1 PIDSR Case Investigation and Reporting Forms

- After receiving the initial verbal report from the DRA, the DSC should proceed with the case investigation by completing the different PIDSR forms composed of the Weekly Notifiable Diseases Summary Page, the PIDSR Case Investigation Forms for Category I diseases/syndromes, and the PIDSR Case Report Forms for the Category II diseases/syndromes. Important initial information about the case the DRA should report to facilitate the investigation of the DSC should include:
  - Complete name, address and type of the DRU where the patient was seen or admitted
  - Patient's name. If neonatal tetanus is reported, also record the name of the mother
  - Patient's age and/ or date of birth
  - Patient's gender
  - Patient's current complete address (if possible get landmarks or sketch)
  - How to contact the patient
  - Date patient sought consult to the DRU or date of admission
  - Date of the onset of illness
  - Patient's diagnosis/ condition
  - Name of the DRA who made the report
  - How to contact the reporting DRA
  - Date the report was received
- Obtain information from the patient, guardian, watcher, attending physician and/or nurse and from available records at the DRU. Since most patients may be too

young to answer, ask family members or guardian to provide needed information, particularly about the patient's symptoms, immunization and travel history.

- The health worker who conducted the investigation and completed the PIDSR forms should record his or her name and the date the form was completed and sent to the next higher level.

- Make several copies of the completed PIDSR forms so that one copy is left with the DRU, send one copy for the laboratory (e.g. if laboratory confirmation is required) along with the required specimen, and one for submission to the next higher level.

- The DSC and the DSO should ensure that only true cases are investigated and the process of case investigation is complete and conforms to the standard procedures as stated in the manual of operation.

- There are 3 types of PIDSR forms:

1. **Weekly Notifiable Diseases Report Summary Page** – It serves as the summary table for the weekly reporting of notifiable diseases. It also shows the category and frequency of reporting of all the notifiable disease included in the PIDSR. (See Annex 5)
2. **Case Investigation Forms** – It is a disease specific investigation form that should be filled up by the DSC during case investigation diseases/syndromes under Category I. (See Annex 6)
3. **Case Report forms** – It is a disease specific report form that should be filled up by the DSC for diseases/syndromes under Category II. (See Annex 7)

3.5.2 How to fill up PIDSR Forms

- Information gathered during the investigation process will lose its value if not recorded in the standard PIDSR forms. A specific notifiable disease has a corresponding investigation/reporting form that will be used for the case-based investigation. Each form contains questions that are disease specific; hence, it is important for the investigator to check if he or she has the correct form before proceeding with the investigation. All the PIDSR forms are self-explanatory, easy to understand and simple to follow.

3.6 How can we ensure quality data collection?

- Efforts to ensure the quality of the data collected should be a concern at all levels. The following are some measures that can be adopted to assure data quality:

  - All staff (midwives, nurses, med-techs, etc.) involved in data collection shall be trained in completing the forms using the standardized clinical case definitions.
  - All staff (DSC and DSO) involved in collecting the PIDSR forms from the barangay and municipal levels and other data reporting units shall be primarily responsible for the conduct of quality assurance checks of reports coming from lower levels. Facilities and staff submitting faulty reports shall be followed up and remedial measures introduced as appropriate.

- Health managers at all levels shall use regular meetings, monitoring visits, purposive consultative meetings and conferences as opportunities to emphasize the importance of data quality.

3.7 Laboratory Diagnosis of Surveillance Diseases

- Ideally, confirmatory determination of the diagnosis of cases during routine surveillance should be performed using standardized laboratory methods. As much as possible, specimen should be properly collected and brought to qualified laboratories even if the case consulted only at rural health units and is not seen at hospital facilities.
- During an outbreak, specimen collection for laboratory diagnosis should be a mandatory activity for the investigating team. DSOs must ensure that specimens are brought to diagnostic laboratories.
- Specimen need not be collected from every suspect case during an outbreak. Only a few positive samples may be needed to diagnose an outbreak. Epidemiologic linkage may then be used confirm the other cases.
- Where no diagnostic procedure was conducted on specimen from cases that are in accordance with surveillance case definition standards, these cases shall remain classified as suspect cases.
- The specimen collection kits of certain priority diseases (e.g. AFP, measles, and cholera) must be readily available at the regional and provincial levels. Whether during routine surveillance or outbreak investigations, the DSCs should facilitate the collection and transport of specimen, with technical assistance provided by the DSOs. The laboratory results should be given to the DSOs and DSCs.
- The DSOs should have a list of laboratories in their respective regions or provinces that perform certain laboratory procedures for guidance. A table for listing of laboratories for confirming priority diseases/conditions is shown in Annex 8.
- Specimens may be brought to tertiary laboratories that perform the following tests:

    1. Bacteriology culture and typing
        a. Cholera
        b. Diphtheria
        c. Meningococcal disease
        d. Pertussis
        e. Typhoid and paratyphoid fever
    2. Serological tests
        a. Hepatitis A
        b. Hepatitis B
    3. Clinical microscopy
        a. Malaria
        b. Amebic dysentery

- **Specialized laboratories** are reference diagnostic laboratories for the following diseases/syndromes or conditions:

    1. RITM
        a. Measles
        b. Dengue

c. AFP / Poliomyelitis
d. ILI / Human Avian Influenza
e. SARS

2. SACCL
   a. STI / HIV / AIDS
3. UP-NPMCC
   a. Chemical Poisoning
4. BFAD, BFAR, DOST
   a. Food samples for Food-borne diseases

- Laboratories are encouraged to perform diagnostic procedures on other surveillance diseases such as rabies, tetanus, leptospirosis, PSP, etc.

- Microscopy for malarial smears and stool analysis may be done at the rural health units with trained microscopists.

- Serological tests for typhoid fever (e.g. Widal test and Typhidot) may be used only for presumptive diagnosis. It should not be used as a confirmatory diagnostic tool for typhoid. Hence, cases diagnosed using such method will remain classified as suspect cases.

- Human rabies cases are basically diagnosed clinically on persons with a history of animal bites. The biting animal may be sacrificed with its head decapitated and brought to any laboratory (e.g. RITM, DA-BAI, DA-RADDL) that tests for the presence of negri bodies in the animal brain.

- For food poisoning outbreaks, food samples should also be collected in separate containers and brought to a laboratory that performs specific analytic tests of the samples.

- Bacteriological tests for water, especially during suspected water-borne outbreaks, should be conducted in reference water laboratories located in respective regional or local levels. However, water tests for coliforms using commercially-available kits may also be utilized by the DRU.

3.8 What specimen should be collected and where should these be submitted?

- Table 2 below lists the recommended laboratory tests for confirming priority diseases and conditions. The table contains information about:

  - The disease or condition.
  - The diagnostic test for confirming the disease or condition.
  - Where the test can be performed.
  - What specimen to collect.

- The table is intended to be used as a rapid reference tool. Use the information when suspected notifiable diseases/conditions or outbreaks are reported.

Table 2. Recommended Laboratory Tests for Notifiable Diseases

Disease / Syndrome	Diagnostic Classification	Where Test Can Be Done	Specimen Required
USING HUMAN SPECIMEN			
Cholera	Bacteriology culture	Any Tertiary laboratory	Stool / rectal swab
Acute Bloody Diarrhea	Bacteriology culture; Clinical microscopy	Any Tertiary laboratory	Stool
Acute Hemorrhagic Fever	Virology culture; Serology; Clinical microscopy	RITM; Any capable laboratory	Blood, serum, post-mortem tissue specimen
Acute Viral Hepatitis	Serological	Any capable laboratory	Serum
AFP / Poliomyelitis	Virological culture	RITM	Stool
Anthrax	Bacteriology culture; Serology	Any Tertiary laboratory	Stools ; Sputum Skin lesion ; Blood
Chemical Poisoning	Toxicology	UP - NPMCC	Body fluids
Dengue	Serological	RITM, AFRIMS	Serum
Diphtheria	Bacteriology culture	Any Tertiary laboratory	Throat swab
HIV / AIDS	Serological	SLH-SACCL	Serum
Influenza	Virological culture	RITM	Throat / nasal swab
Leptospirosis	Bacteriology culture &Serology	SLH, RITM	Serum
Malaria	Clinical microscopy	Any laboratory or RHU w/ trained microscopist	Thick & thin blood smear
Measles	Serological	RITM	Serum
Meningococcal disease	Bacteriology culture	Any Tertiary laboratory	Blood, CSF, skin scraping
Paralytic Shellfish Poisoning	Toxicology	UP - NPMCC	Serum, urine
Pertussis	Bacteriology culture	Any Tertiary laboratory	Throat swab / sputum
SARS	Virological culture	RITM	Respiratory discharges
Typhoid / Paratyphoid fever	Bacteriology culture	Any Tertiary laboratory	Blood – 1st week Urine / stool – 2nd-3rd week
USING OTHER SPECIMEN			
Chemical poisoning	Toxicology	UP-NPMCC	Water, air, soil
Food-borne outbreak	Bacteriology culture	BFAD	Food samples
Paralytic Shellfish Poisoning & other marine poisons	Toxicology	UP-NPMCC; BFAR	Seafood, shellfish
Rabies	Clinical microscopy	RITM	Dog brain
Water-borne outbreak	Bacteriology culture	Water reference laboratory	Water

3.9 How should specimen be contained and transported?

- During outbreak investigations, the most common specimen collected are stool, blood, water and food samples. The following is an overview of how these specimens should be collected for certain classified diagnostic procedures.

1. **Stool**

   - When stool analysis can be done within a few hours, fresh stool must be collected and placed in clean, spill-proof containers and brought to the laboratory immediately.

   If stool cannot be processed immediately:

   - For bacteriologic analysis, if inoculation will be done after six hours, rectal swabbing must be done and placed in appropriate transport media (e.g. Cary and Blair media) and transported to laboratory at room temperature.
   - For parasitological analysis, mix stool in 10% formalin solution and transport to laboratory at room temperature.
   - For virological analysis, place stool in clean, leak-proof containers, wrap with leak-proof plastic bag and transport to laboratory at refrigerator temperature.

2. **Blood**

   - For bacteriology, collect 3-5 ml of whole blood and place in appropriate transport media (e.g. Brain heart infusion, Oxgall, Bile citrate broth) prior to transport to laboratory at room temperature.
   - For immunology, collect blood serum and place in cryotube and transport to laboratory in frozen condition.
   - For toxicology, collect 5-10 ml whole blood and place in heparinized test tube (green top) and transport to laboratory at refrigerator temperature.
   - For parasitology, collect blood and place in tube with anticoagulant (e.g. EDTA, Na citrate)

3. **Food samples**

   - In food-borne outbreaks, samples of food items must be collected even if a particular is not implicated as the cause of the outbreak. The samples must be placed in individual containers and sent to the laboratory under refrigerator or frozen temperature, depending on the type of analysis to be done.

4. **Water**

   - Water samples must be collected in sterile bottles and immediately sent to the laboratory within 6 hours. If not, store the samples at refrigerator temperature but ensure that specimen will be at the laboratory within 24 hours.

Section 4: Notification and Reporting of Cases

This section describes the:

- Mandatory reporting of notifiable diseases, syndromes and event.
- Requirement for PhilHealth accreditation, reimbursement of claims, issuance of initial or renewal of hospital license to operate, and Sentrong Sigla Certification.
- Flow of notification for immediately notifiable diseases, syndromes and events and of the weekly reporting notifiable diseases.
- Importance of zero reporting.
- Process of receiving and checking the PIDSR forms.

4.0 Notification and Reporting of Cases

4.1 Mandatory reporting of notifiable diseases, syndromes and events

4.1.1 Requirement for PhilHealth accreditation and reimbursement of claims

Hospitals, lying-in clinics, and facilities providing ambulatory services that have been determined to be non-compliant to the PIDSR reporting requirements shall be reported to the provincial or regional PhilHealth office for appropriate action. After a reasonable period of time has elapsed, the PHO or the CHD shall follow-up with the PHIC office for feedback on actions taken.

4.1.2 Requirement for issuance of initial or renewal of hospital license to operate

- All hospitals/clinics shall be required to fill up a Notifiable Disease Report Register (NDRR) as shown in Annex 9. The NDRR is a record of all PIDSR Weekly Notifiable Disease Reports prepared or submitted to the health office. The NDRR serves as the monitoring and tracking tool for both the health facility and the evaluators of the CHD hospital licensing and surveillance staff on the PIDSR implementation.
- The designated Disease Surveillance Coordinator (DSC) in the hospital/clinic shall be responsible in filling up and safekeeping of the NDRR.
- The CHD staff tasked to assess hospitals for issuance of initial or renewal of license to operate shall make sure that the items on submission of PIDSRS is observed by the hospital or facility.
- The CHD surveillance unit or the PHO shall notify the CHD hospital licensing unit of those hospitals and facilities that are not submitting the reports as confirmed by the Data Processing Registry. The referring PHO or CHD surveillance unit shall be informed of any action taken by the CHD licensing team.

4.1.3 Requirement for Sentrong Sigla Certification

- The Sentrong Sigla assessment team shall include items on submission of PIDSRS as part of the certification requirements of main health centers and barangay health stations.

4.2 What is the flow of notification for immediately notifiable diseases, syndromes and events?

- The flow of notification for Category I or immediately notifiable diseases, syndromes or events is shown in Figure 3 below.
- Cases are identified as immediately notifiable diseases at DRUs.

- Cases are reported simultaneously to the PHO/ PESU, CHD/RESU and NEC within 24 hours of detection by the fastest means possible.
- Initial report can be verbal using the telephone or radiophone, or written via facsimile or email.
- It will be followed by case-based reporting form using the standard PIDSR case investigation form.
- Reports received by the NEC will be reported to World Health Organization possibly within 24 hours also.
- *The diseases/*syndromes *or events under this category includes:*
  - Acute Flaccid Paralysis
  - Adverse Events Following Immunization (AEFI)
  - Anthrax
  - Human Avian Influenza
  - Measles
  - Meningococcal Disease
  - Neonatal Tetanus
  - Paralytic Shellfish Poisoning
  - Rabies
  - Severe Acute Respiratory Syndrome (SARS)

4.3 What is the flow of weekly reporting notifiable diseases?

- The flow of weekly reporting of notifiable diseases (PIDSR) is shown in Figure 4 below.

4.3.1 Flow of Weekly Reporting for Component Cities:

- Cases identified as notifiable diseases in the community are reported to their respective DRUs (BHS, hospitals, clinics, ports and airports).
- The DSC records in the PIDSR Case Report Forms all cases of weekly notifiable diseases from the different DRUs.
- The DSC at the BHS will submit the PIDSR case report forms (including the WNDR Summary Page and Case Investigation Forms) to the DSC of the next higher DRU (RHU/Main Health Center or the CESU for chartered cities) every Friday of the week.
- The DSC will consolidate, analyze and interpret data from the different DRUs (including the hospitals) of their municipality/city. The DSC will maintain a file of all the PIDSR forms. DSC from the hospitals will do their own analysis and interpretation of data and will submit their report and dataset to the DSC in the RHU/Main Health Center or CHO.
- The DSC will prepare and disseminate a weekly Municipality/City Disease Surveillance Report.

- The DSC (including the hospitals) will submit the report and copies of PIDSR forms, and electronic file if available to the DSO of the next higher level (PESU) every Friday of the week. If the dataset was submitted as a paper file, the DSO will encode data into the computer and maintain a file of the PIDSR forms.

- The DSO will prepare and disseminate a weekly Provincial Surveillance Report.

- The Provincial DSO will consolidate, analyze and interpret data from the different DRUs of their province and submit the dataset to the DSO of the next higher level (RESU) every Friday of the week.

- The Regional DSO will consolidate, analyze and interpret data from the different DRUs of their region and submit the dataset to the PHSID of the NEC every Friday of the week.

- The PHSID of NEC will consolidate, analyze and interpret data from the RESUs to prepare and disseminate a weekly National Surveillance Report.

4.3.2 Flow of Weekly Reporting for Chartered Cities:

- Cases identified as notifiable diseases in the community are reported to their respective DRUs (barangay health stations, hospitals, clinics, ports and airports).

- The DSC records in the PIDSR Case Report Forms all cases of weekly notifiable diseases from the different DRUs.

- The DSC at the BHS will submit the PIDSR case report forms (including the WNDR Summary Page and Case Investigation Forms) to the DSO of the next higher DRU (CESU) every Friday of the week.

- The DSO will encode, consolidate, analyze and interpret data from the different DRUs (including the hospitals*) of their city. However, the DSO will maintain a file of the PIDSR forms.

- DSC from the hospitals will do their own analysis and interpretation of data and will submit their report and dataset to the DSC in the RHU/Main Health Center or CHO.

- The DSO will prepare and disseminate a weekly City Disease Surveillance Report.

- The DSO will submit the report and the dataset (electronic file) to the DSO of the next higher level (RESU) every Friday of the week.

- The DSO will consolidate, analyze and interpret data from the different DRUs of their region and submit the dataset to the PHSID of the NEC every Friday of the week.

- The PHSID of NEC will consolidate, analyze and interpret data from the RESUs to prepare and disseminate a weekly National Surveillance Report.

4.4 What is zero reporting? Why is it needed?

- Zero reporting is the report made by the DSCs to the next higher level even if no cases have been found in their respective DRUs. It is informing the next higher level that no cases were detected.
- However, zero reporting may not always indicate that there are no cases in the area but it could also mean that there may be problems encountered in the surveillance system.
- *Possible reasons for consistently submitting zero report may include:*
  - lack of admission of cases that is notifiable
  - presence of "missed" cases that are not reported to the respective DSC or
  - absence of DSC, who is in-charge of monitoring reports from DSAs and admissions of notifiable disease
- *Why is "zero" reporting important?*
  - Serve as basis for assessing sensitivity of the disease surveillance system
  - Allows the ESU to monitor DRUs that comply with regular weekly reporting and those that do not
  - Enable the ESU to determine which DRUs frequently submit "zero" reports
  - Serve as a basis for prioritizing the sites requiring close monitoring
  - Prompts the DSO to evaluate implementation of surveillance activities and to determine reason(s) for consistently sending "zero" report
  - Zero reporting may be done through phone calls, SMS, fax, email, or whatever mode of communication is available. Failure to submit timely reports will be given appropriate action by the next higher level.

4.5 What is the mechanism of transmitting PIDSR Forms to the next higher level?

- The DSC shall be responsible for submitting the PIDSRS forms from the city or municipality to the provincial health office either in electronic form or paper copy of the PIDSR forms. The DSO may send the electronic file by email simultaneously to the PHO, CHD and DOH-NEC.
- The DSO shall be responsible for submitting an electronic copy of the PIDSR forms from all the reporting units of the province to the CHD. The DSC may also email the electronic files to the CHD and the DOH-NEC.

- The RESU shall be responsible for submitting an electronic copy of the PIDSR forms from all the reporting units in the region to the DOH-NEC

4.6 Receiving and Checking PIDSRS

4.6.1 Who shall be responsible for receiving and checking the PIDSRS?

- The following shall be responsible for receiving and checking the PIDSRS
  - RHU: DSC
  - PHO: DSO
  - CHD: Regional Surveillance Officer
  - NEC: DOH-NEC Public Health Surveillance Unit

4.6.2 What items in the PIDSR shall be checked upon receipt?

- The following items in the PIDSR shall be checked upon receipt:
  - Completeness of the data entries in the required forms
  - Consistency of data in the summary sheets, case investigation forms and case report forms

4.7 What is a "silent" DRU and how should we deal with them?

- A "silent" DRU is a health facility that has not submitted PIDSR, including failure to maintain zero reporting, for two or more weeks.
- When a silent DRU is identified, the DSO should conduct active surveillance in that health facility to determine reason for "silence". This would include the following activities:

For Hospitals:

- Scrutiny of hospital records and logbooks (including admission logbooks, residents and nursing endorsement logbooks, Emergency Room and Out-Patient Department logbooks, and other relevant records) which may include clues and information on recent admissions of cases.
- Retrospective records review.
- Find out the reasons why they failed to submit the PIDSR
- Persuade the hospital management to participate in the surveillance activities.

For Rural Health Units/ Health Centers / Clinics / BHS:

- Scrutiny of health facility records and logbooks (including TCL, ITR, FHSIS Summary Table)
- Retrospective records review.
- Find out the reasons why they failed to submit the PIDSR
- Persuade the health facility management to participate in the surveillance activities.

Figure 3: Flow of Notification for Immediately Notifiable Diseases, Syndromes and Events

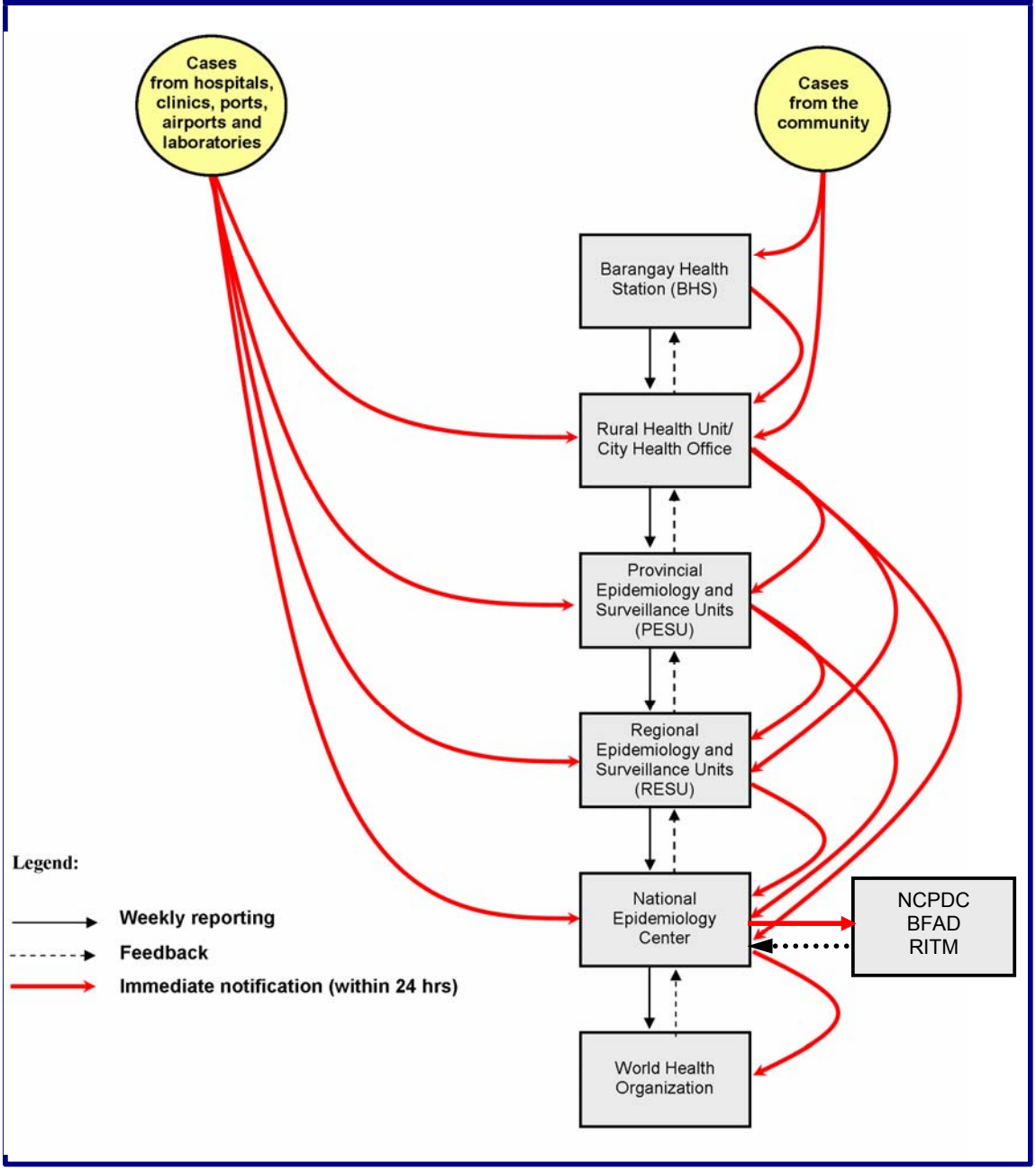
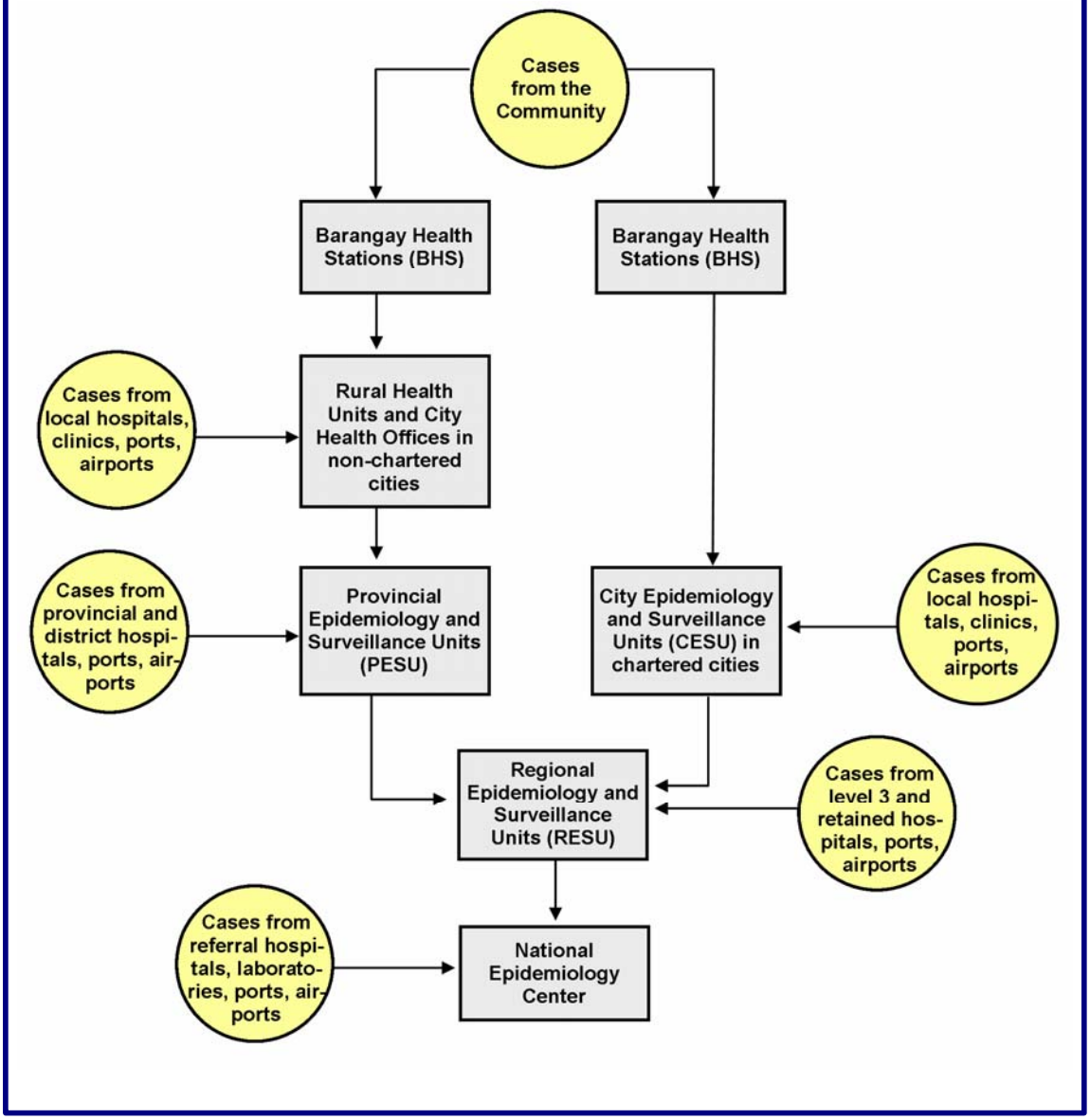


Figure 4: Flow of Weekly Reporting of Notifiable Diseases



Section 5: Data Analysis and Interpretation

This section describes about:

- Preparing a summary table by disease, barangay and morbidity week
- Computer-based data storage and analysis
- Computer hardware and software requirement
- Showing disease trends through the use of graphs
- Analyzing data by time, place and person

5.0 Data Analysis and Interpretation

5.1 How should the PIDSR WNDR be consolidated and stored at the RHU/CHO level utilizing a paper-based system?

- Each reporting unit is required to analyze data on a weekly basis to guide appropriate actions needed for unusual occurrences and patterns.
- The RHUs are expected to fill up the PIDSR case investigation and case report forms by disease. One copy of the forms will be given to the PHO and one copy is retained at the RHU for encoding.
- RHUs are required to make a summary notifiable disease table by disease, barangay and morbidity week. Figure 5 is a partial summary notifiable disease table and instruction for completion is discussed in section 5.2.1 below.
- For each fiscal year, the 52 weekly summary tables for the morbidity reports can be consolidated to prepare the Annual summary table of notifiable disease.
- The "notifiable disease" component of the FHSIS shall be covered and/or integrated with the disease monitored under the PIDSR. As such, a common reporting form (i.e. PIDSR forms) will be used.

5.1.1 How to prepare a summary table of notifiable disease by barangay and morbidity week

This table gives a picture of the occurrence of specific diseases in a barangay of the municipality in a specific period of time. The period of occurrence is guided by the morbidity calendar prepared by the NEC. Cases will be logged in on the table according to the morbidity week that it occurred. The table is shown in Figure 5 below.

Figure 5: Summary Table of Notifiable Disease Occurrence by Barangay and Morbidity Week

Year: _____

Notifiable Disease: e.g., Measles

Municipality:	
Province:	
Region:	
Reporting Unit:	
Name and Signature of Reporting Staff:	
Contact Numbers:	

Names of Barangays	Category of Cases	Morbidity Weeks									Total cases for the year
		MW 1	MW 2	MW 3	MW 4	MW 5	MW 6…	MW …..	MW …..	MW ...52	
Barangay 1	Survived										
	Died										
Barangay 2	Survived										
	Died										
…. Last Barangay	Survived										
	Died										
Total number of all cases (Survived and Died) per morbidity week											(Grand total for the municipality or city for the year)
Total number of Deaths per morbidity week											(Grand total for the municipality or city for the year)

Here's how to fill out the summary table:

- Remember the table must provide data on the occurrence of only one disease. Write the particular name of the disease you would like to report in this particular sheet at the title space (in this example, Measles). This means that you will submit separate sheets for each disease you are reporting.

- Diseases occur and spread regardless of political or governance divisions. Write the complete name of your municipality or city, the province, and the region. These must be filled out even by chartered cities as we need to geographically locate your area in

relation to other reporting units. This will give information on the activity of the disease in a municipality/city in relation to its neighbors.

- Write the complete name of your reporting unit, be it an RHU or a City Health office.
- Write the name of the reporting staff in print and ask him to sign above it. This will render the report official. Indicate the contact number, landline or cellular phone. If landline is used, indicate the area codes. These data will provide ease if data verification is needed. The telephone provides efficient access in times of urgency.
- On the first column of the body of the table, write the names of all barangays included in your municipality or city.
- The second column is the classification or category of cases as to whether they survived or died. "Survived" signify those who got sick but survived with or without complications and "Deaths" are those who got sick and died. Do not add them. Fill out the appropriate cell with the correct figure.
- The third column onwards pertains to the time period of report. The time period progresses to the right of the table from the first morbidity week which is the first week of the calendar year until the 52nd week which corresponds to the last week of the calendar year. For each barangay, write down the number of cases for the particular disease being reported. Write "0" if there is none for the week in a barangay. Zero (0) means that your unit looked for the cases or did not see any case during the particular week. Do not leave blanks. A blank does not mean anything at all except that your report is incomplete. This will prompt the upper level data manager to contact you and verify the meaning of the blank cells.
- The cases that must be encoded here include both those who survived and those who died. For each barangay, write the number of cases who survived in the upper row and the number of cases who died in the lower row. Mae sure to separate them by categories so that the total number of cases for the barangay will not artificially increase.
- On the last column on the right, write the total number of cases seen during the particular morbidity weeks. Each will give the picture for the barangay for the year, distributed by morbidity weeks.
- On the last/bottom row of the table, write the vertical totals for a particular morbidity week. This will give the total for the municipality or city for the particular morbidity week distributed by barangay. The right-most bottom cell simply gives the grand total number of cases of a particular disease in the municipality or city for the year.
- The high value of this summary table lies on the information it gives us on disease activity. It graphically shows where cases occur, where they are spreading, when they occur, where cases are increasing, and also where cases do not occur. It also shows where deaths occur and provides us the basis for determining case fatality rates for each barangay and for the municipality/city. As a guide, Case Fatality Rate is computed by using the formula shown below:

$$\textbf{Case Fatality Rate} = \frac{\textbf{Total number of deaths in a barangay}}{\textbf{Total number of cases (survived and died) in a barangay}} \times 100$$

- Data through morbidity weeks in particular barangays will also give us the trend and prompt us to take action especially when cases are increasing. From the table, we can prioritize barangays easily and monitor as well as evaluate very simply the results of our public health efforts. This table will become basis for other graphical presentations regarding a particular disease.

5.2 Computer-based data storage and analysis

- The use of computer-based data storage and analysis is highly recommended in all reporting units (RHU/CHO/PHO/CHD). However, for the time being while some LGUs are still acquiring the means for computerization, a paper-based system for reporting may be undertaken.
- The PIDSR data entry and analysis software has been developed and it will be provided with a separate Users Manual. The different variables obtained for each case reported are included in the program. This will provide the summary of data on all cases reported at all levels. Automatic generation of graphs, tables and charts provided by the program will greatly ease management of voluminous data and their analyses.
- A special training for data encoders to build capability at the provincial level will be conducted by the NEC staff.

5.2.1 Computer hardware and software requirements

- Trained and dedicated personnel for the computer system
- Management, technical and logistical support
- Computer hardware with at least 1Gb RAM, 80 GB hard disk space and printer
- Computer software: Word processor (e.g. MS Office), Epi Info for Windows, MS Access

5.3 How should surveillance data be analyzed?

- The analysis of surveillance data represents an inductive reasoning process whereby the study of individual data elements produces a more general picture of the problem in the population.
- Regular analysis of data allows for describing the patterns of disease or injury in a given population represented by different measures. Analyzing surveillance data must be given the highest priority at all levels.
- In analyzing surveillance data, the following approaches should be considered:
  - Know the strengths and weaknesses of the data collection methods and processes to get the real sense of the disease trends.
  - Start from the simplest analysis before proceeding to the more complex methods. Examine first each variables separately both by numbers and trends then examine the relationships among these variables.
  - Recognize when inaccuracies in the data prevents a higher level analysis. Haphazardly collected or incomplete data cannot be corrected by complex analytical methods.

- Analysis of information depends on the accuracy of the surveillance data. It is a waste of time and resources to analyze data that are erratically collected or with varying case definitions. Reliability and validity determines the accuracy of surveillance data.
  - Reliability refers to the consistency of reporting of a condition even by different observers from different locations.
  - Validity refers to whether the condition reported reflects the "true" condition as it occurs.
  - The accuracy of data can be more completely assured when biologic measures complement clinical case definitions like laboratory testing.
  - Accuracy of data is more difficult to confirm in subjective behavioral situations such as lifestyle studies.
- Surveillance data should be used to describe health problems or situations in terms of the basic epidemiological variables of *time, place* and *person*. Use and analysis of these epidemiological variables allows the following to be carried out:
  - Comparison of patterns and risks of disease at different time periods, place or among population groups
  - Calculation of rates of disease (when appropriate denominators are used)
  - Detection of epidemics for early control and prevention
  - Project future occurrence of disease to facilitate prompt public health response
  - Evaluation of public health policy
  - Identify new or emerging syndromes or conditions

5.3.1 Analyze Data By Time

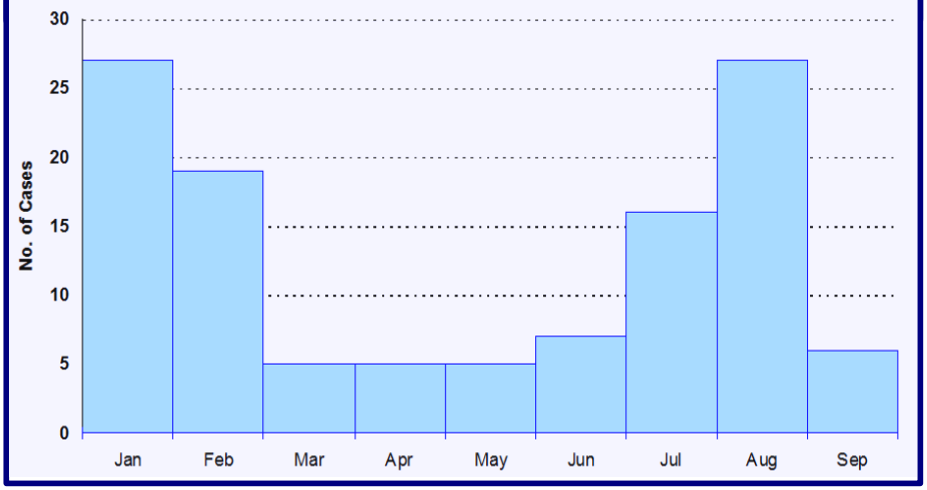
- *Time* analysis answers the questions "When does the disease occur commonly or rarely?" and "Is the frequency of disease at present different from the frequency in the past?"
- Analysis of surveillance data by *time* detects increasing or decreasing trends of disease or condition. Bear in mind that there is an interval or delay that can be measured between the exposure and the appearance of the problem. Time intervals of importance to surveillance are the following:
  - Incubation period for communicable diseases which refers to the time from exposure to the appearance of signs and symptoms
  - Interval between appearance of symptoms and when the diagnosis is made
  - Interval between diagnosis and eventual reporting and inclusion of the disease in the surveillance data

5.3.1.1 Techniques in *Time* Analysis

- The following are the different techniques in the analysis of surveillance data by time, these are:

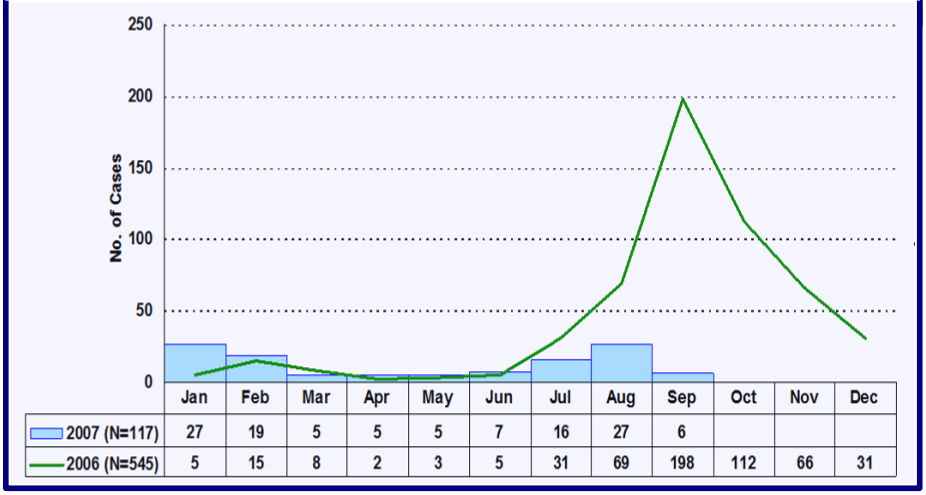
  - Simple comparison of the number of cases reported in a particular time period such as in weeks or in months. The data can be arranged in tables or graphs to visually show an increase, decrease or stability in the disease trend. Figure 6 below is an example of simple graph.

Figure 6: Dengue Fever Cases in City X by Month (N=117) January 1, 2007 to September 15, 2007



  - Comparison of the number of cases reported for a current time period with the number of cases reported during the comparable period for the past year or several years. An example is Figure 7 below which is an enhancement of the dengue fever analysis shown in Figure 6 above.

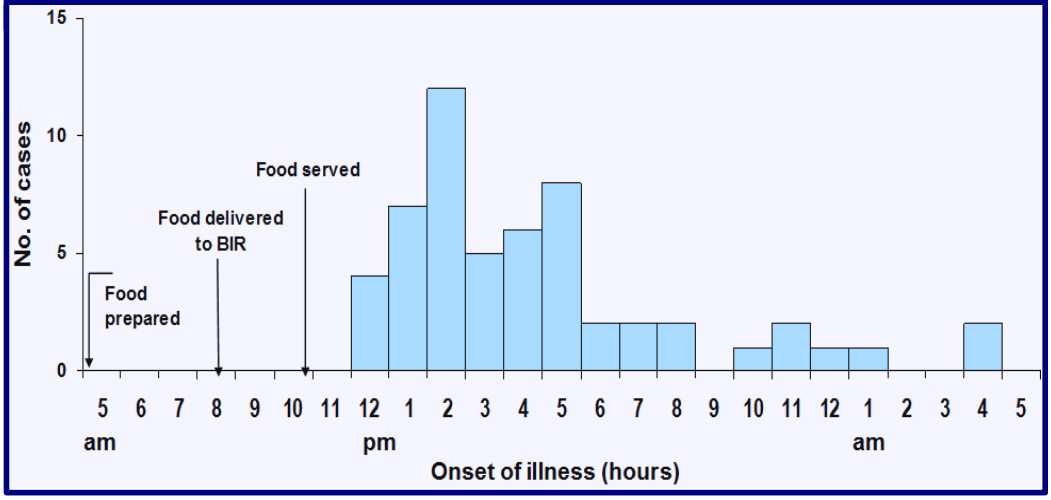
Figure 7: Dengue Fever Cases in City X by Month (N=117) January 1, 2007 to September 15, 2007 vs. 2006



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2007 (N=117)	27	19	5	5	5	7	16	27	6			
2006 (N=545)	5	15	8	2	3	5	31	69	198	112	66	31

- Analysis by date of onset rather than by date of report. This provides a better representation of the disease incidence because it eliminates the delays between diagnosis and reporting. Figure 8 below is an example.

Figure 8: Food Poisoning Cases by Time of Onset of Illness BIR, Quezon City, August 2, 2004 (N=55)

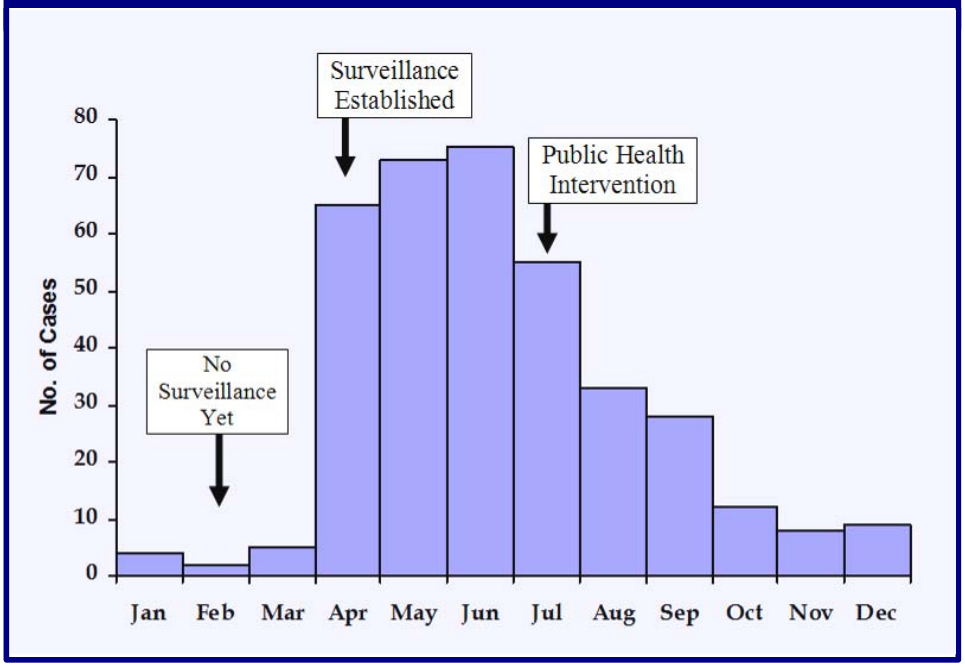


- Graph surveillance data over time for long-term or secular trends analysis indicating events that may have influenced the trend such as:

  - Changes in the case definitions
  - New diagnostic criteria
  - Changes in reporting requirements
  - New control programs
  - Changes in the surveillance system
  - Sudden increase or decrease in population such as displacement due to military activities or conflicts

Figure 9 below is an example of surveillance data starting from the absence of surveillance to the establishment of a surveillance system and institution of intervention.

Figure 9: Hepatitis A Cases in City Y by Month January to December 2007



Source: NEC

5.3.2 Analyze Data by Place

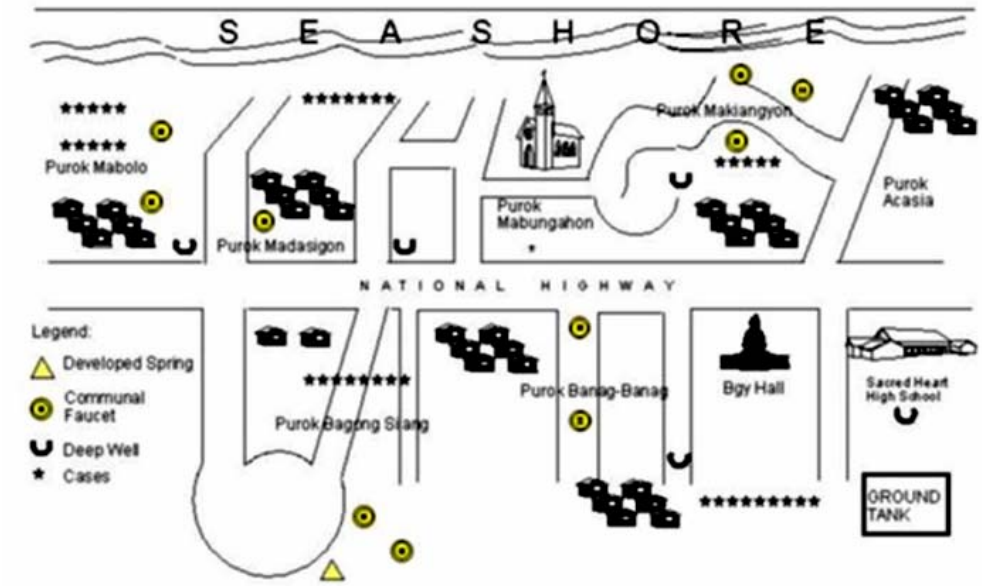
- *Place* analysis of surveillance data answers the question "Where are the rates of disease highest or lowest?"
- The next step is to analyze the surveillance data by place where the disease or condition *occurred* and not necessarily where the report came from. Surveillance data reports from health faculties do not necessarily mean that the disease or condition happened in that place.
- Place analysis provides important information such as:
  - Identify areas with highest rates of disease or condition that will facilitate efforts to identify the causes and institution of proper interventions
  - Characteristics of the population involved such as density and distribution
  - Presence of important facilities such as hospitals, clinics, and structures that can be used for evacuations or other emergency activities

- Presence of environmental resources such as lakes, rivers, streams, springs, land forms and vegetation that are important to the analysis of the disease or condition

- Modern technology such as computers and mapping software permits sophisticated analysis of surveillance data by place and monitor in real time the geographical course of a disease or condition

- Maps are used to graphically represent surveillance data by place. Figure 10 below is an example of a spot map.

Figure 10: Spot Map of Typhoid Fever Cases and Water Sources Iligan City, 1995



5.3.3 Analyze Data By Person

- *Person* analysis answers the question "Who are getting the disease?"

- *Person* analysis of surveillance data is used to describe the population at risk of a particular disease or condition. *Person* can be characterized by an infinite number of variables. The person or demographic variables most frequently used are age, gender and race. Less commonly used variables are marital status, education, religion, occupation, social and economic status.

- Age is the most important characteristic because majority of health related events differ with age. Analysis of surveillance data by the variable "age" is dependent on the specific disease or condition under study. For childhood diseases, a narrow age interval could identify peak incidence of the disease. While for diseases or conditions that affect adults, a broader age interval is appropriate. Other factors associated with age include host susceptibility, incubation period of the disease, physiologic response and opportunity for exposure.

- In most situations, a simple analysis of the count or number of cases is sufficient but does not provide other information to fully understand the impact of the disease or condition in the given population. To allow better comparison of risks among different population groups, variable specific *rates* should be computed and analyzed.

- A rate measures the frequency of occurrence of an event or condition. Calculation and analysis of rates is very important in epidemiology. It allows valid comparisons within or among different populations for a given specific period of time. The general formula for rate computation is:

$$\text{Rate} = \frac{\text{Number of cases/events in a specified time}}{\text{Average or mid interval population}} \times 10^{n}$$

  The numerator is the upper portion of the fraction representing the number of cases or events during the specified time period. The denominator is the lower portion of the fraction indicating the population size in which the cases or events occur. The size of the *n* ranges from 2 to 6 and is dependent on the incidence or prevalence of the disease or condition.

- This can be done by analyzing the person variables in relation to denominators. The denominator is the number of all events being measured such as the total population from which the cases occurred or the total population at risk of the disease or condition.

- There are several different rates used in surveillance and public health in general. These rates are shown in Table 4 below.

Table 4. Rates Commonly used in Public Health and Epidemiology

Measure	Numerator	Denominator	Expressed per number at risk
Measures of Morbidity			
Incidence rate	Number of new cases of a specific condition per given time period	Population at the start of the time period	Variable: 10^n where n = 2,3,4,5,6
Attack rate	Number of new cases of a specific condition per epidemic period	Population at the start of the epidemic period	Variable: 10^n where n = 2,3,4,5,6
Secondary attack rate	Number of new cases of a specific condition among contacts of known patients	Size of contact population at risk	Variable: 10^n where n = 2,3,4,5,6
Point prevalence	Number of current cases of a specific condition at a given time	Estimated population at same point in time	Variable: 10^n where n = 2,3,4,5,6
Period prevalence	Number of old cases plus new cases of a specific condition identified in a given time interval	Estimated mid-interval population	Variable: 10^n where n = 2,3,4,5,6
Measures of Mortality			
Crude death rate	Total number of deaths in a given time interval;	Estimated mid-interval population	1,000 or 100,000
Cause-specific death rate	Number of deaths from a specific cause in a given time interval	Estimated mid-interval population	100,000
Proportionate mortality	Number of deaths from specific cause in a given time interval	Total number of deaths from all causes in the same time interval	100 or 1,000
Case fatality rate	Number of deaths from a specific condition in a given time interval	Number of new cases of that condition in the same time interval	100
Neonatal mortality rate	Number of deaths among the < 28 days of age in a given time interval	Number of live births in the same time interval	1,000
Infant mortality rate	Number of deaths among the < 1 year of age in a given time interval	Number of live births in the same time interval	1,000
Maternal mortality rate	Number of deaths form pregnancy-related causes in a given time interval	Number of live births in the same time interval	100,000
Measures of Natality			
Crude birth rate	Number of live births in a given time interval	Estimated total mid-interval population	1,000
Crude fertility rate	Number of live births in a given time interval	Estimated number of women ages 15-49 years at mid-interval population	1,000
Crude rate of natural increase	Number of live births minus number of deaths in a given time interval	Estimated total mid- interval population	1,000

Adapted from the "Principles and Practice of Public Health Surveillance", Teutsch & Churchill.1994

5.3.4 Graphical Presentations of Surveillance Data

- Graphical presentation of data plays a very important role in surveillance in organizing, summarizing and displaying information clearly and effectively. Graphics visually display data using lines, points, symbols, numbers, coordinates, color and shading.

- The graphical tools available for visually displaying surveillance data are tables, graphs, charts and maps.

5.3.4.1 Tables

- A table is a brief and concise way of presenting large sets of detailed information using rows and columns. It shows trends, comparisons, and interrelationships among variables. It should be simple, direct and clear. Tables usually serve as the basis for preparing more visual presentation of data such as graphs and charts.

- The following are the characteristics of an effective table:

  - Simple with 2-3 variables
  - Self-explanatory
  - Codes, abbreviations, and symbols should be explained in detail in a footnote
  - Specific units of measure for the data should be given
  - Totals should be provided
  - If the data is not original, source should be provided in a footnote at the bottom of the table

- Tables can be one-variable or multivariable tables. The most basic table is a frequency distribution with only one variable as shown in Table 5 below. The first column shows the categories of the variable represented by the data. The second column shows the number of events that fall into each category. The third column often shows the percentages.

Table 5: Rectal Swab Results of Ill Patients
Food Poisoning in Barangay X, May 2007

Microorganisms	Number Of Subjects	Percentage
Vibrio parahemolyticus	40	20.5
Plesiomonas shigelloides	3	1.5
Staphylococcus aureus	3	1.5
Aeromonas sobria	3	1.5
Aeromonas hydrophila	1	0.5
Aeromonas caviae	1	0.5
No organism isolated	144	74
TOTAL	195	100

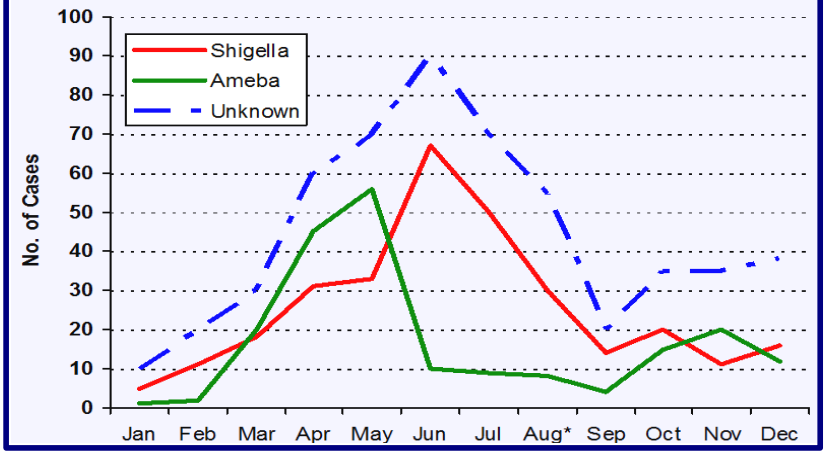
5.3.4.2 Graphs

- A graph is a method of showing quantitative data using the x-y coordinate system. The x-axis is used for classification (independent variable, e.g. time) and the y-axis is used to show frequency (dependent variable, e.g. no. of cases)
- Graphs are more appealing and effective tool than a table in delivering information. It is a primary analytic tool that assists the reader to visualize trends, patterns, differences and similarities in the data.
- In constructing a graph, the following should be observed:
  - It should be simple and self explanatory
  - Label titles, axes, source, scales and legends
  - Each variable should be clearly differentiated by legends
  - Ensure that scales for each axes is appropriate for the data
  - Minimize the number of coordinate lines
  - Define all abbreviations and symbols
  - Note all data exclusions
  - If the data is not original, source should be provided in a footnote at the bottom of the table
- The most commonly used graphs are the following:

1) *Histogram:* a graph wherein the frequency distribution is represented by adjoining vertical bars where in the cases are stacked in adjoining columns. The area of each bar is proportional to the frequency of the interval. It uses squares to represent cases rather than a line to connect plotted points. Histograms are used to analyze outbreak data and to show an epidemic curve. In a histogram, the cases are stacked on the graph in adjoining columns. Figure 8 on page 42 is an example of a histogram.

2) *Frequency Polygon or Line Graph:* a graph created from a histogram by connecting the midpoints of the interval using a straight line instead of making a bar or filling in squares. It is very useful in comparing frequency distribution from different sets of data. See Figure 11.

Figure 11: Line Graph of Reported Acute Bloody Diarrhea Province Z, 2006



- Basic steps in making a histogram:

  1) Determine the information to be shown on the graph.
  2) Put a title on the graph. The title should include:
     - The Figure number
     - The name of disease or event
     - The description of the population such as by age group, by gender, by date of consultation or by date of admission.
     - The place of disease occurrence
     - The dates of disease occurrence
     - The total number of person affected
  3) Write the range of numbers on the x and y axes by:
     - Starting with zero (0) as the lowest number.
     - Writing the numbers until a number higher than the number of cases
     - Choosing an appropriate interval for the y axis if the values are too large and label appropriately
     - Marking the time units on the x axis and label. Divide the x axis into equal units of time starting with the beginning of an outbreak, morbidity weeks, or the beginning of a calendar period, such as a month or year.
  4) Each bar on the graph should have the same width. For each unit of time on the x axis, find the number of cases on the y axis and fill in one square for each case.

5.3.4.3 Charts

- In contrast to graphs, charts show epidemiologic data using only one coordinate. Charts effectively show comparative data.

- The most frequently used types of charts are as follows:

  1) *Bar charts:* this is the simplest and most effective way to present comparative data. It uses bars of the same width to represent different categories of a factor. Unlike a histogram, the bars of the different categories are separated by spaces because they do not show a continuum on the x axis. Bars on the chart maybe vertically or horizontally drawn. Figure 12 is an example of a horizontal bar chart.

  2) *Pie charts:* A pie chart is a chart in which the sizes of the slices show the proportional contribution of each component part. Since it is difficult to gauge the area of the slices, it is important to indicate what percentage each slice represents. The whole chart should total 100 percent. An example of a pie chart is shown in Figure 13.

Figure 12: Number of Injuries by Type ER Complex of Hospital Z, 2006

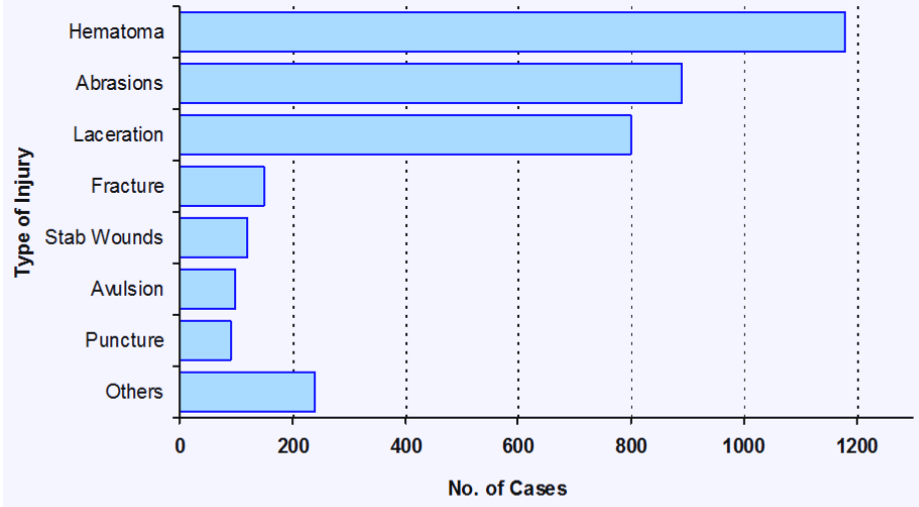
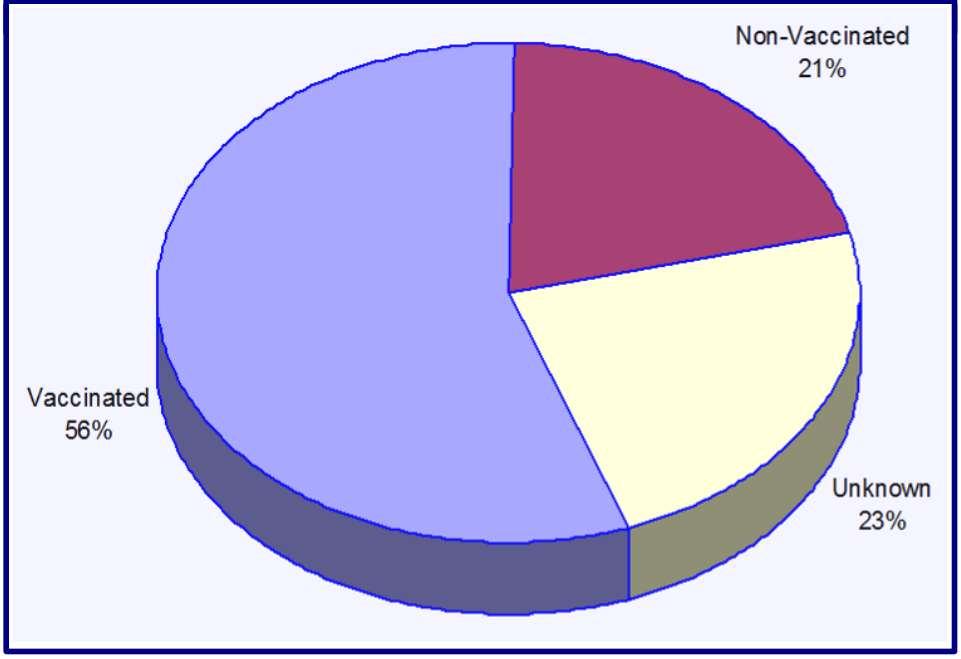


Figure 13: Measles Vaccination Status of Children 2 Years And Below City X, 2007



5.3.4.4 Maps

- Maps or geographic coordinate charts are used to show the location of events. An example of a *spot map* is shown in Figure 10 on page 44. Spot maps use dots or other symbols to show the location of an event or where a disease condition took place. It is very useful in showing the distribution of an event. Since it does not take into account the population size at risk, it cannot indicate the risk of the residents in acquiring a particular disease.

5.3.5 Interpretation of Surveillance Data

- Compare the current situation with previous weeks, months, or years. Observe keenly whether the number of cases and deaths for the given disease is stable, decreasing or increasing by looking at the line or bar graphs.

1) Ascertain if thresholds for action for the disease have been reached. Thresholds are indicators when something should happen or change. It is a decision guide as to when to take action, and what actions to take.

   - *Alert Threshold:* refers to the level of occurrence of disease that serves as an early warning for epidemics. An increase in the number of cases above the alert threshold level should trigger an investigation, check epidemic preparedness and implement appropriate prevention and control measures.

   - *Epidemic threshold:* refers to the level of occurrence of disease above which an urgent response is required. The threshold is specific to each disease and depends on the infectiousness, other determinants of transmission and local endemicity levels. For some diseases, such as poliomyelitis or SARS, one case is sufficient to initiate a response.

2) Concerning the national data for disease of epidemic proportions, the alert and epidemic thresholds are computed as follows:

   - *To compute for the alert threshold:* compute for the weekly/monthly average of a particular disease during the past 3 to 5 years and add 1 standard deviation

   - *To compute for the epidemic threshold:* compute for the weekly/monthly average of a particular disease during the past 3 or 5 years and add 2 standard deviation

3) Suggested thresholds that alert health staff to a possible outbreak are shown in Table 5.

Table 5: Recommended Thresholds for Specific Diseases

Disease/Condition	*Alert Threshold*	*Action/Epidemic Threshold*
Acute Bloody Diarrhea	Increasing number of bloody diarrhea over a short period of time	If the suspect cases has been confirmed
Acute Flaccid Paralysis (AFP/Polio)	1 suspect case	1 confirmed case
Acute Hemorrhagic Fever	1 suspect case	1 confirmed threshold
AIDS		Intervention targets prevention so there is no need to wait for index case or number of cases as threshold to take action
Bacterial Meningitis	In a population greater than 30,000: 5 cases per 100,000 inhabitants per week In a population less than 30,000: 2 cases in 1 week or an increase in the number of cases compared to the same time in previous years	In a population greater than 30,000: 15 cases per 100,000 inhabitants per week confirms epidemic in all situations. If no epidemic during last 3 years and vaccine coverage for meningococcal meningitis is <80% epidemic threshold is 10 cases per 100,000 inhabitants per week. In a population less than 30,000: 5 cases in 1 week or doubling the number of cases over a3-week period
Cholera	1 suspect case	1 confirmed case where it has not been reported before
Malaria		Hyper-endemic, threshold not applicable
Measles	1 suspect case	Confirmed outbreak
Neonatal Tetanus	1 suspect case	1 confirmed case through investigation
Viral Hepatitis		If there is an unusual increase in the number of new hepatitis cases or deaths as compared to the same time period in previous years

- When interpreting the surveillance data, the following should be considered:

  1) Severe cases and deaths are most likely to be detected as hospitalized inpatients meaning the use of the case definition is likely to be more accurate than those reported for outpatient cases.

  2) Increases and decreases in the number of cases may be influenced by other factors other than a true increase or decrease being observed. Some of these factors that may affect the trend of disease are:

     - Change in the number of disease reporting units
     - Changes in the case definition being used to report the disease or condition
     - Changes in the denominator
     - Changes in the health seeking behavior in the community
     - Changes in the population because of recent immigration to or emigration from the area or increase in refugee or internally displaced populations

5.3.6 Using the Results of Analysis

- Conduct an epidemiological investigation
- After conducting the investigation and sufficient evidences have been gathered, it is possible to plan control and prevention measures. It is the primary public health reason why the investigation was conducted in the first place.
- Attempt to limit spread and occurrence of additional cases even at the onset of the investigation.
- Plan also for a complete prevention program to prevent the occurrence of similar outbreaks in the future.
- Collaborate with specific disease reduction programs to intensify surveillance if an alert threshold has been crossed.
- Advocate with political leaders and the community for more resources, if inadequate resources is identified as a cause for the increased number of cases.
- Provide feedback to lower levels.

Section 6: Feedback

This section describes how to:

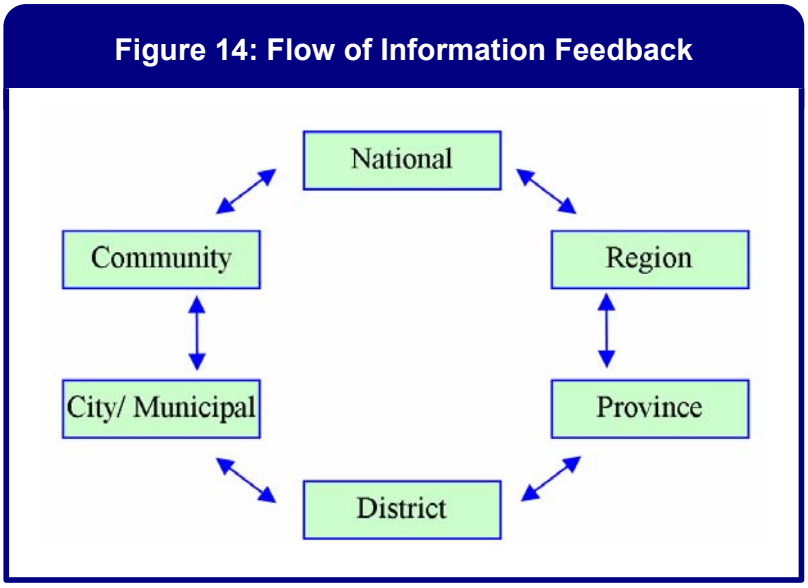
- Provide ffeedback mechanisms and its importance to the surveillance system
- Prepare and disseminate of information summary sheets, public health bulletins, newsletters, fact sheets and reports
- Prepare and write disease surveillance report

6.0 Feedback

6.1 What is feedback?

- Feedback reinforces health staff's participation in the surveillance system. It also raises awareness about certain diseases and any achievements of disease control and prevention activities in the area. There is the ***need to institute regular and timely feedback within and between levels*** of the health delivery system. Data, ideally, should be reported routinely from the lower to the higher levels of the health care system and vice versa. Figure 14 illustrates this relationship among the different levels of the health care system.

Figure 14: Flow of Information Feedback



- When the district, provincial or regional health management teams or National Surveillance Unit receive and analyze data, they should promptly disseminate results to the entities that provided the data.

6.1.1 Verbal Feedback

- Verbal feedback from one health unit to another can take place in various venues, as follows:
  - Supervisory visits
  - Telephone calls
  - Meetings: weekly, monthly, quarterly, half-yearly and annually
  - Health education activities
- During a visit or meeting, give a verbal report or comment about the data that were reported by the health facility during a given period of time. Display the data in a simple table. Sit with the health staff and show them the data. Discuss the likely conclusions that can be drawn from the data. Consider conclusions not only for the health unit, but also for the locality as a whole.

6.1.2 Written feedback

6.1.2.1 Outbreak Response Report

- After an outbreak response has been conducted, the lead or main investigator (person or office) should prepare a report. Use a copy of the report as feedback to the unit or entity that first reported the case and to all other concerned stakeholders.

6.1.2.2 Information Summary Sheets

- An information summary sheet is a "report" that presents data and its interpretation in a table or other graphic format. It is particularly useful as back-up to a verbal presentation. The summary sheet can be a simple table that shows how the data reported for this period differ from the data reported for some other period or target population: For example, show the number of cases of diarrhea with dehydration in children less than 5 years of age from a given period last year.
- Share information summary sheets with other surveillance entities, and use them to support requests made to higher levels for additional funds, supplies and other resources.

6.1.2.3 Public Health Bulletin

- The purpose of a public health bulletin is to present facts in a limited format and time frame. The bulletin should contain at least:
  - A summary table showing the number of reported cases and deaths to date for the epidemic-prone diseases
  - A brief, reader-friendly summary, commentary or message on surveillance of a given priority disease or other topic, such as health facility, sub-district or district performance
  - A map showing geographical distribution of priority diseases
  - Data reported from lower levels during the period. This will act as feedback, enabling units at the same level to compare their data with that of each other, and trigger correction of inaccurate data
  - Alert messages on epidemic-prone diseases

- If a public health bulletin is sent to your office, display it where others can see it. Make copies to distribute to health facility staff. Take copies of the bulletin on supervisory visits to show health staff how the data they report contributes to public health.
- All levels must produce a monthly bulletin covering the priority conditions and any other diseases relevant to the local area. The national level will continue to produce weekly and monthly bulletins on all the priority diseases.

6.1.2.4 Newsletter

- The newsletter could be produced by health units at the local levels (municipal, district, provincial or regional)

- The newsletter can be produced simply with a computer or typewriter composed of two to four pages containing a summary of articles such as:
  - Respective local data for a given priority disease
  - Report of progress towards a specific public health target
  - Report of a specific achievement towards public health by an individual health worker or a group of health workers
  - Description of special events or activities (public festivals, religious gatherings, floods etc.)

6.1.2.5 Fact sheets

- Fact sheets are brief summaries of one to two pages prepared by health staff for the general public. They usually deal with a single topic or message. For example, if the district would like to give the community information about a Shigella outbreak, the fact sheet states the steps for hand washing and clean food preparation in addition to a table with the number of cases and deaths. These are sheets that could be hung on a bulletin board or distributed to community groups that are planning health education campaigns.

6.1.3 Other methods of providing feedback

- Electronic reporting (E-mail, for example)
- Guidelines and technical manuals
- Health education materials
- Radio plugs/program
- Briefing reports

6.2 What method of feedback is most appropriate at the level of the RHU/CHO, PHO, CHD and DOH-Central Office?

- Data use is not an isolated activity – it is the final stage in a series of activities that begins with planning health information systems and continues through collecting, managing and analyzing data.

- Data, and the information they relate, cannot be used well unless they are of high quality. Public health professionals use the output of the surveillance system as the raw material for data use. The data they present to policy-makers, fellow health workers, the public and communities at risk are only as good as the surveillance systems that produce them. If surveillance systems produce poor data that lead to policy conclusions that are irrelevant or even inaccurate, then efforts to prevent epidemics or reverse disease occurrence will be undermined.

- Here is a simple checklist to help evade common weaknesses encountered in surveillance data:

  - Does the surveillance system cover the right populations?
  - Is the sample population clear?
  - Is the sample size adequate?
  - Did the surveillance take place in a site used consistently over time?
  - What is known about testing?
  - What is being measured?
  - Are data interpreted correctly?

- There is no hard and fast rule on what form of feedback is appropriate for use by a specific unit of the health system. The choice of format to be used is better guided by the objective or intended purpose of the user. Whether the use of the data is for program planning, program monitoring and evaluation or for advocacy, the format to be chosen should be the one which would best present the message in a clear and straightforward manner and would fit the intended audience.

- For program planning, surveillance data should be used to determine the magnitude of the disease and its distribution in different geographical areas and subpopulation. Estimating the number and distribution of those already infected is important in deciding how prevention resources should be distributed as well as in planning care and support needs. Within prevention programs themselves, surveillance data can be used to identify problem areas, to seek solutions and to devise strategies appropriate to the ever-changing disease occurrence.

- In the commercial sector, manufacturers of breakfast cereals or cosmetics have recognized that they sell their products better if they package and advertise them differently for different target markets. The same principle should apply to surveillance data. The same data need to be presented very differently for different audiences to be able to sell the messages implied by the data and ensure that they get acted upon.

- Successful advocacy follows a number of relatively well defined rules. Choosing the right product for the right audience requires:

  - Defining your goals
  - Defining your audience
  - Finding out what influences their thinking
  - Using the data to address their concern
  - Using the right language
  - Getting the length right

- Choosing the best messenger
- Timing it right

6.3 How do I prepare a written disease surveillance report?

- A surveillance report must be succinct. As the report is intended to give decision makers the bases for future action, it must be written clearly based on accurate information derived from accurate and reliable data.

- The written report follows the IMRAD format in includes the following:

  - Introduction
  - Methods
  - Results
  - Analysis
  - Discussion
  - Conclusions and Recommendations.

- In the introduction, the objective of the report must be stated clearly. The background of the report must be described. It should include what the report is all about, the circumstances why the report is focused on a particular disease or its issues, the significance of the health event and its nature.

- Methods include a description of how the report was obtained, the reporting sites included, how data was collected and an explanation on the laboratory procedure and requirement if diagnosis relies heavily on laboratory examination. Case definitions must be stated exactly how it was applied to standardize the perspective of the reporter and the reader.

- Results of the Surveillance activities must be presented in a manner that even a layman can understand. We present results not to impress or overwhelm our readers but to put our narrative messages across. Our objective is to draw the main point of the surveillance activities and results as well as generate public health actions from decision makers. We must always remember that most of the decision makers at the LGU level have no clinical experience and may just have very little statistical background. Here, the value of the graphical presentations is heightened as readers find it easier to comprehend than a litany of scientific statements describing the surveillance findings. However, excitement on overdoing the graphs must be held back as a complicated graph will even confuse the reader more. Simple presentation with one or two variables describing the health event would be ideal for a layman's understanding. We must refrain from doing graphics with bars overlapping with lines and notations that the reader cannot decipher where to look first and which part of the complex graphical presentations is indeed important. When graphs are charts use multiple colors, make sure that the report is printed in multiple colors too. A profusion of slices and lines in black or its shades and white will lead to severe frustration.

- Analysis, Discussion, Conclusions and Recommendations are related. Each result that is presented must be accompanied buy succinct explanations including the meanings of the graphics. The discussion must be focused on the health event, what the surveillance data

implies and the actions that are highly necessary to address the health problem. Honest interpretation of the surveillance data will greatly help in accomplishing what we would want our readers to do next.

- To guide the decision makers and the general public, the surveillance officer must come up with conclusive statements to guide the next action of the stakeholders. The conclusions must be able to generate more interest on the issue and prompt action focused on prevention and control of the health problem.

- The recommendations that we give must be addressed to the right persons. It is ideal to identify the sector to which we address the issue. The specificity of the recommendation as in asking the local waterworks system to repair the busted pipes in a specific street will generate more cooperation than general recommendatory statements such as “improving water supply system”. If we truly need to recommend a complex activity, it must be broken down to tasks addressed to specific persons so that they will not be overwhelmed. The simpler the statements, the better it is. The simpler the action, the easier it is to do.

Section 7: Use of Information

This section describes:

- The knowledge-driven model of decision-making?
- Converting information to knowledge
- How surveillance information can be used
- The ways to enhance the use of surveillance information in all levels of the health system

7.0 Use of Information

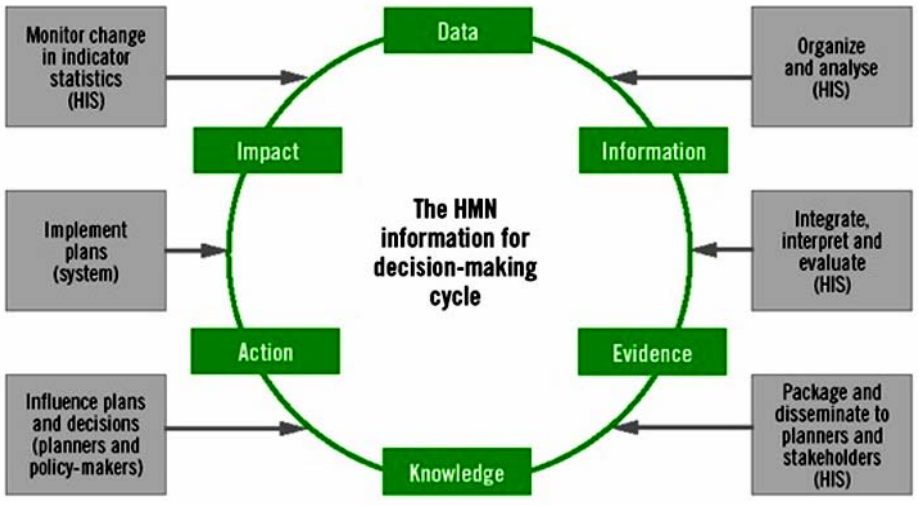
7.1 What is the knowledge-driven model of decision-making?

- In the knowledge-driven model of decision-making, data are the raw products of the health information system. Data themselves have little value until sorted out, verified, checked and certified correct, organized and analyzed. Through these processes, *data* become *information*. Yet information is of limited value until it is integrated with and evaluated in terms of issues confronting the health system.

- When the significance of the information is obtained, understood and accepted, becomes *evidence* of use to decision-makers. The synthesis of evidence is still insufficient however until packaged, communicated and disseminated to decision-makers in a form that changes their understanding of the issues and needs. At this stage, the evidence becomes *knowledge*. Once knowledge is applied through the planning process to result in *action* and change, an *impact* on the indicators can be expected. And such impact should be measurable through change in the source data for the indicators.

- The Health Metrics Network visualizes a continuous cycle of data processes to obtain the greatest possible impact, thanks to a comprehensive health information system.

Figure 15: Relation of Data and Health System Impact in the HMN Framework



Based on: De Savigny D, Binka F. Monitoring future impact on malaria burden in subSaharan Africa. *American journal of tropical medicine and hygiene*, 2004, 71:224–231.

- Health information systems in low- and middle-income countries tend to be data-rich, but information-poor. This is a consequence of the belief that data can be used directly for decision-making. Raw data alone are rarely useful. The point of the system is not just to generate data and hope that it will be used. Raw data must be cleaned, validated, organized and entered into a first-level data repository or warehouse. At the same time, preliminary analysis of data converts them to initial information at the primary level that is already useful for front-line program management, monitoring and measurement of progress on local targets. Such a preliminary analysis of data should be done as close to the level of data collection as possible. In this process, raw data are converted into immediate information and evidence for local decision-making within the system.

- Once the health information system has started to convert data into information, the information should be used on a regular basis at meetings, and displayed where it can be seen by staff and the public. By being used, the information system, and the quality of its information, is gradually improved through a cyclic learning process. By learning through hands-on experience, problems are identified, new needs defined, and new features added that will be refined and improved upon in the next cycle. This low-level analysis of primary data requires an appropriate and simple tool-kit of targeted methods aimed at providing relevant feedback to the front lines.

7.1.1 Converting information to knowledge

- As data and information move up the line to higher levels of the health system via the data repositories at these levels, they can be synthesized and triangulated (compared) with other sources and compiled into usable statistics for deeper analysis and comparison across the health system. A critical aspect is that of analysis, i.e. identifying results from the synthesis of data from multiple sources, examining inconsistencies and contradictions, identifying and accounting for biases, and summarizing into a consistent assessment of the health situation and trends. Such higher-level analysis provides estimates, i.e. knowledge on the burden of disease, patterns of risk behavior, health service coverage, trends in indicators, and health system performance. The current fragmentation of data sources and subcomponents of the health information system represents a serious obstacle in this regard.

- Establishing a data and information repository as a shared resource at national, sub-national and local levels is therefore an important step in improving information practices and enabling the necessary high-quality data analyses. It is from this level of analysis that results are used for policy development and strategic planning. Such analysis, interpretation and advocacy do not take place spontaneously, and need to be driven. They require the packaging, communication and dissemination of evidence in a format and language accessible to the higher level policy and decision makers. This is a generally neglected aspect of most health information systems that tend to short-circuit the cycle illustrated in *Fig.15* by providing data direct to decision-makers without appreciating the need for intermediate steps.

7.2 How can surveillance information be used?

- Public health surveillance focused almost exclusively on the detection and monitoring of cases of specific communicable diseases and surveillance data were disseminated primarily in tables. However, surveillance efforts have expanded rapidly and may eventually include chronic diseases, injuries, occupationally acquired conditions and other

problems. Because of the fundamental changes in public health programs and priorities, programs at all levels require innovative approaches to convey surveillance findings to new and more diverse audiences.

- Surveillance has been characterized as a process that provides "information for action". This concept is inherently consistent with the definition of communications as "…a process, which is a series of operations, always in motion, directed toward a particular goal." Therefore, public health programs must ensure more than the mere transmission or dissemination of surveillance results to others; rather, surveillance data should be presented in a manner that facilitates their use for public health actions.

- One fundamental concept is that the terms dissemination and communication cannot be used interchangeably. Dissemination is a one-way process through which information is conveyed from one point to another. In comparison, communication is a loop – involving at least a sender and a recipient – a collaborative process. The communicator's job is complete when the targeted recipient of the information acknowledges receipt and comprehension of that information.

- Table 6 summarizes a model that emphasizes the effect of communications and includes the sender, the message, the receiver, the channel and the impact:

Table 6. Controlling and Directing Information Dissemination

Steps	Questions to be Answered
Establish communications message	What should be said?
Define the audience	To whom should it be?
Select the channel	Through what communication medium?
Market the message	How should the message be stated?
Evaluate the impact	What effect did the message create?

- Surveillance data should be analyzed at the local level and at the regional level of the health system in the timeliest fashion possible to determine the public health response required from each level. Those actions include:
  - Notification, investigation and intervention of epidemics
  - Program management
  - Impact monitoring
  - Problem identification
  - Planning
  - Social mobilization

- The local level should design simple graphs and charts to illustrate the data collected for each community, so that disease trends, other public health problems and responses can be visualized. The spatial distribution of the data collected can best be presented and interpreted if projected on a map, preferably through the use of a Geographic Information System (GIS)-enabled system. The RHU staff along with the health workers regularly

discusses the interpretation and implications of the data collected and the interventions needed.

- Monthly updates of surveillance status should be generated to describe the coverage and events being recorded and preventive actions being undertaken. Reports are disseminated on periodic bases in a format easily understood by those collecting and utilizing the information for decision-making: local leaders, health facilities, the media and collaborating agencies.

7.3 What are the ways to enhance the use of surveillance information in all levels of the health system?

- Following the packaging and communications stage, data should be used for decision-making. Capacity for data analysis is often lacking at peripheral levels where the data are generated and the results should be used for planning and management. Bringing together a comprehensive analysis of the health situation and trends with data on health inputs, such as health expenditure and health system characteristics, is particularly important. The development of such analytic capacity requires planning, investment and tools.

- An important function of the health information system is to connect data production with data use. Users comprise those delivering care as well as those responsible for the management and planning of health programs. More broadly, users include those financing health care programs, both within the country (health and finance ministries) and outside (donors, development banks and technical support agencies). Users of health-related data are not confined to health-care professionals, managers or statisticians. Indeed, decision-making around country health priorities necessarily involves the wider community, including civil society as well as policy-makers at the senior levels of government.

- These different users of data have varying needs in terms of the level of detail and technical specificity required. Health-care planners and managers responsible for tracking epidemiological trends and responses of the health-care system generally require more detailed data than policy-makers who need data for broader strategic decision-making and investments.

References:

1. Health Metrics Network: Framework and Standards for the development of country Health Information Systems. World Health Organization 2006.
2. Teutsch SM, Churchill RE. Principles and Practice of Public Health Surveillance. Oxford University Press. 2000.

Section 8: Epidemic Response

This section describes:

- How epidemics are detected and when to investigate
- The functions of the epidemic investigation control team
- What agencies have the authority to declare and epidemic
- The roles of the LGUs during epidemic investigation and response

8.0 Epidemic Response

The flow of investigation, reporting and response to a suspected epidemic or epidemic is presented in Figure 16 on page 79.

8.1 Epidemic Detection

8.1.1 How are epidemics detected?

Epidemics can be detected through the following surveillance systems:

- Case-based – routine collection of data, analyzed on a periodic basis (e.g. NESSS)
- Event-based – reports are received anytime from sources outside the routine reporting system (e.g. Media reports)
- Laboratory-based – reporting of laboratory results based on criteria (e.g. Influenza surveillance)

8.1.2 Who should verify reported epidemics?

- The DSCs at the RHUs and CHOs shall promptly verify reports of epidemics received from health facilities, laboratories, or through community rumors. A feedback (verbal or written) to stakeholders (LCE, Province, CHD, and NEC) should be provided within 24 hours. This is important to ensure that timely decisions are made and to prevent expending resources on investigating events that are not true epidemics

- Triggers for Epidemic Detection
  - Case-based surveillance – Alert and epidemic thresholds have been reached.
  - Event-based surveillance – Reports of public health concern have been confirmed
  - Laboratory-based surveillance – Detected laboratory results fulfills the criteria for notification

8.1.3 What is the role of the Bureau of Quarantine in detecting epidemics?

- The Bureau of Quarantine shall immediately notify NEC/CHD/local health authorities of any suspected case of notifiable disease detected in airports and ports of entries. Travel itinerary and other health-related documents shall be submitted to NEC/CHD/local health authorities.

8.2 Epidemic Investigation

8.2.1 Deciding to Investigate an Epidemic

The decision to investigate an epidemic shall be based on the following circumstances:

- The RHU/CHO/PHO receives a report of a suspected epidemic.
- An unusual increase is seen in the number of deaths during routine analysis of data.
- Alert or epidemic thresholds have been reached for specific priority diseases.
- Communities report rumors of deaths or a large number of cases that are not being seen in the health facility.
- A cluster or group of cases or deaths.
- A report of cases or deaths for which the cause is not explained or is unusual.
- The RHU/CHO/PHO receives a report of a case with any of the following diseases:
  - Human Avian Influenza
  - SARS
  - Meningococcal Disease
  - Acute Flaccid Paralysis “Hot Case”
  - Anthrax
  - Adverse events following immunization
  - Other emerging or re-emerging infections

8.2.2 What are the roles of LGUs during epidemic investigation and response?

- It is the primary responsibility of local government units to manage epidemic investigation and response. However, the next higher level will continue to exercise its technical oversight functions.
- The responsibilities of the LGU during an epidemic investigation and response include:
  - Immediate release of funds (local funds - surveillance funds from regular budget, ILHZ funds, congressional funds)
  - Priority access to vehicles
  - Provision of additional manpower
  - Provision of resources for laboratory support
  - Provision of resources for treatment of patients and other epidemic control measures
  - Provision of access to communication

- Local government unit should assess whether they have sufficient capacity to undertake the epidemic investigation and response, and arrange for additional assistance if required.

8.2.3 What are the composition and core responsibilities of and Epidemic Investigation and Control Team?

- An Epidemic Investigation and Control Team (EICT) shall be organized at the municipal or city level. The composition of the team may vary depending on the disease suspected and the control measures required. The team should include the Disease Surveillance Coordinator and other members as determined by the municipal or city health officer. These members may include the following:

  - Municipal/City Health Officer
  - Health Program Coordinator
  - Clinician
  - Laboratory technician
  - Sanitation Engineer
  - Vector control specialist
  - Health educators

The MHO/CHO shall automatically be the team leader, or may designate a team leader in his behalf. Each member of the team should be given a clear role.

- The core responsibilities of the EICT are the following:

  - Conduct epidemiologic investigation of epidemics suspected or confirmed.
  - Establish active surveillance in the affected area.
  - Implement the epidemic response plan.
  - Identify and coordinate other sources of additional human (multi-sectoral teams in the area) and material resources (list of referral laboratories and available examinations, list of referral hospitals) for managing the epidemic
  - Ensure the use of standard treatment protocols for the disease and train health workers.
  - Oversee the implementation of control measures.
  - Meet daily to review the latest surveillance data and implement additional control measures.
  - Provide regular feedback to the community, LGU, PHO, CHD, DOH and WHO.
  - Request assistance when necessary.
  - Perform other tasks as instructed by the head of office or agency

8.2.4 What should the RHU or CHO do in instances when they do not have the capacity in conducting epidemic investigation?

- In some instances where the RHU or CHO have no technical capacity in conducting epidemiological investigation, the MHO or CHO shall immediately request for assistance from the PHO, CHD or NEC. The investigation will be conducted by the PESU or RESU staff in close coordination with the Municipal or City EICT.

- Assistance can be in three forms:
  - Logistics (supplies, equipment, etc)
  - Technical advise (verbal or written guidance)
  - Technical assistance (investigation team, experts or consultants who will go to the field and assist in the investigation or with the control measures)
  - Laboratory back-up

8.2.5 In what instances shall the NEC and CHD-RESU provide immediate on site technical assistance during epidemic investigation?

The Department of Health through the National Epidemiology Center in coordination with CHD-RESU shall provide immediate on-site technical assistance to the LGU for further epidemic investigation in the following conditions:

- Epidemics of national importance as described in Section 8.3.3 of this manual of operations.
- The epidemic is continuing (i.e., there is evidence of ongoing transmission).
- Similar epidemics have occurred before, or are expected in the future, and more information is needed to develop preventive measures.
- The epidemic is having, or likely to have, a very high impact on public health because of its size and/or the severity of illness.
- The epidemic has attracted public, media or political interest.
- The epidemic transmission route is new or unusual.
- The causative agent is unknown.
- Descriptive characteristics of the epidemic (time, place, person or organism subtype) suggest that a common source is highly likely.

8.2.6 What is the role of the National Epidemiology Center as the National IHR Focal Point?

- The National Epidemiology Center is designated by the Department of Health as the National IHR Focal Point (NFP). Among its crucial responsibilities as NFP is to notify WHO of Immediately Notifiable Diseases and all events that may constitute a public health emergency of international concern within 24 hours of assessment.

In line with this, the National Epidemiology Center shall carry out all appropriate and expeditious means of obtaining information to assess all suspected epidemics (including unofficial reports) in coordination with the CHD, local government units, government agencies and other parties directly or indirectly involved in the investigation and control of epidemics.

8.3 Declaring an Epidemic

8.3.1 What are the necessary information that should be used to support declaration of an epidemic?

Declaration of an epidemic should be supported by sufficient scientific evidence. These include:

- Surveillance information
- Epidemiologic investigation (descriptive or analytic)
- Environmental investigation
- Laboratory investigation

8.3.2 What is the basic requirement for an LGU to declare an epidemic?

- The municipal/city health office can declare an epidemic if it has a functional surveillance system. A functional surveillance system means the office can produce the necessary information stipulated section 8.3.1 above.
- In case the requirements in section 8.3.1 are not met, the next higher level may provide technical assistance in the declaration of an epidemic.

8.3.3 In what instances does the Secretary of Health have the sole authority in declaring an epidemic?

- The DOH Rules and Regulations Implementing the Local Government Code of 1991 (**DOH RRILGC of 1991**), Chapter 11, Section 44 c, specifies that the Department of Health has the final decision regarding the presence of epidemic, pestilence, or other widespread public health danger in a particular area or region. In compliance to this rule, the Secretary of Health shall have the sole authority to affirm or reverse any declaration of an epidemic.

- Epidemics of National and International Concern

  The NEC shall take the lead in the investigation of epidemics of national and international importance, in coordination with the CHD, local government unit, and other concerned agencies. The Secretary of Health shall have the sole authority to declare epidemics of national and/or international concerns. These include the following:

  a. *Epidemic linked with nationally or internationally distributed product*: Epidemic linked by investigation to a product that has national or

international distribution, such as a manufactured food item, that has the potential to affect individuals in municipalities and cities simultaneously.

b. *Case(s) of exotic disease acquired locally: All cases of illness due to communicable diseases that are not endemic in the Philippines should be investigated rapidly to confirm whether the illness has been acquired locally or from overseas. Human avian influenza, SARS, Ebola, poliomyelitis are among the exotic diseases that are of national importance.*

c. *Diseases with high pathogenicity: Epidemics of highly-virulent organisms (e.g., Ebola) are likely to cause heightened public concern, and may require technical expertise and collaboration at the national level.*

d. *Diseases with significant risks of international spread*

e. *Epidemics in tourist facilities, among foreign travelers or at national/international events.*

f. *Epidemics associated with health service failure*: Epidemics linked to breakdown in standards of health care delivery, such as infection control failure, blood product contamination or systematic immunization failure will require a strategic national approach.

8.4 Response

8.4.1 Investigation

For specific disease investigation requirements, refer to handbook for responding to communicable disease epidemics.

- Define cases
  - Case definitions should include a location, a time period, and clinical symptoms (E.g. A case is a …..)
- Identify all cases and contacts
  - Obtain a line list of cases from the hospitals, barangay health stations/RHUs, ESUs, and other institutions
  - Do contact tracing
- Describe the cases
  - Time: When did the cases occur? Make an epidemiologic curve of onset of illness
  - Place: Where so the cases live? Where were they found? Draw a spot map, number of cases per area
  - Person: What were the characteristics of those affected? Age range, median age, sex distribution, symptoms, vaccination status, etc.
- Describe the severity
  - Number of fatalities, case-fatality rate
  - Number who were hospitalized
  - Number who had complications

- Confirm the diagnosis
  - Obtain and analyze specimen from cases
  - Obtain and analyze specimen from environment (water, air, soil, food, etc)
- Identify possible sources of the epidemic
- Identify possible causes of transmission
- The results of the epidemic investigation should be communicated to all stakeholders in two forms: (a) oral briefing for local authorities and (b) a written report.

a. Oral Briefing

- Oral briefing should be attended by the local health authorities and persons responsible for implementing control and prevention measures.
- Findings must be presented in clear and convincing fashion with appropriate and justifiable recommendations for action. This presentation is an opportunity to describe what the investigation and control team did, what they found, and what they think should be done about it. The findings should be presented in scientifically objective fashion, and should be able to defend the conclusions and recommendations.

b. Written Report

- A written report of epidemic investigations should be provided to all levels of the reporting system. This includes PHOs, CHDs, NEC, WHO, etc.
- By formally presenting recommendations, the report provides a blueprint for action. It also serves as a record of performance and a document for potential legal issues.
- It serves as a reference if the health department encounters a similar situation in the future.
- A written epidemic investigation report should follow the IMRAD format which includes:

a) Introduction
b) Methods
c) Results
d) Analysis
e) Discussion
f) Conclusion
g) Actions Taken
h) Recommendation

8.4.2 Treatment of Cases

- Refer to handbook for specific treatment protocols.
- Hospitals should be alerted and should activate their epidemic response plans. There should be adequate antimicrobials and supplies for treatment. Needs must be immediately identified and a request for logistic assistance should be made.

- Referral hospitals should be alerted about the epidemic.

8.4.3 Establish Epidemic Disease Surveillance

- The location of the epidemic disease surveillance (BHS, RHU, CHO, PHO, and RESU) and the extent of its catchment area will depend on the location of the epidemic and its severity.
- Information to be gathered should include:
  - Name
  - Age
  - Sex
  - Address (Sitio, Barangay, Municipality, Province)
  - Date of onset of illness
  - Other pertinent information depending on disease
- Frequency of reporting will depend on the epidemic.

8.4.4 Implement Public Health Measures

- The data gathered in the course of investigations will be used to define the measures needed to control the epidemic and prevent a similar situation in the future.
- In any epidemic, the plan of action for control measures should fall in any of the following:
  - Prevention and control of exposure
  - Prevention and control of infection/disease
  - Prevention of spread
  - Prevention of death
- The selection of control measures should consider feasibility (technical/operational), availability (stockpiles), acceptability, safety (of operators and population), and cost.
- For the recommended public health measures for specific diseases, refer to the handbook for responding to communicable disease epidemics.

8.4.5 Risk Communication

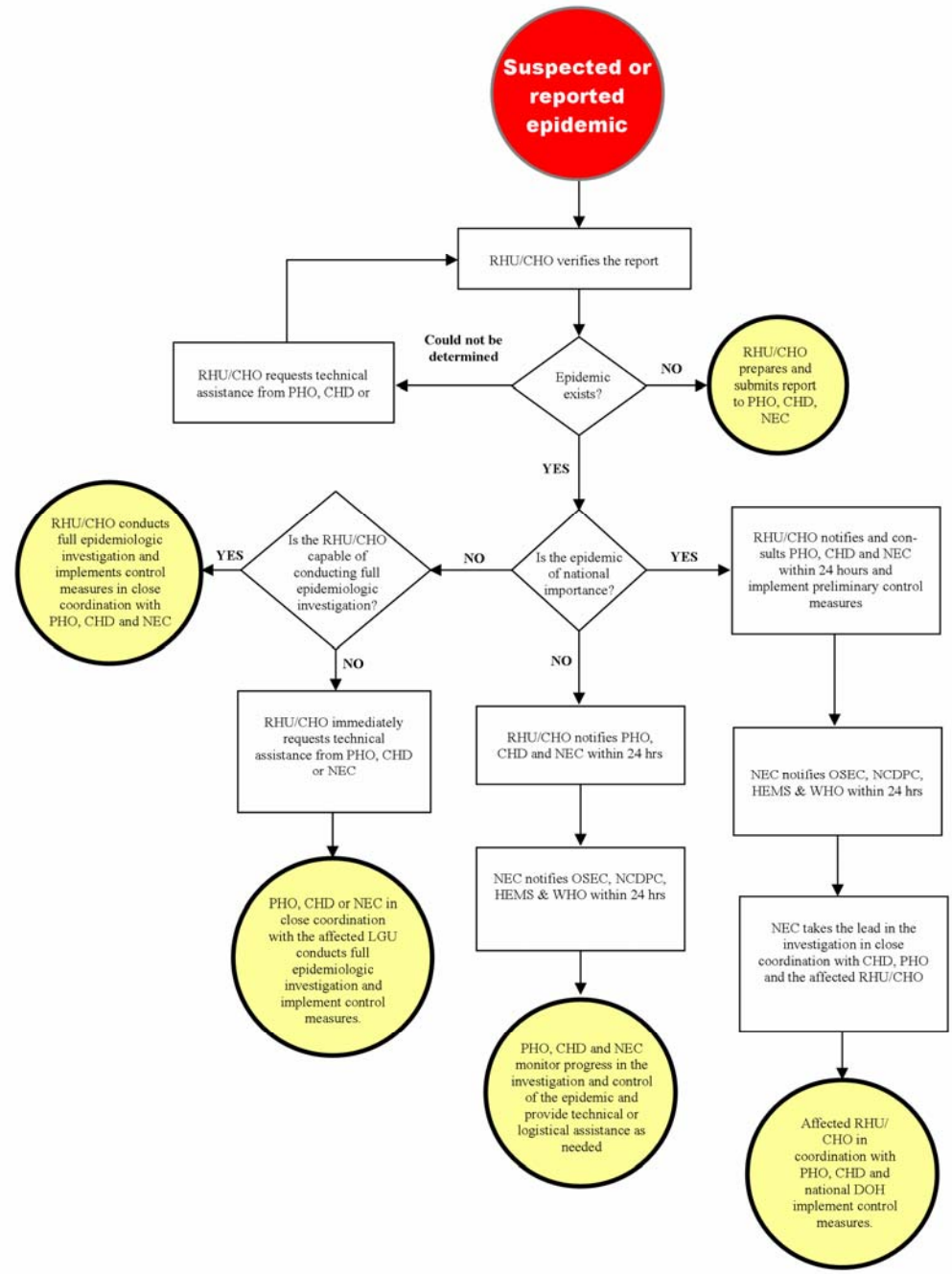
- Coordinated communication is essential during epidemic response.
- Activate the communication plan for the following areas:
  - Within the Epidemic investigation and control team
  - With the Epidemic management committee, the ESUs at different levels, and the NEC
  - Directly with the affected community – public and local officials
  - With the general public through media

  - With other agencies involved (hospitals, laboratories, industries, other government agencies, etc)
- Determine which level (municipal, provincial, regional, national) will be responsible for communication to each area mentioned in Section 8.4.5.2. Then identify person(s) who will take charge of communicating to each area.
- Schedule regular meetings for each area

8.5 Evaluation

- After an epidemic, there should be a thorough assessment of the following component areas:
  - preparedness
  - surveillance
  - response
    - investigation
    - treatment of cases
    - public health measures
    - risk communication
    - epidemic management
- Each component area should be assessed according to:
  - timeliness
  - efficiency and effectiveness
  - cost
  - lost opportunities
  - policy gaps and unimplemented policies
- The team leader of the epidemic management committee will be the one to organize the evaluation. All members of the management committee, the investigation team and control team, and other persons involved in the epidemic surveillance and response should be present during the evaluation.
- A post-epidemic assessment report should be documented and used as a reference for improving epidemic preparedness and response.

Figure 16: Flow of Investigation, Reporting and Response to a Suspect Epidemic or Reported Epidemic



Section 9: Monitoring and Evaluation

This section describes:

- Monitoring an evaluation activities in the context of surveillance and response
- Monitoring and evaluation at the different levels of surveillance
- Technical assistance visits
- Indicators for monitoring and evaluation of surveillance systems

9.0 Monitoring and Evaluation

9.1 What is monitoring in the context of surveillance and response?

- Accurate, timely and accessible disease surveillance data plays a vital role in the planning, implementing, development and maintenance of the control program. In recent years data quality has emerged as an important issue because of the need to improve the services delivered at various level of the health system.

- Monitoring is needed to verify step by step, the progress of the disease Control Program at the municipal, provincial, regional and national levels e.g. to verify whether activities have been implemented as planned, to ensure accountability, and to detect any problems and/or constraints. This in turn can provide feedback to the relevant authorities for them to take remedial measures thus promote better planning through careful selection of strategies for future action.

- When monitoring is conducted by the surveillance implementing team itself, it is referred to as internal monitoring. Here, the members closely observe the manner of implementing the system identifies facilitating and hindering factors and notes these down for discussion with the other members of the group. Although indicators are developed by the team by which they will monitor their own performance, the manner of self-monitoring may sometimes become subjective. Thus, is it highly necessary to resort to external monitoring in order to ensure objectivity of the observations.

- External monitoring is when another team not involved in the daily implementation of the system, for example, a staff from a higher health level such as the PESU will visit the local team and observe the implementation of the surveillance system based on certain indicators. While external monitor may already favor a certain team and give a very good feedback on their performance even if the quality of performance is not very good. It is therefore imperative that indicators used in monitoring are set in the most objective manner with objective scale for rating so that subjectivity will be minimized, if not eliminated.

- Another way to increase objectivity in observation is by doing monitoring as teams so that many member of the monitoring team observe and rate the performance all at the same time. They discuss the results of their observations after the monitoring activity and share their findings with others. Other qualitative observations maybe written as a separate report. These are the observations not included in the pre=set indicators for monitoring.

- Evaluation is the periodic assessment of the relevance, effectiveness and impact of activities in the light of the objectives of the surveillance and response systems. Evaluation of outcomes and impact is needed to document periodically whether defined strategies and implemented activities lead to expected results.

- While monitoring is a continuous process, evaluation will need to be conducted intermittently. The periodicity of evaluation varies considerably according to the changes expected in the different areas evaluated

9.1.1 Surveillance Indicators

1. *Input indicators* are the resources needed to implement the system. They include trained personnel, finance, standards and guidelines, communication facilities, forms for surveillance, computers, stockpiles for emergency response, and any other logistics as deemed necessary.
2. *Process indicators* are used to monitor and track implementation of the planned activities which are critical for attaining the surveillance core functions such as training, supervision, development of guidelines and tools, etc. They are used to measure the activities, systems, actions and other outputs that need to be completed in a given time (short term) to achieve improvements or increases in coverage, or delivery of services to target groups.
3. *Output indicators* are measures of the immediate results of the activities. They include reports from surveillance data, completeness of reporting, feedback given to the data providers, numbers/proportion of health staff trained, numbers/proportion of planned supervisory visits implemented, etc.
4. *Outcome indicators* are measures of the quality of the surveillance system and the extent to which the surveillance objectives are achieved. They may include indicators for assessing usefulness of the system, use of surveillance data for policy and program decisions, and appropriateness of outbreak response.

9.1.2 Objectives of M & E

A. Monitoring:

- To track progress of implementation of target indicators
- To ensure that planned targets are achieved in a timely manner
- To identify problems/constraints in the system in order to institute corrective measures in a timely manner

B. Evaluation:

- To ensure that the surveillance system has met the objectives for which it was evaluated
- To document the status of, and any change, in the performance of the system after each evaluation period
- To identify gaps and/or enablers in the performance of the system
- To provide realistic recommendations for improving the system
- To ensure that the quality of surveillance and response adheres to a high standard of implementation with respect to the attributes of the system

9.2 M&E activities will happen at three surveillance levels

9.2.1 Municipality and provincial level where the program is implemented

- Reporting from the barangays or villages will be validated and consolidated at the municipal level through the Rural Health Units (RHUs) on a monthly basis. These will be submitted to the PHO/CHO where they will be cross-checked by provincial/city level coordinators. Validated and cross-checked reports shall be submitted to the CHDs on a quarterly basis.

9.2.2 Regional level M&E

- A team composed of staff of the DOH Centers for Health and Development (CHDs) will be visiting the provinces at a designated time period or as necessary to confirm provincial/city reports. Confirmed reports shall be submitted to the national level on a semi-annual basis.

9.2.3 National level M&E

- A team from the National Epidemiology Center will visit CHDs and priority provinces/cities at least once during the year and as necessary. RESU staff will assist the team in the conduct of the activity. External Evaluation will also be considered at national level monitoring.

- Likewise, all stakeholders and partners will be kept informed of the progress of the implementation of the system and the outcome of the monitoring visits and evaluation through regular briefings and meetings.

9.3 What Is a Technical Assistance Visit (TAV)?

- TAV is conducted by experts from the next higher level of the surveillance system to address gaps and enablers identified in the regular monitoring and activity. This activity addresses issues on implementation and provides on-site mentoring and hands-on training to key field personnel.

9.4 Performance Indicators

- Indicators are variables that can be measured repeatedly (directly or indirectly) over time and provide measures of change in a system. They provide useful information on the status of the system and flag areas that need improvement. They are usually expressed as simple counts, proportions, rates or ratios. These measurements should be interpreted in the broader context, taking into consideration other sources of information (e.g. supervisory reports and special studies), and supplemented with qualitative information.

9.4.1 AFP and Measles Specific Indicators

- Diseases such as poliomyelitis and measles that have been targeted for eradication and elimination have specific indicators for monitoring the quality of surveillance. These indicators were recommended by the World Health Organization.

9.4.1.1 Indicators for quality AFP surveillance

1. *2 AFP rate* - minimum number of AFP cases expected to be reported per 100,000 population of children below 15 years old
2. *80% adequate stool specimen collection rate* - Adequate 2 stool samples with 24 hours interval taken from an AFP case within 14 days from paralysis onset
3. *10% NPEV rate* - percentage of stool samples taken from AFP cases with NPEV isolate
4. *80% timeliness of notification* - percentage of AFP cases reported within 14 days from paralysis onset
5. *80% timeliness of investigation* - percentage of AFP cases investigated within 48 hours from notification
6. *80% timeliness of 60 days follow up* - percentage of cases followed up
7. *80% timeliness of case classification* - percentage of cases classified within 90 days from paralysis onset

9.4.1.2 Indicators for quality Measles surveillance

1. *2 Measles reporting rate* – minimum number of suspect measles cases to be reported per 100,000 of the total population
2. *80% adequate blood specimen collection rate* – 5 ml of blood collected within 28 days from rash onset (Exclude from the denominator the cases that are epidemiologically-linked to confirmed measles or to other confirmed communicable disease, ex. Rubella)
3. *80% completeness of reporting* – percentage of municipalities/cities reporting at least 1/100,000 suspect cases
4. *80% timeliness of investigation* – percentage of suspect cases adequately investigated within 48 hours of notification. Adequate investigation means collection of essential data elements such as date of rash onset, date of specimen collection, vaccination status, date of last measles vaccination, date of birth, age, sex, address, and searched for epidemiologically linked cases.
5. *80% timeliness of laboratory results* – percentage of specimens with lab results < 7 days after arrival to the laboratory
6. *Transmission chains (outbreaks) with sufficient samples for viral isolation* – 2 or more cases in which rash onset in one is 7-21 days after the other OR an isolated confirmed measles case without history of travel within 7-18 days prior to the onset of rash.

Table 6: Indicators For Monitoring Quality Of Surveillance And Response

Element of Surveillance	Indicator	Indicator Definition	Data Source	Method
Case Detection	Health facilities with standard case definitions	Proportion of health facilities with standard case definitions for notifiable diseases	Available Case Definitions Compiled And/Or Posted	Observation, Review Of Definitions With Key Informants
	Mechanism for outbreak detection within hospitals	Existence of surveillance systems for the detection of healthcare-associated infections and outbreaks in hospital settings	Key Informants; Hospital Records; Posted Workflow	Key Informant Interviews, Records Review
	Existence of event based surveillance	Existence of mechanism to capture unusual or public health events from non-routine sources in the health system	Key Informants; Workflow Posted	Key Informant Interview
	Capacity to detect and notify unusual/ abnormal health events	Inclusion of unusual/ abnormal health events in the surveillance system for immediate reporting	Key Informants, List Of Diseases/ Syndromes For Reporting	Document Review, Key Informant Interview
Case Registration	Availability of registers	Proportion of health facilities with standardized registers	Health Facility Records	Observation; Records Review
	Correct filling of registers	Proportion of HF with correctly filled registered	Registers At Health Units	Review Of Documents
	Routine validation of surveillance data	Existence of routine data validation	Surveillance Reports	Review Of Documents
Case Detection	Health facilities with standard case definitions	Proportion of health facilities with standard case definitions for notifiable diseases	Available Case Definitions Compiled And/Or Posted	Observation, Review Of Definitions With Key Informants
Case Confirmation	Confirmation of priority diseases	Capacity to confirm selected priority diseases either within the laboratory or at a reference laboratory	Key Informants, Laboratory Test Results	Key Informant Interview, Observations
	Capacity to refer samples in a timely manner	Capacity for timely referral of samples to reverence labs for rapid confirmation of causative agents	Key Informants, Record Review, Public Health Laboratories	Key Informant Interview
	Laboratory reagents	Presence and maintenance of laboratory reagents	Key Informants, Reagents	Key Informant Interview, Observation
	Supplies for	Presence and	Key Informants,	Key Informant,

Table 6: Indicators For Monitoring Quality Of Surveillance And Response

Element of Surveillance	Indicator	Indicator Definition	Data Source	Method
	specimen collection and transportation	maintenance of supplies for specimen collection and transportation	Supplies	Interview, Observation
	Laboratory confirmation of outbreaks	Proportion of outbreaks that have lab-confirmed	Outbreak Log, Outbreak Reports	Key Informant Interview, Document Review
	Presence of quality assurance system	Performance of routine external quality assurance	Laboratory Personnel, Certification Documents	Interview, Review Of Certification Documents
Data Analysis and Interpretation	Routine analysis of data by surveillance units	Proportion of health facilities w/ evidence of data analysis by time, place & person for selected indicator diseases	Summary Reports, Charts On The Walls, Computerized Analysis Output	Observation; Review Of Written Reports
	Surveillance units having epidemic threshold values	Proportion of surveillance units w/ defined epidemic threshold values for priority diseases	National Set Guidelines	Key Informant Interview, Observation; Review Of Reports
	Capacity for routine laboratory data analysis & interpretation	Evidence of routine laboratory data analysis	National Public Health Laboratories; List Of Local Laboratories	Key Informant Interview, Observation; Review Of Reports
Reporting	Case-based reporting rate	Proportion of cases of diseases targeted for elimination/ eradication line listed or reported using case-based reporting forms in the past 12 months	Reporting Forms, Registers	Document Reviews,
	Timely notification of epidemics	Proportion of epidemics (above epidemic threshold) detected in previous 12 months that were notified to the next higher level within 2 days of detection	Outbreak Files	Review Of Outbreak Files
	Reporting of healthcare-associated infections/ outbreaks in	Proportion of hospitals that routinely report outbreaks occurring within the health-care setting	Outbreak Files, Hospital Registers, Key Informants	Document Review, Key Informant Interview

Table 6: Indicators For Monitoring Quality Of Surveillance And Response

Element of Surveillance	Indicator	Indicator Definition	Data Source	Method
	hospitals			
Epidemic Preparedness	Epidemic preparedness plan	Presence of epidemic preparedness plans	Key Informants, Annual Workplans	Observation/ Review
	Emergency funds	Existence of funds for emergency response	Key Informants	Key Informant Interview, Budget Review (Disaster/ Epidemic Preparedness Plans, Disease-Specific Plans
	Availability of contingency stocks	Proportion of surveillance units that have contingency stocks for at least 6 months	Key Informants, Stock Cards, Logistic Management Record	Key Informant Interview, Document Review
	Availability of IEC materials for surveillance and response	Proportion of surveillance units with IEC materials/ activities	Existing IEC Strategy And Materials	Document Review, Key Informant Interview
Response and Control	Epidemic preparedness committee	Presence of functional epidemic preparedness committee	Key Informants. Minutes Of EPR/DMC Meetings	Review Of Minutes, Key Informant Interview
	Rapid Response Teams (RRT)	Presence of RRT at all levels	Key Informants	Key Informant Interview, Reports Of Outbreak Investigation
	Capacity for outbreak response	Proportion of outbreaks responded to in the previous 12 months	Key Informants, Outbreak Files And Reports	Review Of Documents
	Availability of isolation facilities	Proportion of hospitals w/ isolation facilities	Key Informants	Key Informant Interview, Observation
Feedback	Existence of regular feedback & dissemination	Presence of feedback mechanism	Key Informants, Feedback Reports	Key Informant Interview, Observation
Surveillance Legislation (Laws and Regulations)	Availability of legal mandate on PIDSR	Requirement for update or amendment of legislation (laws and regulations for communicable disease surveillance & response	Existing Public Health Legislation (Laws & Regulations), Key Informants	Document Reviews, Key Informant Interviews

Table 6: Indicators For Monitoring Quality Of Surveillance And Response

Element of Surveillance	Indicator	Indicator Definition	Data Source	Method
Compliance with IHR 2005	Presence of national IHR Focal Point	Presence of a National IHR focal point which is accessible at all times for communications with WHO IHR Contact Points under the IHR 2005	Key Informants	Key Informant Interview
	Functioning IHR communication facilities	Evidence of functional e-mail/ telephone at the IHR focal point for international notification and reporting	Key Informants	Key Informant Interview,
	Timely notification to WHO of outbreaks of international importance	Proportion of outbreaks of international concern that were notified to WHO within 24 hours of detection	Outbreak Reports	Review Of Documents
Surveillance Strategy and Coordination	Assessment of integrated disease surveillance	Assessment of the national surveillance systems for integrated disease surveillance	Assessment Reports, Head Of Surveillance Programs	Review Of Assessment Reports, Key Informant Interview
	Plan of Action for integrated disease surveillance	Presence of a strategic and operational plans for implementing and strengthening integrated disease surveillance	Strategic POA, Operational POA, Key Informants	Observation And Review Of POAs, Key Informant Interview
	Implementation of Plan of Action	Proportion of activities implemented according to plan	POA, Activity Reports, Key Informants	Review Of Documents, Key Informant Interview
	Monitoring for Infectious Disease Surveillance	Proportion of surveillance units that perform routine monitoring of the Infectious Disease Surveillance	Monitoring Reports	Key Informant Interviews, Document Review
	Performance of routine evaluation	Whether evaluations are conducted according to plan	Evaluation Reports	
	Presence of surveillance coordinating body	Presence of *functional surveillance unit at national level for coordination of integrated disease surveillance	Key Informants, Organogram	Key Informant Interview
	Existence of documented roles and	Roles and responsibilities are well-documented at each level of surveillance	Documented Functions And Responsibilities,	Document Review, Key Informant

Table 6: Indicators For Monitoring Quality Of Surveillance And Response

Element of Surveillance	Indicator	Indicator Definition	Data Source	Method
	responsibilities	system	Terms Of Reference, Surveillance Guidelines	Interview
	Evidence of sharing resources	Evidence of sharing resources/ activities between different surveillance programs	Key Informants	Key Informant Interview
Networking and Partnership	Intersectoral collaboration, networking and partnership	Existence of intersectoral collaboration, networking and partnerships with other sectors (water and sanitation, agriculture, animal health, etc.	Key Informants, Reports, Minutes Of Meetings	Key Informant Interviews, Observation
	Functional laboratory networks	Existence of functional laboratory networks established	National Level Key Personnel, Surveillance And Laboratory Guidelines	Interview, Review Of Documents
Standards and Guidelines	Surveillance units with standards and guidelines	Proportion of surveillance units with standards and guidelines for surveillance	Key Informants, Existing Surveillance Guidelines	Key Informant Interview, Observation
	Standard case management protocols	Proportion of surveillance units with standard case management protocols or guidelines for case management	Surveillance Units	Key Informant Interview, Observation
	Infection control guidelines	Proportion of health facilities using guidelines for infection control	Health Facilities	Observation
	Guidelines for specimen collection, packaging and referral	Proportion of specimen collection units with SOPs for collection, packaging and referral of specimens of targeted epidemic- prone pathogens	National Public Health Laboratory, Other Laboratories And Collecting Units	Observation
	Availability of reporting forms at Health Facility/ reporting units	Proportion of HF/ reporting units were not short of reporting forms in the previous 6 months	Key Informants	Key Informant Interview, Observation
Training	Availability of training manuals/modules for	Proportion of surveillance units w/ surveillance training manuals/modules	Surveillance Units	Key Informant Interview, Observation

Table 6: Indicators For Monitoring Quality Of Surveillance And Response

Element of Surveillance	Indicator	Indicator Definition	Data Source	Method
	surveillance			
	Availability of surveillance training plan	Proportion of surveillance units w/ a training plan for surveillance	Training Plans	Observation
	Staff trained on surveillance/IDS	Proportion of surveillance staff/HCWs trained in surveillance/IDS	Key Informants, Training Reports	Key Informant Interview, Document Review
	Laboratory personnel trained in innovative techniques	Proportion of laboratory personnel trained on innovative techniques	Key Informants, Training Reports	Key Informant Interview, Document Review
	Surveillance units with trained epidemiologists	Proportion of surveillance units w/ at least one trained epidemiologist	Key Informants	Key Informant
	Staff receiving refresher course on surveillance	Proportion of health staff that have received at least one refresher course on surveillance in the previous 2 years	Key Informants, Training Reports	Key Informant Interview, Document Review
Resources	Availability of budget line for surveillance activities	Evidence for a budget line for surveillance activities (reporting forms, feedback bulletins, communication, supervision, training, etc.	Workplan And Budget	Document Reviews, Key Informant Interview
	Availability of functioning computers	Proportion of surveillance units for surveillance purposes	Key Informants	Key Informant Interview
Supervision and Communication	Supervisions conducted	Proportion of supervisions conducted according to plan	Key Informants, Surveillance Levels, Supervisory Reports	Key Informant Interviews, Document Reviews
	Availability of communication facilities	Proportion of surveillance units with functional communication facilities for intermediate, weekly, and monthly reporting	Key Informants At Different Surveillance Units	Key Informant Interview, Observation
Timeliness	Timeliness of submission of surveillance reports	Proportion of surveillance units that submitted surveillance reports to the next higher level on time	Reporting Log, Newsletter	Review Of Documents
	Timeliness of	Proportion of expected	Reporting Log,	Review Of

Table 6: Indicators For Monitoring Quality Of Surveillance And Response

Element of Surveillance	Indicator	Indicator Definition	Data Source	Method
	receipt of surveillance reports	surveillance reports (weekly or monthly) received on time	Newsletters	Documents
	Timeliness of notification of suspected outbreaks	Proportion of outbreaks (with observed no. of cases > threshold values) notified to the next higher level within 24 hrs of detection	Outbreak Logs And Reports	Review Of Documents
	Timeliness of response to suspected outbreaks of immediately notifiable diseases	Proportion of suspected outbreaks that were verified within 24 hours of detection	Outbreak Logs And Reports	Review Of Documents
Completeness	Completeness of reporting	Proportion of total expected Surveillance reports received, regardless of the timeliness of submission	Reports	Review Of Reports
	Completeness of data reported	Proportion of surveillance reports/registers with no missing required information	Reports	Review Of Reports
Reliability	Reliability of surveillance Data reports	Rating of the reliability of the surveillance data/ reports by implementers and users of the system	Key Informants	Key Informant Interview
Usefulness, Simplicity, Flexibility, Sensitivity, Acceptability	Usefulness Of surveillance data	Rating of the usefulness of the surveillance system (for case detection, planning, priority setting and interventions)	Key Informants	Key Informant, Interview
	Simplicity of the surveillance system	Rating of the simplicity of the surveillance system (in terms of data collection, compilation, reporting, analysis and utilization) by implementers and users of the systems	Key Informants	Key Informant Interview
	Flexibility/ adaptability of the surveillance system	Rating of the ability to adapt to changing needs, as perceived by the national health managers and evaluators	Key Informants	Key Informant

Table 6: Indicators For Monitoring Quality Of Surveillance And Response

Element of Surveillance	Indicator	Indicator Definition	Data Source	Method
	Sensitivity of outbreak detection	Rating of the sensitivity of the surveillance system to detect outbreaks	Key Informants, Databases	Key Informant Interview, Review Of Database
	Acceptability of the surveillance system	Rating of the acceptability of the surveillance system by users and implementers	Key Informants,	Key Informant Interview

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Section 10: Guidelines for Diseases, Syndromes and Health Events under Surveillance

This section describes:

- The specific diseases, syndromes and health events under surveillance
- The importance of surveillance for each diseases, syndromes and health events
- How to investigate and control the spread of specific diseases, syndromes and health events under surveillance and notify the proper agencies

Summary Guidelines for Diseases, Syndromes and Health Events under Surveillance

- This section provides a summary guideline for each of the diseases and syndromes prioritized under the PIDSR It is presented in a table form for each of the disease or syndrome. Detailed and more comprehensive guidelines for each disease or syndrome are available from the *WHO Recommended Surveillance Standards, 2nd edition, 1999 (WHO/CDS/CSR/ISR/99.2).*

Acute Bloody Diarrhea

Description:

- Bloody diarrhea is usually a sign of invasive enteric infection that carries a substantial risk of serious morbidity and death, especially in children in developing countries.
- Shigella dysenteriae is most frequently isolated from the stools of affected children and is transmitted from person-to-person through the fecal-oral route.
- The disease is characterized by acute fever and bloody diarrhea, and can also present with systemic symptoms and signs as well as dehydration especially in young children.
- Overcrowded areas with unsafe drinking water and poor sanitation are the most common risk factors.
- The following diseases may present as acute bloody diarrhea: *Shigellosis, Salmonellosis, Campylobacteriosis, Amoebic dysentery, EHEC, Hemorrhagic fever.*

Importance of Surveillance:

- The emergence of strains of *Shigella dysenteriae* type 1 resistant to most antibiotics has become a major public health concern.
- The high case-fatality and the epidemic potential make surveillance to detect and control the outbreaks essential.

Standard Case Definition/Classification:

- A person with acute diarrhea with mucus or visible blood in the stool.

Laboratory Confirmation:

- Laboratory culture of stools may be used to confirm possible outbreaks of specific diarrhea, such as Shigella dysenteriae type 1, but is not necessary for case definition.
- Patients for culture should be chosen among those with bloody diarrhea for less than 4 days, without treatment, who agree to the examination.
- Bacterial: Gram stain, fecal leukocytes, culture, antimicrobial susceptibility, Serotyping, toxin identification
- Parasitic: macroscopic and microscopic examination
- Viral: Antigen Detection

Case Investigation and Reporting:

- Report all cases every FRIDAY of the week to the next higher level using the Case

Report Form (CRF).

- Treat the suspected cases with oral rehydration and antibiotics based on recent susceptibility results.
- Search for additional cases in locality of confirmed case.
- Determine risk factors contributing to the transmission of disease.
- Laboratories involved in diagnosis of *Shigella dysenteriae* type 1 should report confirmed cases.
- Central recording of antibiotic susceptibility is recommended.

Outbreak Investigation and Control:

- Investigate all suspected / reported outbreaks.
- After an epidemic caused by Shigella dysenteriae type 1 has been confirmed, it is not necessary to examine specimens from all cases (unnecessary burden on laboratory facilities).
- Strengthen case management and treatment using the national treatment protocol.
- Mobilize the community to enable rapid case detection and treatment.
- Identify high-risk populations using person, place and time data.
- Reduce sporadic and outbreak-related cases by promoting personal hygiene like handwashing with soap and water after defecating and before handling food, providing safe drinking water, use of latrines and safe disposal of human waste.

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Acute Encephalitis Syndrome
Japanese Encephalitis ICD 10 Code: A83.0

Description:

- Acute encephalitis syndrome is a clinical illness characterized with fever, change of mental status and/or new onset of seizures (excluding simple febrile seizures in children).
- Other clinical findings may include an increase in irritability, somnolence or abnormal behavior greater than seen with usual febrile illness.
- Japanese encephalitis (JE) is mosquito-borne viral encephalitis that occurs in temperate and tropical regions of Asia and is maintained in a cycle of virus transmission between vertebrate amplifying hosts (e.g. pigs, herons, egrets) and several *Culex* mosquito species.
- Infection with JE virus may be asymptomatic, or may cause febrile illness, meningitis, myelitis or encephalitis. Encephalitis is the most commonly recognized presentation, and is clinically indistinguishable from other causes of an acute encephalitis syndrome (AES). Syndromic surveillance therefore aims to identify patients with AES, and among these confirms JEV infection using standardized laboratory techniques.

Importance of Surveillance:

- The early detection of epidemics through epidemiological surveillance allows for identification of the causal agent and the institution of targeted control measures and effective case management.

Standard Case Definition/Classification:

- ***Suspected case:*** A person with acute onset of fever and a change in mental status (confusion, disorientation, coma, or inability to talk) and/or new onset of seizures (excluding simple febrile seizures)
- ***"Acute encephalitis syndrome" – other agent:*** A suspected case in which diagnostic testing is performed and an etiological agent other than JE virus is identified.
- ***"Acute encephalitis syndrome" – unknown:*** A suspected case in which testing was performed but no etiological agent was identified or in which the test results were indeterminate.
- ***Probable JE:*** A suspected case that occurs in close geographic and temporal relationship to a laboratory-confirmed case of JE, in the context of an outbreak.
- ***Laboratory-confirmed Japanese Encephalitis (JE):*** A suspected case that has been laboratory-confirmed as JE.

Laboratory Confirmation:

- Presence of JE virus-specific IgM antibody in a single sample of cerebrospinal fluid (CSF) or serum, as detected by an IgM-capture ELISA specifically for JE virus;
- Detection of JE virus antigens in tissue by immunohistochemistry
- Detection of JE virus genome in serum, plasma, blood, CSF, or tissue by reverse transcriptase polymerase chain reaction (PCR) or an equally sensitive and specific nucleic acid amplification test

- Isolation of JE virus in serum, plasma, blood, CSF, or tissue
- Detection of a four-fold or greater rise in JE virus-specific antibody as measured by hemagglutination inhibition (HI) or plaque reduction neutralization assay (PRNT) in serum collected during the acute and convalescent phase of illness. The two specimens for IgG should be collected at least 14 days apart. The IgG test should be performed in parallel with other confirmatory tests to eliminate the possibility of cross-reactivity.

Case Investigation and Reporting:

- Report all cases every FRIDAY of the week to the next higher level using the Case Report Form (CRF).

Outbreak Investigation, Prevention and Control:

- Investigation of contacts and source of infection
- Search for missed cases and the presence of vector mosquitoes
- Educate the public as to the modes of spread and control.
- Destroy larvae and eliminate breeding places of known and suspected vector mosquitoes.
- Screen sleeping and living quarters; use bed nets, preferably impregnated.
- Avoid exposure to mosquitoes during hours of biting, or use repellents
- There is no specific treatment

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Acute Flaccid Paralysis

Description:

- Acute flaccid paralysis (AFP) is a syndrome in which there is a sudden onset of floppy paralysis or lameness usually of the arms or legs. Other accompanying symptoms include fever, extreme tiredness, headache, nausea, vomiting, muscle pain and stiffness in the neck and back.
- AFP has many causes including poliovirus infection, Guillain Barre Syndrome (GBS), transverse myelitis, traumatic neuritis, other enterovirus infections, encephalitis and meningitis.
- All cases of AFP should be considered as suspected polio cases until viral culture and the expert review panel indicates otherwise.
- Any child below 15 years of age with acute onset of floppy muscle weakness / paralysis in one or more limbs is diagnosed as an AFP case.

Poliomyelitis:

- It is a viral infection often recognized by the acute onset of flaccid paralysis. The paralysis is usually asymmetric with fever present at the onset. The maximum extent of paralysis is usually reached within 3 to 4 days. The site of paralysis depends on the location of nerve cell destruction in the spinal cord or brain stem. The legs are more common affected than the arms.
- Poliovirus (genus *Enterovirus*) serotypes 1, 2, and 3 are transmitted from person-to person via fecal-oral spread. All serotypes can cause paralysis.
- Incubation period ranges from 3 to 35 days but commonly 7 to 14 days for paralytic cases.
- Infection is usually asymptomatic but may include fever with or without meningitis.
- Polio infection occurs almost exclusively among children. Infection may occur with any of 3 serotypes of poliovirus. Immunity is serotype-specific and lifelong.
- Paralytic polio, though not fatal, has devastating social and economic consequences among affected individuals.
- The Polio Eradication Program has nearly halted ongoing wild-type polio transmission worldwide through use of oral poliovirus vaccine (OPV).

Importance of Surveillance:

- Highly sensitive AFP surveillance, including immediate case-based investigation and specimen collection are critical for detecting circulation of wild poliovirus or Vaccine Derived Polio Virus (VDPV) with the ultimate objective of sustaining the polio-free status of the country.
- AFP surveillance guides the EPI manager and implementers in determining and prioritizing areas where polio transmission is occurring.
- Since the Philippines is already certified as a “Polio Free” country, one case of confirmed AFP due to wild poliovirus is already considered an outbreak or a public health emergency.

Standard Case Definition/Classification:

- Any child less than 15 years of age with acute onset of floppy paralysis, **OR**
- A person of any age in whom poliomyelitis is suspected by a physician.

Hot Case description:

- An AFP case that is <5 years old with < 3 doses of OPV and has fever at the onset of asymmetrical paralysis, **OR**
- An AFP case or a person of any age whose stool specimen(s) has poliovirus isolate.

Laboratory Confirmation:

- Viral isolation from stool samples.
- All AFP cases should have two stool specimens collected 24–48 hours apart and within 14 days of the onset of paralysis.
- Specimens arriving in the laboratory must be of adequate volume (approximately 8–10 g), have appropriate documentation (i.e. laboratory request form) and be in good condition, i.e. with no leakage or desiccation.

Case Investigation and Reporting:

- All health facilities should investigate and report all AFP cases including those found in the communities.
- Notify simultaneously the PHO, CHD, HEMS and NEC within 24 hours of detection and send an advance copy of the Case Investigation Form (CIF) as soon as possible.
- Attach a copy of the medical chart or medical abstract of the patient with the CIF.

Outbreak Investigation, Prevention and Control:

A. Response to a reported hot case:

- Review the immunization status of the patient by looking at the Early Childhood Care and Development (ECCD) card/immunization and if under-immunized, complete the immunization of all antigens following the schedule for each specific antigen.
- Check for any residual paralysis.

B. Response to the other children in the family living with the hot case:

- Review the immunization status of the other children in the family living with the hot case by looking at the Early Childhood Care and Development (ECCD) card/immunization and if under-immunized, complete the immunization of all antigens following the schedule for each specific antigen.
- Ask if weakness of any of the extremity was observed in the past 6 months.

C. Response of the local health unit for the community:

- MHO/PHN to review the OPV immunization coverage and drop-outs in the barangay.
- If the drop-out rate of OPV1-OPV3 is more than 10%, conduct a mop-up immunization in the barangay.
- Inform all RHU staff, BHW, barangay officials about the case and report any case of AFP.

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Acute Hemorrhagic Fever Syndrome

Description:

- A febrile syndrome associated with bleeding manifestations.
- Acute hemorrhagic fever syndromes can be attributable to dengue (dengue hemorrhagic fever), Ebola-Marburg viral diseases, Lassa fever, yellow fever, Rift Valley fever, Hantavirus infections, Crimean-Congo hemorrhagic fever, and other viral, bacterial or rickettsial diseases with a potential to produce epidemics.

Importance of Surveillance:

- The syndromic approach of the revised International Health Regulations (IHR), all cases of acute hemorrhagic fever syndrome whether single or in clusters, should be notified early, without waiting for the causal agent to be identified.
- Surveillance of acute hemorrhagic fever syndrome is aimed at early detection of cases in order to avoid epidemics and the possible international spread of the disease.

Standard Case Definition:

- Any hospitalized person with acute onset of fever of less than 3 weeks duration and with any two of the following:
  - hemorrhagic or purpuric rash
  - epistaxis (nose bleeding)
  - hematemesis (vomiting of blood)
  - hemoptysis (coughing out blood)
  - blood in stools
  - other hemorrhagic symptoms

  AND the diagnosis is not Dengue

Laboratory Confirmation:

- Isolation of organism through blood culture
- Dectection of genomic sequences by polymerase chain reaction (PCR)

Case Investigation and Reporting:

- Report all cases every FRIDAY of the week to the next higher level using the Case Report Form (CRF).

Outbreak Investigation and Control:

- Investigate all suspected / reported outbreaks.
- Active case finding and contact tracing.
- Identify all cases and contacts.
- Assess and monitor the spread of an outbreak.

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Acute Viral Hepatitis
ICD 10 Code: B15 – B17

Description:

- Acute viral illness typically including acute jaundice, dark urine, anorexia, malaise, extreme fatigue, and right upper quadrant tenderness caused by Hepatitis A to E virus.
- Biological signs include increased urine urobilinogen and >2.5 times the upper limit of serum alanine aminotransferase.
- Most infections occur in early childhood. A variable proportion of adult infections are asymptomatic.
- Transmission is mainly oral fecal for hepatitis A and E, percutaneous for hepatitis B, C, and D and sexual for hepatitis B.
- The course of the disease may be fulminating (e.g., hepatitis E in pregnancy); chronic infection and severe sequelae occur for hepatitis B, C, and D.

Importance of Surveillance:

- Estimates suggest that worldwide, there are 385 million carriers of hepatitis B virus and 170 million carriers of hepatitis C virus. More than 1 million deaths each year are attributable to hepatitis B.
- Hepatitis B is targeted by WHO for reduced incidence/prevalence.
- The early detection of epidemics through epidemiological surveillance allows for identification of the causal agent and the institution of targeted control measures and effective case management.

Standard Case Definition/Classification:

- ***Suspected case:*** A person with acute illness characterized by acute jaundice, dark urine, loss of appetite, body weakness, extreme fatigue, and high upper quadrant tenderness.
- ***Probable :*** Not applicable
- ***Confirmed Case:*** A suspected case that is laboratory confirmed.

Laboratory Confirmation:

- Hepatitis A: Positive for IgM anti-HAV
- Hepatitis B: Positive for Hepatitis B surface antigen (HBsAg) or Positive for IgM anti-HBc
- Non-A, non-B: Negative for IgM anti-HAV and IgM anti-HBs (or HBsAg)

For patients negative for hepatitis A or B, further testing for a diagnosis of acute hepatitis C, D, or E is recommended:

- Hepatitis C: anti-HCV positive
- Hepatitis D: HbsAg positive or IgM anti-HBc positive PLUS anti-HDV positive (only as co-infection or super-infection of hepatitis B)
- Hepatitis E: IgM anti-HEV positive

Case Investigation and Reporting:

- Report all cases every FRIDAY of the week to the next higher level using the Case Report Form (CRF).

Outbreak Investigation and Control:

- Investigate all suspected / reported outbreaks.
- Determine the specific cause of acute viral hepatitis cases (reported routinely or during outbreaks), so that corrective measures can be taken.
- Evaluate the effectiveness of injection safety programs
- Control measures include transfusion safety, safe and appropriate use of injections and (for hepatitis A and hepatitis B) immunization.

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Adverse Events Following Immunization

Description:

- Vaccines are designed to provoke a desired reaction in the immune system that provides the protection from disease against which the vaccine is given. Aside from the desired reaction, all vaccines produce some degree of unwanted reaction and the vast majority of these are slight and harmless. A very small number are serious and potentially life threatening. But the benefits of protection afforded by the vaccine always far exceed the slight risk of a reaction.
- AEFI is a medical incident that takes place after an immunization, causes concern, and is believed to be caused by immunization. Reported adverse events can either be true adverse events, i.e. really a result of the vaccine or immunization process, or coincidental events that are not due to the vaccine or immunization process but are temporarily associated with immunization.
- A cluster of AEFIs is defined as two or more cases of the same or similar adverse event related in time, place or vaccine administered.
- Serious medical condition is defined as those that are life-threatening and those that result in hospitalization (or prolonged hospitalization), disability (or have the potential to result in disability) or death.
- Classification of AEFI:
  - Vaccine reaction: event caused or precipitated by the vaccine when given correctly; caused by inherent properties of the vaccine.
  - Program error: event caused by an error in vaccine preparation, storage, handling, or administration.
  - Coincidental event: event that happens after immunization but is not caused by the vaccine - a chance association.
  - Injection reaction: event from anxiety about, or pain from, the injection itself rather than the vaccine.
  - *Unknown:* whose cause cannot be determined.

Importance of Surveillance:

- As disease incidence declines due to effective immunization activities, the occurrence of AEFI is now noticeable. AEFIs may occur coincidentally after immunization, some events may be caused by errors in the storage, handling and administration of the vaccine (programmatic error), and others may be associated with the properties of vaccines themselves.
- AEFIs due to programmatic errors in the storage, handling, or administration of vaccine are more common than AEFIs due to the properties of vaccines.
- Surveillance of AEFIs is important for the success of the immunization program, since such events can influence community acceptance of immunization.
- AEFIs need to be rapidly and effectively dealt with to avoid undue loss of confidence in a vaccine which can have dramatic consequences for immunization coverage and disease incidence.

Standard Case Definition/Classification:

- ***Suspected AEFI case:*** Any individual that experience a serious condition any time after he or she received an immunization and is considered by a health worker (e.g., midwife, nurse, physician) to be possibly related to that immunization.

Laboratory Confirmation:

- Laboratory testing may sometimes confirm or rule out the suspected cause.
- The vaccine and diluents may be tested for sterility and chemical composition.
- The needles and syringe should be tested for sterility.

Note: Testing should be requested on a clear suspicion and not as routine activity, and never before the working hypothesis has been formulated.

Case Investigation and Reporting:

- The reported AEFI must only be investigated on the following grounds:
  - If program error is suspected,
  - If it is on the list of events defined for AEFI surveillance
  - If it is a serious event of unexplainable cause
- Notify simultaneously the PHO, CHD and NEC within 24 hours of detection and send an advance copy of the Case Investigation Form (CIF) as soon as possible.
- No need to report common minor reactions such as local reactions, fever and self-limiting systemic symptoms, unless they are occurring at increased frequency.
- Clustering of AEFIs must be reported.
- Program managers need to be alert and investigate AEFI urgently in order to take the appropriate corrective action to avoid further cases and minimize the impact of the AEFI on the immunization program.

Outbreak Investigation, Prevention and Control:

- An AEFI investigation follows standard epidemiological investigation principles. Investigation of the vaccine(s), immunization techniques and procedures, and service in action should be conducted.
- It is not appropriate to discontinue the immunization program while awaiting the completion of the investigation. Treat all cases of AEFI.
- Take corrective actions upon completion of the investigation. Actions may include:
  - **Vaccine reaction:** If a higher reaction rate than expected from a specific vaccine or lot then obtain information from the manufacturer and consult with WHO to consider withdrawing that lot, changing manufacturing specifications or quality control and obtaining vaccine from a different manufacturer.
  - **Programme error:** Correct the cause of the error by: change in logistics for supplying vaccine, change in procedures at the health facility, training of health workers, intensified supervision.
  - **Coincidental:** Ensure that people are persuaded that the link is just coincidental.
  - **Unknown:** Depending on the nature of the event, its extent and whether it is ongoing, a further investigation by an expert may be needed. However, it must be accepted that in some cases the relationship to immunization is not clear.

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Anthrax
ICD 10 Code: A22

Description:

- Anthrax is a widespread zoonosis transmitted from domestic animals (cattle, sheep, goats, buffaloes, pigs and other) to humans by direct contact or through animal products.
- An acute bacterial disease that usually affects the skin but may also involve the oropharynx, mediastinum, or intestinal tract.
- The causative organism is *Bacillus anthracis*, a Gram-positive, encapsulated, spore-forming and non-motile rod.
- The incubation period range from 1-7 days but possible up to 60 days.
- Anthrax is considered a leading potential agent in bioterrorism or bio-warfare.

Importance of Surveillance:

- Human anthrax is a serious problem and has the potential for explosive outbreaks especially the gastrointestinal form.
- While pulmonary or inhalation anthrax is mainly occupational in nature, the threat of biological warfare attacks should also be considered.
- Anthrax has a serious impact on the trade of animal products.
- Surveillance is important to monitor the control programs, detect outbreaks and possible bioterrorism activities.

Standard Case Definition/Classification:

- ***Suspected case:*** A person with acute onset of illness characterized by several clinical forms as follows:

  a. *localized form:*

  - *cutaneous:* skin lesion evolving over 1 to 6 days from a papular through a vesicular stage, to a depressed black eschar invariably accompanied by edema that may be mild to extensive;

  b. *systemic forms:*

  - *gastro-intestinal:* abdominal distress characterized by nausea, vomiting, anorexia and followed by fever;
  - *pulmonary (inhalation):* brief prodrome resembling acute viral respiratory illness, followed by rapid onset of hypoxia, dyspnea and high temperature, with X-ray evidence of mediastinal widening;
  - *meningeal*: acute onset of high fever possibly with convulsions, loss of consciousness, meningeal signs and symptoms; commonly noted in all systemic infections;

  AND has an epidemiological link to a suspected or confirmed animal cases or contaminated animal products.
- ***Probable case:*** A suspected case that has a positive reaction to allergic skin test (in non-vaccinated individuals);
- ***Confirmed case:*** A suspected case that is laboratory-confirmed.

Laboratory Confirmation:

- Isolation of *Bacillus anthracis* from blood, lesions or discharges
- Demonstration of Bacillus anthracis in a clinical specimen by microscopic examination of stained smears (vesicular fluid, blood, cerebrospinal fluid, pleural fluid, stools)
- Positive serology (ELISA, Western blot, toxin detection, chromatographic assay, fluorescent antibody test (FAT))
- Note: It may not be possible to demonstrate *Bacillus anthracis* in clinical specimens if the patient has been treated with antimicrobial agents.

Case Investigation and Reporting:

- All cases of anthrax should be investigated.
- Notify simultaneously the PHO, CHD and NEC within 24 hours of detection and send an advance copy of the Case Investigation Form (CIF) as soon as possible.

Outbreak Investigation and Control:

- Investigate all suspected / reported outbreaks.
- The control of anthrax is based on its prevention in livestock: programs based only on prevention in humans are costly and likely to be ineffective except for those industrially exposed.
- There is an effective vaccine for those occupationally exposed.
- Successful vaccines are available for livestock particularly for herds with ongoing exposure to contaminated soil.

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Bacterial Meningitis
ICD 10 Code: A87

Description:

- *Neisseria meningitidis, Streptococcus pneumoniae* and *Haemophilus influenzae* type b (Hib) comprise more than 75% of all cases of bacterial meningitis in most studies, and 90% of all bacterial meningitis in children.
- Meningitis due to Hib has been eliminated in many industrialized countries through successful immunization programs.
- Meningococcal disease is unique among the major causes of bacterial meningitis because it causes both endemic disease and large epidemics.

Importance of Surveillance:

- Surveillance is needed to measure and detect epidemics and establish the impact of both epidemic and non-epidemic disease.

Standard Case Definition/Classification:

- ***Suspected case:*** A person with sudden onset of fever (≥ 38.50^{o}C rectal or 38^{o}C axillary) and one of the following signs:
  - neck stiffness,
  - altered consciousness,
  - other meningeal sign.
- ***Probable case:*** A suspected case with CSF examination showing at least one of the following:
  - turbid appearance;
  - leukocytosis (>100 cells/ mm3);
  - leukocytosis (10-100 cells/ mm3) AND either an elevated protein (>100 mg/dl) or decreased glucose (<40mg/dl)
- ***Confirmed case:*** A suspected case that is laboratory-confirmed.

Note: Identified Neisseria meningitides cases shall be reported as confirmed Meningococcal Disease

Laboratory Confirmation:

- Culture or detection by Gram stain or antigen detection methods of a bacterial pathogen other than *Neisseria meningitides*.

Case Investigation and Reporting:

- Report all cases every FRIDAY of the week to the next higher level using the Case Report Form (CRF).

Outbreak Investigation and Control:

- Immunization against the identified organism should be used to control outbreaks.
- Targeted antimicrobial prophylaxis may be useful in some outbreaks caused by non-vaccine type strains and when the strain is not resistant to antimicrobial agents.
- Widespread antimicrobial prophylaxis is not always effective and can induce resistance.

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Cholera
ICD 10 Code: A00

Description:

- Cholera is an acute bacterial intestinal infection caused by the enterotoxin of the bacterium *Vibrio cholerae* serogroup 01 and 0139.
- It is characterized by sudden onset of profuse, painless watery diarrhea, nausea and vomiting. If cholera is not treated it will lead to rapid dehydration, acidosis, circulatory collapse, hypoglycemia in children and renal failure.
- It is transmitted through ingestion of food and water contaminated with vomitus or feces of infected persons.
- The incubation period is from a few hours to five days and usually 2-3 days.
- Some of the most common risk factors include: eating or drinking of contaminated foods such as uncooked seafood or shellfish from unsafe waters, lack of access to safe drinking water, eating in large gatherings of people as weddings or funerals, and contact with persons who died of cholera.

Importance of Surveillance:

- Cholera causes an estimated 120,000 deaths per year and is prevalent in 80 countries. The world is currently experiencing the 7th pandemic of cholera.
- Control of the disease requires appropriate surveillance with universal case reporting
- Universal case reporting is required by the International Health Regulations.

Standard Case Definition/Classification:

- ***Suspected case***:
  - ***Disease unknown in the area:*** A person aged 5 years or more with severe dehydration or who died from acute watery diarrhea, **OR**
  - ***Disease endemic in the area:*** A person aged 5 years or more with acute watery diarrhea with or without vomiting, **OR**
  - ***In an area where there is a cholera epidemic:*** A person with acute watery diarrhea, with or without vomiting.
- ***Probable****:* Not applicable
- ***Confirmed case****:* A suspected case that is laboratory-confirmed.

Note: Cholera does appear in children under 5 years; however, the inclusion of all cases of acute watery diarrhea in the 2-4 year age group in the reporting of cholera greatly reduces the specificity of reporting. For management of cases of acute watery diarrhea in an area where there is a cholera epidemic, cholera should be suspected in all patients.

Laboratory Confirmation:

- Isolation of *Vibrio cholerae* 01 or 0139 from stools in any patient with diarrhea.

Case Investigation and Reporting:

- Report all cases every FRIDAY of the week to the next higher level using the Case

Report Form (CRF).

Outbreak Investigation and Control:

- Once the presence of cholera in an area has been confirmed, it becomes unnecessary to confirm all subsequent cases; shift should be made to using primarily the suspected case classification.
- Monitoring an epidemic should, however, include laboratory confirmation of a small proportion of cases on a continuing basis.
- Strengthen management and treatment of cases according to the national cholera treatment guidelines.
- When cholera appears in a community it is essential to ensure three things:
  - hygienic disposal of human feces
  - an adequate supply of safe drinking water, and
  - proper food hygiene.
- Health education of the population at risk and improvement of living conditions are essential preventive measures.
- Mobilize community early to enable rapid case detection and treatment.

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Dengue
ICD 10 Code: A90 – A91

Description:

- Dengue fever and the more severe form, dengue hemorrhagic fever, are caused by any of the four serotypes of dengue virus (types 1, 2, 3, and 4). An infected day-biting female Aedes mosquito transmits this viral disease to humans.
- In the Philippines, *Aedes aegypti* and *Aedes albopictus* are the primary and secondary mosquito vectors, respectively. The mosquito vectors breed in small collections of water such as storage tanks, cisterns, flower vases, and backyard litter.
- The incubation period is from 3 to 14 days, commonly 4–7 days.

Importance of Surveillance:

- Dengue fever, including DHF and DSS, is the most significant arthropod borne viral disease worldwide. It occurs in over 100 countries and territories and threatens the health of over 2 500 million people in tropical and subtropical regions.
- Dengue fever is a severe disease with high epidemic potential. An estimated 500 000 patients, 90% of them below the age of 15, are hospitalized with DHF / DSS every year.

Standard Case Definition/Classification:

- ***Suspected Case:*** A person with an acute febrile illness of 2-7 days duration with 2 or more of the following: headache, retro-orbital pain, myalgia, arthralgia, rash, hemorrhagic manifestations, leucopenia.
- ***Probable Case:*** A suspected case with one or more of the following: Supportive serology (reciprocal hemagglutination-inhibition antibody titer ≥ 1280), comparable IgG EIA titer or positive IgM antibody test in late acute or convalescent-phase serum specimen.
- ***Confirmed Case:*** A suspected case that is laboratory confirmed

TYPES:

- ***Dengue Hemorrhagic Fever:*** A probable *or* confirmed case of dengue **AND** Hemorrhagic tendencies evidenced by one or more of the following:
  - positive tourniquet test,
  - petechiae, ecchymoses or purpura,
  - Bleeding: mucosa, gastrointestinal tract, injection sites or other hematemesis or melena

  AND thrombocytopenia (100,000 cells or less per mm3)

  AND evidence of plasma leakage due to increased vascular permeability.
- ***Dengue Shock Syndrome:*** All the above criteria, plus evidence of circulatory failure manifested by rapid and weak pulse, and narrow pulse pressure (20 mm Hg) or hypotension for age, cold, clammy skin and altered mental status.

Laboratory Confirmation:

- Isolation of the dengue virus from serum, plasma or leukocytes.
- Demonstration of a fourfold or greater change in reciprocal IgG or IgM antibody titers to one or more dengue virus antigens in paired serum samples
- Detection of viral genomic sequences in serum or CSF samples by polymerase chain reaction (PCR).

Case Investigation and Reporting:

- Report all cases every FRIDAY of the week to the next higher level using the Case Report Form (CRF).

Outbreak Investigation and Control:

- Educate the public and promote behaviors to remove, destroy or manage mosquito breeding sites, which are usually artificial water-holding containers close to or inside human habitations like roof gutters, old tires, flowerpots, discarded containers and water storage.
- Survey the community to:
  - determine the abundance of vector mosquitoes,
  - identify the Aedes mosquito breeding sites
  - promote and implement plans for mosquito and larval elimination
- Promote personal protection against day biting mosquitoes through the use of insect repellents and screening of homes.

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Diphtheria
ICD 10 Code: A36

Description:

- Diphtheria is an infectious disease spreading from person to person by respiratory droplets from the throat through coughing and sneezing.
- The infectious agent is the *Corynebacterium diphtheriae* of gravis, mitis or intermedius biotype. Toxin production results when the bacteria are infected by corynebacteriophage containing the diphtheria toxin gene *tox*. Nontoxigenic strains rarely produce local lesions but is increasingly associated with infective endocarditis.
- Diphtheria usually affects the tonsils, pharynx, larynx and occasionally the skin.
- The incubation period is usually 2 to 5 days.

Importance of Surveillance:

- Diphtheria is a widespread severe infectious disease that has potential for epidemics. The control of diphtheria is based on the following measures:
  - Primary prevention of disease by ensuring high population immunity through immunization.
  - Secondary prevention of spread by the rapid investigation of close contacts, in order to ensure proper treatment.
  - Tertiary prevention of complications and deaths by early diagnosis and proper management.
- Surveillance data can be used to monitor levels of immunization coverage (target >90%) and disease as a measure of the impact of control programs. Recent epidemics have highlighted the need for adequate surveillance and epidemic preparedness.

Standard Case Definition/Classification:

- ***Suspected case:*** Not applicable
- ***Probable case:*** A person with an illness of the upper respiratory tract characterized by laryngitis or pharyngitis or tonsillitis, and adherent membranes on tonsils, pharynx and/or nose
- ***Confirmed case:*** A probable case that is laboratory confirmed or linked epidemiologically to a laboratory confirmed case
- Note: Persons with positive *Corynebacterium diphtheriae* cultures who do not meet the clinical description (i.e. asymptomatic carriers) should not be reported as probable or confirmed diphtheria cases.

Laboratory Confirmation:

- Isolation of *Corynebacterium diphtheriae* from a clinical specimen

Note: A rise in serum antibody (fourfold or greater) is of interest only if both serum samples were obtained before administration of diphtheria toxoid or antitoxin. This is not usually the case in surveillance, where serological diagnosis of diphtheria is thus unlikely to be an issue.

Case Investigation and Reporting:

- Report all cases every FRIDAY of the week to the next higher level using the Case Report Form (CRF).

Outbreak Investigation and Control:

- Investigate outbreaks to understand epidemiology, determine why the outbreak occurred (e.g., vaccine failure, failure to immunize, accumulation of susceptibles, waning immunity, new toxigenic strain), and ensure proper case management
- Management of contacts: All close contacts should have cultures taken from their nose and throat and be kept under surveillance for 7 days.
- Erythromycin or penicillin is recommended to be administered for a 14-day treatment course.
- Suspected diphtheria case-patents should also receive antibiotics to eradicate carriage of *C. diphtheriae*

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Influenza-like Illness
ICD 10 Code: J11

Description:

- An acute viral disease of the respiratory tract characterized by fever, headache, myalgia, prostration, coryza, sore throat and severe cough.
- The incubation period is usually 1-3 days and patient recovery is usually 2–7 days.
- Influenza may be clinically indistinguishable from disease caused by other respiratory viruses, such as common cold, croup, bronchiolitis, viral pneumonia and undifferentiated acute respiratory disease.
- Disease transmission is through airborne spread among crowded populations in enclosed spaces wherein the influenza virus may persist for hours, particularly in the cold and in low humidity.
- Transmission may also occur through direct contact. New subtypes may be transmitted globally within 3–6 months.
- Severe illness and death during annual influenza epidemics occur primarily among the elderly and those debilitated by chronic cardiac, pulmonary, renal or metabolic disease, anemia or immunosuppression.

Importance of Surveillance:

- Surveillance of influenza-like illness is very important because of the rapidity with which influenza epidemics develop, its extensive morbidity and the seriousness of complications like viral and bacterial pneumonias.
- Surveillance of influenza is essential for the early detection of new viruses with new surface proteins that can cause pandemics ranking as global health emergencies (e.g. 1918, 1957, 1968) with millions of deaths (c40 million in 1918).
- The early detection and characterization of these viruses allows for timely annual updates of a vaccine that can prevent deaths and alleviate illness in vulnerable groups of the population.

Standard Case Definition/Classification:

- ***Suspected case:*** A person with sudden onset of fever of ≥ 38°C and cough or sore throat in the absence of other diagnoses.
- ***Probable case:*** Not applicable
- ***Confirmed case***: A suspected case that is laboratory-confirmed (used mainly in epidemiological investigation rather than surveillance).
- ***Suspected Human Avian Influenza:*** A suspect ILI case with exposure to sudden bird deaths (*sudden bird deaths in two or more households in a barangay or death of at least 3% of commercial flock increasing twice daily for 2-3 consecutive days*) OR confirmed human avian influenza case
- ***Suspected Severe Acute Respiratory Syndrome (SARS) case:*** A suspect ILI case with exposure to confirmed SARS case.

Laboratory Confirmation:

- Virus isolation or Polymerase Chain Reaction (PCR) of nasal/oropharyngeal swab or

tracheal aspirate from the suspected individual or direct detection of influenza viral antigen or 4-fold rise in antibody titer between early and late serum

Case Investigation and Reporting:

- Report all cases every FRIDAY of the week to the next higher level using the Case Report Form (CRF).
- In cases of ***Suspected Human Avian Influenza*** and ***Suspected Severe Acute Respiratory Syndrome (SARS) case***, notify simultaneously the PHO, CHD and NEC within 24 hours of detection and send an advance copy of the Case Investigation Form (CIF) as soon as possible.

Outbreak Investigation, Prevention and Control:

- Conduct epidemiological studies and promptly identify viruses.
- Surveillance by health authorities of the extent and progress of outbreaks and reporting of findings to the community are important.
- The response to influenza pandemic must be planned at the national level.
- Hospital administrators must anticipate the increased demand for medical care during epidemic periods.
- Health care personnel should be immunized annually.
- Maintaining adequate supplies of antiviral drugs to treat high-risk patients and essential personnel in the event of the emergence of a new pandemic strain where no vaccine is yet available.

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Leptospirosis
ICD 10 Code: A27

Description:

- Leptospirosis is a group of zoonotic bacterial diseases with variable manifestations.
- Disease transmission is through contact of the skin, especially if abraded, or of mucous membranes with moist soil, vegetation—especially sugarcane—contaminated with the urine of infected animals, or contaminated water, as in swimming, wading in floodwaters, accidental immersion or occupational abrasion; direct contact with urine or tissues of infected animals; occasionally through drinking of water and ingestion of food contaminated with urine of infected animals, often rats; also through inhalation of droplet aerosols of contaminated fluids.
- The incubation period is usually 10 days with a range of 2–30 days.
- The disease is characterized by sudden onset of fever, headache, chills, severe myalgia (calves and thighs) and conjunctival suffusion. Other manifestations that may be present are diphasic fever, meningitis, rash (palatal exanthem), hemolytic anemia, hemorrhage into skin and mucous membranes, hepatorenal failure, jaundice, mental confusion and depression, myocarditis and pulmonary involvement with or without hemorrhage and hemoptysis.
- In endemic areas the majority of infections are subclinical or too mild to be diagnosed definitively.
- Clinical illness lasts from a few days to 3 weeks or longer. Recovery of untreated cases can take several months.
- Deaths are due predominantly to renal failure, cardiopulmonary failure and widespread hemorrhage.
- The case-fatality rate is low but increases with advancing age and may reach 20% or more in patients with jaundice and kidney damage (Weil disease) who have not been treated with renal dialysis.
- Late sequelae may occur like chronic fatigue, neuropsychiatric symptoms (paresis, depression) and occasionally uveitis.

Importance of Surveillance:

- Surveillance provides the basis for intervention strategies in human or veterinary public health.
- Leptospirosis is probably underreported in many countries because of difficult clinical diagnosis and lack of diagnostic laboratory services.

Standard Case Definition/Classification:

- ***Suspected case:*** A person who developed acute febrile illness with headache, myalgia and prostration associated with any of the following:
  - conjunctival suffusion,
  - meningeal irritation,
  - anuria or oliguria and/or proteinuria,
  - jaundice,

- hemorrhages (from the intestines or lungs),
- cardiac arrhythmia or failure,
- skin rash

AFTER exposure to infected animals or an environment contaminated with animal urine (e.g. wading in flood waters, rice fields, drainage).

- ***Probable case:*** Not applicable
- ***Confirmed case:*** A suspect case that is laboratory confirmed

Laboratory Confirmation:

- Isolation (and typing) from blood or other clinical materials through culture of pathogenic Leptospira.
- Positive serology, preferably Microscopic Agglutination Test (MAT), using a range of Leptospira strains for antigens that should be representative of local strains.

Case Investigation and Reporting:

- Report all cases every FRIDAY of the week to the next higher level using the Case Report Form (CRF).

Outbreak Investigation and Control:

- Establish the extent of the illness by determining household or other close contacts are ill or have been ill, by contacting the health workers
- Minimize contact with fresh water, mud, and vegetation that might be contaminated with the urine of infected animals, especially rodents.
- Wear protective clothing, such as waterproof boots or waders, when participating in recreational or work activities that might result in contact with contaminated water.

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Malaria

Falciparum: (ICD-10 Code: B50)
Vivax: (ICD-10 Code: B51)
Malariae: (ICD-10 Code: B52)
Ovale: (ICD-10 Code: B53)

Description:

- A parasitic disease caused by 4 protozoan parasites with asexual and sexual phases*: Plasmodium falciparum, Plasmodium vivax, Plasmodium ovale and Plasmodium malariae.*
- Disease transmission is through the bite of an infective female Anopheles mosquito. Most species feed at night; some important vectors also bite at dusk or in the early morning.
- The incubation period is approximately 9–14 days for *P. falciparum*, 12–18 days for *P. vivax* and *P. ovale,* and 18–40 days for *P. malariae.* Some strains of *P. vivax,* mostly from temperate areas, may have incubation period of 8–10 months and longer.
- Infections with the 4 human types of malaria can present symptoms sufficiently similar to make species differentiation impossible without laboratory studies. The fever pattern of the first few days of infection resembles that in early stages of many other illnesses (bacterial, viral and parasitic).
- Mixed infections are not infrequent in endemic areas.

Importance of Surveillance:

- Malaria is the most highly prevalent tropical disease, with high morbidity and mortality and high economic and social impact. The 4 elements of the Global Strategy for Malaria Control are:
  - Provision of early diagnosis and treatment,
  - Planning and implementing selective and sustainable preventive measures, including vector control,
  - Early detection, containment and prevention of epidemics,
  - Strengthening local capacities in basic and applied research to permit and promote the regular assessment of a country's malaria situation, in particular the ecological, social and economic determinants of the disease.

Standard Case Definition/Classification:

Uncomplicated malaria: Signs and symptoms vary; most patients experience fever. Splenomegaly and anemia are common associated signs. Common but non-specific symptoms include otherwise unexplained headache, back pain, chills, sweating, myalgia, nausea, vomiting.

Severe malaria: Coma, generalized convulsions, hyperparasitemia, normocytic anemia, disturbances in fluid, electrolyte, and acid-base balance, renal failure, hypoglycemia, hyperpyrexia, hemoglobinuria, circulatory collapse/shock, spontaneous bleeding (disseminated intravascular coagulation) and pulmonary edema.

In areas WITHOUT access to laboratory-based diagnosis:

- ***Probable uncomplicated malaria case:*** A person with signs (fever, splenomegaly, anemia) and/or symptoms (unexplained headache, back pain, chills, sweating, myalgia, nausea, vomiting) of malaria who receives anti-malarial treatment.
- ***Probable severe malaria case***: A person who requires hospitalization for symptoms

and signs of severe malaria (coma, generalized convulsions, renal failure, hyperpyrexia, circulatory collapse/shock, spontaneous bleeding, and pulmonary edema) and receives anti-malarial treatment.

- ***Probable malaria death:*** death of a patient diagnosed with probable severe malaria

<u>In areas WITH access to laboratory-based diagnosis:</u>

- ***Asymptomatic malaria:*** A person with no recent history of symptoms and/or signs of malaria who shows laboratory confirmation of parasitemia.
- ***Confirmed uncomplicated malaria case:*** A person with signs (fever, splenomegaly, anemia) and/or symptoms (unexplained headache, back pain, chills, sweating, myalgia, nausea, vomiting) of malaria who receives anti-malarial treatment AND with laboratory confirmation of diagnosis.
- ***Confirmed severe malaria case:*** A person who requires hospitalization for symptoms and signs of severe malaria (coma, generalized convulsions, hyperparasitemia, normocytic anemia, disturbances in fluid, electrolyte, and acid-base balance, renal failure, hypoglycemia, hyperpyrexia, hemoglobinuria, circulatory collapse/shock, spontaneous bleeding, disseminated intravascular coagulation, and pulmonary edema) and receives anti-malarial treatment AND with laboratory confirmation of diagnosis (microscopy or RDT).
- ***Confirmed malaria death:*** death of a patient classified as confirmed severe malaria.
- ***Malaria Treatment Failure:*** A patient with uncomplicated malaria without any clear symptoms suggesting another concomitant disease who has taken a correct dosage of anti-malarial treatment, and who presents with clinical deterioration or recurrence of symptoms within 14 days of the start of treatment, in combination with parasitemia (asexual forms).

Laboratory Confirmation:

- Demonstration of malaria parasites in blood films (mainly asexual forms)

Case Investigation and Reporting:

- Report all cases every FRIDAY of the week to the next higher level using the Case Report Form (CRF).

Outbreak Investigation and Control:

- Determine the nature and extent of the epidemic situation.
- Malaria epidemics must be controlled rapidly and effective treatment of all cases must be done.
- In large epidemics where a huge part of the population is infected, mass treatment may be considered.
- Full coverage vector control measures should be instituted as soon as possible. Indoor residual spraying is preferred because of its rapid effect then be followed by the use of insecticide-treated bed nets and anti-larval measures.

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Measles
ICD 10 Code: B05

Description:

- Measles (Tigdas, Tipdas) is an acute highly communicable viral illness caused by the measles virus in the genus *Morbillivirus* of the family *Paramyxovirus*.
- Measles is characterized by a prodrome of fever, conjunctivitis, cough, coryza, and small spots with white or bluish white centers on an erythematous base on the buccal mucosa known as Koplik spots followed by maculopapular rash on the third to the 7th day beginning on the face then becoming generalized.
- It is transmitted through direct contact with nasal or throat secretions of infected persons or by articles freshly soiled with nose and throat secretions.
- The incubation period range from 7 to 21 days from exposure to onset of fever and usually 14 days until rash appears.

Importance of Surveillance:

- The Philippines is now in the measles elimination phase achieving high levels of population immunity against measles and low incidence with periodic outbreaks. Surveillance is used to identify high-risk populations and to predict and prevent potential outbreaks. The target for measles elimination is less than 1 confirmed measles case per 1,000,000 population.
- The intensive case-based surveillance is used to detect, investigate and confirm every suspected measles case in the community.
- Information is used to assess progress towards disease elimination goals.

Standard Case Definition/Classification:

- ***Suspected case:*** Any individual, regardless of age, with the following signs and symptoms:
  - history of fever (38°C or more) or hot to touch; and
  - generalized non-vesicular rash of 3 or more days duration; and,
  - at least one of the following: cough, coryza, or conjunctivitis
- ***Laboratory-confirmed case:*** Suspected case that is laboratory confirmed.
- ***Epidemiologically-linked:*** An epidemiologically-linked measles case is defined as a suspected measles case who was not discarded and who:
  - had contact with another epidemiologically-linked case or a laboratory confirmed case 7-21 days before onset of rash and
  - the other epidemiologically-linked or laboratory confirmed case was infectious at the time of contact (i.e., contact was 4 days before to 4 days after rash onset in the other epidemiologically-linked or laboratory confirmed case)
- ***Clinically-confirmed:*** A suspected measles case, that, for any reason, is not completely investigated* (e.g. death before investigation, no blood sample) or has equivocal laboratory test results.

  *Such cases represent failures of the surveillance system to adequately classify a case.
- ***Discarded or not measles case:*** A suspect measles case with an adequate specimen

that is not serologically confirmed or is confirmed positive for other diseases such as rubella or dengue.

Laboratory Confirmation:

- Positive serologic test result for anti-measles IgM antibodies
- Fourfold rise in anti-measles IgG antibodies in acute and convalescent serum
- Isolation of measles virus
- Dot immunobinding assay
- Polymerase chain reaction testing for measles nucleic acid

Case Investigation and Reporting:

- All cases of measles should be investigated.
- Blood specimen must be collected from all suspect measles cases to test for measles-specific IgM antibodies.
- Notify simultaneously the PHO, CHD and NEC within 24 hours of detection and send an advance copy of the Case Investigation Form (CIF) as soon as possible.

Outbreak Investigation, Prevention and Control:

A. *Response to a measles confirmed case:*

- Review the immunization status of the patient by looking at the Early Childhood Care and Development (ECCD) card/immunization and if under-immunized, complete the immunization of all antigens following the schedule for each specific antigen.
- Ask if there is a history of travel within 7-18 days prior to rash onset.
- Check for the any complications and refer for proper management as needed.

B. *Response to the other children in the family living with the measles case:*

- Review the immunization status of the other children in the family living with the measles case by looking at the Early Childhood Care and Development (ECCD) card/immunization and if under-immunized, complete the immunization of all antigens following the schedule for each specific antigen.
- If any member of the family has measles or had measles 10 days prior to confirmed case, conduct case investigation but there is no need to collect blood specimens. They will be classified as epidemiologically-linked cases.

C. *Response of the local health unit for the community:*

- Complete the immunizations of all eligible children in the community following the immunization schedule of each specific antigen.
- MHO/PHN should review the measles immunization coverage in the community and if the measles immunization coverage is <95%, a mop-up immunization campaign should be conducted.
- Inform all RHU staff, BHW, barangay officials about the case and ask them to report any other suspect case of measles.

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Meningococcal Disease
ICD 10 Code: A39

Description:

- Meningococcal disease is caused by a bacterium known as *Neisseria meningitides* (also called meningococci). Twelve serogroups of N. meningitidis have been identified. The infection is transmitted from person to person through droplets of respiratory or throat secretions.
- Close and prolonged contact (e.g. kissing, sneezing and coughing on someone, living in close quarters or dormitories (military recruits, students), sharing eating or drinking utensils, etc.) facilitate the spread of the disease.
- The average incubation period is 4 days, ranging between 2 and 10 days.

Importance of Surveillance:

- Meningococcal meningitis is the only form of meningitis to cause epidemics. The case-fatality rate is between 5% and 15%.
- The majority of cases occur in children <5 years.
- Meningococcal bivalent A, C and quadrivalent A, C, Y, W135 vaccines are available; immunization of the entire population should be considered to halt epidemics due to A and C serogroup meningococci. Immunization is also indicated for people traveling to endemic areas.
- Surveillance is needed to measure and detect epidemics and establish the impact of both epidemic and non-epidemic disease.

Standard Case Definition/Classification:

- ***Suspected case:*** A person with sudden onset of fever (>38.5°C rectal or >38.0°C axillary) and one or more of the following:
  - neck stiffness
  - altered consciousness
  - other meningeal signs
  - petechial or purpural rash

  Note: In patients <1 year, suspect meningitis when fever is accompanied by bulging fontanels
- ***Probable case:*** A suspected case as defined above and: Turbid CSF (with or without positive Gram stain) or ongoing epidemic and epidemiological link to a confirmed case.
- ***Confirmed case:*** A suspected or probable case with laboratory confirmation.

Laboratory Confirmation:

- Positive CSF antigen detection or culture.
- Positive blood culture.

Case Investigation and Reporting:

- Notify simultaneously the PHO, CHD and NEC within 24 hours of detection and send an

advance copy of the Case Investigation Form (CIF) as soon as possible.

Outbreak Investigation and Control:

- Identify the source, mode and extent of the event.
- Determine whether epidemic rates of disease indicate a need for vaccination. It is critical that serogroup information confirms that the majority of diagnosed cases are due to vaccine-preventable serogroups, usually serogroup A or serogroup C.
- Outbreak control strategy includes early diagnosis and prompt treatment, vaccination, chemoprophylaxis and risk communication.
- Distribute treatment supplies to health centers.
- Treat according to epidemic protocol.
- Inform the public.
- Mobilize community to permit early case detection and treatment.

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Neonatal Tetanus
ICD 10 Code: A33

Description:

- Neonatal tetanus is an acute, often fatal disease in neonates that is characterized by generalized, increased rigidity and convulsive spasms of skeletal muscles caused by the spore-forming bacterium *Clostridium tetani*.
- *C. tetani* spores which are the dormant form of the organism are found in soil, animal feces, and human feces.
- The disease is transmitted when spores enter open wounds (injections, cutting the umbilical cord) or breaks in the skin.
- The incubation period is 3 to 21 days, with an average of 6 days.
- Unclean cord care practices during delivery for neonates and lack of antibody protection in incompletely immunized mothers are the risk factors for the disease.
- Neonatal tetanus is a non-communicable disease, that is, it is not transmitted from one person to another.

Importance of Surveillance:

- Neonatal tetanus (NT) is targeted by UNICEF, UNFPA and WHO for elimination as a major public health burden along with maternal tetanus.
- Elimination is defined as less than one NT case per 1000 live births per city/municipality per year.
- The 3 primary strategies towards this goal are:
  - High tetanus toxoid (TT) coverage of pregnant women.
  - Clean delivery.
  - Identification of high risk areas and implementation of corrective action (immunization of childbearing-age women) in these areas.
- Effective surveillance is critical for identifying areas or populations at high risk for NT and for monitoring the impact of interventions.

Standard Case Definition/Classification:

- ***Suspected Case****:* Any neonatal death between 3-28 days of age in which the cause of death is unknown; or any neonate reported as having suffered from neonatal tetanus between 3-28 days of age and not investigated.
- ***Probable Case:*** Not applicable
- ***Confirmed Case****:* Any neonate (≤ 28 days of life) that sucks and cries normally during the first 2 days of life, and becomes ill between 3 to 28 days of age and develops an inability to suck and diffuse muscle rigidity (stiffness), which may include trismus, clenched fists or feet, continuously pursed lips, and/or curved back (opisthotonus).

  OR A neonate diagnosed as a case of tetanus by a physician.

NOTE*:*

- *Since case classification is based solely on clinical criteria. Any neonatal death occurring in babies 3-28 days old with no apparent cause should be suspected as NT and evaluated according to the above criteria.*
- *In calculating age, the day of birth is considered the first day of life (i.e., the baby is 1*

day old on the day he/she was born).

Laboratory Confirmation:

- The basis for case classification is entirely clinical and does not depend on laboratory confirmation.
- NT cases reported by physicians are considered to be confirmed.

Case Investigation and Reporting:

- Conduct an investigation to determine the risk of transmission.
- Notify simultaneously the PHO, CHD and NEC within 24 hours of detection and send an advance copy of the Case Investigation Form (CIF) as soon as possible.
- Treat and manage the case according to national treatment protocol.
- No routine isolation precautions are needed.
- An NT case often represents a sentinel event indicating a more systematic problem. The findings from the case investigation should therefore help to guide the nature and extent of the immunization response.

Outbreak Investigation, Prevention and Control:

- Investigate all suspected / reported outbreaks.
- When a case of neonatal tetanus is confirmed, the minimum case response is to immunize the mother of the case and the women of childbearing age who live nearby with at least 2 doses of tetanus toxoid vaccine given 4 weeks apart.
- Take action to respond to other causes of risk identified during the investigation such as missed opportunities for TT immunization, vaccine quality failure or unclean practices during delivery or for cord care.
- Improve the routine TT vaccine coverage through EPI and maternal immunization program activities.
- Educate birth attendants, and women of childbearing age in the community on the need for clean cord cutting and proper care.

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Paralytic Shellfish Poisoning
ICD 10 Code: T61.2

Description:

- Seafood poisoning occurs after eating fish or shellfish containing saxitoxin made by dinoflagellates. Dinoflagellates are small marine organisms found throughout the oceans and especially in and near coral reefs. The toxins accumulate in shellfish or are passed up the food chain as smaller fish are eaten by larger fish.
- Exposure to saxitoxin might cause numbness of the oral mucosa within 30 minutes after ingestion.
- In severe poisoning, signs and symptoms typically progress rapidly, including paresthesias, a floating sensation, muscle weakness, vertigo, and cranial nerve dysfunction.
- Respiratory failure and death might occur from paralysis.

Importance of Surveillance:

- To estimate the magnitude of the problem.
- To determine trends and risk factors associated with the poisoning for the implementation of prevention and control measures.

Standard Case Definition/Classification:

- ***Suspected case:*** A person who develops one or more of the following signs and symptoms after taking shellfish meal or soup:
  - *Sensory :* paresthesias (tingling sensations on skin), numbness (lack of sensation) of the oral mucosa and lips, numbness of the extremities
  - *Motor:* difficulty in speaking, swallowing, or breathing, weakness or paralysis of the extremities
- ***Probable Case:*** Not applicable
- ***Confirmed case:*** A suspected case in which laboratory tests (biologic or environmental) have confirmed exposure.

Laboratory Confirmation:

- Detection of saxitoxin in epidemiologically implicated food, serum or urine of cases.

Case Investigation and Reporting:

- Notify simultaneously the PHO, CHD and NEC within 24 hours of detection and send an advance copy of the Case Investigation Form (CIF) as soon as possible.

Outbreak Investigation and Control:

- Investigate all suspected / reported outbreaks.
- Investigation on PSP cases should include food implicated and laboratory confirmation.
- Control measures include avoidance of eating mollusks locally harvested from areas known to be experiencing red tides.

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Non-Neonatal Tetanus
ICD 10 Code: A35

Description:

- An acute disease caused by an exotoxin of the tetanus bacillus, Clostridium tetani, which grows anaerobically at the site of an injury.
- The disease is characterized by painful muscular contractions, primarily of the masseter and neck muscles, secondarily of trunk muscles.
- The first sign suggestive of tetanus in older children and adults is abdominal rigidity. Generalized spasms occur, frequently induced by sensory stimuli; typical features of the tetanic spasm are the position of opisthotonus and the facial expression known as "risus sardonicus."
- History of an injury or apparent portal of entry may be lacking.
- The incubation period usually 3–21 days, with most cases occurring within 14 days. Shorter incubation periods are associated with more heavily contaminated wounds, more severe disease and a worse prognosis.

Importance of Surveillance:

- In developing countries, non-neonatal tetanus continues to be an important cause of preventable morbidity and mortality.
- Non-neonatal tetanus also takes a terrible toll, especially in younger segments of the population. It is estimated that in 1990 about 70 per cent of all non-neonatal tetanus cases and deaths occurred among persons less than 15 years of age.

Standard Case Definition/Classification:

- ***Suspected case:*** Not applicable
- ***Probable case:*** Not applicable
- ***Confirmed case:*** Acute onset of hypertonia and/or painful muscular contractions (usually muscles of the neck and jaw) and generalized muscle spasms without apparent medical cause as reported by a health care professional.

Laboratory Confirmation:

- Laboratory confirmation is of little help because the organism is rarely recovered from the site of infection and usually there is no detectable antibody response.

Case Investigation and Reporting:

- Report all cases every FRIDAY of the week to the next higher level using the Case Report Form (CRF).

Outbreak Investigation, Prevention and Control:

- NNT rarely cause an outbreak. Search for contaminated street drugs or other common-use injections in case such an outbreak occurs.
- To protect the rest of the population from wound tetanus, the strategy of first choice includes immunization in infancy and early childhood, reinforced by booster doses as part of a school health program.
- Toxoid as DPT, DT, TT or Td - at least three primary doses given by the intramuscular route.

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Pertussis
ICD 10 Code: A37

Description:

- Pertussis or whooping cough is a highly communicable disease of the respiratory tract caused by *Bordetella pertussis.*
- The initial stage of the disease has an insidious onset with an irritating cough that gradually becomes paroxysmal, usually within 1–2 weeks, and lasts for 1–2 months or longer.
- Paroxysms are characterized by repeated violent cough. Each series of paroxysms has many coughs without intervening inhalation and can be followed by a characteristic crowing or high-pitched inspiratory whoop. Paroxysms frequently end with the expulsion of clear, tenacious mucus, often followed by vomiting.
- It is primarily transmitted by direct contact of infected persons: by airborne droplet or by indirect contact through articles freshly soiled with discharges of infected persons.
- The average incubation period is 9-10 days ranging from 6 to 20 days.

Importance of Surveillance:

- Pertussis is a major cause of childhood morbidity and mortality. Case-fatality rates in developing countries can reach 15%.
- Surveillance data on the disease can monitor the impact of vaccination on disease incidence, identify high risk areas and identify outbreaks.

Standard Case Definition/Classification:

- ***Suspected case:*** A person with a cough lasting at least 2 weeks with at least one of the following:
  - paroxysms (i.e. fits) of coughing
  - inspiratory “whooping”
  - post-tussive vomiting (i.e. vomiting immediately after coughing)
  - without other apparent cause
- ***Probable case:*** Not applicable
- ***Confirmed case:*** A suspected case that is laboratory-confirmed.

Laboratory Confirmation:

- Isolation of *Bordetella pertussis*, or detection of genomic sequences by polymerase chain reaction (PCR).

Case Investigation and Reporting:

- Report all cases every FRIDAY of the week to the next higher level using the Case Report Form (CRF).

Outbreak Investigation and Control:

- High routine coverage with effective vaccine is the mainstay of prevention.
- Manage patients in accordance with the national treatment protocol.
- Immunizations should be completed for those whose schedule is incomplete.

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Rabies
ICD 10 Code: A82

Description:

- Rabies is a fatal acute viral encephalomyelitis caused by the rabies virus, a rhabdovirus of the genus *Lyssavirus*.
- It is a zoonotic disease transmitted to humans through contact (mainly bites and scratches) with infected animals both domestic and wild. Over 40 000 human deaths are estimated to occur each year worldwide, most of them in the developing world (mainly in Asia), and an estimated 10 million people receive post-exposure treatment after being exposed to animals suspected of rabies.
- Symptoms start with a sense of apprehension, headache, fever, malaise, excitability and aerophobia. The disease progresses to paresis or paralysis, spasm of swallowing muscles leading to fear of water or hydrophobia, delirium, convulsions and death.
- The incubation period is usually 3-8 weeks but maybe as short as 9 days and as long as 7 years. The incubation period depends on the severity of the wound, site of the wound in relation to richness of nerve supply, distance from the brain, amount and strain of virus.
- The WHO promotes human rabies prevention through well-targeted post exposure treatment and increased availability of modern rabies vaccine, and disease elimination through mass vaccination of dogs and other animal reservoirs

Importance of Surveillance:

- Surveillance of both human and animal rabies is essential to quickly detect outbreaks in endemic areas and new cases in rabies-free area.
- Determine high risk areas for intervention purposes
- Monitor the use of vaccine and immunoglobulin.
- Evaluate effectiveness of intervention at the level of the animal reservoir and exposed human population.

Standard Case Definition/Classification:

- ***Suspected Case:*** A person presenting with an acute neurological syndrome (encephalitis) dominated by forms of hyperactivity (furious rabies) or paralytic syndromes (dumb rabies) that progresses towards coma and death, usually by respiratory failure, within 7 to 10 days after the first symptom if no intensive care is instituted.

  Note: Bites or scratches from a suspected animal can usually be traced back in the patient medical history. The incubation period may vary from days to years but usually falls between 30 and 90 days.
- ***Probable case:*** A suspected case plus history of contact with suspected rabid animal.
- ***Confirmed case:*** A suspected case that is laboratory confirmed.

Laboratory Confirmation:

- Detection of rabies viral antigens by direct fluorescent antibody (FA) in clinical specimens, preferably brain tissue (collected post mortem);

- Detection by FA on skin or corneal smear (collected ante mortem);
- FA positive after inoculation of brain tissue, saliva or CSF in cell culture, in mice or in suckling mice;
- Detectable rabies-neutralizing antibody titer in the CSF of an unvaccinated person;
- Identification of viral antigens by PCR on fixed tissue collected post mortem or in a clinical specimen (brain tissue or skin, cornea or saliva);
- Isolation of rabies virus from clinical specimens and confirmation of rabies viral antigens by direct fluorescent antibody testing.

Case Investigation and Reporting:

- Notify simultaneously the PHO, CHD and NEC within 24 hours of detection and send an advance copy of the Case Investigation Form (CIF) as soon as possible.

Outbreak Investigation and Control:

- In case of an outbreak, investigate all rabies foci, identify sources of infection as well as humans and animals exposed or possibly exposed.
- In case of human exposure to animals that are suspected of having rabies, immediate attempts should be made to identify, capture or kill the animal involved for rabies examination.
- In managing animal bite cases, follow the national treatment guidelines on animal bite management and rabies post exposure prophylaxis guide.
- The responsible veterinary services should be notified and information obtained on the epidemiological situation in the area.

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Typhoid and Paratyphoid Fever
ICD 10 Code: A01

Description:

- Typhoid and paratyphoid fever is systemic bacterial disease with insidious onset of sustained fever, severe headache, malaise, anorexia, relative bradycardia, splenomegaly, nonproductive cough in the early stage of the illness, and constipation more often than diarrhea in adults. The offending organisms are the bacteria *Salmonella typhi* and *Salmonella paratyphi*.
- The clinical presentation varies from mild illness with low-grade fever to severe clinical disease with abdominal discomfort and complications. The disease is transmitted via the fecal-oral route.
- Severity of the disease is influenced by strain virulence, quantity of inoculums ingested, duration of illness before adequate treatment, age and previous vaccination.
- The incubation period ranges from 3 days to over 60 days but usually 8–14 days. For paratyphoid, the incubation period is 1–10 days.
- Even after recovery from typhoid or paratyphoid, a small number of individuals (called carriers) continue to carry the bacteria. These people can be a source of infection for others.

Importance of Surveillance:

- The annual incidence of typhoid is estimated to be about 17 million cases worldwide.
- In the Philippines, typhoid fever ranks second among the leading causes of epidemics that are foodborne or waterborne related.

Standard Case Definition/Classification:

- ***Suspected case:*** A person with an illness characterized by insidious onset of sustained fever, headache, malaise, anorexia, relative bradycardia, constipation or diarrhea, and non-productive cough.
- ***Probable case:*** A suspected case that is epidemiologically linked to a confirmed case in an outbreak or, a suspected case positive for Typhidot test.
- ***Confirmed case:*** A suspected or probable case that is laboratory confirmed.

Laboratory Confirmation:

- Isolation of *Salmonella enterica* from blood, stool, or other clinical specimen

Case Investigation and Reporting:

- Report all cases every FRIDAY of the week to the next higher level using the Case Report Form (CRF).

Outbreak Investigation and Control:

- Search for the case/carrier that is the source of infection and for the vehicle (water or food) through which infection was transmitted.
- Selectively eliminate suspected contaminated food.
- All drinking-water must be chlorinated, treated with iodine or boiled before use.

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ANNEXES

Annex 1: Administrative Order No. 2007-0036 "*Guidelines on the Philippine Integrated Disease Surveillance and Response (PIDSR) framework*"

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October 1, 2007

ADMINISTRATIVE ORDER

No. 2007- 0036

SUBJECT: **Guidelines on the Philippine Integrated Disease Surveillance and Response (PIDSR) framework**

I. BACKGROUND AND RATIONALE

The World Health Organization under the revised International Health Regulations (IHR) of 2005 requires all Member States to strengthen the core capacities for disease surveillance and response to avert occurrence and international spread of diseases and other public health threats. The new Regulations have a greatly expanded scope, which apply to diseases including those with new and unknown causes that present significant harm to humans irrespective of origin or source. Currently existing surveillance systems in the Philippines do not properly address such concerns.

The National Epidemiology Center (NEC) is primarily responsible for assessing the health status of Filipinos, detecting or confirming disease outbreaks and implementing outbreak control measures including but not limited to rapid containment. The NEC is the designated National Focal Point for IHR.

Four major disease surveillance systems exist in the country: 1) the Notifiable Disease Reporting System (NDRS) of the Field Heath Service Information System (FHSIS); 2) the National Epidemic Sentinel Surveillance System (NESSS); 3) the Expanded Programme on Immunization diseases targeted for eradication or, elimination Surveillance System (EPISurv); and 4) the Integrated HIV/AIDS Behavioral and Serologic Surveillance System (IHBSS) including the AIDS Registry. Altogether they provide vital information that guide policy and implementation of priority health programs and projects.

These disease surveillance systems were established for specific purposes and each have their own individual data collection and reporting procedures, computer hardware and software requirements and, training and supervisory functions. For so many years now, numerous health programs and foreign-assisted projects also established parallel surveillance systems to complement existing surveillance systems. These may have resulted in inefficient surveillance systems characterized by redundancy and duplication of efforts,

extra and sometimes prohibitive costs, a demoralized health workforce, inaccurate and delayed reporting and ultimately unrealized health outcomes. Effective disease control relies on a functional disease surveillance system. Clarity of purpose, simple and practical use, effective feedback and efficient organizational and management arrangements define the functionality of surveillance systems.

A formal assessment of the existing surveillance system was done in 2006 and revealed the following:

- Lack of manual of procedures that will serve as a guide to field staff in properly carrying out surveillance and response tasks and responsibilities;
- Lack of capacity, especially at the local level, to perform the required epidemiological surveillance and response functions;
- Lack of training and supervision; and
- Inadequate funding support for equipment, travel, logistics and other supplies essential for the optimal operations of a disease surveillance system.

The inadequacy of the current disease surveillance systems in the Philippines and the need to comply with the 2005 IHR call for an urgent need to adopt newer approaches that will address those gaps without placing undue strain into the system.

The Philippine Integrated Disease Surveillance and Response (PIDSR) is hereby adopted to address these concerns and meet future challenges that were otherwise unforeseen. This Administrative Order provides the framework for PIDSR to guide its implementation at all levels of the health care delivery system as well as both the public and private sectors.

II. DECLARATION OF POLICIES

The PIDSR shall be guided by the following legal mandates and policies:

A. *Republic Act 3573* (Law of Reporting of Communicable Diseases) requires all individuals and health facilities to report notifiable diseases to local and national health authorities.

B. *Resolution WHA48.13 (1995)* urges Member States to strengthen national and local programs of active surveillance for infectious diseases, ensuring that efforts were directed towards early detection of epidemics and prompt identification of new, emerging and re-emerging infectious diseases.

C. *International Health Regulations of 2005, Article 5-1 Surveillance*, urges Member States to develop, strengthen and maintain, as soon as possible but no later than five years from the entry into force of these Regulations, the capacity to detect, assess, notify and report events in accordance with these Regulations.

D. *Administrative Order No. 2005-0023* (Implementing Guidelines for *Fourmula One* for Health as Framework for Health Reforms), *Section C2.c.iii*, states that, “Disease surveillance shall be intensified to ensure that the targets for disease elimination, prevention and control are attained”.

E. *Department Personnel Order No. 2005-1585* (Creation of a Management Committee on Prevention and Control of Emerging and Re-emerging Infectious Diseases or

DOHMC-PCREID) creates the Epidemiology and Surveillance Sub-Committee (ESSC) in which one of its major functions is to "…formulate and recommend policies, standards, procedures, guidelines and systems on the early detection, contact tracing, surveillance, investigation and follow-up of emerging and re-emerging (EREID) suspects and the timely and accurate recording, reporting and collation of epidemiological data on EREID."

III. GOAL AND OBJECTIVES

A. Goal

A functional integrated disease surveillance and response system that would result in considerable reduction in morbidity, disability and mortality caused by communicable diseases and other conditions.

B. General Objectives

1. To provide continuous, timely and accurate disease surveillance information that will guide response or interventions for all stakeholders, particularly local government units and national programs; and

2. To develop, improve and strengthen the capacity for an integrated surveillance and response at all levels of health system.

C. Specific Objectives

1. To list and prioritize notifiable diseases, syndromes or other conditions as specified in the IHR and according to consensus developed between local government units and national programs;

2. To design and establish an integrated disease surveillance system that enhances the use of standard case definitions for notification and case-based or event-based reporting of priority diseases, syndromes, conditions, or risks;

3. To establish or strengthen epidemiology and surveillance units (ESUs) at the regional and local levels that would serve as focal points for coordinating surveillance and response activities;

4. To strengthen surveillance data management (collection, collation, analysis, interpretation and dissemination);

5. To ensure use of information or knowledge for policy and decision-making at all levels;

6. To strengthen the capacity and networking of laboratories at the national and local levels;

7. To enforce the involvement of private health-care facilities in the surveillance system;

8. To strengthen community participation in disease detection, notification and response to epidemics;

9. To prepare national and local health staff to respond effectively to epidemics;

10. To establish a national coordinating body that would provide overall coordination of surveillance operations and the authority to shift priorities and resources according to changes in surveillance needs; and

11. To enhance the utilization of information and communication technology for prompt reporting and data management that would be appropriate at the national and local levels.

IV. SCOPE AND COVERAGE

This issuance shall apply to the entire health sector, to include public and private, national agencies and local government units, external development agencies, and the community involved in disease surveillance and response activities.

This issuance shall cover routine surveillance of priority diseases and events identified by the Department of Health.

V. DEFINITION OF TERMS

A. **Active Surveillance** – refers to a system employing staff members to regularly contact health care providers or the population to seek information about health conditions. Active surveillance provides the most accurate and timely information, but it is also expensive.

B. **Alert threshold** – refers to the level of disease that serves as an early warning for epidemics. An increase in the number of cases above the threshold level should trigger an epidemiologic investigation, assessment of epidemic preparedness and implementation of appropriate prevention and control measures.

C. **Disease** – refers to a specific illness or medical condition, irrespective of origin or source that presents or could present significant harm to humans.

D. **Epidemic** - refers to the occurrence in a community or region of cases of an illness, specific health-related behavior, or other health-related events clearly in excess of normal expectancy. The community or region and the period in which the cases occur are specified precisely. The number of cases indicating the presence of an epidemic varies according to the agent, size, and type of population exposed; previous experience or lack of exposure to the disease; and time and place of occurrence. (Adapted from Last JM, ed. *A Dictionary of Epidemiology*, 1997). A community may refer to specific groups of people (e.g., those attending a social function and got ill from food poisoning).

   Note: ***The terms epidemic and outbreak could be used interchangeably. For purposes of brevity and consistency, we used the term epidemic in this guideline.***

E. **Epidemic threshold** - refers to the level of disease above which an urgent response is required. The threshold is specific to each disease and depends on the infectiousness, other determinants of transmission and local endemicity levels. For

some diseases, such as poliomyelitis or SARS, one case is sufficient to initiate a response.

F. **Epidemiology** - refers to the study of the distribution and determinants of health-related states or events in specified populations, and the application of this study to the control of health problems.

G. **Epidemiology and Surveillance Unit (ESU)** - refers to a unit established in the Centers for Health Development (RESU), Provincial Health Offices (PESU), City Health Offices (CESU) and Municipal Health Units (MESU) or Inter-local Health Zones ((DESU) that provide services on public health surveillance and epidemiology

H. **Event-based Surveillance** - refers to unstructured data gathered from sources of intelligence of any nature. These sources include scientific watch, direct notifications, media watch, international watch and intersectoral-events. It is a rapid reporting and response system that immediately alerts health authorities of public health events that require a timely response.

I. **Expanded Program on Immunization Surveillance (EPISurv)** - refers to an intensive indicator-based, hospital-based surveillance of diseases targeted for eradication or, elimination. This includes acute flaccid paralysis or suspected polio, measles and neonatal tetanus and adverse events following immunization. Periodic reviews of individual cases may be required to ascertain correct diagnosis.

J. Field Health Service Information System – refers to the health information system that provides the Department of Health (DOH) with field-based surveillance of notifiable diseases and syndromes and categorical surveillance of program management indicators from priority public health programs.

K. **HIV/AIDS Registry** - refers to the registry of all HIV-AIDS cases in the Philippines that are reported from both public and private hospitals, laboratories, and other agencies.

L. **Integrated Disease Surveillance and Response** - refers to a process of coordinating, prioritizing, and streamlining of core surveillance activities (e.g., data collection, reporting, laboratory and epidemiological confirmation, analysis, feedback), support functions (e.g., training, monitoring, financial and logistics) and response (e.g., epidemic investigation) with the aim of making the system more efficient and effective in providing timely, accurate and relevant information for action.

M. **International Health Regulations (IHR) of 2005** - refers to the international legal instrument that binds all WHO Member States to implement a set of international standards with the aim to prevent, protect against, control and provide a public health response to the international spread of disease in ways that are commensurate with and restricted to public health risks, and which avoid unnecessary interference with international traffic and trade.

N. **Laboratory-based surveillance system** – refers to s systematic referral of laboratory samples from defined conditions or random cases to detect occurrence of unusual or new pathogens,

O. **National Epidemic Sentinel Surveillance System (NESSS)** - refers to the surveillance system of a pre-arranged sample of hospital-based reporting sources that agreed to report all cases of 15 diseases that have potential to cause outbreaks and which might indicate trends in the entire target population. Standard case

definitions are used and some require strict confirmation in the laboratory before they are included as cases.

P. **National IHR Focal Point**- refers to the national center, designated by each State Party, which shall be accessible at all times for communications with WHO IHR Contact Points under the 2005 IHR. The National Epidemiology Center (NEC) was designated as the National IHR Focal Point per Administrative Order No.2007- 0002 dated January 17, 2007.

Q. **Notifiable Disease Reporting System (NDRS)** - refers to the reporting component of the Field Health Service Information System (FHSIS) that monitors 17 diseases and 7 syndromes. Data are generated from the barangay health stations, rural health units and municipal or city health centers on a periodic basis. Annual reports reflect annual incidence of notifiable diseases.

R. **Notifiable Disease** - refers to a disease that, by legal requirements, must be reported to the public health or other authority in the pertinent jurisdiction when the diagnosis is made.

S. **Outbreak** - see epidemic.

T. **Passive surveillance** – refers to a system by which a health jurisdiction receives reports submitted from hospitals, clinics, public health units, or other sources. Passive surveillance is a relatively inexpensive strategy to cover large areas, and it provides critical information for monitoring a community's health. However, because passive surveillance depends on people in different institutions to provide data, data quality and timeliness are difficult to control.

U. **Point of Entry** – refers to a passage for international entry or exit of travelers, baggage, cargo, containers, conveyances, goods and postal parcels as well as agencies and areas providing services to them on entry or exit.

V. **Public health surveillance** - refers to the ongoing, systematic collection, analysis, interpretation and timely dissemination of health data for the planning, implementation and evaluation of public health program. The application of these data to disease prevention and health promotion program completes the surveillance cycle in public health.

W. **Public Health Emergency of International Concern** (PHEIC) – refers to an extraordinary event which is determined, as provided in the 2005 IHR: 1) to constitute a public health risk to other states through the international spread of disease and 2) to potentially require a coordinated international response

X. **Quarantine** – refers to the restriction of activities and/or separation from others of suspect persons who are not ill or of suspect baggage, containers, conveyances, or goods in such a manner as to prevent the possible spread of infection or contamination.

Y. **Surveillance report** - refers to a regular publication with specific information on the disease under surveillance. It contains updates of standard tables and graphs as well as information on epidemics etc. In addition it may contain information on the performance of participants using agreed performance indicators.

Z. **Syndromic Surveillance** – refers to a passive or active system that uses case definitions of cases based on clinical features without accompanying clinical or

laboratory diagnosis or, as it pertains to surveillance of bioterrorism, of syndromes attributable to use of potential agents by terrorists. Lacks specificity and often requires more investigations from higher levels.

AA. **Zero case reporting** – refers to the reporting of "zero case" when no cases have been detected by the reporting unit so as to distinguish it from missed or delayed reporting.

VI. GUIDING PRINCIPLES

A. PIDSR shall be consistent with the technical leadership role of the DOH in health and shall contribute to the achievement of the National Health Objectives and the country's Millennium Development Goals.

B. PIDSR shall respect and support priorities established under the *Fourmula One* framework for health reforms, particularly towards more responsive health systems.

C. PIDSR shall be faithful to the spirit of decentralization and recognize the vital role of local government units on all matters related to health.

D. PIDSR shall be adequately compatible with the 2005 IHR surveillance and response standards and be guided by the country's commitments and obligations.

E. PIDSR shall build on the strength and learn from the weakness of what already exists.

F. PIDSR shall comply with the overall guiding principles of usefulness, simplicity and flexibility of the system, orientation to a specific action, and integration.

G. PIDSR shall recognize and adopt the principle of partnership and shared responsibility. A partnership is a voluntary agreement between two or more parties to work cooperatively toward a set of shared outcomes in disease surveillance. Partnership includes the public and private sectors, national agencies and local government units, external development agencies, and the community involved in disease surveillance and response activities. The principle of shared responsibility recognizes that disease surveillance and response is the responsibility of all sectors and governments at all levels.

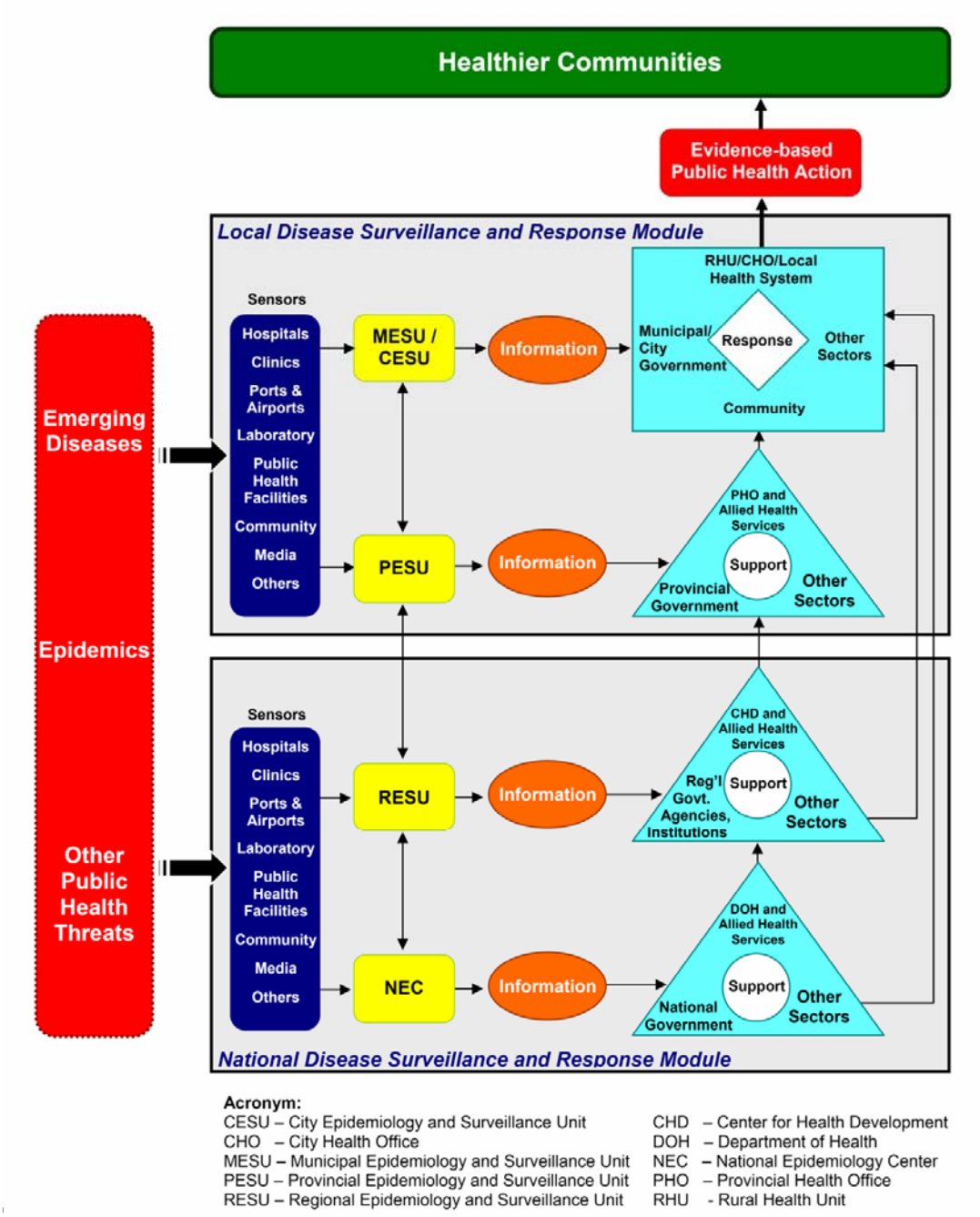
H. The privacy and confidentiality of patient's information should be maintained. Privacy is the right of patients to choose what information they will release about themselves and to whom. Confidentiality is the obligation of public health workers to keep information about individuals restricted only to those persons who absolutely need it for the health of the community. Patients have the right to know why they are providing information, to refuse to provide information, and to expect that information will be handled as confidential.

I. Professionalism and the public trust should be maintained. To perform public health functions, including surveillance, it is essential that there is public support for professionalism among the ranks. Trust is an expression of confidence that public health workers will be fair, reliable, ethical, and competent.

VII. FRAMEWORK

The PIDSR Framework embodies an integrated functional disease surveillance and response system institutionalized from the national level down to the community level. Each level of the health care delivery system interacts with each other while performing their basic roles and responsibilities. Standard case definitions to detect priority diseases are to be used in all disease reporting units and a comprehensive flow of reporting is adopted. With the PIDSR, the local government units take an active role in disease detection and response in their respective localities while the regional and national levels will provide the necessary support and technical assistance. Policies, guidelines and trainings will also be provided by the national level. The interaction among all the levels of the health care delivery in the PIDSR system, the use of standard case definitions for priority diseases, and the adoption of a standard reporting flow will bring about harmonization and integration of disease surveillance and response in the country.

PIDSR Framework



Acronym:

CESU – City Epidemiology and Surveillance Unit
CHO – City Health Office
MESU – Municipal Epidemiology and Surveillance Unit
PESU – Provincial Epidemiology and Surveillance Unit
RESU – Regional Epidemiology and Surveillance Unit
CHD – Center for Health Development
DOH – Department of Health
NEC – National Epidemiology Center
PHO – Provincial Health Office
RHU - Rural Health Unit

VIII. IMPLEMENTING GUIDELINES

The PIDSR shall be promoted at all levels in order to create well-informed groups with increased sense of responsibility, urgency and ownership and to ensure maximum cooperation. This could be done through sensitization meetings, training workshops, advocacy campaigns using different media channels, including piggy-backing of integrated disease surveillance messages during intervention program activities. A technical assistance package that would strengthen the CHDs, PHOs, CHOs and MHOs perform their basic roles and responsibilities for surveillance and response shall be developed. The package shall be comprehensive to cover the requirements of a functional surveillance system and not just limited to skills development

B. Core Surveillance Activities

1. Case Detection, Notification, and Reporting

a. Standard case definitions shall be developed for each of the notifiable disease/syndrome.

b. Reporting of notifiable diseases/syndromes or events shall fall into two categories. These are:

1) Immediately notifiable disease/syndrome or event

Diseases under this category shall be reported within 24 hours of detections to the PHO, CHD and NEC by the fastest means possible.

a) AFP
b) Adverse Events Following Immunization (AEFI)
c) Anthrax
d) Human Avian Influenza
e) Measles
f) Meningococcal Disease
g) Neonatal Tetanus
h) Paralytic Shellfish Poisoning
i) Rabies
j) SARS

2) Weekly notifiable disease/syndrome - All cases of notifiable diseases/syndromes seen within the week shall be reported to the next higher level.

c. Zero case reporting of all notifiable diseases and syndromes shall be implemented in all levels. This means reporting of “zero case” when no cases have been detected by the reporting unit.

d. PESUs and CESUs in chartered cities shall submit their surveillance data file weekly to the RESU through e-mail or by any other means. RESUs shall also submit their weekly surveillance data file to NEC through e-mail or by any other means.

e. All government and private hospitals/clinics, MHOs and non-chartered CHOs shall designate a Disease Surveillance Coordinator (DSC).

2. Laboratory and Epidemiological Confirmation

a. Specimens collected during epidemics for laboratory confirmation may be submitted to the appropriate national reference laboratories as stipulated in the DOH Department Order No. 393-E s. 2000

Other institutions like the UPPGH National Poison Control Center and BFAD may accept specific specimens for testing. Some Regional Public Health Laboratories and Regional Hospitals also have the capacity to do microbiological testing. Private tertiary hospitals may also offer laboratory support in cases of epidemics.

b. Reference laboratories shall immediately inform NEC for any specimens received from the field for confirmation of suspected epidemics and vice versa. Reference laboratories shall process specimens and send timely results as required to each level.

c. A standard protocol for specimen collection, preparation, storage, transport and interpretation of results shall be developed and available in all levels.

d. Specimen collection kits for priority diseases (e.g., AFP, measles, and cholera) shall be available at the regional and provincial levels.

e. A mechanism for building the capacity and networking of laboratories at the national and local levels and their involvement in disease surveillance shall be developed.

f. Epidemiological confirmation involves intensive case-patient investigation in the field (e.g., household, hospital or workplace). The primary purpose is to examine the patient or patients to confirm that their signs and symptoms meet the case definition. Other epidemiological information is also obtained from the patient or a family member who can speak for the patient.

3. Data Analysis and Interpretation

a. Data management shall be strengthened at all levels, with focus on the health facility and local levels. This includes providing training in all aspects of information management (including data quality assurance) to relevant staff as required.

b. Computerized data management shall be strengthened at the central, regional and provincial levels. CHOs and MHOs, who have voluminous surveillance data and have the capacity to procure, operate and maintain computer equipment may opt to computerize data management.

4. Feedback

   a. Feedback to those who generated the information (e.g., local health-care providers) and those who transmitted the reports to the next higher level shall be strengthened.

   b. The MHOs and CHOs shall provide feedback to community members about reported cases and prevention activities.

   c. The PESUs and RESUs shall alert nearby areas and provinces about epidemics and give health facilities regular, periodic feedback about routine control and prevention activities.

   d. The National Epidemiology Center shall develop and periodically distribute disease surveillance bulletins to all levels of the surveillance system. In addition, NEC shall maintain a website that provides information on disease trends, progress towards achievement of goals and reports on investigation and control of epidemics.

C. Epidemic Detection and Response

1. Detection - All suspected epidemics, including unofficial reports, shall be assessed by the National Epidemiology Center in coordination with the CHD, local government units, government agencies and other parties directly or indirectly involved in the investigation and control of epidemics.

2. Verification – Municipal and city health offices shall promptly verify reports of epidemics received from health facilities or through community rumors and notify the next higher level.

3. Declaration of an Epidemic

   a. Declaration of an epidemic should be supported by sufficient scientific evidence. These include:

      1) Surveillance information
      2) Epidemiologic investigation (descriptive or analytic)
      3) Environmental investigation
      4) Laboratory investigation

   b. The municipal/city health office can declare an epidemic if it has a functional surveillance system, otherwise the next higher level may provide technical assistance in the declaration of an epidemic.

   c. The DOH Rules and Regulations Implementing the Local Government Code of 1991 (**DOH RRILGC of 1991**), Chapter 11, Section 44 c, specifies that the Department of Health has the final decision regarding the presence of epidemic, pestilence, or other widespread public health danger in a particular area or region. In compliance to this rule, the Secretary of Health shall have the sole authority to affirm or reverse any declaration of an epidemic.

   d. The Secretary of Health shall have the sole authority to declare epidemics of national and/or international importance. These include the following:

1) *Epidemic linked to nationally or internationally distributed product*: Epidemic linked by investigation to a product that has national or international distribution, such as a manufactured food item, have the potential to affect individuals in municipalities and cities simultaneously.

2) *Case(s) of exotic disease acquired locally*: All cases of illness due to communicable diseases that are not endemic in the Philippines should be investigated rapidly to confirm whether the illness has been acquired locally or from overseas. Human avian influenza, SARS, Ebola, poliomyelitis are among the exotic diseases that are of national importance.

3) *Diseases with high pathogenicity*: Epidemics of highly-virulent organisms (e.g., Ebola) are likely to cause heightened public concern, and may require technical expertise and collaboration at the national level.

4) *Diseases with significant risk of international spread*.

5) Epidemics in tourist facilities, among foreign travelers or at national/international events.

6) *Epidemics associated with health service failure*: Epidemics linked to breakdown in standards of health care delivery, such as infection control failure, blood product contamination or systematic immunization failure will require a strategic national approach.

4. Containment

a. Once the presence of an epidemic is verified, the MHO/CHO shall activate the epidemic response team. The team shall conduct a full epidemiologic investigation and implement appropriate control measures immediately.

b. In instances where the MHO or CHO have no technical capacity to respond to an epidemic, the MHO or CHO shall immediately request for assistance either from the PHO, CHD or DOH central office.

c. The Department of Health through the National Epidemiology Center in coordination with CHD-RESU shall provide immediate on-site technical assistance to the LGU in epidemic investigation in the following conditions:

1) The epidemic is continuing (i.e., there is evidence of ongoing transmission).
2) Similar epidemics have occurred before, or are expected in the future, and more information is needed to develop preventive measures.
3) The epidemic is having, or likely to have, a very high impact on public health because of its size and/or the severity of illness.
4) The epidemic has attracted public, media or political interest.
5) The epidemic transmission route is new or unusual.
6) The causative agent is unknown.
7) Descriptive characteristics of the epidemic (time, place, person or organism subtype) suggest that a common source is highly likely.

d. The National Epidemiology Center in coordination with the CHD, local government unit and other concerned agencies shall take the lead in the investigation of epidemics of national and international.

D. Support to Surveillance

1. Staffing

a. City and Municipal Health offices shall designate one Medical or Nurse Disease Surveillance Officer and one Surveillance Assistant for surveillance activities.
b. Provincial Health Offices shall establish their Provincial Epidemiology and Surveillance Units and provide for one full-time Provincial Medical or Nurse Disease Surveillance Officer, one full-time Surveillance Assistant, and one full-time Surveillance Clerk.

2. Training and Education

a. The National Epidemiology Center shall develop PIDSR training modules. This modular training course, which will form part of the PIDSR Systems Development Technical Assistance Package, will have a specific module applicable to different types of surveillance staff at different levels.

b. The PIDSR training program shall be established and institutionalized at the regional and provincial levels. The training shall be offered on a regular basis to train new surveillance and response staff at the provincial and local levels.

c. The National Epidemiology Center shall develop and implement advanced courses, training programs or seminars on specific areas of public health surveillance.

d. Annual disease surveillance conferences shall be organized at the national and/or regional levels. This will be attended by ESU staff, DSCs, representatives from the public and private sectors.

e. The National Epidemiology Center shall continue to operate the Field Epidemiology Training Program (FETP). Physicians employed in CHDs, PHOs and CHOs who will be designated to head the RESU, PESU or CESU shall be given priority for this 2-year course on field epidemiology.

3. Supervision - Periodic technical supervision shall be conducted by the national and regional offices to track the progress in the implementation of the integrated disease surveillance and response system.

4. Communication - Functional communication networks shall be established among all levels to strengthen the reporting and dissemination of information.

5. Financing - It is highly recommended that PESUs, CESUs and RHUs shall be provided with a line item budget using appropriate local funds (e.g. calamity/disaster preparedness funds). The funds will be used to defray the operational costs of equipment, supplies, transportation, communications and logistics needed to support the ESU and response to epidemics.

E. Infrastructure

1. Epidemiology and Surveillance Units (ESU) shall be established/strengthened at the CHD, PHO, CHO and RHU levels.

IX. MONITORING AND EVALUATION

A. A monitoring system shall be established to track the implementation of planned surveillance activities and of the overall performance of surveillance and response systems.

B. The PIDSR system shall be evaluated every two years or as needed.

X. IMPLEMENTING MECHANISM

Roles and Responsibilities

A. DOH

1. National Epidemiology Center

a. Assess all reported epidemics within 48 hours.

b. Notify WHO when the assessment indicates that the event is a public health emergency of international concern (PHEIC).

c. Determine rapidly the control measures required to prevent domestic and international spread of disease.

d. Provide support through specialized staff and logistical assistance during epidemic investigation and response.

e. Establish effective networking with other relevant government agencies at the national level and local level.

f. Provide direct operational link with senior health and other officials at the national and local levels to approve rapidly and implement containment and control measures.

g. Facilitate the dissemination of information and recommendations from DOH Central office and WHO regarding local and international public health events to the concerned agencies and institutions.

h. Initiate the development and implementation of the integrated national epidemic preparedness and response plan.

i. Facilitate the budget allocation for surveillance and response at the regional health offices.

j. Oversee the design and implementation of PIDSR.

2. Bureau of Quarantine

    a. Develops and ensures compliance to protocols and field operation guidelines on entry/exit management of persons, conveyances and goods in coordination with airport and port authorities.

    b. Conducts surveillance in ports and airports of entry and sub-ports as well as the airports and ports of origin of international flights and vessels

    c. Monitors public health threats in other countries

    d. Provides effective networking and collaboration among the Bureau of Quarantine stakeholders

    e. Assist in the development and implementation of the integrated national epidemic preparedness and response plan.

3. National Center for Disease Prevention and Control

    a. Provides updates, technical advice and recommendations on the recognition, prevention and control of diseases

    b. Assist in the development and implementation of the integrated national epidemic preparedness and response plan.

    c. Organize the DOH Management Committee for the Prevention and Control of Emerging and Re-emerging Infectious Diseases

4. Health Emergency Management Staff

    a. Acts as the DOH coordinating unit and operations center for all health emergencies, disasters and incidents with potential of becoming an emergency

    b. Assist in the development and implementation of the integrated national epidemic preparedness and response plan.

5. Center for Health Development

    a. Provide on-site assistance (e.g., technical, logistics, and laboratory analysis of samples) as requested to supplement local epidemic investigations and control.

    b. Establish, operate and maintain a regional epidemic preparedness and response plan, including the creation of multidisciplinary/multisectoral teams to respond to events that may constitute a public health emergency of local and international concern;

    c. Assess reported epidemics immediately and report all essential information to DOH central office.

    d. Provide direct liaison with other regional government agencies

e. Provide a direct operational link with senior health and other officials at the regional level

f. Facilitate submission of weekly notifiable disease surveillance reports from public and private hospitals.

g. Provide technical and logistical assistance in the establishment of ESUs at the provincial/city/municipal health offices.

h. Ensure the functionality of the regional disease surveillance and response system.

i. The Hospital Licensing Team at the CHDs shall track and monitor the compliance of public and private hospitals in the implementation of PIDSR as part of the requirements for renewals of license to operate. The team will inform the CHDs/PHOs/LGUs of activities taken against non-complying hospital institutions. Likewise, CHOs/MHOs/PHOs shall report to the CHDs hospitals and related facilities that fail to comply with the PIDSR reporting requirements. The regional director shall issue a regional order to enforce compliance.

j. Create Epidemic Management Committee (EMC) at the regional level.

B. LGUs

1. Provincial Health Office

a. Set up and maintain a functional provincial disease surveillance system equipped with the necessary resources and adequate local financial support. Financial support may come from the disaster, calamity or other appropriate funding sources as determined by the provincial government officials.

b. Collect, organize, analyze and interpret surveillance data in their respective areas.

c. Report all available essential information (e.g., clinical description, laboratory results, numbers of human cases and deaths, sources and type of risk) immediately to the next higher level.

d. Assess reported epidemics immediately and report all essential information to CHD and DOH central office.

e. Provide on-site assistance (e.g., technical, logistics, and laboratory analysis of samples) as requested to supplement local epidemic investigations and control.

f. Facilitate submission of weekly notifiable disease surveillance reports from public and private hospitals.

g. Establish, operate and maintain a provincial epidemic preparedness and response plan, including the creation of multidisciplinary/multisectoral teams to respond to events that may constitute a public health emergency of local and international concern

h. Create Epidemic Management Committee (EMC) at the provincial level.

2. Municipal/City Health Office

   a. Set up and maintain a functional municipal/city/community disease surveillance system equipped with the necessary resources and adequate local financial support. Financial support may come from the disaster, calamity or other appropriate funding sources as determined by the municipal/city government officials.

   b. Collect, organize, analyze and interpret surveillance data in their respective areas.

   c. Report all available essential information (e.g., clinical description, laboratory results, numbers of human cases and deaths, sources and type of risk) immediately to the next higher level.

   d. Implement appropriate epidemic control measures immediately.

   e. Establish, operate and maintain a municipal/city epidemic preparedness and response plan, including the creation of multidisciplinary/multisectoral teams to respond to events that may constitute a public health emergency.

   f. Facilitate submission of weekly notifiable disease surveillance reports from public and private hospitals.

C. Philippine Health Insurance Corporation (PHIC)

The Philippine Health Insurance Corporation shall support the implementation of PIDSR in hospitals and private practitioners by using its accreditation authority and reimbursement of claims as a leverage to encourage compliance. A letter or memorandum from PHIC shall be issued to this effect.

XI. REPEALING CLAUSE

The provisions of previous Orders and other related issuances inconsistent or contrary with the provisions of this Administrative Order are hereby revised, modified, repealed or rescinded accordingly. All other provisions of existing issuances which are not affected by this Order shall remain valid and in effect.

XII. EFFECTIVITY

This order shall take effect immediately.

FRANCISCO T. DUQUE III, MD, MSc
Secretary of Health

Annex 2: Guide in the Establishment and/or Strengthening Of Epidemiology and Surveillance Units

I. Introduction

The establishment of the Philippine Integrated Disease Surveillance and Response System (PIDSR) is aimed at putting in place a system that would result in the reduction of mortality, morbidity and disability caused by communicable diseases and related conditions. One of the important provisions in the PIDSR is the strengthening of the capacity of the local government units to perform critical disease surveillance and response functions. To facilitate the achievement of this capacity-building objective and to provide guidance to DOH and LGUs in setting-up local epidemiological surveillance and response units, these ESR standards and guidelines are hereby proposed:

II. Standards and Guidelines by Level

A. Municipal/City/Community Level

Functions:

1. Organize data collection and gather epidemiological data from their health facilities (RHUs, Health Centers, BHS, satellite clinics, etc);
2. Prepare and periodically update graphs, tables and charts to describe time, place and person for Notifiable / Reportable diseases and conditions;
3. Analyze data and provide feedback to health facilities and local leaders;
4. Identify and inform concerned personnel (RHP, PHN, RHMs, and BHWs) immediately of any disease or condition in their expected areas that:
    - exceeds an epidemic threshold
    - occurs in locations where it was previously absent
    - occurs more often in a population group than previously
    - presents unusual trends or patterns
5. Carry out outbreak investigations
6. Implement preliminary control measures immediately if required; and
7. Forward epidemiological data to the next level on a regular basis and in accordance with the national surveillance protocol
8. Use epidemiological data to plan and implement communicable disease control activities at the municipal and city level

Standard Requirements for:

1. Staffing - One Medical or Nurse Epidemiologist, One Epidemiology Assistant
2. Physical – office, computer workstation, internet connection, and fax services

B. Provincial Level

Functions:

1. Organize data collection and gather epidemiological data from their sentinel sites (Provincial Hospital, District Hospitals, etc.);
2. Prepare and periodically update graphs, tables, and charts to describe time, place and person for Notifiable / Reportable diseases and conditions;
3. Analyze data and provide feedback to health facilities and provincial leaders;
4. Identify and inform MHOs or CHOs immediately of any disease or condition in their expected areas that:
    - exceeds an epidemic threshold
    - occurs in locations where it was previously absent
    - occurs more often in a population group than previously
    - presents unusual trends or patterns
5. Confirm the status of reported events from the municipalities and cities and to support or implement additional control measures if necessary;
6. Assess reported events immediately and, if found urgent, to report all essential information to CHD and DOH central office. Urgent events are those with serious public health impact and/or unusual or unexpected nature with high potential for spread.
7. Provide on-site assistance (e.g., technical, logistics, laboratory analysis of samples) as required to supplement local investigations at the municipal and city level;
8. Establish, operate and maintain a public health emergency response plan, including the creation of multi-sectoral teams to respond to events that may constitute a public health emergency of local and international concern;
9. Notify DOH central office all reported urgent events within 24 hours as required in the IHR-2005;
10. Forward epidemiological data to the next level on a regular basis and in accordance with the national surveillance protocol
11. Use epidemiological data to plan and implement communicable disease control activities at the provincial level
12. Support municipal and city surveillance teams in strengthening surveillance and epidemic response through training & supervision.

Standard Requirements for:

1. Staffing – One full-time Provincial Medical or Nurse Epidemiologist, One full-time Epidemiology Assistant, and One full-time Epidemiology Clerk
2. Physical – office, computer workstation, internet connection, fax services, and copier

Annex 3: Standard Case Definitions for Identification and Reporting of Diseases, Syndromes and Health Events under Surveillance

The following are the standard case definitions for Identification and Reporting of Diseases, Syndromes and Health Events under Surveillance

Standard Case Definitions for Identification and Reporting of Diseases, Syndromes and Health Events under Surveillance

Diseases	*Standard Case Definition/Classification:*
Category I: Immediately Notifiable within 24 hours	
▪ **Acute Flaccid Paralysis**	▪ Any child less than 15 years of age with acute onset of floppy paralysis, **OR** ▪ A person of any age in whom poliomyelitis is suspected by a physician. **Hot Case Description:** ▪ An AFP case that is <5 years old with < 3 doses of OPV and has fever at the onset of asymmetrical paralysis, **OR** ▪ An AFP case or a person of any age whose stool specimen(s) has poliovirus isolate.
▪ **Adverse Events Following Immunization**	▪ ***Suspected AEFI case:*** Any individual that experience a serious condition any time after he or she received an immunization and is considered by a health worker (e.g., midwife, nurse, physician) to be possibly related to that immunization.
▪ **Anthrax**	▪ ***Suspected case:*** A person with acute onset of illness characterized by several clinical forms as follows: a. *localized form:* - *cutaneous:* skin lesion evolving over 1 to 6 days from a papular through a vesicular stage, to a depressed black eschar invariably accompanied by edema that may be mild to extensive; b. *systemic forms:* - *gastro-intestinal:* abdominal distress characterized by nausea, vomiting, anorexia and followed by fever; - *pulmonary (inhalation):* brief prodrome resembling acute viral respiratory illness, followed by rapid onset of hypoxia, dyspnea and high temperature, with X-ray evidence of mediastinal widening;

Standard Case Definitions for Identification and Reporting of Diseases, Syndromes and Health Events under Surveillance

	- *meningeal*: acute onset of high fever possibly with convulsions, loss of consciousness, meningeal signs and symptoms; commonly noted in all systemic infections; **AND** has an epidemiological link to a suspected or confirmed animal cases or contaminated animal products. ▪ ***Probable case:*** A suspected case that has a positive reaction to allergic skin test (in non-vaccinated individuals); ▪ ***Confirmed case:*** A suspected case that is laboratory-confirmed.
▪ **Human Avian Influenza**	▪ ***Suspected Human Avian Influenza:*** A suspect ILI case with exposure to sudden bird deaths (sudden bird deaths in two or more households in a barangay or death of at least 3% of commercial flock increasing twice daily for 2-3 consecutive days) OR confirmed human avian influenza case ▪ ***See Influenza-like Illness below***
▪ **Measles**	▪ ***Suspected case:*** Any individual, regardless of age, with the following signs and symptoms: - history of fever (38°C or more) or hot to touch; and - generalized non-vesicular rash of 3 or more days duration; and, - at least one of the following: cough, coryza, or conjunctivitis ▪ ***Laboratory-confirmed case:*** Suspected case that is laboratory confirmed ▪ ***Epidemiologically-linked:*** An epidemiologically-linked measles case is defined as a suspected measles case who was not discarded and who: - had contact with another epidemiologically-linked case or a laboratory confirmed case 7-21 days before rash onset and - the other epidemiologically-linked or laboratory confirmed case was infectious at the time of contact (i.e., contact was 4 days before to 4 days after rash onset in the other epidemiologically-linked or laboratory confirmed case) ▪ ***Clinically-confirmed:*** A suspected measles case, that, for any reason, is not completely investigated* (e.g. death before investigation, no blood sample) or has equivocal laboratory test results. *Such cases represent failures of the surveillance system to adequately classify a case. ▪ ***Discarded or not measles case:*** A suspect measles case with an adequate specimen that is not serologically confirmed or is confirmed positive for other diseases such as rubella or dengue.

Standard Case Definitions for Identification and Reporting of Diseases, Syndromes and Health Events under Surveillance

▪ **Meningococcal Disease**	▪ ***Suspected case:*** A person with sudden onset of fever (>38.5°C rectal or >38.0°C axillary) and one or more of the following: - neck stiffness - altered consciousness - other meningeal signs - petechial or purpural rash Note: In patients <1 year, suspect meningitis when fever is accompanied by bulging fontanels ▪ ***Probable case:*** A suspected case as defined above and: Turbid CSF (with or without positive Gram stain) or ongoing epidemic and epidemiological link to a confirmed case. ▪ ***Confirmed case:*** A suspected or probable case with laboratory confirmation.
▪ **Neonatal Tetanus**	▪ ***Suspected Case****:* Any neonatal death between 3-28 days of age in which the cause of death is unknown; or any neonate reported as having suffered from neonatal tetanus between 3-28 days of age and not investigated. ▪ ***Probable Case:*** Not applicable ▪ ***Confirmed Case****:* Any neonate (≤ 28 days of life) that sucks and cries normally during the first 2 days of life, and becomes ill between 3 to 28 days of age and develops an inability to suck and diffuse muscle rigidity (stiffness), which may include trismus, clenched fists or feet, continuously pursed lips, and/or curved back (opisthotonus). ***OR*** A neonate diagnosed as a case of tetanus by a physician. NOTE*:* ▪ *Since case classification is based solely on clinical criteria. Any neonatal death occurring in babies 3-28 days old with no apparent cause should be suspected as NT and evaluated according to the above criteria.* ▪ *In calculating age, the day of birth is considered the first day of life (i.e., the baby is 1 day old on the day it is born).*
▪ **Paralytic Shellfish Poisoning**	▪ ***Suspected case:*** A person who develops one or more of the following signs and symptoms after taking shellfish meal or soup: - *Sensory :* paresthesias (tingling sensations on skin), numbness (lack of sensation) of the oral mucosa and lips, numbness of the extremities - *Motor:* difficulty in speaking, swallowing, or breathing, weakness or paralysis of the extremities

Standard Case Definitions for Identification and Reporting of Diseases, Syndromes and Health Events under Surveillance	
	▪ ***Probable Case:*** Not applicable ▪ ***Confirmed case:*** A suspected case in which laboratory tests (biologic or environmental) have confirmed exposure.
▪ **Rabies**	▪ ***Suspected Case:*** A person presenting with an acute neurological syndrome (encephalitis) dominated by forms of hyperactivity (furious rabies) or paralytic syndromes (dumb rabies) that progresses towards coma and death, usually by respiratory failure, within 7 to 10 days after the first symptom if no intensive care is instituted. Note: Bites or scratches from a suspected animal can usually be traced back in the patient medical history. The incubation period may vary from days to years but usually falls between 30 and 90 days. ▪ ***Probable case:*** A suspected case plus history of contact with suspected rabid animal. ▪ ***Confirmed case:*** A suspected case that is laboratory confirmed.
▪ **Severe Acute Respiratory Syndrome (SARS)**	▪ ***Suspected Severe Acute Respiratory Syndrome (SARS) case:*** A suspect ILI case with exposure to confirmed SARS case. ▪ ***See Influenza-like Illness below***
Category II: Weekly Notifiable	
▪ **Acute Bloody Diarrhea**	▪ A person with acute diarrhea with mucus or visible blood in the stool.
▪ **Acute Encephalitis Syndrome**	▪ ***Suspected case:*** A person with acute onset of fever and a change in mental status (confusion, disorientation, coma, or inability to talk) and/or new onset of seizures (excluding simple febrile seizures) ▪ ***"Acute encephalitis syndrome" – other agent:*** A suspected case in which diagnostic testing was performed and an etiological agent other than JE virus is identified. ▪ ***"Acute encephalitis syndrome" – unknown:*** A suspected case in which testing was performed but no etiological agent was identified or in which the test results were indeterminate. ▪ ***Probable JE:*** A suspected case that occurs in close geographic and temporal relationship to a laboratory-confirmed case of JE, in the context of an outbreak. ▪ ***Laboratory-confirmed Japanese Encephalitis (JE):*** A suspected case that has been laboratory-confirmed as JE.

Standard Case Definitions for Identification and Reporting of Diseases, Syndromes and Health Events under Surveillance

▪ **Acute Hemorrhagic Fever Syndrome**	▪ Any hospitalized person with acute onset of fever of less than 3 weeks duration and with any two of the following: - hemorrhagic or purpuric rash - epistaxis (nose bleeding) - hematemesis (vomiting of blood) - hemoptysis (coughing out blood) - blood in stools - other hemorrhagic symptoms **AND the diagnosis is not Dengue**
▪ **Acute Viral Hepatitis**	▪ ***Suspected case:*** A person with acute illness characterized by acute jaundice, dark urine, loss of appetite, body weakness, extreme fatigue, and high upper quadrant tenderness. ▪ ***Probable :*** Not applicable ▪ ***Confirmed Case:*** A suspected case that is laboratory confirmed.
▪ **Bacterial Meningitis**	▪ ***Suspected case:*** A person with sudden onset of fever (≥ 38.50^{o}C rectal or 38^{o}C axillary) and one of the following signs: - neck stiffness, - altered consciousness, - other meningeal sign. ▪ ***Probable case:*** A suspected case with CSF examination showing at least one of the following: - turbid appearance; - leukocytosis (>100 cells/ mm3); - leukocytosis (10-100 cells/ mm3) AND either an elevated protein (>100 mg/dl) or decreased glucose (<40mg/dl) ▪ ***Confirmed case:*** A suspected case that is laboratory-confirmed. ***Note: Identified Neisseria meningitides cases shall be reported as confirmed Meningococcal Disease***
▪ **Cholera**	▪ ***Suspected case***: - ***Disease unknown in the area:*** A person aged 5 years or more with severe dehydration or who died from acute watery diarrhea, **OR** - ***Disease endemic in the area:*** A person aged 5 years or more with acute watery diarrhea with or without vomiting, **OR** - ***In an area where there is a cholera epidemic:*** A person with acute watery diarrhea, with or without vomiting.

Standard Case Definitions for Identification and Reporting of Diseases, Syndromes and Health Events under Surveillance

	▪ ***Probable****:* Not applicable ▪ ***Confirmed case****:* A suspected case that is laboratory-confirmed. *Note: Cholera does appear in children under 5 years; however, the inclusion of all cases of acute watery diarrhea in the 2-4 year age group in the reporting of cholera greatly reduces the specificity of reporting. For management of cases of acute watery diarrhea in an area where there is a cholera epidemic, cholera should be suspected in all patients.*
▪ **Dengue**	▪ ***Suspected Case:*** A person with an acute febrile illness of 2-7 days duration with 2 or more of the following: headache, retro-orbital pain, myalgia, arthralgia, rash, hemorrhagic manifestations, leucopenia. ▪ ***Probable Case:*** A suspected case with one or more of the following: Supportive serology (reciprocal hemagglutination-inhibition antibody titer ≥ 1280), comparable IgG EIA titer or positive IgM antibody test in late acute or convalescent-phase serum specimen. ▪ ***Confirmed Case:*** A suspected case that is laboratory confirmed **TYPES:** ▪ ***Dengue Hemorrhagic Fever:*** A probable *or* confirmed case of dengue **AND** Hemorrhagic tendencies evidenced by one or more of the following: - positive tourniquet test, - petechiae, ecchymoses or purpura, - Bleeding: mucosa, gastrointestinal tract, injection sites or other hematemesis or melena **AND** thrombocytopenia (100,000 cells or less per mm3) **AND** evidence of plasma leakage due to increased vascular permeability. ▪ ***Dengue Shock Syndrome:*** All the above criteria, plus evidence of circulatory failure manifested by rapid and weak pulse, and narrow pulse pressure (20 mm Hg) or hypotension for age, cold, clammy skin and altered mental status.
▪ **Diphtheria**	▪ ***Suspected case:*** Not applicable ▪ ***Probable case:*** A person with an illness of the upper respiratory tract characterized by laryngitis or pharyngitis or tonsillitis, and adherent membranes on tonsils, pharynx and/or nose ▪ ***Confirmed case:*** A probable case that is laboratory confirmed or

Standard Case Definitions for Identification and Reporting of Diseases, Syndromes and Health Events under Surveillance

	linked epidemiologically to a laboratory confirmed case ▪ Note: Persons with positive *Corynebacterium diphtheriae* cultures who do not meet the clinical description (i.e. asymptomatic carriers) should not be reported as probable or confirmed diphtheria cases.
▪ **Influenza-like Illness**	▪ ***Suspected case:*** A person with sudden onset of fever of ≥38°C and cough or sore throat in the absence of other diagnoses. ▪ ***Probable case:*** Not applicable ▪ ***Confirmed case***: A suspected case that is laboratory-confirmed (used mainly in epidemiological investigation rather than surveillance). ▪ ***Suspected Human Avian Influenza:*** A suspect ILI case with exposure to sudden bird deaths *(sudden bird deaths in two or more households in a barangay or death of at least 3% of commercial flock increasing twice daily for 2-3 consecutive days)* OR confirmed human avian influenza case ▪ ***Suspected Severe Acute Respiratory Syndrome (SARS) case:*** A suspect ILI case with exposure to confirmed SARS case.
▪ **Leptospirosis**	▪ ***Suspected case:*** A person who developed acute febrile illness with headache, myalgia and prostration associated with any of the following: - conjunctival suffusion, - meningeal irritation, - anuria or oliguria and/or proteinuria, - jaundice, - hemorrhages (from the intestines or lungs), - cardiac arrhythmia or failure, - skin rash **AFTER** exposure to infected animals or an environment contaminated with animal urine (e.g. wading in flood waters, rice fields, drainage). ▪ ***Probable case:*** Not applicable ▪ ***Confirmed case:*** A suspect case that is laboratory confirmed
▪ **Malaria**	<u>*Uncomplicated malaria:*</u> Signs and symptoms vary; most patients experience fever. Splenomegaly and anemia are common associated signs. Common but non-specific symptoms include otherwise unexplained headache, back pain, chills, sweating, myalgia, nausea, vomiting. <u>*Severe malaria*:</u> Coma, generalized convulsions, hyperparasitemia,

Standard Case Definitions for Identification and Reporting of Diseases, Syndromes and Health Events under Surveillance

	normocytic anemia, disturbances in fluid, electrolyte, and acid-base balance, renal failure, hypoglycemia, hyperpyrexia, hemoglobinuria, circulatory collapse/shock, spontaneous bleeding (disseminated intravascular coagulation) and pulmonary edema. ***In areas WITHOUT access to laboratory-based diagnosis***: ▪ ***Probable uncomplicated malaria case:*** A person with signs (fever, splenomegaly, anemia) and/or symptoms (unexplained headache, back pain, chills, sweating, myalgia, nausea, vomiting) of malaria who receives anti-malarial treatment. ▪ ***Probable severe malaria case***: A person who requires hospitalization for symptoms and signs of severe malaria (coma, generalized convulsions, hyperparasitemia, normocytic anemia, disturbances in fluid, electrolyte, and acid-base balance, renal failure, hypoglycemia, hyperpyrexia, hemoglobinuria, circulatory collapse/shock, spontaneous bleeding, disseminated intravascular coagulation, and pulmonary edema) and receives anti-malarial treatment. ▪ ***Probable malaria death:*** death of a patient diagnosed with probable severe malaria ***In areas WITH access to laboratory-based diagnosis:*** ▪ ***Asymptomatic malaria:*** A person with no recent history of symptoms and/or signs of malaria who shows laboratory confirmation of parasitemia. ▪ ***Confirmed uncomplicated malaria case:*** A person with signs (fever, splenomegaly, anemia) and/or symptoms (unexplained headache, back pain, chills, sweating, myalgia, nausea, vomiting) of malaria who receives anti-malarial treatment AND with laboratory confirmation of diagnosis. ▪ ***Confirmed severe malaria case:*** A person who requires hospitalization for symptoms and signs of severe malaria (coma, generalized convulsions, hyperparasitemia, normocytic anemia, disturbances in fluid, electrolyte, and acid-base balance, renal failure, hypoglycemia, hyperpyrexia, hemoglobinuria, circulatory collapse/shock, spontaneous bleeding, disseminated intravascular coagulation, and pulmonary edema) and receives anti-malarial treatment AND with laboratory confirmation of diagnosis (microscopy or RDT). ▪ ***Confirmed malaria death:*** death of a patient classified as confirmed severe malaria. ▪ ***Malaria Treatment Failure:*** A patient with uncomplicated malaria without any clear symptoms suggesting another concomitant disease who has taken a correct dosage of anti-malarial treatment, and who presents with clinical deterioration or recurrence of symptoms within 14 days of the start of treatment, in combination

Standard Case Definitions for Identification and Reporting of Diseases, Syndromes and Health Events under Surveillance

	with parasitemia (asexual forms).
▪ **Non-Neonatal Tetanus**	▪ ***Suspected case:*** Not applicable ▪ ***Probable case:*** Not applicable ▪ ***Confirmed case:*** Acute onset of hypertonia and/or painful muscular contractions (usually muscles of the neck and jaw) and generalized muscle spasms without apparent medical cause as reported by a health care professional.
▪ **Pertussis**	▪ ***Suspected case:*** A person with a cough lasting at least 2 weeks with at least one of the following: - paroxysms (i.e. fits) of coughing - inspiratory "whooping" - post-tussive vomiting (i.e. vomiting immediately after coughing) - without other apparent cause ▪ ***Probable case:*** Not applicable ▪ ***Confirmed case:*** A suspected case that is laboratory-confirmed.
▪ **Typhoid and Paratyphoid Fever**	▪ ***Suspected case:*** A person with an illness characterized by insidious onset of sustained fever, headache, malaise, anorexia, relative bradycardia, constipation or diarrhea, and non-productive cough. ▪ ***Probable case:*** A suspected case that is epidemiologically linked to a confirmed case in an outbreak or, a suspected case positive for Typhidot test. ▪ ***Confirmed case:*** A suspected or probable case that is laboratory confirmed.

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Annex 4: List of Simplified Case Definitions for Community Use

Simplified Case Definitions for Community Use	
Diseases	***Standard Case Definition/Classification:***
▪ Acute Flaccid Paralysis	▪ Any acute paralytic disease
▪ Acute Bloody Diarrhea	▪ Any person with diarrhea and visible blood in the stool
▪ Acute Hemorrhagic Fevers	▪ Any person who has an unexplained illness with fever and bleeding or who died after an unexplained severe illness with fever and bleeding
▪ Cholera	▪ Any person 5 years of age or more with lots of watery diarrhea stool
▪ Malaria	▪ Any person who has an illness with high fever and a danger sign ▪ *Danger signs are:* - *Unusual sleepiness,* - *unconsciousness,* - *vomits everything, convulsions, and* - *in children less than 5,unable to drink or breast- feed*
▪ Measles	▪ Any person with fever and rash
▪ Meningitis	▪ Any person with fever and neck stiffness
▪ Neonatal Tetanus	▪ Any newborn that is normal at birth, and then after 2days, becomes unable to suck or feed.

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Annex 5: The PIDSR Weekly Notifiable Disease Report Summary Page

This serves as the summary table for the weekly reporting of notifiable diseases. It also shows the category and frequency of reporting of all the notifiable disease included in the PIDSR.

Weekly Notifiable Disease Report

Summary Page

Name of Disease Reporting Unit : _____

Type of facility: ☐ Gov't Hospital ☐ Private Hospital ☐ Rural Health Unit ☐ Clinic
☐ City Health Office ☐ Gov't Laboratory ☐ Private Laboratory ☐ Seaport/Airport

Address: _____ Tel. No._____

This report was prepared by: _____ Date: ____/____/____
(Signature over printed name)

This report was submitted to
(Name of RHU/CHO/PHO/CHD): _____ Date: ____/____/____

This report was approved by: _____ Date: ____/____/____
(Name & Signature of Head of office/unit/hospital/clinic)

List of Notifiable Diseases/Syndromes

Indicate the number of case/s in the corresponding line for case/s of disease/ syndrome seen and "0" if no cases seen.

Category I (Immediately Notifiable)	Category II (Weekly Notifiable)
_____ Acute Flaccid Paralysis	_____ Acute Bloody Diarrhea
_____ Adverse Event Following Immunization (AEFI)	_____ Acute Encephalitis Syndrome
_____ Anthrax	_____ Acute Hemorrhagic Fever Syndrome
_____ Human Avian Influenza	_____ Acute Viral Hepatitis
_____ Measles	_____ Bacterial Meningitis
_____ Meningococcal Disease	_____ Cholera
_____ Neonatal Tetanus	_____ Dengue
_____ Paralytic Shellfish Poisoning	_____ Diphtheria
_____ Rabies	_____ Influenza-like Illness
_____ Severe Acute Respiratory Syndrome (SARS)	_____ Leptospirosis
	_____ Malaria
_____ Outbreaks	_____ Non-neonatal Tetanus
• Clusters of diseases	_____ Pertussis
• Unusual diseases or threats	_____ Typhoid and Paratyphoid Fever

Category I: *Notify simultaneously the PHO, CHD and NEC within **24 hours** of detection and send advance copy of the Case Investigation Form (CIF) as soon as possible.*

Category II: *Report all cases of notifiable diseases/syndromes every **FRIDAY** of the week to the next higher level using the Case Report Form (CRF).*

Reminder: *Submission of report is every **FRIDAY** of the week. The weekly report should include this page (Summary Page) , Case Investigation Forms (CIF) and the Case Report Forms (CRF).*

"Let's help prevent epidemics"

Annex 6: The PIDSR Case Investigation Forms

The following pages are the PIDSR Case Investigation Forms for the Category I (Immediately Notifiable) diseases, syndromes and health events which include the following:

- Acute Flaccid Paralysis
- Adverse Events Following Immunization
- Anthrax
- Human Avian Influenza
- Measles
- Meningococcal Disease
- Neonatal Tetanus
- Paralytic Shellfish Poisoning
- Rabies
- Severe Acute Respiratory Syndrome (SARS)

As their name imply, the forms will be used to obtain relevant information on every case seen in the health facility. The variables included are highly significant as they will become bases for the following:

- the diagnosis of the illness
- the analysis of all surveillance data by person, place and time
- the presence of an outbreak in a particular period of time in a particular geographic area
- the weekly reporting that your health facility will submit to the next higher health service level
- the promptness and type of public health action

It is therefore imperative that each case in Category I diseases, syndromes or health events will have his own PIDSR Case Investigation Form and that every sheet is accomplished completely. Failure to do so will prompt the next health service level to contact you or your staff to complete the forms. Failure would also lead to an error in analysis of the surveillance data, generation of wrong conclusions and giving out of wrong recommendations.

A review of the individual forms will be part of the monitoring and evaluation activities.

Philippine Integrated Disease Surveillance and Response

Case Investigation Form

Acute Flaccid Paralysis

Name of DRU: **Address:**	Type: ☐RHU ☐CHO ☐Gov't Hospital ☐Private Hospital ☐Clinic ☐Gov't Laboratory ☐Private Laboratory ☐Airport/Seaport

I. PATIENT INFORMATION:	Patient Number:	Patient's First Name	Middle Name	Last Name

Complete Address:	Sex:	☐Male ☐Female	Date of Birth:	MM	DD	YY	Age:	☐Days ☐Months ☐Years

Patient Admitted? ☐Yes ☐ No ☐Unknown	Date Admitted/ Seen/Consult	MM	DD	YY

Date of Report:	MM	DD	YY	Date of Investigation:	MM	DD	YY

II. CLINICAL DATA (Put a check [√] in the appropriate box)

PRODROME	PARALYSIS	SITE OF FLACCID PARALYSIS	Sensory Status	Deep Tendon Reflexes	Motor Status
Fever: ☐ Y ☐ N ☐ U Cough: ☐ Y ☐ N ☐ U Diarrhea/Vomiting: ☐ Y ☐ N ☐ U Muscle pain: ☐ Y ☐ N ☐ U Meningeal signs: ☐ Y ☐ N ☐ U	Date onset: _____/_____/_____ Present at birth?: ☐ Y ☐ N ☐ U Asymmetric?: ☐ Y ☐ N ☐ U PROGRESSION Paralysis fully developed within 3 to 14 days from onset of illness? ☐ Y ☐ N ☐ U Direction of paralysis: ☐ Ascending ☐ Descending ☐ Unknown	Right arm: ☐ Y ☐ N ☐ U Left arm: ☐ Y ☐ N ☐ U Right leg: ☐ Y ☐ N ☐ U Left leg: ☐ Y ☐ N ☐ U Breathing muscles: ☐ Y ☐ N ☐ U Neck muscles: ☐ Y ☐ N ☐ U Facial muscles: ☐ Y ☐ N ☐ U **Working Diagnosis**: _____ _____	_____ _____ _____ _____	_____ _____ _____ _____	_____ _____ _____ _____

NOTE: Instructions on the grading/ scoring of the sensory status, deep tendon reflexes and motor status are presented at the back of this page.

III. EPIDEMIOLOGIC DATA

History of neurologic disorder?: ☐ Y ☐ N ☐ U If YES, specify disorder:_____

Did the patient travel (>10 km from house) one month prior to illness? ☐ Y ☐ N ☐ U

If YES, specify place:_____ Date traveled: From_____/_____/_____ To _____/_____/_____

Other AFP cases in patient's community within 60 days of patient's paralysis? ☐ Y ☐ N ☐ U

Does the patient had any history of injection, trauma and/ or animal bite ? ☐ Y ☐ N ☐ U

If YES, specify type _____

IV. IMMUNIZATION HISTORY

Total OPV doses received: _____ **Date last dose of OPV :** _____/_____/_____ **Is this a "Hot case"?** ☐ Y ☐ N

V. LABORATORY DATA

Stool sample #	Collected?	If YES, date taken	Date sent to RITM	Date received RITM	Result	Date result
1	☐ Y ☐ N	___/___/___	___/___/___	___/___/___	☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ NPEV ☐ Inadeq ☐ Other	___/___/___
2	☐ Y ☐ N	___/___/___	___/___/___	___/___/___	☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ NPEV ☐ Inadeq ☐ Other	___/___/___

VI. 60-DAY FOLLOW-UP

Expected date of follow-up:_____/_____/_____ Actual date of follow-up conducted:_____/_____/_____

P.E. done? ☐ Y ☐ N If NO, reason for no examination: ☐ Patient died ☐ Lost to follow-up ☐ Other, specify_____

Residual paralysis at 60 days?: ☐ Y ☐ N ☐ U Atrophy?: ☐ Y ☐ N ☐ U

Other observations:_____

VII. CLASSIFICATION (TO BE FILLED UP BY THE EXPERT PANEL ONLY)

FINAL CLASSIFICATION	IF VAPP	CLASSIFICATION CRITERIA	FINAL DIAGNOSIS
☐ Confirmed wild polio ☐ Vaccine-derived paralytic polio (VDPV) ☐ Vaccine-associated paralytic polio (VAPP) ☐ Polio compatible ☐ Discarded Date classified: _____/_____/_____	☐ Recipient VAPP ☐ Contact VAPP ☐ Unknown	☐ Laboratory ☐ EPI linked ☐ Lost to follow-up ☐ Death ☐ With residual paralysis ☐ Without residual paralysis	

Acute Flaccid Paralysis

AFP Case definition:

- Any child less than 15 years of age with acute flaccid paralysis, **OR**
- A person of any age in whom poliomyelitis is suspected by a physician.

Hot Case Description:

- An AFP case that is <5 years old with < 3 doses of OPV and has fever at the onset of asymmetrical paralysis, **OR**
- An AFP case or a person of any age whose stool specimen(s) has poliovirus isolate.

Grading/Scoring of Sensory Status, Deep Tendon Reflexes and Motor Status:

A. **Sensory status** is presented in percentage and categorized as follows:

- ≤ 25% = Absent
- ≥ 25% but <100% = Reduced
- 100% = Normal

B. Deep tendon reflexes (DTRs) are presented in (+) symbol and categorized as follows:

- none or 0 = absent
- + = reduced
- ++ = normal
- +++ with/without clonus = increased or exaggerated

C. **Motor status** is presented in fraction and categorized as follows:

- 0/5 = absent or no movement
- 1/5 to 3/5 = reduced movement (with movement but not against resistance or gravity)
- 4/5 to 5/5 = normal (movement with full resistance and against gravity)

Philippine Integrated Disease Surveillance and Response

Case Investigation Form

Adverse Event Following Immunization

Name of DRU: **Address:**	Type: ☐RHU ☐CHO ☐Gov't Hospital ☐Private Hospital ☐Clinic ☐Gov't Laboratory ☐Private Laboratory ☐Airport/Seaport

I. PATIENT INFORMATION:

Patient Number:	Patient's First Name	Middle Name	Last Name						
Complete Address:	Sex: ☐Male ☐Female	Date of Birth:	MM	DD	YY	Age:	☐Days ☐Months ☐Years		
Patient Admitted? ☐ Yes ☐No ☐Unknown	Date Admitted/ Seen/Consult	MM	DD	YY	Date Onset of Illness	MM	DD	YY	
Date next higher level notified:	MM	DD	YY	Interval from onset of illness to notification: _____days _____hours					
Date of Investigation:				Interval from notification to investigation: _____days _____hours					

II. TYPE OF SERIOUS AEFI (check all that apply) (See back page for descriptions):

1. LOCAL	2. CENTRAL NERVOUS SYSTEM	3. OTHER ADVERSE EVENTS	
☐ Injection site abscess ☐ Lymphadenitis ☐ Severe local reaction (redness and/or swelling centered at the site of injection)	☐ Acute paralysis ☐ Encephalopathy ☐ Seizures	☐ Anaphylactoid reaction ☐ Anaphylactic shock ☐ Neuritis ☐ Disseminated BCG infections ☐ Hypotensive-hyporesponsive episode (shock collaspe)	☐ Osteitis/osteomyelitis ☐ Persistent screaming (inconsolable continuous crying lasting at least 3 hours) ☐ Sepsis ☐ Thrombocytopenia ☐ Toxic shock syndrome

4. OTHER SEVERE and UNUSUAL EVENTS OCCURRING WITHIN 4 WEEKS AFTER IMMUNIZATION AND NOT COVERED UNDER ITEM NOS. 1, 2 or 3	☐ Any death of a vaccine recipient temporarily linked (within 4 weeks) to immunization, where no other clear cause of death can be established. ☐ Other severe/unusual event (specify):_____

III. VACCINATION HISTORY:

Date of vaccination:____/____/____ Time of vaccination:_____☐ AM ☐ PM

Name of vaccinator:_____ Vaccinator : ☐ Physician ☐ Nurse ☐ Midwife ☐ Other_____

Place of vaccination: ☐ Health center ☐ BHS ☐ Public hospital ☐ Private hospital ☐ Private clinic ☐ Outreach ☐ Other (specify):_____

SUSPECTED VACCINE/S	DETAILS OF VACCINE				DETAILS OF DILUENT IF USED			
(BCG, DPT, OPV, Measles, HBV, others)	Dose number	Lot/Batch number	Manufacturer	Expiry date	Dose number	Lot/Batch number	Manufacturer	Expiry date

Did the patient receive any vaccination within 4 weeks prior to this adverse event? ☐ Y ☐ N ☐ U

If YES, complete the information below.

VACCINE/S	DETAILS OF VACCINE				
(BCG, DPT, OPV, Measles, HBV, others)	Dose number	Lot/Batch number	Manufacturer	Expiry date	Date given

IV. MEDICAL HISTORY:

Did the patient take other medications at the time of vaccination?

☐ Y ☐ N ☐ U

If YES, what were these medications? _____

_____

Does the patient had history of similar reaction? ☐ Y ☐ N ☐ U

Does the patient had history of allergy? ☐ Y ☐ N ☐ U

If YES, what are these allergies?_____

Birth defects: ☐ Y ☐ N ☐ U

Family history of similar event? ☐ Y ☐ N ☐ U

Is the patient suffering from other medical conditions?

☐ Y ☐ N ☐ U

If YES, what are these conditions?

_____

_____

CASE DEFINITION:

- ***Suspected AEFI case***: Any individual that experience a serious condition any time after he or she received an immunization and is considered by a health worker (e.g., midwife, nurse, physician) to be possibly related to that immunization.

Case Investigation Form

Adverse Event Following Immunization

V. CAUSALITY ASSESSMENT AND FINAL DIAGNOSIS:
(TO BE FILLED UP AFTER CLASSIFICATION BY THE BOARD)

What is the cause of AEFI?
- ☐ Program-related
- ☐ Vaccine-related
- ☐ Coincidental
- ☐ Unknown

If program-related, was it due to
- ☐ non-sterile injection ☐ vaccine prepared incorrectly
- ☐ wrong administration technique
- ☐ improper vaccine transport or storage
- ☐ Other, specify_____

Final diagnosis:_____

VI. OUTCOME:

Outcome: ☐ Alive Patient sustained disability? ☐ Yes ☐No ☐Unknown

If YES, specify type of disability:_____

☐ Died Date died: ____/____/____

☐ Unknown

Definition of Terms:

- An ***adverse*** event following immunization (AEFI) is defined as a medical incident that takes place after an immunization, causes concern, and is believed to be caused by immunization.
- A cluster of AEFI is defined as two or more cases of the same adverse event related in time, place or vaccine administered.
- Serious medical condition is defined as those that are life-threatening and those that result in hospitalization (or prolonged hospitalization), disability (or have the potential to result in disability) or death.

LOCAL ADVERSE EVENTS:

- ***Injection-Site Abscess:*** Occurrence of a fluctuant or draining fluid-filled lesion at the site of injection with or without fever.
- ***Lymphadenitis (includes suppurative lymphadenitis):*** Occurrence of either: at least one lymph node, 1.5 cm in size (one adult finger width) or larger; or a draining sinus over a lymph node. Almost exclusively caused by BCG and then occurring within 2 to 6 months after receipt of BCG vaccine, on the same side as inoculation (mostly axillary).
- ***Severe local reaction:*** Redness and/or swelling centered at the site of injection and one or more of the following: swelling beyond the nearest joint; pain, redness and swelling of more than 3 days duration; or requires hospitalization.

CENTRAL NERVOUS SYSTEM ADVERSE EVENTS:

- ***Acute Paralysis***
  - Acute onset of flaccid paralysis within 4 to 30 days of receipt of oral polio-virus vaccine (OPV), or within 4 -75 days after contact with a vaccine recipient, with neurological deficits remaining 60 days after onset, or death.
  - Guillain-Barré Syndrome (GBS): Acute onset of rapidly progressive, ascending, symmetrical flaccid paralysis, without fever at onset of paralysis and with sensory loss. Cases are diagnosed by cerebrospinal fluid (CSF) investigation showing dissociation between cellular count and protein content. GBS occurring within 30 days after immunization should be reported.
- ***Encephalopathy:*** Encephalopathy is an acute onset of major illness temporally linked with immunization and characterized by any two of the following three conditions: Seizures; Severe alteration in level of consciousness lasting for one day or more; and Distinct change in behavior lasting one day or more. Cases occurring within 72 hours after vaccination should be reported.
- ***Encephalitis:*** Encephalitis is characterized by encephalopathy and signs of cerebral inflammation and, in many cases, CSF pleocytosis and/or virus isolation. Any encephalitis occurring within 1 to 4 weeks following immunization should be reported.
- ***Meningitis:*** Acute onset of major illness with fever, neck stiffness/positive meningeal signs (Kernig, Brudzinski). Symptoms may be subtle to similar to those of encephalitis. CSF examination is the most important diagnostic measure: CSF pleocytosis and/or detection of microorganism (Gram stain or isolation).
- ***Seizures:*** Seizures lasting from several minutes to more than 15 minutes and not accompanied by focal neurological signs or symptoms. Febrile Seizures or Afebrile Seizures. Onset is usually 0 to 2 days.

OTHER ADVERSE EVENTS:

- ***Anaphylactoid Reaction (acute hypersensitivity reaction):*** Exaggerated acute reaction, occurring within 2 hours after immunization, characterized by one or more of the following: (1) wheezing and shortness of breath due to bronchospasm; (2) laryngospasm/laryngeal edema; (3) one or more skin manifestations, e.g. hives, facial edema, or generalized edema.
- ***Anaphylactic Shock:*** Circulatory failure (e.g. alteration of the level of consciousness, low arterial blood pressure, weakness or absence of peripheral pulses, cold extremities secondary to reduced peripheral circulation, flushed face and increased perspiration) with or without bronchospasm and/or laryngospasm/laryngeal edema leading to respiratory distress occurring immediately (0 to1 hr) after immunization.
- ***Neuritis:*** Dysfunction of nerves supplying the arm/shoulder/gluteal area without other involvement of nervous system. A deep steady, often severe aching pain in the shoulder and upper arm or gluteal area followed in days or weakness by weakness and wasting in arm/shoulder/gluteal muscles. Sensory loss may be present, but is less prominent. May present on the same or the opposite side to the injection and sometimes affects both arms or gluteal area. Onset is usually 2 to 28 days.
- ***Disseminated BCG infection:*** Disseminated infection occurring within 1 to 12 months after BCG vaccination and confirmed by isolation of Mycobacterium bovis BCG strain.
- ***Hypotensive-Hyporesponsive Episode (shock collapse):*** Sudden onset of paleness, decreased level or loss of responsiveness, decreased level or loss of muscle tone (occurring within 24 hours of vaccination). The episode is transient and self-limiting.
- ***Osteitis/Osteomyelitis:*** Inflammation of the bone either due to BCG immunization (occurring within 8 to 16 months after immunization) or caused by other bacterial infection.
- ***Persistent Screaming:*** Inconsolable continuous crying lasting at least 3 hours accompanied by high-pitched screaming. Onset 0 to 24 hrs.
- ***Sepsis:*** Acute onset of severe generalized illness due to bacterial infection and confirmed by positive blood culture.
- ***Thrombocytopenia:*** Platelet count of 100,000 cells or less per mm3. Onset is 15 to 35 days.
- ***Toxic-Shock Syndrome:*** Abrupt onset of fever, vomiting and watery diarrhea within a few hours of immunization, often leading to death within 24-48 hours.

Philippine Integrated Disease Surveillance and Response

Case Investigation Form

Anthrax

(ICD 10 Code: A22)

Name of DRU: **Address:**	Type: ☐RHU ☐CHO ☐Gov't Hospital ☐Private Hospital ☐Clinic ☐Gov't Laboratory ☐Private Laboratory ☐Airport/Seaport

I. PATIENT INFORMATION:	Patient Number:	Patient's First Name	Middle Name	Last Name

Complete Address:	Sex:	☐Male ☐Female	Date of Birth:	MM	DD	YY	Age:	☐Days ☐Months ☐Years

Occupation:	Name Workplace:
	Address of Workplace:

II. CLINICAL INFORMATION:	Admitted? ☐Yes ☐No ☐Unknown	Date Admitted/ Seen/Consult	MM	DD	YY	Date Onset of Illness	MM	DD	YY

Signs and Symptoms:			
	☐ Fever ☐ Upset stomach (nausea) ☐ Headache ☐ Dry cough ☐ Sore throat ☐ Trouble swallowing ☐ Trouble breathing	☐ Stomach pain ☐ Vomiting blood ☐ Bloody diarrhea ☐ Sweating excessively ☐ Extreme tiredness ☐ Pain or tightness in the chest ☐ Sore muscles	☐ Neck pain ☐ Itchy skin ☐ Black scab on skin ☐ Skin lesions Describe lesion: _____ _____ ☐ Other (list): _____ _____

III. POTENTIAL RISK FACTORS IN THE 15-60 DAYS PRIOR TO ONSET OF SIGNS/SYMPTOMS

☐ Y ☐ N ☐ U Is the patient's occupation associated with animals or agriculture?
☐ Y ☐ N ☐ U Has the patient been exposed to Anthrax Vaccine or to anthrax-vaccinated animals?
☐ Y ☐ N ☐ U Does the patient have occupational or other exposure to hides, wool, furs, bone meal or other animal products?
☐ Y ☐ N ☐ U Contact with live or dead animals? (cattle, sheep, goats, horses, pigs and other herbivores both livestock and wildlife)
☐ Y ☐ N ☐ U Does the patient have a history of travel **beyond his/her usual place of residence/surroundings?**
☐ Y ☐ N ☐ U Does the patient work in a laboratory?
☐ Y ☐ N ☐ U Have any household members experienced similar symptoms recently?
☐ Y ☐ N ☐ U Has the patient eaten undercooked meat? (cattle, sheep, goats, horses, pigs and other herbivores both livestock and wildlife)
☐ Y ☐ N ☐ U Did the patient receive unusual letters or packages? (e.g. containing threats or unusual messages)
☐ Y ☐ N ☐ U Has the patient opened mails for others?
☐ Y ☐ N ☐ U Was the patient present or nearby when an envelope that contained any form of powder was opened?

IV. CLINICAL FORMS, CLASSIFICATION AND OUTCOME:

CLINICAL FORMS	CASE CLASSIFICATION	OUTCOME
☐ Cutaneous ☐ Gastrointestinal ☐ Pulmonary ☐ Meningeal ☐ Unknown	☐ Suspected Case ☐ Probable Case ☐ Confirmed Case	☐ Alive ☐ Died, Date died: ____/____/____ ☐ Unknown

V. LABORATORY TESTS:

Specify Specimen	If YES, date taken MM	DD	YY	Type of laboratory test done	Results N=Negative; I=Indeterminate; U-Unknown		Date result MM	DD	YY
					Positive for:	☐N ☐I ☐U			
					Positive for:	☐N ☐I ☐U			

Case Investigation Form

Anthrax

CASE DEFINITION/CLASSIFICATION:

- ***Suspected case:*** A person with acute onset of illness characterized by several clinical forms as follows:

  a. *localized form:*

  1. *cutaneous:* skin lesion evolving over 1 to 6 days from a papular through a vesicular stage, to a depressed black eschar invariably accompanied by edema that may be mild to extensive;

  b. *systemic forms:*

  1. *gastro-intestinal: abdominal distress characterized by nausea, vomiting, anorexia and followed by fever;*
  2. *pulmonary (inhalation): brief prodrome resembling* acute viral respiratory illness, followed by rapid onset of hypoxia, dyspnea and high temperature, with X-ray evidence of mediastinal widening;
  3. *meningeal*: acute onset of high fever possibly with convulsions, loss of consciousness, meningeal signs and symptoms; commonly noted in all systemic infections;

  AND has an epidemiological link to a suspected or confirmed animal cases or contaminated animal products;

- ***Probable case:*** A suspected case that has a positive reaction to allergic skin test (in non-vaccinated individuals);
- ***Confirmed case:*** A suspected case that is laboratory-confirmed.

LABORATORY CONFIRMATION:

- Isolation of *Bacillus anthracis* from a clinical specimen (e.g., blood, lesions, discharges)
- Demonstration of *B. anthracis* in a clinical specimen by microscopic examination of stained smears (vesicular fluid, blood, cerebrospinal fluid, pleural fluid, stools)
- Positive serology (ELISA, Western blot, toxin detection, chromatographic assay, fluorescent antibody test (FAT))

Philippine Integrated Disease Surveillance and Response

Case Investigation Form

Measles

(ICD 10 Code: B05)

Name of DRU:

Address:

Type: ☐RHU ☐CHO ☐Gov't Hospital ☐Private Hospital ☐Clinic ☐Gov't Laboratory ☐Private Laboratory ☐Airport/Seaport

I. PATIENT INFORMATION:

Patient Number:

Patient's First Name | Middle Name | Last Name

Complete Address:

Sex: ☐ Male ☐ Female

Date of Birth: MM DD YY

Age: ☐ Days ☐Months ☐ Years

Patient Admitted? ☐Yes ☐ No ☐Unknown

Date Admitted/ Seen/Consult: MM DD YY

Date Onset of Illness: MM DD YY

Date of Report: MM DD YY

Date of Investigation: MM DD YY

II. CLINICAL INFORMATION:

Fever: ☐ Y ☐ N ☐ U Date onset:____/____/____

Rash: ☐ Y ☐ N ☐ U Date onset:____/____/____

Cough: ☐ Y ☐ N ☐ U

Runny nose/coryza: ☐ Y ☐ N ☐ U

Red eyes/conjunctivitis: ☐ Y ☐ N ☐ U

Other symptoms: _____

_____

Are there any complications? ☐ Y ☐ N ☐ U

If YES, specify: _____

III. VITAMIN A AND VACCINATION HISTORY:

Was the patient given therapeutic Vitamin A during this illness?:
☐ Y ☐ N ☐ U

Patient received routine measles vaccination? ☐ Y ☐ N ☐ U

No. of doses received:_____ Date of last vaccination:____/___/____

If NO, state the reasons:

☐ Mother was busy ☐ Child was sick ☐ Forgot the schedule
☐ No vaccine available ☐ Against belief
☐ Not eligible for vaccination ☐ Medical contraindication
☐ Fear of side effects
Other reasons, specify:_____

Patient received vaccination during special campaigns? ☐ Y ☐ N ☐ U

IV. EXPOSURE HISTORY:

Is there a history of travel to an area with known measles transmission 7-18 days prior to the appearance of rash? ☐ Y ☐ N ☐ U

Where did exposure probably occur?

☐Day care ☐Home/ dormitory ☐School
☐Health Care Facilities ☐Community ☐Unknown ☐Other, specify _____

Are there other measles cases in the community? ☐ Y ☐ N ☐ U

V. LABORATORY TESTS:

Specimen	Collected?	If YES, date taken	Date sent to RITM	Date re-ceived RITM	Result	Date result
Serum	☐ Y ☐ N	/ /	/ /	/ /		/ /
Dried blood	☐ Y ☐ N	/ /	/ /	/ /		/ /
NP swab	☐ Y ☐ N	/ /	/ /	/ /		/ /
Urine	☐ Y ☐ N	/ /	/ /	/ /		/ /
NP aspirate	☐ Y ☐ N	/ /	/ /	/ /		/ /
Throat swab	☐ Y ☐ N	/ /	/ /	/ /		/ /

VI. CLASSIFICATION AND OUTCOME:

CASE CLASSIFICATION	OUTCOME	FINAL DIAGNOSIS
☐ Suspected Case	☐ Alive	
☐ Laboratory Confirmed Case	☐ Died Date died: ____/____/____	
☐ Epidemiologically-linked Case	☐ Unknown	
☐ Clinically-confirmed Case		
☐ Discarded Case		

Case Investigation Form

Measles

CASE DEFINITION/CLASSIFICATION:

- ***Suspected case:*** Any individual, regardless of age, with the following signs and symptoms:
  - history of fever (38°C or more) or hot to touch; and
  - generalized non-vesicular rash of 3 or more days duration; and,
  - at least one of the following: cough, coryza, or conjunctivitis

- ***Laboratory-confirmed case:*** Suspected case that is laboratory-confirmed.

- ***Epidemiologically-linked:*** An epidemiologically-linked measles case is defined as a suspected measles case who was not discarded and who:
  - had contact with another epidemiologically-linked case or a laboratory confirmed case 7-21 days before rash onset and
  - the other epidemiologically-linked or laboratory confirmed case was infectious at the time of contact (i.e., contact was 4 days before to 4 days after rash onset in the other epidemiologically -linked or laboratory confirmed case)

- ***Clinically-confirmed:*** A suspected measles case, that, for any reason, is not completely investigated* (e.g. death before investigation, no blood sample) or has equivocal laboratory test results.

  **Such cases represent failures of the surveillance system to adequately classify a case*

- ***Discarded or not measles case:*** A suspected measles case with an adequate specimen that is not serologically confirmed or is confirmed positive for other diseases such as rubella or dengue.

LABORATORY CONFIRMATION:

- Positive serologic test result for anti-measles IgM antibodies
- Fourfold rise in anti-measles IgG antibodies in acute and convalescent serum
- Isolation of measles virus
- Dot immunobinding assay
- Polymerase chain reaction testing for measles nucleic acid

Therapeutic Dosage of Vitamin A for Measles cases:

- 50,000 IU for children <6 months old
- 100,000 IU for children 6 to 11 months old
- 200,000 IU for children 12 to 71 months old

Note: The therapeutic dosage of Vitamin A for measles cases should be given upon diagnosis regardless of when the last dose of vitamin A capsule was given.

Philippine Integrated Disease Surveillance and Response

Case Investigation Form

Meningococcal Disease

(ICD 10 Code: A39)

Name of DRU: **Address:**	Type: ☐RHU ☐CHO ☐Gov't Hospital ☐Private Hospital ☐Clinic ☐Gov't Laboratory ☐Private Laboratory ☐Airport/Seaport

I. PATIENT INFORMATION:	Patient Number:	Patient's First Name	Middle Name	Last Name

Complete Address:	Sex:	☐Male ☐Female	Date of Birth:	MM	DD	YY	Age:	☐Days ☐Months ☐Years

Occupation:	Name Workplace: Address of Workplace:

If student:	Name of School:	Address of School:

II. CLINICAL INFORMATION:	Admitted? ☐Yes ☐No ☐Unknown	Date Admitted/ Seen/Consult	MM	DD	YY	Date Onset of Illness	MM	DD	YY

Signs and Symptoms:			
	☐Fever	☐Seizure	☐Malaise
	☐Headache	☐Stiff neck	☐Cough
	☐Maculopapular rash	☐Vomiting	☐Sore throat
	☐Petechia	☐Change of sensorium	☐Runny nose
	☐Purpura	☐Drowsiness	☐Dyspnea
	☐Other lesions:	☐Other signs / symptoms:	

Clinical Presentation:	Case Classification:	Outcome:
☐Meningitis	☐Suspected Case	☐Alive
☐Septicemia	☐Probable Case	☐Died, Date Died _____/_____/_____
☐Both	☐Confirmed Case	☐Unknown

III. CASE MANAGEMENT:	Were blood/CSF extracted before the first dose of antibiotics was given to the patient? ☐Yes ☐No ☐Unknown

What antibiotics were given in the hospital?

IV. LABORATORY TESTS:

Specimen	If YES, date taken			Type of laboratory test done	Results N=Negative; I=Indeterminate; U-Unknown; ND= Not Done		Date result		
	MM	DD	YY				MM	DD	YY
CSF	MM	DD	YY	Culture	*Positive for:*	☐N ☐I ☐U ☐ND	MM	DD	YY
	MM	DD	YY	Latex agglutination	*Positive for:*	☐N ☐I ☐U ☐ND	MM	DD	YY
	MM	DD	YY	Gram stain	*Positive for:*	☐N ☐I ☐U ☐ND	MM	DD	YY
Blood	MM	DD	YY	Culture	*Positive for:*	☐N ☐I ☐U ☐ND	MM	DD	YY

Case Investigation Form

Meningococcal Disease

V. PAST HISTORY:	Did the PATIENT or a CLOSE CONTACT interact with a suspected or confirmed meningococcal case 2 weeks before onset of illness? ☐Yes, the patient ☐Yes, a close contact (name) _____ ☐No ☐Unknown

If yes, what was the name of the suspected or confirmed meningococcal case?		
What is the address of the suspected or confirmed meningococcal case?		
Where did the patient or a close contact interact with the meningococcal case?	When? MM/DD/YY	Number of Days?
Did the PATIENT travel 2 weeks prior to illness? ☐Yes ☐No ☐Unknown	If yes, where?	
Did a close contact of the PATIENT travel 2 weeks prior to illness? ☐Yes ☐No ☐Unknown	If yes, who and where?	
Did the PATIENT attend any social gathering 2 weeks prior to illness? ☐Yes ☐No ☐Unknown	If yes, where?	
Did the PATIENT have upper respiratory tract infection 2 weeks prior to illness? ☐Yes ☐No ☐Unknown		
Did a CLOSE CONTACT have upper respiratory tract infection 2 weeks prior to the patient's illness? ☐Yes ☐No ☐Unknown, If Yes, who?		

CASE DEFINITION/CLASSIFICATION:

- ***Suspected case:*** A person with sudden onset of fever (>38.5°C rectal or >38.0°C axillary) **and one or more** of the following:
  - neck stiffness
  - altered consciousness
  - other meningeal signs
  - petechial or purpural rash

  Note: *In patients <1 year, suspect meningitis when fever is accompanied by bulging fontanels*

- ***Probable case:*** A suspected case as defined above **AND** with Turbid cerebrospinal fluid (with or without positive Gram stain) **OR** ongoing epidemic and epidemiological link to a confirmed case.

- ***Confirmed case:*** A suspected **OR** probable case with laboratory confirmation.

LABORATORY CONFIRMATION:

- Positive cerebrospinal fluid (CSF) antigen detection or culture.
- Positive blood culture.

Philippine Integrated Disease Surveillance and Response

Case Investigation Form

Neonatal Tetanus

(ICD 10 Code: A33)

Name of DRU: **Address:**									Type: ☐RHU ☐CHO ☐Gov't Hospital ☐Private Hospital ☐Clinic ☐Gov't Laboratory ☐Private Laboratory ☐Airport/Seaport			
I. PATIENT INFORMATION:	Patient Number:		Patient's First Name			Middle Name			Last Name			
Complete Address:				Sex:	☐ Male ☐ Female	Date of Birth:	MM	DD	YY	Age in days:		
Patient Admitted? ☐ Yes ☐ No ☐ Unknown			Date Admitted/ Seen/Consult	MM	DD	YY	Date Onset of Illness		MM	DD	YY	
Date of Report:	MM	DD	YY	Date of Investigation:	MM	DD	YY	Mother's Full Name:				

II. CLINICAL DATA:

In the first 2 days of life did the baby suck and cry normally? ☐ Yes ☐ No ☐ Unknown After 2 days of life, was the baby unable to suck? ☐ Yes ☐ No ☐ Unknown	After 2 days of life, did the baby have convulsions (stiffness or fits)? ☐ Yes ☐ No ☐ Unknown Was the umbilical stump infected? (bad smell, pus) ☐ Yes ☐ No ☐ Unknown

III. MOTHER'S INFORMATION:

Prenatal Care	Immunization Status	If she has a card, copy the dates of all TT immunizations recorded on the card:
No. of total pregnancies:_____ Live births:_____ Living children:_____ How many prenatal care visits did the mother make to a health facility during her pregnancy? _____ When was the first prenatal visit?___/____/___ Is the prenatal care history reported by: ☐ Card ☐ Recall ☐ Both ☐ Unknown State reason for no or late prenatal care:_____	How many doses of TT has the mother received?_____ doses ____unknown Date last dose given:_____/____/_____ If she received 2 doses, were they given during this pregnancy? ☐ Y ☐ N ☐ U Is the immunization status reported by: ☐ Card ☐ Recall ☐ Both ☐ Unknown	TT1:_____/_____/_____ TT2:_____/_____/_____ TT3:_____/_____/_____ TT4:_____/_____/_____ TT5:_____/_____/_____ Is the child protected at birth*? ☐ Yes ☐ No ☐ Unknown

IV. DELIVERY PRACTICES:

Place of Delivery: ☐ Home ☐ Hospital/lying-in/clinic ☐ Other, specify: _____

If born in a hospital/lying-in/clinic, give name and address of the hospital/lying-in/clinic: _____

Cord was cut using: ☐ Scissors ☐ Blade
☐ Bamboo ☐ Unknown ☐ Other, specify:_____

Who attended the delivery? ☐ Physician ☐ Nurse ☐ MIdwife
☐ Hilot ☐ Unknown ☐ Other, specify:_____

If Hilot, was he/she trained? ☐ Yes ☐ No ☐ Unknown

Stump treated (dressed) with: ☐ Alcohol ☐ Povidone iodine
☐ Unknown ☐ Other, specify:_____

V. CLASSIFICATION AND OUTCOME:

CASE CLASSIFICATION	OUTCOME
☐ Suspected Case ☐ Confirmed Case	☐ Alive ☐ Died Date died: ____/____/____ ☐ Unknown

Case Investigation Form

Neonatal Tetanus

CASE DEFINITION/CLASSIFICATION:

- ***Suspected Case****:* Any neonatal death between 3-28 days of age in which the cause of death is unknown; or any neonate reported as having suffered from neonatal tetanus between 3-28 days of age and not investigated.
- ***Probable Case:*** Not applicable
- ***Confirmed Case****:* Any neonate (≤ 28 days of life) that sucks and cries normally during the first 2 days of life, and becomes ill between 3 to 28 days of age and develops both an inability to suck and diffuse muscle rigidity (stiffness), which may include trismus, clenched fists or feet, continuously pursed lips, and/or curved back (opisthotonus).

  OR A neonate diagnosed as a case of tetanus by a physician.

NOTE*: Neonatal tetanus case classification is based solely on clinical criteria. Any neonatal death occurring in babies 3-28 days old with no apparent cause should be suspected as NT and evaluated according to the above criteria. In calculating age, the day of birth is considered the first day of life (i.e., the baby is 1 day old on the day he/she is born).*

Protection at Birth (PAB) is defined as any of the following:

Regardless of interval:

2 TTV doses during the pregnancy with the youngest child, or
1 TTV dose during the pregnancy with the youngest child plus 2 doses prior to the pregnancy, or
3 TTV doses prior to the pregnancy with the youngest child

Philippine Integrated Disease Surveillance and Response

Case Investigation Form

Paralytic Shellfish Poisoning

(ICD 10 Code: T61.2)

Name of DRU: **Address:**						Type: ☐RHU ☐CHO ☐Gov't Hospital ☐Private Hospital ☐Clinic ☐Gov't Laboratory ☐Private Laboratory ☐Airport/Seaport						
I. PATIENT INFORMATION:	Patient Number:	Patient's First Name			Middle Name			Last Name				
Complete Address:			Sex:	☐ Male ☐ Female	Date of Birth:	MM	DD	YY	Age:	☐ Days ☐ Months ☐ Years		
Patient Admitted? ☐ Yes ☐ No ☐ Unknown		Date Admitted/ Seen/Consult	MM	DD	YY	Date Onset of Illness			MM	DD	YY	

II. EXPOSURE HISTORY:

Specify place where suspected shellfish was harvested:_____

Are there other members of household/community who shared the same meal? ☐ Yes ☐ No ☐ Unknown

III. CLASSIFICATION AND OUTCOME:

FINAL CLASSIFICATION	OUTCOME
☐ Suspected Case ☐ Confirmed Case	☐ Alive ☐ Died Date died: ____/____/____ ☐ Unknown

Name of DRU: **Address:**						Type: ☐RHU ☐CHO ☐Gov't Hospital ☐Private Hospital ☐Clinic ☐Gov't Laboratory ☐Private Laboratory ☐Airport/Seaport						
I. PATIENT INFORMATION:	Patient Number:	Patient's First Name			Middle Name			Last Name				
Complete Address:			Sex:	☐ Male ☐ Female	Date of Birth:	MM	DD	YY	Age:	☐ Days ☐ Months ☐ Years		
Patient Admitted? ☐ Yes ☐ No ☐ Unknown		Date Admitted/ Seen/Consult	MM	DD	YY	Date Onset of Illness			MM	DD	YY	

II. EXPOSURE HISTORY:

Specify place where suspected shellfish was harvested:_____

Are there other members of household/community who shared the same meal? ☐ Yes ☐ No ☐ Unknown

III. CLASSIFICATION AND OUTCOME:

FINAL CLASSIFICATION	OUTCOME
☐ Suspected Case ☐ Confirmed Case	☐ Alive ☐ Died Date died: ____/____/____ ☐ Unknown

CASE DEFINITION/CLASSIFICATION:

- ***Suspected case:*** A person who develops one or more of the following signs and symptoms after taking shellfish meal or soup:

  Sensory : paresthesias (tingling sensations on skin), numbness (lack of sensation) of the oral mucosa and lips, numbness of the extremities

  Motor: difficulty in speaking, swallowing, or breathing, weakness or paralysis of the extremities

- ***Probable Case*:** Not applicable

- ***Confirmed case:*** A suspected case in which laboratory tests (biologic or environmental) have confirmed exposure.

LABORATORY CONFIRMATION:

- Detection of saxitoxin in epidemiologically implicated food, serum or urine of cases

(Please use the back page)

Case Investigation Form

Paralytic Shellfish Poisoning

Name of DRU: **Address:**				Type: ☐RHU ☐CHO ☐Gov't Hospital ☐Private Hospital ☐Clinic ☐Gov't Laboratory ☐Private Laboratory ☐Airport/Seaport							
I. PATIENT INFORMATION:	Patient Number:	Patient's First Name			Middle Name			Last Name			
Complete Address:		Sex:	☐ Male ☐ Female	Date of Birth:	MM	DD	YY	Age:	☐ Days ☐ Months ☐ Years		
Patient Admitted? ☐ Yes ☐ No ☐ Unknown		Date Admitted/ Seen/Consult	MM	DD	YY	Date Onset of Illness		MM	DD	YY	

II. EXPOSURE HISTORY:

Specify place where suspected shellfish was harvested:_____

Are there other members of household/community who shared the same meal? ☐ Yes ☐ No ☐ Unknown

III. CLASSIFICATION AND OUTCOME:

FINAL CLASSIFICATION	OUTCOME
☐ Suspected Case ☐ Confirmed Case	☐ Alive ☐ Died Date died: ____/____/____ ☐ Unknown

Name of DRU: **Address:**				Type: ☐RHU ☐CHO ☐Gov't Hospital ☐Private Hospital ☐Clinic ☐Gov't Laboratory ☐Private Laboratory ☐Airport/Seaport							
I. PATIENT INFORMATION:	Patient Number:	Patient's First Name			Middle Name			Last Name			
Complete Address:		Sex:	☐ Male ☐ Female	Date of Birth:	MM	DD	YY	Age:	☐ Days ☐ Months ☐ Years		
Patient Admitted? ☐ Yes ☐ No ☐ Unknown		Date Admitted/ Seen/Consult	MM	DD	YY	Date Onset of Illness		MM	DD	YY	

II. EXPOSURE HISTORY:

Specify place where suspected shellfish was harvested:_____

Are there other members of household/community who shared the same meal? ☐ Yes ☐ No ☐ Unknown

III. CLASSIFICATION AND OUTCOME:

FINAL CLASSIFICATION	OUTCOME
☐ Suspected Case ☐ Confirmed Case	☐ Alive ☐ Died Date died: ____/____/____ ☐ Unknown

Philippine Integrated Disease Surveillance and Response

Case Investigation Form

Rabies

(ICD 10 Code: A82)

Name of DRU: **Address:**						Type: ☐RHU ☐CHO ☐Gov't Hospital ☐Private Hospital ☐Clinic ☐Gov't Laboratory ☐Private Laboratory ☐Airport/Seaport					
I. PATIENT INFORMATION:	Patient Number:	Patient's First Name		Middle Name		Last Name					
Complete Address:		Sex:	☐ Male ☐ Female	Date of Birth:	MM	DD	YY	Age:	☐ Days ☐ Months ☐ Years		
Patient Admitted? ☐Yes ☐No ☐Unknown		Date Admitted/ Seen/Consult	MM	DD	YY	Date Onset of Illness	MM	DD	YY		

II. EXPOSURE HISTORY:

Type of exposure: ☐ bite ☐ saliva ☐ scratch ☐ Unknown ☐ Other, specify _____

Type of animal: ☐ dog ☐ cat ☐ bat ☐ Other, specify_____

Lab. diagnosis done? ☐Yes ☐No ☐Unknown If Yes, result: _____

Animal status: ☐ domestic ☐ stray ☐ wild ☐ Other, specify _____

Animal exposure provoked?: ☐Yes ☐No ☐Unknown Place of Incidence: _____

III. VACCINATION HISTORY:

Animal vaccination history:	Patient History:			
☐ Vaccinated	Wound cleaned?:	☐Yes	☐No	☐Unknown
☐ Unvaccinated	Patient given human RIG?:	☐Yes	☐No	☐Unknown
☐ Unknown	(RIG is Rabies Immunoglobulin)			
	Patient given rabies vaccine?:	☐Yes	☐No	☐Unknown

IV. CLASSIFICATION AND OUTCOME:

FINAL CLASSIFICATION	OUTCOME
☐ Suspected Case	☐ Alive
☐ Probable Case	☐ Died Date died: ____/____/____
☐ Confirmed Case	☐ Unknown

CASE DEFINITION/CLASSIFICATION:

- ***Suspected Case*:** A person presenting with an acute neurological syndrome (encephalitis) dominated by forms of hyperactivity (furious rabies) or paralytic syndromes (dumb rabies) that progresses towards coma and death, usually by respiratory failure, within 7 to 10 days after the first symptom if no intensive care is instituted.

  Note: *Bites or scratches from a suspected animal can usually be traced back in the patient medical history. The incubation period may vary from days to years but usually falls between 30 and 90 days.*

- ***Probable case:*** A suspected case plus history of contact with suspected rabid animal.

- ***Confirmed case:*** A suspected case that is laboratory confirmed.

LABORATORY CONFIRMATION:

One or more of the following:

- Detection of rabies viral antigens by direct fluorescent antibody (FA) in clinical specimens, preferably brain tissue (collected post mortem);
- Detection by FA on skin or corneal smear (collected ante mortem);
- FA positive after inoculation of brain tissue, saliva or CSF in cell culture, in mice or in suckling mice;
- Detectable rabies-neutralizing antibody titer in the CSF of an unvaccinated person;
- Identification of viral antigens by PCR on fixed tissue collected post mortem or in a clinical specimen (brain tissue or skin, cornea or saliva);
- Isolation of rabies virus from clinical specimens and confirmation of rabies viral antigens by direct fluorescent antibody testing.

(Please use the back page)

Case Investigation Form

Paralytic Shellfish Poisoning

Name of DRU: **Address:**				Type: ☐RHU ☐CHO ☐Gov't Hospital ☐Private Hospital ☐Clinic ☐Gov't Laboratory ☐Private Laboratory ☐Airport/Seaport						
I. PATIENT INFORMATION:	Patient Number:	Patient's First Name		Middle Name			Last Name			
Complete Address:		Sex:	☐ Male ☐ Female	Date of Birth:	MM	DD	YY	Age:	☐ Days ☐ Months ☐ Years	
Patient Admitted? ☐ Yes ☐ No ☐ Unknown	Date Admitted/ Seen/Consult	MM	DD	YY	Date Onset of Illness	MM	DD	YY		

II. EXPOSURE HISTORY:

Specify place where suspected shellfish was harvested:_____

Are there other members of household/community who shared the same meal? ☐ Yes ☐ No ☐ Unknown

III. CLASSIFICATION AND OUTCOME:

FINAL CLASSIFICATION	OUTCOME
☐ Suspected Case ☐ Confirmed Case	☐ Alive ☐ Died Date died: ____/____/____ ☐ Unknown

Name of DRU: **Address:**				Type: ☐RHU ☐CHO ☐Gov't Hospital ☐Private Hospital ☐Clinic ☐Gov't Laboratory ☐Private Laboratory ☐Airport/Seaport						
I. PATIENT INFORMATION:	Patient Number:	Patient's First Name		Middle Name			Last Name			
Complete Address:		Sex:	☐ Male ☐ Female	Date of Birth:	MM	DD	YY	Age:	☐ Days ☐ Months ☐ Years	
Patient Admitted? ☐ Yes ☐ No ☐ Unknown	Date Admitted/ Seen/Consult	MM	DD	YY	Date Onset of Illness	MM	DD	YY		

II. EXPOSURE HISTORY:

Specify place where suspected shellfish was harvested:_____

Are there other members of household/community who shared the same meal? ☐ Yes ☐ No ☐ Unknown

III. CLASSIFICATION AND OUTCOME:

FINAL CLASSIFICATION	OUTCOME
☐ Suspected Case ☐ Confirmed Case	☐ Alive ☐ Died Date died: ____/____/____ ☐ Unknown

Annex 7: The PIDSR Case Report Forms

The following pages are the PIDSR Case Report Forms for the Category II (Weekly Notifiable) diseases, syndromes and health events which include the following:

- Acute Bloody Diarrhea
- Acute Encephalitis Syndrome
- Acute Hemorrhagic Fever Syndrome
- Acute Viral Hepatitis
- Bacterial Meningitis
- Cholera
- Dengue
- Diphtheria
- Influenza-like Illness
- Leptospirosis
- Malaria
- Non-Neonatal Tetanus
- Pertussis
- Typhoid and Paratyphoid Fever

Philippine Integrated Disease Surveillance and Response

Case Report Form

Acute Bloody Diarrhea

Region: _____ **Province**: _____ **Municipality/City**: _____

Name of DRU: _____ **Type**: ☐RHU ☐CHO ☐Gov't Hospital ☐Private Hospital ☐Clinic

Address: _____ ☐Private Laboratory ☐Public Laboratory ☐Seaport/Airport

Patient No.	Patient's Full Name	Age	Sex	Date of Birth	Complete Address	Admitted?	Date Admitted/seen/ consulted	Date onset of illness	Stool culture result	Outcome
				___/___/___			___/___/___	___/___/___		
				___/___/___			___/___/___	___/___/___		
				___/___/___			___/___/___	___/___/___		
				___/___/___			___/___/___	___/___/___		
				___/___/___			___/___/___	___/___/___		
				___/___/___			___/___/___	___/___/___		
				___/___/___			___/___/___	___/___/___		
				___/___/___			___/___/___	___/___/___		
Response Codes / Instructions	**Indicate First name, Middle name, Last name**	***Age*: Indicate D - days M - months Yr. - years *Sex*:F - Female M - Male**		**mm/dd/yy**	**Specify Street/Purok/Subdivision, House #, Barangay, Municipality/City, Province**	**Y - Yes N- No**	**mm/dd/yy**	**mm/dd/yy**	**P - Positive (specify organism) N - Negative ND - Not done U - Unknown**	**A - Alive D - Died (specify date) U - Unknown**

Case Definition:

- A person with acute diarrhea with visible blood in the stool.

Note: Laboratory culture of stools may be used to confirm possible outbreaks of specific diarrhea, such as *S. dysenteriae* type 1, but is not necessary for case definition.

- Case classification: Not applicable

Philippine Integrated Disease Surveillance and Response

Case Report Form

Acute Bloody Diarrhea

Patient No.	Patient's Full Name	Age	Sex	Date of Birth	Complete Address	Admit-ted?	Date Admit-ted/seen/ consulted	Date onset of illness	Stool cul-ture result	Out-come
				___/___/___			___/___/___	___/___/___		
				___/___/___			___/___/___	___/___/___		
				___/___/___			___/___/___	___/___/___		
				___/___/___			___/___/___	___/___/___		
				___/___/___			___/___/___	___/___/___		
				___/___/___			___/___/___	___/___/___		
				___/___/___			___/___/___	___/___/___		
				___/___/___			___/___/___	___/___/___		
				___/___/___			___/___/___	___/___/___		
				___/___/___			___/___/___	___/___/___		
				___/___/___			___/___/___	___/___/___		
Response Codes / Instructions	**Indicate First name, Middle name, Last name**	***Age*: Indicate D - days M - months Yr. - years *Sex*:F - Female M - Male**		**mm/dd/yy**	**Specify Street/Purok/Subdivision, House #, Barangay, Municipality/City, Province**	**Y - Yes N- No**	**mm/dd/yy**	**mm/dd/yy**	P - Positive (specify organ-ism) N - Negative ND - Not done U - Unknown	A - Alive D - Died (specify date) U - Unknown

Philippine Integrated Disease Surveillance and Response

Case Report Form

Acute Encephalitis Syndrome (ICD 10 Code: A83.0)

Region: _____ **Province**: _____ **Municipality/City**: _____

Name of DRU: _____ **Type**: ☐RHU ☐CHO ☐Gov't Hospital ☐Private Hospital ☐Clinic

Address: _____ ☐Private Laboratory ☐Public Laboratory ☐Seaport/Airport

Patient No.	Patient's Full Name	Age	Sex	Date of Birth	Complete Address	Admitted?	Date Admitted/seen/ consulted	Date onset of illness	Lab Result	Case Classification	Outcome
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
Response Codes / Instructions	Indicate First name, Middle name, Last name	*Age*: Indicate D - days M - months Yr. - years *Sex*: F - Female M - Male		mm/dd/yy	Specify Street/Purok/Subdivision, House #, Barangay, Municipality/City, Province	Y - Yes N- No	mm/dd/yy	mm/dd/yy	P - Positive (specify organism) N - Negative ND - Not done U - Unknown	Suspected AE - other agent AE - unknown Probable JE Confirmed	A - Alive D - Died (specify date) U - Unknown

Case Definition/Classification:

- ***Suspected case***: A person with acute onset of fever and a change in mental status (including symptoms such as confusion, disorientation, coma, or inability to talk) AND/OR new onset of seizures (excluding simple febrile seizures)
- *"**Acute encephalitis syndrome**" – **other agent***: A suspected case in which diagnostic testing was performed and an etiological agent other than JE virus is identified.
- *"**Acute encephalitis syndrome**" – **unknown***: A suspected case in which testing was performed but no etiological agent was identified or in which the test results were indeterminate.
- ***Probable JE***: A suspected case that occurs in close geographic and temporal relationship to a laboratory-confirmed case of JE, in the context of an outbreak.
- ***Laboratory-confirmed Japanese Encephalitis (JE)***: A suspected case that has been laboratory-confirmed as JE.

Laboratory Confirmation:

- Presence of JE virus-specific IgM antibody in a single sample of cerebrospinal fluid (CSF) or serum, as detected by an IgM-capture ELISA specifically for JE virus;
- Detection of JE virus antigens in tissue by immunohistochemistry
- Detection of JE virus genome in serum, plasma, blood, CSF, or tissue by reverse transcriptase polymerase chain reaction (PCR) or an equally sensitive and specific nucleic acid amplification test
- Isolation of JE virus in serum, plasma, blood, CSF, or tissue
- Detection of a four-fold or greater rise in JE virus-specific antibody as measured by haemagglutination inhibition (HI) or plaque reduction neutralization assay (PRNT) in serum collected during the acute and convalescent phase of illness. The two specimens for IgG should be collected at least 14 days apart. The IgG test should be performed in parallel with other confirmatory tests to eliminate the possibility of cross-reactivity.

Philippine Integrated Disease Surveillance and Response

Case Report Form

Acute Encephalitis Syndrome (ICD 10 Code: A83.0)

Patient No.	Patient's Full Name	Age	Sex	Date of Birth	Complete Address	Admit-ted?	Date Admit-ted/seen/ consulted	Date onset of illness	Lab Result	Case Classifi-cation	Out-come
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
Response Codes / Instructions	Indicate First name, Middle name, Last name	*Age*: Indicate D - days M - months Yr. - years *Sex*: F - Female M - Male		mm/dd/yy	Specify Street/Purok/Subdivision, House #, Barangay, Municipality/City, Province	Y - Yes N- No	mm/dd/yy	mm/dd/yy	P - Positive (specify organism) N - Negative ND - Not done U - Unknown	Suspected AE - other agent AE - unknown Probable JE Confirmed	A - Alive D - Died (specify date) U - Unknown

Philippine Integrated Disease Surveillance and Response

Case Report Form

Acute Hemorrhagic Fever Syndrome

Region: _____ **Province**: _____ **Municipality/City**: _____

Name of DRU: _____ **Type**: ☐RHU ☐CHO ☐Gov't Hospital ☐Private Hospital ☐Clinic

Address: _____ ☐Private Laboratory ☐Public Laboratory ☐Seaport/Airport

Patient No.	Patient's Full Name	Age	Sex	Date of Birth	Complete Address	Admitted?	Date Admitted/seen/ consulted	Date onset of illness	PCR Result	Blood Culture Result	Outcome
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
Response Codes / Instructions	Indicate First name, Middle name, Last name	*Age*: Indicate D - days M - months Yr. - years *Sex*:F - Female M - Male		mm/dd/yy	Specify Street/Purok/Subdivision, House #, Barangay, Municipality/City, Province	Y - Yes N- No	mm/dd/yy	mm/dd/yy	P - Positive (specify organism) N - Negative ND - Not done U - Unknown	P - Positive (specify organism) N - Negative ND - Not done U - Unknown	A - Alive D - Died (specify date) U - Unknown

Case Definition:

- Any **hospitalized** person with acute onset of fever of less than 3 weeks duration and with **any two** of the following: hemorrhagic or purpuric rash, epistaxis, hematemesis, hemoptysis, blood in stools, or other hemorrhagic symptom **and** the diagnosis is **not** Dengue

Note: Laboratory confirmation should be done if available

Case classification: Not applicable

Philippine Integrated Disease Surveillance and Response

Case Report Form

Acute Hemorrhagic Fever Syndrome

Patient No.	Patient's Full Name	Age	Sex	Date of Birth	Complete Address	Admitted?	Date Admitted/seen/consulted	Date onset of illness	PCR Result	Blood Culture Result	Outcome
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
Response Codes / Instructions	Indicate First name, Middle name, Last name	*Age*: Indicate D - days M - months Yr. - years *Sex*:F - Female M - Male		mm/dd/yy	Specify Street/Purok/Subdivision, House #, Barangay, Municipality/City, Province	Y - Yes N- No	mm/dd/yy	mm/dd/yy	P - Positive (specify organism) N - Negative ND - Not done U - Unknown	P - Positive (specify organism) N - Negative ND - Not done U - Unknown	A - Alive D - Died (specify date) U - Unknown

Philippine Integrated Disease Surveillance and Response

Case Report Form

Acute Viral Hepatitis (ICD 10 Code: B15-B17)

Region: _____ **Province**: _____ **Municipality/City**: _____

Name of DRU: _____ **Type**: ☐RHU ☐CHO ☐Gov't Hospital ☐Private Hospital ☐Clinic

Address: _____ ☐Private Laboratory ☐Public Laboratory ☐Seaport/Airport

Patient No.	Patient's Full Name	Age	Sex	Date of Birth	Complete Address	Admitted?	Date admitted/seen/consulted	Date onset of illness	Laboratory Result	Case Classification	Outcome
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
Response Codes / Instructions	**Indicate First name, Middle name, Last name**	***Age*: Indicate D - days M - months Yr. - years *Sex*:F - Female M - Male**		**mm/dd/yy**	**Specify Street/Purok/Subdivision, House #, Barangay, Municipality/City, Province**	**Y - Yes N- No**	**mm/dd/yy**	**mm/dd/yy**	**Specify**	**S-Suspect C- Confirmed**	**A - Alive D - Died (specify date) U - Unknown**

Case Definition/Classification:

- ***Suspected case***: A person with acute illness characterized by acute jaundice, dark urine, loss of appetite, body weakness, extreme fatigue, and high upper quadrant tenderness.
- ***Probable*** : Not applicable
- ***Confirmed Case***: A suspected case that is laboratory confirmed

Laboratory Confirmation:

- Hepatitis A: Positive for IgM anti-HAV
- Hepatitis B: Positive for Hepatitis B surface antigen (HBsAg) or Positive for IgM anti-HBc
- Hepatitis C: Positive for anti-HCV
- Non-A, non-B: Negative for IgM anti-HAV and IgM anti-HBs (or HBsAg)

Philippine Integrated Disease Surveillance and Response

Case Report Form

Acute Viral Hepatitis (ICD 10 Code: B15-B17)

Patient No.	Patient's Full Name	Age	Sex	Date of Birth	Complete Address	Admit-ted?	Date admit-ted/seen/ consulted	Date onset of illness	Labora-tory Result	Case Classifi-cation	Out-come
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
Response Codes / Instructions	**Indicate First name, Middle name, Last name**	***Age*: Indicate D - days M - months Yr. - years *Sex*:F - Female M - Male**		**mm/dd/yy**	**Specify Street/Purok/Subdivision, House #, Barangay, Municipality/City, Province**	**Y - Yes N- No**	**mm/dd/yy**	**mm/dd/yy**	**Specify**	**S-Suspect C-Con-firmed**	**A - Alive D - Died (specify date) U - Unknown**

Philippine Integrated Disease Surveillance and Response

Case Report Form

Bacterial Meningitis (ICD 10 Code: A87)

Region: _____ **Province**: _____ **Municipality/City**: _____

Name of DRU: _____ **Type**: ☐RHU ☐CHO ☐Private Hospital ☐Gov't Hospital ☐Clinic

Address: _____ ☐Private Laboratory ☐Public Laboratory ☐Seaport/Airport

Patient No.	Patient's Full Name	Age	Sex	Date of Birth	Complete Address	Admit-ted?	Date Admit-ted/seen/ consulted	Date onset of illness	Labora-tory Result	Case Classifica-tion	Out-come
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
Response Codes / Instructions	**Indicate First name, Middle name, Last name**	***Age*: Indicate D - days M - months Yr. - years *Sex*:F - Female M - Male**		**mm/dd/yy**	**Specify Street/Purok/Subdivision, House #, Barangay, Municipality/City, Province**	**Y - Yes N- No**	**mm/dd/yy**	**mm/dd/yy**	**Specify organism**	**S-Suspect P-Probable C-Confirmed**	**A - Alive D - Died (specify date) U - Unknown**

Case Definition/Classification:

- ***Suspected case***: A person with sudden onset of fever (≥ 38.5^{0}C rectal or 38 C axillary) and one of the following signs: neck stiffness, altered consciousness or other meningeal sign.
- ***Probable case*:** A suspected case with CSF examination showing at least one of the following:
  - turbid appearance;
  - leukocytosis (>100 cells/ mm3);
  - leukocytosis (10-100 cells/ mm3) AND either an elevated protein (>100 mg/dl) or decreased glucose (<40mg/dl)
- ***Confirmed case***: A suspected case that is laboratory-confirmed .

Laboratory Confirmation:

- Culture or detection (i.e. by Gram stain or antigen detection methods) of a bacterial pathogen other than *Neisseria meningitides.*

Note: Identified *Neisseria meningitides* cases shall be reported as confirmed Meningococcal Disease

Philippine Integrated Disease Surveillance and Response

Case Report Form

Bacterial Meningitis (ICD 10 Code: A87)

Patient No.	Patient's Full Name	Age	Sex	Date of Birth	Complete Address	Admit-ted?	Date Admit-ted/seen/ consulted	Date onset of illness	Labora-tory Result	Case Classifica-tion	Out-come
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
Response Codes / Instructions	**Indicate First name, Middle name, Last name**	***Age*: Indicate D - days M - months Yr. - years *Sex*:F - Female M - Male**		**mm/dd/yy**	**Specify Street/Purok/Subdivision, House #, Barangay, Municipality/City, Province**	**Y - Yes N- No**	**mm/dd/yy**	**mm/dd/yy**	**Specify organism**	**S-Suspect P-Probable C-Confirmed**	**A - Alive D - Died (specify date) U - Unknown**

Philippine Integrated Disease Surveillance and Response

Case Report Form

Cholera (ICD 10 Code: A00)

Region: _____ **Province**: _____ **Municipality/City**: _____

Name of DRU: _____ **Type**: ☐RHU ☐CHO ☐Gov't Hospital ☐Private Hospital ☐Clinic

Address: _____ ☐Private Laboratory ☐Public Laboratory ☐Seaport/Airport

Patient No.	Patient's Full Name	Age	Sex	Date of Birth	Complete Address	Admitted?	Date Admitted/seen/ consulted	Date onset of illness	Stool Culture result	Case Classification	Outcome
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
Response Codes / Instructions	**Indicate First name, Middle name, Last name**	***Age*: Indicate D - days M - months Yr. - years *Sex*:F - Female M - Male**		**mm/dd/yy**	**Specify Street/Purok/Subdivision, House #, Barangay, Municipality/City, Province**	**Y - Yes N- No**	**mm/dd/yy**	**mm/dd/yy**	**P - Positive (specify organism) N - Negative ND - Not done U - Unknown**	**S-Suspect C-Confirmed**	**A - Alive D - Died (specify date) U - Unknown**

Case Definition/Classification:

- ***Suspected case***:
  - *Disease unknown in the area:* A person aged 5 years or more with severe dehydration or who died from acute watery diarrhea, **OR**
  - *Disease endemic in the area:* A person aged 5 years or more with acute watery diarrhea with or without vomiting, **OR**
  - *In an area where there is a cholera epidemic:* A person with acute watery diarrhea, with or without vomiting.
- ***Probable***: Not applicable
- ***Confirmed case***: A suspected case that is laboratory-confirmed

Laboratory Confirmation of Cholera:

- Isolation of *Vibrio cholerae* 01 or 0139 from stools in any patient with diarrhea

Philippine Integrated Disease Surveillance and Response

Case Report Form

Cholera (ICD 10 Code: A00)

Patient No.	Patient's Full Name	Age	Sex	Date of Birth	Complete Address	Admit-ted?	Date Admit-ted/seen/ consulted	Date onset of illness	Stool Cul-ture result	Case Classi-fication	Out-come
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
Response Codes / Instructions	Indicate First name, Middle name, Last name	*Age*: Indicate D - days M - months Yr. - years *Sex*:F - Female M - Male		mm/dd/yy	Specify Street/Purok/Subdivision, House #, Baran-gay, Municipality/City, Province	Y - Yes N- No	mm/dd/yy	mm/dd/yy	P - Positive (specify organ-ism) N - Negative ND - Not done U - Unknown	S- Suspect C- Con-firmed	A - Alive D - Died (specify date) U - Unknown

Philippine Integrated Disease Surveillance and Response

Case Report Form

Dengue (ICD 10 Code: A90-A91)

Region: _____ **Province**: _____ **Municipality/City**: _____

Name of DRU: _____ **Type**: ☐RHU ☐CHO ☐Gov't Hospital ☐Private Hospital ☐Clinic

Address: _____ ☐Private Laboratory ☐Public Laboratory ☐Seaport/Airport

Patient No.	Patient's Full Name	Age	Sex (F/M)	Date of Birth (mm/dd/yyyy)	Complete Address	Admit-ted?	Date admit-ted/seen/ consulted	Date onset of illness	Type	Case classi-fication	Out-come
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
Response Codes / Instructions	**Indicate First name, Middle name, Last name**	***Age*: Indicate D - days M - months Yr. - years *Sex*:F - Female M - Male**		**mm/dd/yy**	**Specify Street/Purok/Subdivision, House #, Barangay, Municipality/City, Province**	**Y - Yes N- No**	**mm/dd/yy**	**mm/dd/yy**	**DHF DSS**	**S - Suspect P - Prob-able C - Con-firmed**	**A - Alive D - Died (specify date) U - Unknown**

Case Definition/Classification:

- ***Suspected Case:*** A person with an acute febrile illness of 2-7 days duration with 2 or more of the following: headache, retro-orbital pain, myalgia, arthralgia, rash, hemor-rhagic manifestations, leucopenia.
- ***Probable Case:*** A suspected case with one or more of the following: Supportive serol-ogy (reciprocal hemagglutination-inhibition antibody titer ≥1280), comparable IgG EIA titer or positive IgM antibody test in late acute or convalescent-phase serum specimen.
- ***Confirmed:*** A suspected case that is laboratory confirmed (viral isolation, Polymerase Chain Reaction)

Types:

- **Dengue Hemorrhagic Fever:** A probable or confirmed case of dengue **and** Hemorrhagic tendencies evidenced by **one or more of the following:**
  - positive tourniquet test,
  - petechiae, ecchymoses or purpura,
  - Bleeding: mucosa, gastrointestinal tract, injection sites or other hematemesis or melena

  And thrombocytopenia (100,000 cells or less per mm3)
  And evidence of plasma leakage due to increased vascular permeability.
- **Dengue Shock Syndrome:** All the above criteria, **plus** evidence of circulatory failure manifested by rapid and weak pulse, and narrow pulse pressure (20 mm Hg) or hypoten-sion for age, cold, clammy skin and altered mental status.

Philippine Integrated Disease Surveillance and Response

Case Report Form

Dengue (ICD 10 Code: A90-A91)

Patient No.	Patient's Full Name	Age	Sex (F/M)	Date of Birth (mm/dd/yyyy)	Complete Address	Admit-ted?	Date admit-ted/seen/ consulted	Date onset of illness	Type	Case classi-fication	Out-come
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
Response Codes / Instructions	Indicate First name, Middle name, Last name	*Age*: Indicate D - days M - months Yr. - years *Sex*:F - Female M - Male		mm/dd/yy	Specify Street/Purok/Subdivision, House #, Barangay, Municipality/City, Province	Y - Yes N- No	mm/dd/yy	mm/dd/yy	DHF DSS	S - Suspect P - Prob-able C - Con-firmed	A - Alive D - Died (specify date) U - Unknown

Philippine Integrated Disease Surveillance and Response

Case Report Form

Diphtheria (ICD 10 Code: A36)

Region: _____ **Province**: _____ **Municipality/City**: _____

Name of DRU: _____ **Type**: ☐RHU ☐CHO ☐Gov't Hospital ☐Private Hospital ☐Clinic

Address: _____ ☐Private Laboratory ☐Public Laboratory ☐Seaport/Airport

Patient No.	Patient's Full Name	Age	Sex	Date of Birth	Complete Address
				___/___/___	
				___/___/___	
				___/___/___	
				___/___/___	
				___/___/___	
				___/___/___	
				___/___/___	
				___/___/___	
Response Codes / Instructions	**Indicate First name, Middle name, Last name**	***Age*: Indicate D - days M - months Yr. - years *Sex*: F - Female M - Male**		**mm/dd/yy**	**Specify Street/Purok/Subdivision, House #, Barangay, Municipality/City, Province**

Case Definition/Classification:

- ***Suspected Case***: Not applicable
- ***Probable Case***: A person with an illness of the upper respiratory tract characterized by laryngitis or pharyngitis or tonsillitis, and adherent membranes on tonsils, pharynx and/or nose
- ***Confirmed***: A probable case that is laboratory confirmed or linked epidemiologically to a laboratory confirmed case

Note: Persons with positive *Corynebacterium diphtheriae* cultures who do not meet the clinical description (i.e. asymptomatic carriers) should not be reported as probable or confirmed diphtheria cases.

Laboratory Confirmation:

- Isolation of *Corynebacterium diphtheriae* from a clinical specimen

Philippine Integrated Disease Surveillance and Response

Case Report Form

Diphtheria (ICD 10 Code: A36)

Patient's Full Name	Admit-ted?	Date Admitted/ seen/ consulted	Date of onset of Illness	No. of DPT doses received?	Date of last DPT	Case Classification	Outcome
		___/___/___	___/___/___		___/___/___		
		___/___/___	___/___/___		___/___/___		
		___/___/___	___/___/___		___/___/___		
		___/___/___	___/___/___		___/___/___		
		___/___/___	___/___/___		___/___/___		
		___/___/___	___/___/___		___/___/___		
		___/___/___	___/___/___		___/___/___		
		___/___/___	___/___/___		___/___/___		
Response Codes / Instructions	**Y - Yes N- No**	**mm/dd/yy**	**mm/dd/yy**	**0 1 2 3 Unknown**	**mm/dd/yy**	**P - Probable C - Confirmed**	**A - Alive D - Died (specify date) U - Unknown**

Philippine Integrated Disease Surveillance and Response

Case Report Form

Influenza-like Illness (ICD 10 Code: J11)

Region: _____ **Province**: _____ **Municipality/City**: _____

Name of DRU: _____ **Type**: ☐RHU ☐CHO ☐Gov't Hospital ☐Private Hospital ☐Clinic

Address: _____ ☐Private Laboratory ☐Public Laboratory ☐Seaport/Airport

Patient No.	Patient's Full Name	Age	Sex	Date of Birth	Complete Address	Admitted?	Date admitted/seen/consulted	Date onset of illness	Lab. Done/ Result	Classification	Outcome
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
Response Codes / Instructions	**Indicate First name, Middle name, Last name**	***Age*: Indicate D - days M - months Yr. - years *Sex*: F - Female M - Male**		**mm/dd/yy**	**Specify Street/Purok/Subdivision, House #, Barangay, Municipality/City, Province**	**Y - Yes N- No**	**mm/dd/yy**	**mm/dd/yy**	**Isolation PCR Serology; Specify organism**	**S - Suspect C - Confirmed SS - Suspect SARS SAI - Suspect HAI**	**A - Alive D - Died (specify date) U - Unknown**

Case Definition and Classification:

- ***Suspected case***: A person with sudden onset of fever of ≥38°C and cough or sore throat in the absence of other diagnoses.
- ***Probable case***: Not applicable
- ***Confirmed case***: A suspected case that is laboratory-confirmed (used mainly in epidemiological investigation rather than surveillance).
- ***Suspected Severe Acute Respiratory Syndrome (SARS) case***: A suspect ILI case with exposure to confirmed SARS case.
- ***Suspected Human Avian Influenza***: A suspect ILI case with exposure to sudden bird deaths *(sudden bird deaths in two or more households in a barangay or death of at least 3% of commercial flock increasing twice daily for 2-3 consecutive days)* OR confirmed human avian influenza case.

Note: In cases of Suspected SARS and Suspected HAI notify simultaneously the PHO, CHD and NEC within 24 hours of detection.

Laboratory Confirmation:

- Virus isolation or Polymerase Chain Reaction (PCR) of swab or aspirate from the suspected Individual or direct detection of influenza viral antigen or 4-fold rise in antibody titer between early and late serum.

Philippine Integrated Disease Surveillance and Response

Case Report Form

Influenza-like Illness (ICD 10 Code: J11)

Patient No.	Patient's Full Name	Age	Sex	Date of Birth	Complete Address	Admit-ted?	Date admit-ted/seen/ consulted	Date onset of illness	Lab. Done/ Result	Classifica-tion	Out-come
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
				___/___/___			___/___/___	___/___/___			
Response Codes / Instructions	Indicate First name, Middle name, Last name	*Age*: Indicate D - days M - months Yr. - years *Sex*: F - Female M - Male		mm/dd/yy	Specify Street/Purok/Subdivision, House #, Barangay, Municipality/City, Province	Y - Yes N- No	mm/dd/yy	mm/dd/yy	Isolation PCR Serology; Specify organism	S - Suspect C - Confirmed SS - Suspect SARS SAI - Suspect HAI	A - Alive D - Died (specify date) U - Unknown

Philippine Integrated Disease Surveillance and Response

Case Report Form

Leptospirosis (ICD 10 Code: A27)

Region: _____ **Province**: _____ **Municipality/City**: _____

Name of DRU: _____ **Type**: ☐RHU ☐CHO ☐Gov't Hospital ☐Private Hospital ☐Clinic

Address: _____ ☐Private Laboratory ☐Public Laboratory ☐Seaport/Airport

Patient No.	Name	Age	Sex	Date of Birth	Occupation	Complete Address	Admitted?	Date Admitted/Seen/ Consulted	Date of Onset of Illness	Case Classification	Outcome
				___/___/___				___/___/___	___/___/___		
				___/___/___				___/___/___	___/___/___		
				___/___/___				___/___/___	___/___/___		
				___/___/___				___/___/___	___/___/___		
				___/___/___				___/___/___	___/___/___		
				___/___/___				___/___/___	___/___/___		
Response Codes / Instructions	**Indicate First name, Middle name, Last name**	***Age*: Indicate D - days M - months Yr. - years *Sex*:F - Female M - Male**		**mm/dd/yy**	**Indicate occupation**	**Specify Street/Purok/Subdivision, House #, Barangay, Municipality/City, Province**	**Y - Yes N- No**	**mm/dd/yy**	**mm/dd/yy**	**S - Suspect C - Confirmed**	**A - Alive D - Died (specify date) U - Unknown**

Case Definition/Classification:

- ***Suspected case***: A person who developed acute febrile illness with headache, myalgia and prostration associated with any of the following: conjunctival suffusion, meningeal irritation, anuria or oliguria and/or proteinuria, jaundice, hemorrhages (from the intestines or lungs), cardiac arrhythmia or failure, skin rash and other common symptoms that include nausea, vomiting, abdominal pain, diarrhea, arthralgia AFTER exposure to infected animals or an environment contaminated with animal urine (e.g. wading in flood waters, rice fields, drainage).
- ***Probable case***: Not applicable
- ***Confirmed case***: A suspected case that is laboratory confirmed

Laboratory Confirmation:

- Isolation (and typing) from blood or other clinical specimens through culture of pathogenic *Leptospira*
- Positive serology, preferably Microscopic Agglutination Test (MAT), using a range of *Leptospira* strains for antigens that should be representative of local strains

Philippine Integrated Disease Surveillance and Response

Case Report Form

Leptospirosis (ICD 10 Code: A27)

Patient No.	Name	Age	Sex	Date of Birth	Occupation	Complete Address	Admitted?	Date Admitted/Seen/Consulted	Date of Onset of Illness	Case Classification	Outcome
				___/___/___				___/___/___	___/___/___		
				___/___/___				___/___/___	___/___/___		
				___/___/___				___/___/___	___/___/___		
				___/___/___				___/___/___	___/___/___		
				___/___/___				___/___/___	___/___/___		
				___/___/___				___/___/___	___/___/___		
				___/___/___				___/___/___	___/___/___		
				___/___/___				___/___/___	___/___/___		
				___/___/___				___/___/___	___/___/___		
				___/___/___				___/___/___	___/___/___		
				___/___/___				___/___/___	___/___/___		
Response Codes / Instructions	Indicate First name, Middle name, Last name	*Age*: Indicate D - days M - months Yr. - years *Sex*:F - Female M - Male		mm/dd/yy	Indicate occupation	Specify Street/Purok/Subdivision, House #, Barangay, Municipality/City, Province	Y - Yes N- No	mm/dd/yy	mm/dd/yy	S - Suspect C - Confirmed	A - Alive D - Died (specify date) U - Unknown

Philippine Integrated Disease Surveillance and Response

Case Report Form

Malaria (ICD 10 Code: B50 - B54)

Region: _____ **Province**: _____ **Municipality/City**: _____

Name of DRU: _____ **Type**: ☐RHU ☐CHO ☐Gov't Hospital ☐Private Hospital ☐Clinic

Address: _____ ☐Private Laboratory ☐Public Laboratory ☐Seaport/Airport

Patient No.	Patient's Full Name	Age	Sex	Date of Birth	Occupation	Complete Address	Admitted?	Date Admitted/seen/consulted
				___/___/___				___/___/___
				___/___/___				___/___/___
				___/___/___				___/___/___
				___/___/___				___/___/___
				___/___/___				___/___/___
Response Codes / Instructions	**Indicate First name, Middle name, Last name**	***Age*: Indicate D - days M - months Yr. - years *Sex*:F - Female M - Male**		**mm/dd/yy**	**Specify occupation**	**Specify Street/Purok/Subdivision, House #, Barangay, Municipality/City, Province**	**Y - Yes N- No**	**mm/dd/yy**

Case Definition/Classification:

- ***Uncomplicated malaria*:** Signs and symptoms vary; most patients experience fever. Splenomegaly and anemia are common associated signs. Common but non-specific symptoms include otherwise unexplained headache, back pain, chills, sweating, myalgia, nausea, vomiting.
- ***Severe malaria*:** Coma, generalized convulsions, hyperparasetemia, normocytic anemia, disturbances in fluid, electrolyte, and acid-base balance, renal failure, hypoglycemia, hyperpyrexia, hemoglobinuria, circulatory collapse/shock, spontaneous bleeding (disseminated intravascular coagulation) and pulmonary edema.
- ***Laboratory confirmation***: Demonstration of malaria parasites in blood films (mainly asexual forms)

*In areas **WITHOUT** access to laboratory-based diagnosis:*

- ***Probable uncomplicated malaria case:*** A person with signs (fever, splenomegaly, anemia) and/or symptoms (unexplained headache, back pain, chills, sweating, myalgia, nausea, vomiting) of malaria who receives anti-malarial treatment.
- ***Probable severe malaria case***: A person who requires hospitalization for symptoms and signs of severe malaria (coma, generalized convulsions, renal failure, hyperpyrexia, circulatory collapse/shock, spontaneous bleeding, and pulmonary edema) and receives anti-malarial treatment.
- ***Probable malaria death***: death of a patient diagnosed with probable severe malaria

(continued at the back)

Philippine Integrated Disease Surveillance and Response

Case Report Form

Malaria (ICD 10 Code: B50 - B54)

Patient 's Full Name	Date onset of illness	Type of Parasite	History of Travel (If YES, specify place)	History of Recent Blood Trans-fusion	Case Classification	Outcome
	___/___/___					
	___/___/___					
	___/___/___					
	___/___/___					
	___/___/___					
Response Codes / Instructions	**mm/dd/yy**	**Indicate whether :** ***Plasmodium falciparum*** ***Plasmodium vivax*** ***Plasmodium malariae*** ***Plasmodium ovale*** ***Mi - Mixed (specify)***	**Y = Yes** **N = No** **U = Unknown** ***NOTE*: Travel refers to 2 weeks prior to illness**	**Y = Yes** **N = No** **U = Unknown** ***NOTE*: Blood transfusion 2 weeks prior to illness**	**PU - Probable uncomplicated** **PS - Probable severe** **PD - Probable malaria death** **AS - Asymptomatic malaria** **CU - Confirmed uncomplicated** **CS - Confirmed severe** **CD - Confirmed malaria death**	**A - Alive** **D - Died (specify date)** **U - Unknown**

*(In areas **WITH** access to laboratory-based diagnosis)*

- ***Asymptomatic malaria***: A person with no recent history of symptoms and/or signs of malaria who shows laboratory confirmation of parasitemia.
- ***Confirmed uncomplicated malaria case:*** A person with signs (fever, splenomegaly, anemia) and/or symptoms (unexplained headache, back pain, chills, sweating, myalgia, nausea, vomiting) of malaria who receives anti-malarial treatment AND with laboratory confirmation of diagnosis.
- ***Confirmed severe malaria case****:* A person who requires hospitalization for symptoms and signs of severe malaria (coma, generalized convulsions, hyperparasitemia, normocytic anemia, disturbances in fluid, electrolyte, and acid-base balance, renal failure, hypoglycemia, hyperpyrexia, hemoglobinuria, circulatory collapse/shock, spontaneous bleeding, disseminated intravascular coagulation, and pulmonary edema) and receives anti-malarial treatment AND with laboratory confirmation of diagnosis (microscopy or RDT)
- ***Confirmed malaria death****:* death of a patient classified as confirmed severe malaria.

Malaria Treatment Failure:

- A patient with uncomplicated malaria without any clear symptoms suggesting another concomitant disease who has taken a correct dosage of anti-malarial treatment, and who presents with clinical deterioration or recurrence of symptoms within 14 days of the start of treatment, in combination with parasitaemia (asexual forms).

Philippine Integrated Disease Surveillance and Response

Case Report Form

Non-neonatal Tetanus (ICD 10 Code: A35)

Region: _____ **Province**: _____ **Municipality/City**: _____

Name of DRU: _____ **Type**: ☐RHU ☐CHO ☐Gov't Hospital ☐Private Hospital ☐Clinic

Address: _____ ☐Private Laboratory ☐Public Laboratory ☐Seaport/Airport

Patient No.	Patient's Full Name	Age	Sex	Date of Birth	Occupation	Complete Address
				___/___/___		
				___/___/___		
				___/___/___		
				___/___/___		
				___/___/___		
				___/___/___		
				___/___/___		
				___/___/___		
Response Codes / Instructions	Indicate First name, Middle name, Last name	*Age*: Indicate D - days M - months Yr. - years *Sex*:F - Female M - Male		mm/dd/yy	Indicate occupation	Specify Street/Purok/Subdivision, House #, Barangay, Municipality/City, Province

Case Definition:

- ***Suspected Case:*** Not applicable
- ***Probable Case***: Not applicable
- ***Confirmed Case***: Acute onset of hypertonia and/or painful muscular contractions (usually muscles of the neck and jaw) and generalized muscle spasms without apparent medical cause as reported by a health care professional.

Philippine Integrated Disease Surveillance and Response

Case Report Form

Non-neonatal Tetanus (ICD 10 Code: A35)

Patient's Full Name	Admitted?	Date Admitted/seen/ consulted	Date of Onset of Illness	Recent acute wound	Wound site	Wound type	Received tetanus toxoid vaccination?	Received tetanus antitoxin or TIG?	Skin lesions	Outcome
		___/___/___	___/___/___							
		___/___/___	___/___/___							
		___/___/___	___/___/___							
		___/___/___	___/___/___							
		___/___/___	___/___/___							
		___/___/___	___/___/___							
		___/___/___	___/___/___							
		___/___/___	___/___/___							
Response Codes / Instructions	Y - Yes N- No	mm/dd/yy	mm/dd/yy	Y = Yes N = No U = Unknown ***NOTE***: Wound refers to past 3 months	Head & Neck Trunk Upper extremity Lower extremity Unknown	• Abrasion • Animal bite • Avulsion • Burn • Open fracture • Crash • Dental (caries/ extraction) • Fireworks • Insect bite • Laceration • Puncture • Surgery • Tissue necrosis • Others, specify	Y - Yes N - No U - Unknown	Y - Yes N - No U - Unknown	Y - Yes (specify) N - No U - Unknown ***NOTE***: Skin lesions for the past 3 months, which may include : abscess, ulcer, blister, gangrene, cellulitis, etc.	A - Alive D - Died (specify date) U - Unknown

Philippine Integrated Disease Surveillance and Response

Case Report Form

Pertussis (ICD 10 Code: A37)

Region: _____ **Province**: _____ **Municipality/City**: _____

Name of DRU: _____ **Type**: ☐RHU ☐CHO ☐Gov't Hospital ☐Private Hospital ☐Clinic

Address: _____ ☐Private Laboratory ☐Public Laboratory ☐Seaport/Airport

Patient No.	Patient's Full Name	Age	Sex	Date of Birth	Complete Address
				___/___/___	
				___/___/___	
				___/___/___	
				___/___/___	
				___/___/___	
				___/___/___	
				___/___/___	
				___/___/___	
Response Codes / Instructions	**Indicate First name, Middle name, Last name**	***Age*: Indicate** **D - days** **M - months** **Yr. - years** ***Sex*: F - Female** **M - Male**		**mm/dd/yy**	**Specify Street/Purok/Subdivision, House #, Barangay, Municipality/City, Province**

Case Definition/Classification:

- ***Suspected Case:*** A person with a cough lasting at least 2 weeks with at least one of the following: paroxysms (i.e. fits) of coughing, inspiratory whooping, post-tussive vomiting and without other apparent cause.
- ***Probable Case***: Not applicable
- ***Confirmed Case***: A suspected case that is laboratory-confirmed.

Laboratory Confirmation:

- Isolation of *Bordetella pertussis*, or detection of genomic sequences by polymerase chain reaction (PCR).

Philippine Integrated Disease Surveillance and Response

Case Report Form

Pertussis (ICD 10 Code: A37)

Patient's Full Name	Admit-ted?	Date Admitted/ seen/ consulted	Date of onset of Illness	No. of DPT doses received?	Date of last DPT	Case Classification	Outcome
		___/___/___	___/___/___		___/___/___		
		___/___/___	___/___/___		___/___/___		
		___/___/___	___/___/___		___/___/___		
		___/___/___	___/___/___		___/___/___		
		___/___/___	___/___/___		___/___/___		
		___/___/___	___/___/___		___/___/___		
		___/___/___	___/___/___		___/___/___		
		___/___/___	___/___/___		___/___/___		
Response Codes / Instructions	Y - Yes N- No	mm/dd/yy	mm/dd/yy	0 1 2 3 Unknown	mm/dd/yy	S - Suspect C - Confirmed	A - Alive D - Died (specify date) U - Unknown

Philippine Integrated Disease Surveillance and Response

Case Report Form

Typhoid and Paratyphoid Fever (ICD 10 Code: A01)

Region: _____ **Province**: _____ **Municipality/City**: _____

Name of DRU: _____

Address: _____

Type: ☐RHU ☐CHO ☐Gov't Hospital ☐Private Hospital ☐Clinic ☐Private Laboratory ☐Public Laboratory ☐Seaport/Airport

Patient No.	Patient's Full Name	Age	Sex	Date of Birth	Complete Address
				____/____/____	
				____/____/____	
				____/____/____	
				____/____/____	
				____/____/____	
				____/____/____	
				____/____/____	
				____/____/____	
Response Codes / Instructions	**Indicate First name, Middle name, Last name**	***Age*: Indicate** **D - days** **M - months** **Yr. - years** ***Sex*: F - Female** **M - Male**		**mm/dd/yy**	**Specify Street/Purok/Subdivision, House #, Barangay, Municipality/City, Province**

Case Definition/Classification:

- ***Suspected case*:** A person with an illness characterized by insidious onset of sustained fever with headache, malaise, anorexia, relative bradycardia, constipation or diarrhea, and non-productive cough.
- ***Probable case*:** A suspected case that is epidemiologically linked to a confirmed case in an outbreak or, a suspected case positive for Typhidot test.
- ***Confirmed case*:** A suspected or probable case that is laboratory confirmed.

Laboratory Confirmation:

- Isolation of *Salmonella enterica* from blood, stool, or other clinical specimen

Philippine Integrated Disease Surveillance and Response

Case Report Form

Typhoid and Paratyphoid Fever (ICD 10 Code: A01)

Patient's Full Name	Admitted?	Date Admitted/ seen/consulted	Date onset of illness	Laboratory Result	Case Classification	Outcome
		____/____/____	____/____/____			
		____/____/____	____/____/____			
		____/____/____	____/____/____			
		____/____/____	____/____/____			
		____/____/____	____/____/____			
		____/____/____	____/____/____			
		____/____/____	____/____/____			
		____/____/____	____/____/____			
Response Codes / Instructions	**Y - Yes N- No**	**mm/dd/yy**	**mm/dd/yy**	**Specify Organism**	**S - Suspect P - Probable C - Confirmed**	**A - Alive D - Died (specify date) U - Unknown**

Annex 8: List of Laboratories for Confirming Diseases and Syndromes under Surveillance

Periodically update the list of laboratories with capacities to confirm priority diseases in your respective provinces and regions. It would be helpful to also record whom to contact for assistance.

Name Of Disease/Condition	Available Laboratory Tests	Name, Address, And Phone Number of the Laboratory

Annex 9: The Notifiable Disease Report Register

The NDRR is a record of all PIDSR Weekly Notifiable Disease Reports prepared by the Disease Surveillance Coordinator of the hospital/clinic and submitted to the health office. It serves as the monitoring and tracking tool for both the hospital/clinic and the evaluators of the CHD hospital licensing and surveillance staff on the PIDSR implementation and compliance.

Republic Act 3573 (Law of Reporting of Communicable Diseases), requires all individuals and health facilities to report notifiable diseases to local and national public health authorities.

NOTIFIABLE DISEASE REPORT REGISTER

Calendar Year_____

Name of Hospital/Clinic :_____

Classification : [ ] Government [ ] Private

Level : [ ] 1 [ ] 2 [ ] 3 [ ] 4

Address :_____

Chief of Hospital/Medical Director :_____

Instructions:

1. Record all Weekly Notifiable Disease Reports (WNDR) prepared or submitted to the health office in columns 1 to 6 Worksheet C2 of the Notifiable Disease Report Register (NDRR). Leave blank columns 7 to 9 for the evaluator.
2. Present the NDRR to evaluators that visit your facility. The evaluators may come from the Centers for Health Development (hospital licensing and surveillance staff) or surveillance staff from the Provincial Health Office (PHO).
3. The designated Disease Surveillance Coordinator (DSC) in the hospital/clinic shall be responsible in filling up and safekeeping of the NDRR.
4. Submit a duplicate copy of the NDRR to the Hospital Licensing Unit of the Centers for Health Development for renewal of license to operate.

Philippine Integrated Disease Surveillance and Response

Name of Hospital:_____

NOTIFIABLE DISEASE REPORT REGISTER

Calendar Year_____

(1) Week	(2) Prepared Weekly Notifiable Dis-ease Report?	(3) Date report prepared	(4) Was the report submitted to the health office?	(5) Date report submitted	(6) Specify the name of person or health office who received the report	(7) Name and signature of evaluator	(8) Date of evaluation	(9) Evaluator's Remarks
1	[ ] Yes [ ] No	___/___/___	[ ] Yes [ ] No	___/___/___			___/___/___	
2	[ ] Yes [ ] No	___/___/___	[ ] Yes [ ] No	___/___/___			___/___/___	
3	[ ] Yes [ ] No	___/___/___	[ ] Yes [ ] No	___/___/___			___/___/___	
4	[ ] Yes [ ] No	___/___/___	[ ] Yes [ ] No	___/___/___			___/___/___	
5	[ ] Yes [ ] No	___/___/___	[ ] Yes [ ] No	___/___/___			___/___/___	
6	[ ] Yes [ ] No	___/___/___	[ ] Yes [ ] No	___/___/___			___/___/___	
7	[ ] Yes [ ] No	___/___/___	[ ] Yes [ ] No	___/___/___			___/___/___	
8	[ ] Yes [ ] No	___/___/___	[ ] Yes [ ] No	___/___/___			___/___/___	
9	[ ] Yes [ ] No	___/___/___	[ ] Yes [ ] No	___/___/___			___/___/___	
10	[ ] Yes [ ] No	___/___/___	[ ] Yes [ ] No	___/___/___			___/___/___	
11	[ ] Yes [ ] No	___/___/___	[ ] Yes [ ] No	___/___/___			___/___/___	
12	[ ] Yes [ ] No	___/___/___	[ ] Yes [ ] No	___/___/___			___/___/___	
13	[ ] Yes [ ] No	___/___/___	[ ] Yes [ ] No	___/___/___			___/___/___	

Philippine Integrated Disease Surveillance and Response

Name of Hospital:_____

NOTIFIABLE DISEASE REPORT REGISTER

Calendar Year_____

(1) Week	(2) Prepared Weekly Notifiable Disease Report?	(3) Date report prepared	(4) Was the report submitted to the health office?	(5) Date report submitted	(6) Specify the name of person or health office who received the report	(7) Name and signature of evaluator	(8) Date of evaluation	(9) Evaluator's Remarks
14	[ ] Yes [ ] No	___/___/___	[ ] Yes [ ] No	___/___/___			___/___/___	
15	[ ] Yes [ ] No	___/___/___	[ ] Yes [ ] No	___/___/___			___/___/___	
16	[ ] Yes [ ] No	___/___/___	[ ] Yes [ ] No	___/___/___			___/___/___	
17	[ ] Yes [ ] No	___/___/___	[ ] Yes [ ] No	___/___/___			___/___/___	
18	[ ] Yes [ ] No	___/___/___	[ ] Yes [ ] No	___/___/___			___/___/___	
19	[ ] Yes [ ] No	___/___/___	[ ] Yes [ ] No	___/___/___			___/___/___	
20	[ ] Yes [ ] No	___/___/___	[ ] Yes [ ] No	___/___/___			___/___/___	
21	[ ] Yes [ ] No	___/___/___	[ ] Yes [ ] No	___/___/___			___/___/___	
22	[ ] Yes [ ] No	___/___/___	[ ] Yes [ ] No	___/___/___			___/___/___	
23	[ ] Yes [ ] No	___/___/___	[ ] Yes [ ] No	___/___/___			___/___/___	
24	[ ] Yes [ ] No	___/___/___	[ ] Yes [ ] No	___/___/___			___/___/___	
25	[ ] Yes [ ] No	___/___/___	[ ] Yes [ ] No	___/___/___			___/___/___	
26	[ ] Yes [ ] No	___/___/___	[ ] Yes [ ] No	___/___/___			___/___/___	

Philippine Integrated Disease Surveillance and Response

Name of Hospital:_____

NOTIFIABLE DISEASE REPORT REGISTER

Calendar Year_____

(1) Week	(2) Prepared Weekly Notifiable Disease Report?	(3) Date report prepared	(4) Was the report submitted to the health office?	(5) Date report submitted	(6) Specify the name of person or health office who received the report	(7) Name and signature of evaluator	(8) Date of evaluation	(9) Evaluator's Remarks
27	[ ] Yes [ ] No	___/___/___	[ ] Yes [ ] No	___/___/___			___/___/___	
28	[ ] Yes [ ] No	___/___/___	[ ] Yes [ ] No	___/___/___			___/___/___	
29	[ ] Yes [ ] No	___/___/___	[ ] Yes [ ] No	___/___/___			___/___/___	
30	[ ] Yes [ ] No	___/___/___	[ ] Yes [ ] No	___/___/___			___/___/___	
31	[ ] Yes [ ] No	___/___/___	[ ] Yes [ ] No	___/___/___			___/___/___	
32	[ ] Yes [ ] No	___/___/___	[ ] Yes [ ] No	___/___/___			___/___/___	
33	[ ] Yes [ ] No	___/___/___	[ ] Yes [ ] No	___/___/___			___/___/___	
34	[ ] Yes [ ] No	___/___/___	[ ] Yes [ ] No	___/___/___			___/___/___	
35	[ ] Yes [ ] No	___/___/___	[ ] Yes [ ] No	___/___/___			___/___/___	
36	[ ] Yes [ ] No	___/___/___	[ ] Yes [ ] No	___/___/___			___/___/___	
37	[ ] Yes [ ] No	___/___/___	[ ] Yes [ ] No	___/___/___			___/___/___	
38	[ ] Yes [ ] No	___/___/___	[ ] Yes [ ] No	___/___/___			___/___/___	
39	[ ] Yes [ ] No	___/___/___	[ ] Yes [ ] No	___/___/___			___/___/___	

Philippine Integrated Disease Surveillance and Response

Name of Hospital:_____

NOTIFIABLE DISEASE REPORT REGISTER

Calendar Year_____

(1) Week	(2) Prepared Weekly Notifiable Disease Report?	(3) Date report prepared	(4) Was the report submitted to the health office?	(5) Date report submitted	(6) Specify the name of person or health office who received the report	(7) Name and signature of evaluator	(8) Date of evaluation	(9) Evaluator's Remarks
40	[ ] Yes [ ] No	___/___/___	[ ] Yes [ ] No	___/___/___			___/___/___	
41	[ ] Yes [ ] No	___/___/___	[ ] Yes [ ] No	___/___/___			___/___/___	
42	[ ] Yes [ ] No	___/___/___	[ ] Yes [ ] No	___/___/___			___/___/___	
43	[ ] Yes [ ] No	___/___/___	[ ] Yes [ ] No	___/___/___			___/___/___	
44	[ ] Yes [ ] No	___/___/___	[ ] Yes [ ] No	___/___/___			___/___/___	
45	[ ] Yes [ ] No	___/___/___	[ ] Yes [ ] No	___/___/___			___/___/___	
46	[ ] Yes [ ] No	___/___/___	[ ] Yes [ ] No	___/___/___			___/___/___	
47	[ ] Yes [ ] No	___/___/___	[ ] Yes [ ] No	___/___/___			___/___/___	
48	[ ] Yes [ ] No	___/___/___	[ ] Yes [ ] No	___/___/___			___/___/___	
49	[ ] Yes [ ] No	___/___/___	[ ] Yes [ ] No	___/___/___			___/___/___	
50	[ ] Yes [ ] No	___/___/___	[ ] Yes [ ] No	___/___/___			___/___/___	
51	[ ] Yes [ ] No	___/___/___	[ ] Yes [ ] No	___/___/___			___/___/___	
52	[ ] Yes [ ] No	___/___/___	[ ] Yes [ ] No	___/___/___			___/___/___	