OPERATIONS MANUAL FOR MANAGERS

FIRST EDITION, JULY 2011

DOH-HEMS VISION GOAL AND MISSION STATEMENT

Vision

Western Pacific Region's model in Health Emergency Management

We are the leader in human resource development, technical assistance, and health emergency care, with state-of-the-art equipment and logistics. Our health emergency policies, plans, programs, and systems are internationally acclaimed and benchmarked to guarantee minimum loss of lives during health emergencies and disasters.

GOAL

Reduced morbidity and mortality during emergencies and disasters

Mission

Institutionalization of a comprehensive, integrated, coordinated and dynamic health sector management at all levels.

As the health emergency management arm of the DOH, the HEMS was institutionalized, by virtue of Executive Order 102, to ensure a comprehensive and integrated Health Sector Emergency Management System to prevent or minimize the loss of lives during emergencies and disasters in collaboration with government, business, and civil society groups.

Core values

Leadership, Excellence, Integrity, Teamwork, Commitment and Professionalism, Compassion and Respect for Human Dignity

HEMS MINIMUM PACKAGE

HEMS Central Office	CHD	Hospital	LGU
HEMS Organizational Structure with interoperability mechanism within DOH Central	HEMS Organizational Structure in place	HEMS Organizational Structure in place	HEMS Organizational Structure in place
Functional state-of-the-art OpCen	Functional OpCen	Functional OpCen	Functional OpCen
National Plan for mobilization, information management, coordination, and international support	With HEPRRP	With HEPRRP	With HEPRRP
Response Teams for RHA/DANA and SPEED. Mechanism for coordination of medical teams as well as experts.	Response Teams: • RHA/DANA • Health • Nutrition • WASH • MHPSS • Surveillance (SPEED)	Response Teams: • Medical • Trauma	Response Teams: • RHA/DANA • Health • Nutrition • WASH • MHPSS • Surveillance (SPEED)

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MESSAGE

It has been more than a year since Ondoy, Pepeng, and Santi wrought havoc in our country, and yet, the harrowing experiences and painful memories remain fresh in our minds.

The unprecedented magnitude of disasters caused by the three typhoons helped us realize the value of a good information management system during emergency preparedness and response. This was validated by the Global Outbreak and Response Network (GOARN) which recommends the need to immediately set up a public health surveillance system for emergencies and disasters.

The Health Emergency Management Staff, together with the World Health Organization, conceptualized the Surveillance in Post Extreme Emergencies and Disasters (SPEED) Project designed to address at least in part the information gaps highlighted during emergencies and disasters.

I extend my sincere congratulations to DOH-HEMS for once again, leading the health sector in ensuring that a comprehensive and integrated emergency management system is in place by institutionalizing SPEED. To my mind, there is no doubt that DOH-HEMS is fast becoming Asia's prime mover in health emergency and disaster preparedness and response.

I would also like to thank our donors from USAID, AusAID, and the Government of Finland for the valuable support you have extended through the World Health Organization. We hope that you will continue to support the Department of Health as we scale up this pivotal and innovative project all over the country.

I encourage all health emergency managers to use this Operations Manual for Managers. It is a very practical guide that will indeed help them to maximize the use of the innovative SPEED system. I am proud to say, that, finally, we have a tool at our disposal during emergencies and disasters to help us reduce preventable morbidities and mortalities and monitor their health-related consequences.

ENRIQUE T. ONA, M.D.
Secretary of Health

MESSAGE

The Center for Research on the Epidemiology of Disasters (CRED), a World Health Organization (WHO) Collaborating Center based in Belgium, has declared that our planet is "facing an unprecedented scale of disasters… with nearly 25% of the word's landmass and nearly 75% of its population at risk" from the latter's impact. These continue to be felt as the world grapples with weather-related events brought on by climate change.

The Philippines is no exception. Fortunately, the concepts and practices of disaster risk reduction now more than ever enjoy prominence and mainstreaming, especially with the enactment of the Philippine Disaster Risk Reduction and Management Act of 2010. Efforts are already well underway, for example, to make hospitals and schools safer from disasters. A better law now supports the intrinsic Filipino resilience in the face of disasters.

In 2009, this Filipino resilience was tested by a string of weather disturbances which likewise brought to the fore the remaining gaps in an otherwise already maturing disaster consciousness among Filipinos. Ondoy, Pepeng, and Santi inundated an inordinate number of cities and municipalities, bringing with them consequent staggering health concerns.

Armed with the lessons from this triumvirate of disasters, the WHO is happy to collaborate with the Department of Health – Health Emergency Management Staff in its continuing efforts to scale up disaster preparedness, response, and recovery. The development of the Surveillance in Post Extreme Emergencies and Disasters (SPEED) System is a decisive step in our collective action to continue delivering health services post-emergencies and disasters based on adequate, timely, and relevant data from frontline health workers and partners.

The concept and dream to establish a post-disaster health surveillance system has now become a reality through the efforts of many. I would like to extend my deepest gratitude to our global partners-the Australian Agency for International Development (AusAID), the United States Agency for International Development (USAID), and the Government of Finland for their invaluable support which made SPEED possible, including the development of this Manual.

SPEED is one of those programs that we wish we will never have to use. But recognizing Philippine reality, it is our common hope and consolation that by the time the next disaster comes, we have the SPEED system ready to help health emergency managers respond better to the needs of the people under their care through quality health information management.

SOE NYUNT-U, M.B., B.S., M.Sc.
WHO Representative in the Philippines

MESSAGE

Decision-makers need timely, accurate and relevant information as basis for appropriate action during emergencies in order to reduce preventable deaths and morbidities. However, the conditions of humanitarian crises pose challenges in the collection of data and its transformation to information. Confusion and disrupted lifelines are just some identified gaps that are emphasized during such times and may give rise to situations where access to basic health services is also disrupted.

The infamous disasters during the last quarter of 2009 caused by the successive Typhoons Ondoy, Pepeng, and Santi is a good example of how information gaps are highlighted during emergencies and disasters. Although the cost was high, lessons were learned and new opportunities for development have arisen due to the three typhoons.

SPEED is one project that DOH-HEMS, in collaboration with WHO, chose to undertake in 2010 to finally bridge the information management gap during emergencies. It is designed to gather all the relevant health data directly from the evacuation centers and health facilities including our hospitals so that the generated information can help managers from all levels of the health system to make timely and evidence-based decisions. The system, training programs, and the web-based software have all been developed so far. An initial draft of the then called SPEED Field Manual have undergone quite a number of revisions to include new concepts, protocols, procedures, and guidelines on the use of the SPEED system to accommodate all the comments and recommendations that have arisen.

This Operations Manual for Managers is a useful guide for health emergency managers in using the SPEED system to provide the needed information. I invite all the users of this manual to contribute valuable insights, experiences, and inputs to facilitate its ceaseless evolution with the ultimate goal of improving the system.

Teodoro J. Herbosa, M.D., F.P.C.S., F.A.C.S.
Undersecretary of Health

PREFACE

Three prominent dates during the last quarter of 2009 will forever be ingrained in the hearts and minds of our people: *September 26*, when Tropical Storm "ONDOY" (International codename: Ketsana) dumped the heaviest rainfall in more than four decades on NCR and Regions III and IV-A and left some areas submerged in up to 20 feet of water; *October 2*, when Typhoon "PEPENG" (International codename: Parma) sent heavy rains and strong winds and also caused massive floods and landslides which cut off major highways in CAR and Regions I and II; and, *October 29*, when Typhoon "SANTI" (International codename: Mirinae) hit Region IV-A and again caused flooding in some areas of Metro Manila and added even more water to the persistently flooded areas.

During those times, damages to health infrastructure, the loss of lives and physical injuries, disruption of livelihood and services, and displacement of affected populations were among the immediate priorities of the health sector. Response to each of the three typhoons immediately followed. However, due to the persistent flooding and the strain to the healthcare system caused by the serial typhoons, diseases due to the unfavorable conditions and poor sanitation began to rise – the most notable of which was one of the biggest leptospirosis outbreaks recorded worldwide.

As health emergency managers, our experiences, through strategic learning, are our most valuable tool for the improvement of response. But, accurate and relevant information remains our most vital and powerful ally in providing timely and appropriate action in times of emergencies and disasters.

To finally fill the gap in information management which was highlighted during the three disasters, Surveillance in Post Extreme Emergencies and Disasters (SPEED) was conceptualized. During the early months of 2010, a very tedious process of developing the system was initiated through consultations among the different technical units of the DOH and WHO consultants. This was followed by field assessments to six identified areas to determine the existing reporting mechanisms and capacities and the drafting of the first field manual. Pilot testing and advocacy forums were conducted to ensure its applicability and sustainability down to the local levels.

This operations manual for managers is specifically designed for health emergency managers at all levels and agencies of the health sector. May it serve as a guide in harnessing SPEED as a very powerful tool capable of providing virtually real-time and accurate information to decision makers. Because of this innovation, health emergency managers are finally enabled to institute proactive – rather than reactive – measures during emergencies and disasters.

Together with the World Health Organization, I would like to extend my thanks to everyone who has been part of this endeavour and enjoin all health emergency managers to celebrate this important milestone in health emergency management. I encourage all colleagues who will use this manual to contribute to SPEED's further improvement by continuously sharing the outcomes and best practices learned from the use of the system. Our collective efforts can help mitigate, if not prevent altogether, the adverse health consequences of disasters and emergencies.

Carmencita A. Banatin, M.D., M.H.A.
Director III, HEMS

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Our thanks to God Almighty for His guidance, strength, and wisdom in leading us in the advancement of surveillance during emergencies and disasters. Also for the following who in one way or another, had propelled this project from the very beginning:

- The members of the DOH SPEED Core Group (Dr Nicolas Bautista, Dr Aurora Daluro, Dr Alah Baby Vingno, Dr Ma. Paz Corrales, Dr Evelyn David, Dr. Mariano Recano, Ms Cecil Lopez-Zuasula, Ms Carmina Cuaresma, Mr Henry Hojascastro, Dr Ederlina Patac, Dr Allison Gocotano, Ms Emily Razon, Dr Jojo Roque), Dr Marilyn Go, HEMS coordinators, and all the regional, provincial, and municipal trainees, who provided valuable inputs to further improve the content of the manual during the conduct of meetings, workshops, and trainings;
- The DOH Health Emergency Management Staff and Trainers who, day and night, gave their technical support and assistance, all in service to the Filipino people;
- Usec Mario Villaverde and members of the DOH Steering Committee under the Service Delivery cluster for providing direction and encouraging support rendered during the conceptualization of the project;
- The WHO SPEED Project Team: Dr Maria Lourdes Barrameda, Dr Gerardo Medina, Dr Aura Corpuz, Dr Peter Mala, Dr Ayedee Domingo, Dr Michael Emerson Gnilo, Dr Paul Andrew Zambrano, Dr Rene Andrew Bucu, Dr Rene Gerard Galera Jr, Dr Christian Gomez, Dr Katherine Villegas, Ms Corazon Acosta, Ms Julie Villadolid, and Ms Nina Hermosa of WHO EHA Philippines for their valuable technical assistance;
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- Dr Rene Gerard Galera Jr, for tirelessly reviewing technical concepts, revising and combining the two previous versions to come up with this comprehensive manual for managers, and designing the cover and initial lay-out of this manual;
- The WHO Representative in the Philippines, Dr Soe Nyunt-U, for his exceptional and unwavering
- dedication to the project;
- The WHO Western Pacific Regional Office and the WHO Philippine Country Office for their technical and financial support in the development of the SPEED system, trainings, advocacy fora, and the production of this manual;
- The US Agency for International Development (USAID), the Government of Finland, and the Australian Agency for International Development (AusAID) for their invaluable assistance in the development phase of SPEED.

Health Emergency Management Staff
Department of Health

INTRODUCTION

During an emergency situation, the availability of good information is critical for decision makers in the planning and execution of humanitarian response. A good health information system and sound information management are fundamental to the ultimate goals of humanitarian aid – human survival and health.

In the last quarter of 2009, Tropical Storm Ondoy, and Typhoons Pepeng and Santi struck the Philippines successively. The three tropical cyclones caused massive floods affecting large areas of Metro Manila, Regions III, and IV-A, and destruction of land and property in Regions I, II, and CAR. More than 2 million families were affected, with billions of pesos in damage to health facilities. The unprecedented magnitude of the disasters coupled with the usual challenges posed by a devolved healthcare system highlighted gaps in information management.

The result of the Post-Incident Evaluation of the Response to Ondoy, Pepeng, and Santi further supported the Global Outbreak Alert and Response Network (GOARN) recommendations, which stated that "an integrated public health monitoring system in emergencies should be immediately established." This system should be able to detect early any unusual increase of major public health problems including both communicable diseases and non-communicable diseases such as injuries, animal bites, and uncontrolled hypertension, to name a few.

Since the evaluation, the Department of Health-Health Emergency Management Staff (DOH-HEMS), in collaboration with the World Health Organization (WHO), has embarked on a project to develop the Surveillance in Post Extreme Emergencies and Disasters (SPEED) System to address at least in part the need for such an information system.

A health information system assists information managers to transform data into useful information needed by decision makers. SPEED is designed to gather data for both communicable diseases (syndromic in form for health facilities like Evacuation Centers and Barangay Health Stations or Rural Health Units; initial diagnoses for hospitals and private clinics) and non-communicable diseases and conditions (including injuries and uncontrolled chronic diseases) in extreme emergencies and disasters. It aims to detect as early as possible potential disease outbreaks and monitor the trends of priority health events to help avert or minimize morbidity and mortality through a timely and appropriate response by health emergency managers.

SPEED uses a web-based software capable of managing the data it receives from various modes (manual encoding, SMS, or online). Information managers can then validate the data online and generate the needed descriptive analysis through charts, graphs, spreadsheets, maps, and status reports to transmit this vital information to all levels of the health system real-time.

The main purpose of this Operations Manual is to help government and non-government health workers and officials involved in emergency management to maximize the use of the SPEED system. This manual defines the SPEED system and its significance to public health. Furthermore, it features the system's various components, operational and technical guidelines, and includes essential pointers and tips in a user-friendly format to guide health emergency managers in its application.

This manual, as with the SPEED system and its innovative use of both SMS and web-based technology in disaster surveillance, is still a work in progress. Revisions are to be expected as the system undergoes further development and institutionalization. Some suggested procedures in this manual may have to be adapted to fit local conditions and situations. But in the end, the success of SPEED and the value of this manual will be ultimately determined by the insights, inputs, experiences, and the collective effort of all its users to improve the system.

SECTION I

Principles of Health Emergency Management

Many commonly used terms have very specific meanings in the context of Emergency Management. Some are defined below because they are fundamental to the Surveillance in Post Extreme Emergencies and Disaster (SPEED) Program:

Hazard[1]

- *is any potential threat to public safety and/or public health; any phenomenon which has the potential to cause disruption or damage to people, their property, their services, or their environment or community. The four classes of hazards are natural, technological, biological, and societal hazards.*

FIGURE 1. *"All disasters are emergencies but not all emergencies are disasters[3]"*

Event[2]

- *is an emergency incident or occurrence. Event is often used to describe an emergency with a number of incidents, but most often, event and incident are used interchangeably.*

Emergency[1]

- *is any actual threat to public safety; an exceptional event of any magnitude that produces damage and injury demanding immediate action. An emergency may result from a natural, human generated, technological or societal hazard.*
  - ***Minor Emergency** – any emergency where capacity and resources are ADEQUATE for emergency response.*
  - ***Major/Extreme Emergency** – any emergency where response is CONSTRAINED by insufficient resources to meet immediate needs.*

1,2 – References can be found on page 64 of this Manual

FIGURE 2. Phases in the Health Emergency Management Framework

Disaster[1]

- *is any emergency, any actual threat to public safety and or public health, whereby local emergency management, services, and measures are UNABLE to meet the immediate needs of the community whether due to lack of time, capacity or resources, resulting in unacceptable levels of damage or numbers of casualties.*

NOTE:
The conditions and circumstances in any event/emergency/disaster are very dynamic. One may evolve into another depending on its nature, its impact, and the capacity of the community to respond.

Emergency Management[2]

- Emergency management is a discipline dealing with the assessment, reduction, and avoidance of excessive risk. It is the organized response to natural, human-generated or technological disasters or risk events and post-event support for the planning and rebuilding of damaged institutions. It is also sometimes referred to as disaster management.
- In DOH-HEMS, a holistic approach to Health Emergency Preparedness and Response was used to cover all the phases of the emergency/disaster[1]:
  - Pre-Emergency/ Disaster Phase for *Emergency Preparedness, Mitigation, and Prevention*
  - Emergency/Disaster Phase for *Response*
  - Post-Emergency/ Disaster Phases for *Recovery and Reconstruction*

Table 1, taken from the Sixth Inter-regional Training Course in Public Health and Health Emergency Management Course in Asia and the Pacific (PHEMAP) in 2006, shows the roles that the health sector needs to assume vis-à-vis the different phases of health emergency management. Note that health information is managed during the response to emergencies/disasters.

TABLE 1. Timeline of Health Sector Roles by Health Emergency Management Phases[4]

TIME	0 ----------→	EVENT	----------→ N
PHASES	**Pre-emergency/Disaster**	**Emergency/Disaster**	**Post-emergency/ Disaster**
ROLES	Emergency Preparedness, Mitigation and Prevention	Response	Recovery and Reconstruction
	Assess risks • Anticipate the problems.	Respond to emergencies	Institute measures for recovery and rehabilitation
	Reduce risks • Communicate the risks; change behavior. • Reduce vulnerability and strengthen resilience (community, staff, infrastructure, and health care facilities).	• Provide leadership in the health sector. • Assess the health consequences and impact on health services. • Determine the needs. • Protect staff and facilities.	• Assess health needs over the long term. • Provide health services over the long term. • Restore health services, facilities and health systems.
	Prepare for emergencies • Plan, train, exercise, evaluate. • Build capacities. • Install early warning systems. • Communicate the risks.	• Provide health services. • Communicate the risks. • Mobilize resources. • Manage logistics • Manage health information. • Manage human resources.	• Develop human resources. • Plan reconstruction to reduce risks.

Health Information Systems

- Health information system has been described as:

  "an integrated effort to collect, process, report and use health information and knowledge to influence policy-making, programme action and research"

  – Guidance on Needs Assessment for National Health Information Systems RDevelopment. World Health Organization, 2000.

  Its fundamental objective is to produce the information necessary for proper action in the health sector. Its performance should be based not only on the quality of data produced, but on evidence of the continuing use of such data for improving health systems operations and health status of the population.[5]

FIGURE 3. ***From Data to Knowledge in Health Information Systems.*** *Information is an end product of data management processes that begins with data collection. When information is integrated and evaluated in terms of the issues confronting the health system, it becomes evidence. When evidence is synthesized, presented, and communicated or disseminated to decision-makers, it becomes knowledge that can be applied to make decisions which directly impact upon health.*

- There are a number of types of Health Information Systems around the world, each designed to accomplish a specific task. In this manual, however, the discussion will be focused on the following types related to SPEED:
  - Public Health surveillance is the ongoing and systematic collection, analysis and interpretation of health data essential to the planning, implementation, and evaluation of public health

practice, closely integrated with the timely dissemination of these data to those who need to know. The final link in the surveillance chain is the application of these data to prevention and control. A surveillance system includes a functional capacity for data collection, analysis and dissemination linked to public health programs[7]. Some examples of surveillance systems include:

1. **Case-based Surveillance**[8]: It is defined as the collection of specific data on each case as determined by a national coordinating body;
2. **Event-based Surveillance**[9]: This is the organized and rapid capture of information about events that are a potential risk to public health – either related to the occurrence of disease or to the potential exposure for humans.
3. **Early Warning Systems**[10]: An Early Warning Surveillance system is a type of Health Surveillance IMS that is solely dedicated to collecting data on epidemic-prone diseases to trigger prompt and timely response;
4. **Laboratory-based Surveillance**[8]: It is the collection data from public health laboratories conducting routine tests for pathogens;
5. **Syndromic Surveillance**[11]: A relatively new surveillance method that employs health-related data that precede a formal diagnosis and signal a sufficient probability of a case or an outbreak to warrant further public health response.

Routine Surveillance Systems in the Philippines

There are existing surveillance systems in the Philippines. The Philippine Integrated Disease Surveillance and Response (PIDSR) is a routine surveillance system designed to detect outbreaks early for immediate response. PIDSR has three surveillance arms (laboratory-based, case-based, and event-based) and employs standard WHO case definitions and epidemiological analytical methods to routinely monitor diseases with outbreak potential. The Field Service Health Information System (FSHIS), on the other hand, is a major component of the network of information sources to manage nationwide health service delivery activities.

Likewise, the Department of Health - Health Emergency Management Staff (DOH-HEMS) conducts a daily event-based surveillance through its 24-hour Operations Center (OPCEN) which uses radio, television and a vast network of health emergency managers nationwide to monitor all hazards that occur. Table 2 shows the differences and similarities of PIDSR and SPEED while Figure 5 shows how and where SPEED will contribute to the routine surveillance systems to make humanitarian response more adequate and timely.

Table 2 shows the differences and similarities of PIDSR and SPEED.

Table 2. Compare and Contrast: PIDSR and SPEED

Characteristics	PIDSR	SPEED
Objective	Early detection of outbreaks and early response	Early detection of unusual increases or occurrence in communicable and non- communicable diseases/health conditions to provide early response during emergencies or disasters
Diseases Monitored	Communicable diseases with outbreak potential	21 communicable and non-communicable diseases common during disasters
Always activated?	Yes, part and parcel of routine surveillance	No. Activated only post-extreme emergencies or disasters
Path of detection	Case- based surveillance, laboratory- based surveillance and event- based surveillance	Event-based surveillance
Frequency of reporting	Weekly for category 2 and within 24hours for category 1	Daily and immediately upon detection when Notification Alert Level is breached

Health Information Cycle

- The Health Information Cycle is a continuous process that gathers reliable, good quality data (using primary or secondary essential data sources) to produce information through analysis and interpretation. The outputs of a health information cycle at one level of care are transmitted to the next level of care.

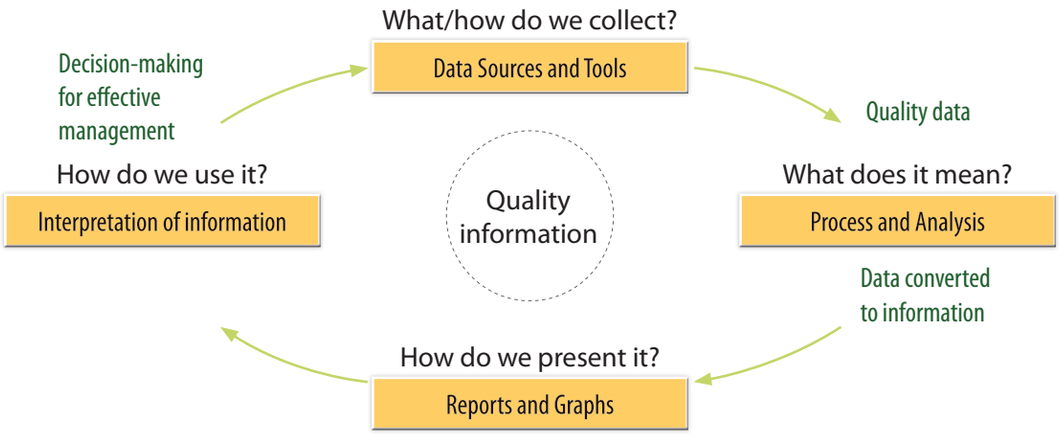


FIGURE 4. The Health Information Cycle

Information Management System in Emergencies

- Information Management System (IMS) in emergencies, as defined by Thieren, is:
  "a set of data collection platforms implemented by a coordinated group of humanitarian actors generating information to support strategic decisions, monitor changes, prioritize action and allocate resources, manage programmes, scaling up or scaling down operations, advocate and formulate concerns in relation to an emergency context."

  – Thieren, M. Health Information System in Humanitarian Emergencies, Bulletin of the World Health Organization, August 2005

- Circumstances of humanitarian crises make it challenging to collect data. Confusion ensues and no one seems to be in charge, lifelines are affected, and at times, public health institutions are disrupted and unable to cope. These give rise to situations where basic services in affected areas may be supplied by external government agencies and NGOs. During such, the Health Information Cycle may be shortened. It may involve temporarily eliminating certain routine reporting steps during emergencies to facilitate speed or timeliness of reporting. Because keeping in mind that information needs are different across the phases of an emergency/disaster, methods used for collecting data should be flexible and simple enough to accommodate rapidly changing figures or situations. A robust data management system should be in place, capable of storing the data, retrieving and updating it as required, and analyzing it to produce needed information.
- IMS is therefore vital to any humanitarian response. It generates the necessary information critical to any and all coordination and decision making to avoid the duplication of efforts and to optimize the use of all resources.

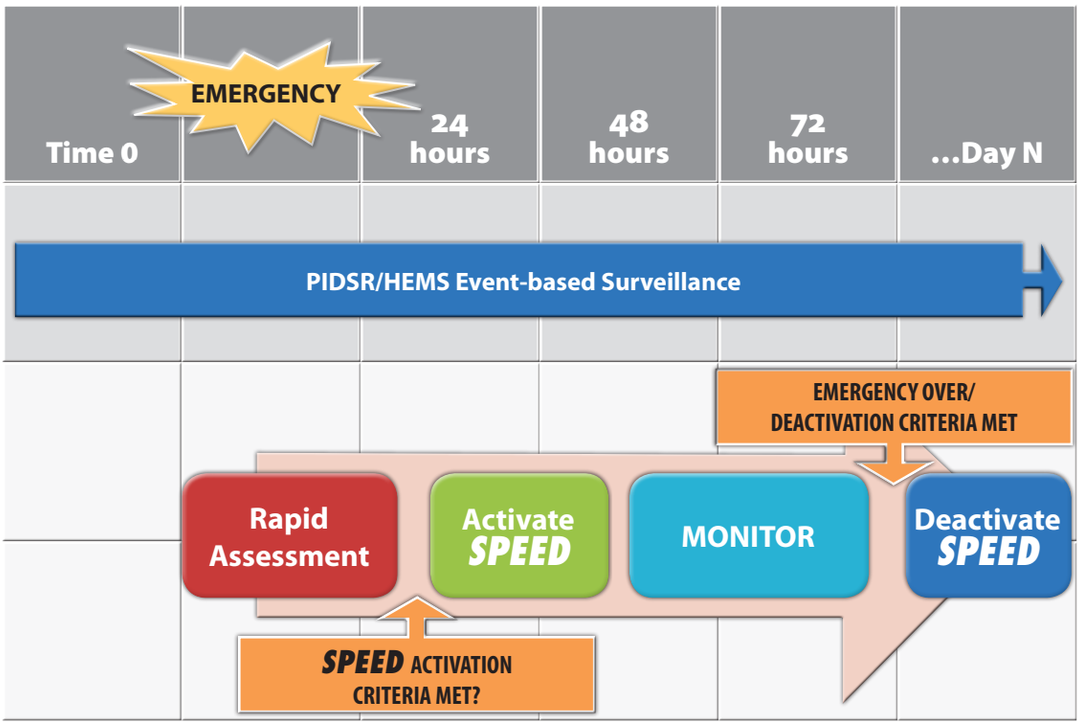


FIGURE 5. ***SPEED is designed for Post Extreme Emergencies and Disasters.*** *SPEED is activated and deactivated based on specific criteria: once an emergency or a disaster is declared; or when certain conditions - as assessed by health officials - warrant close and regular monitoring (See Section 4: SPEED in Response Phase, Activation of SPEED). Post Emergency/Disaster in this context is defined as period immediately after the emergency/disaster occurred.*

SECTION II

Overview of SPEED

A. What is SPEED?

Surveillance in Post-Extreme Emergencies and Disasters (SPEED) is an early warning system designed to monitor diseases (both communicable and non-communicable), injuries, and health trends, that can be harnessed as a powerful tool by health emergency managers in getting vital information for appropriate and timely response during emergencies and disasters.

B. Objective of SPEED

SPEED has the following objectives during extreme emergencies or disasters:

1. early detection of unusual increases or occurrences in communicable and non- communicable diseases/health conditions;
2. monitor health trends; and
3. enable identification of appropriate response

C. Public Health Significance of SPEED

The need to set up the SPEED system was highlighted during the last quarter of 2009 when Tropical Storm *Ondoy*, and Typhoons *Pepeng* and *Santi* caused such massive flooding across six regions of the country, including the National Capital Region. Two weeks after *Ondoy*, the DOH declared an outbreak of Acute Watery Diarrhea in two municipalities. After a week, one of the largest documented outbreak of leptospirosis occurred in three municipalities with over 2000 cases admitted in NCR hospitals alone. Although the outbreaks were subsequently controlled, complications and hundreds of deaths still occurred.

The limitations in resources, lack of standards in information management, devolution of the public health care system, difficulty in coordination, and the unprecedented magnitude of the disaster all posed a great challenge to emergency response. There were times when vital information from the field was delayed or inadequate causing setbacks in critical response activities. All of these constrain the capacity of the government to respond to a sudden increase in the demand for health care which stretched the current health system to its limits.

The need to establish an integrated public health monitoring system was identified during the Global Outbreak Alert and Response Network (GOARN) Mission and the Post-Incident Evaluation of Response to Tropical Storm *Ondoy*, and Typhoons *Pepeng* and *Santi*. Both recommended that this system should be able to detect early any unusual increase of major public health problems including both communicable diseases and non-communicable diseases so that interventions can be taken earlier.

D. The SPEED System

Based on the DOH-HEMS and international databases of common causes of morbidity during emergencies and disasters[13, 14], the system monitors twenty-one (21) identified disease entities or health events (see Table 3) but is also flexible enough to detect rare cases or unusual increases of disease entities not included in the original list. The 21 entities, as approved by the DOH Service Delivery Cluster, are described in a syndromic approach for patients seen in health facilities like evacuation centers, and health centers/stations to enable health workers (not necessarily physicians) to identify the correct entity based solely on the signs and symptoms. For patients seen in hospitals, the 21 entities are directly translated to the equivalent initial diagnoses that can be made by physicians.

Using the prescribed SPEED Reporting Forms, health workers can disaggregate their daily consultation data into two age groups (<5 years and ≥5 years) to prioritize the detection of communicable diseases in children less than 5 years who have an increased risk in contracting diseases in unfavorable conditions. Once the forms are complete, SPEED Reporters may employ any and all modes of submission (SMS or text messaging, manual data encoding, facsimile, personal delivery, voice call dictation, email or direct online submission via the SPEED website) to send their data to the Municipal or City Health Office for validation (see Figure 6). Hospitals can also send their data through the same means to their various reporting units. Once data is validated, decision makers from the different levels of the Philippine health system can immediately access data specific to their area of responsibility and automatically generate health information through descriptive analysis necessary for appropriate and optimal response.

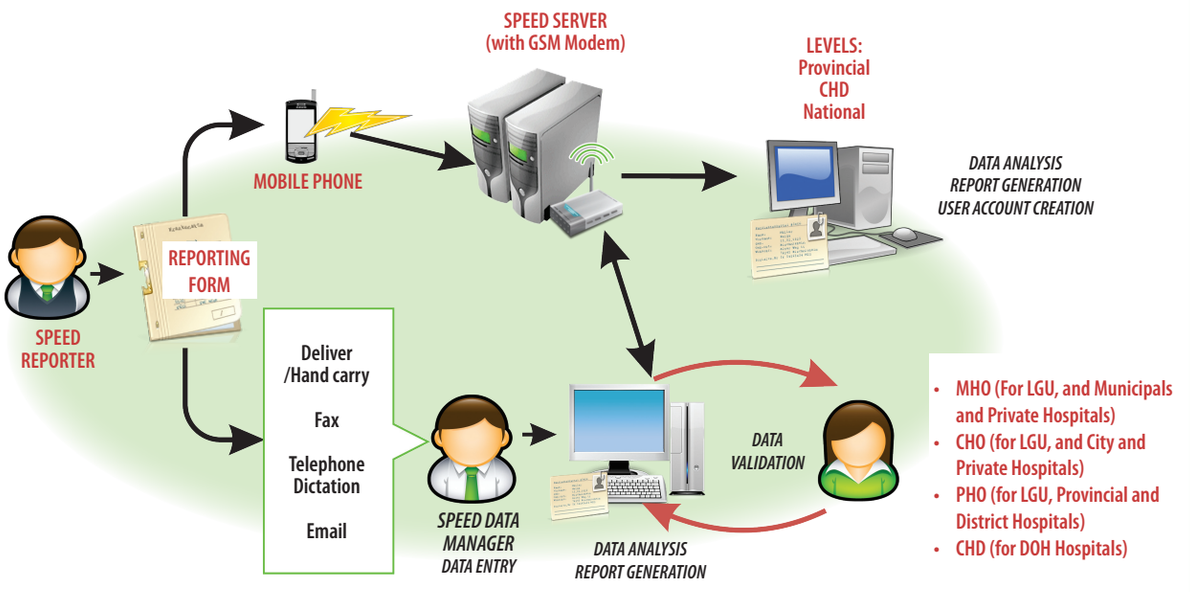


FIGURE 6. SPEED System with its available modalities of submission and data management capabilities

SPEED not only makes the health information crucial to humanitarian response available to the different stakeholders but it also provides them a virtually real-time snapshot of the health status of the affected population at any given period of the emergency or disaster. This unique combination makes the SPEED system such a powerful tool that health emergency managers can utilize in the hope of preventing or minimizing the loss of lives. Also, such a system will help improve good governance by mobilizing and monitoring resources, ensuring accountability, strengthening the evidence base for better policies, and enabling innovation through operational research[5].

Table 3. The 21 disease entities monitored by the SPEED System

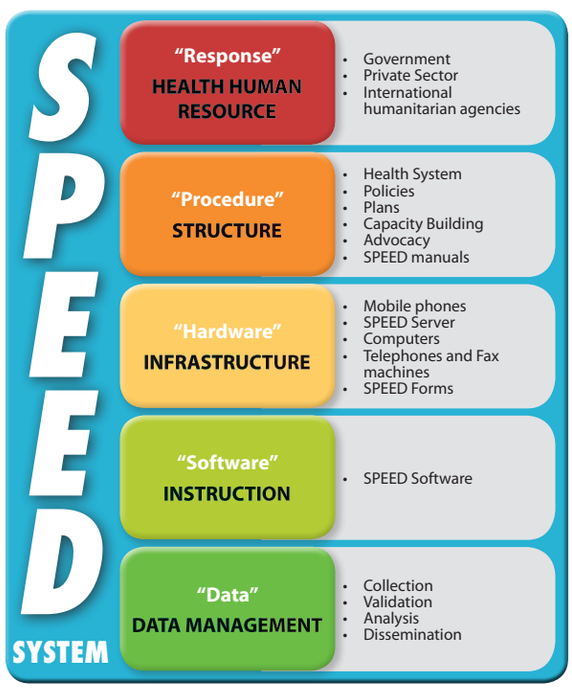
#	Disease Syndrome	Initial Diagnoses
1	Fever	Fever
2	Cough, colds or sore throat with or without fever	Acute Respiratory Infection
3	Fever with rash	Suspected Measles
4	Fever with spontaneous bleeding	Acute Hemorrhagic Fever
5	Fever with severe headache and stiff neck in children 12 months and older/ Fever and bulging fontanels or refusal to suckle in children < 12 months	Suspected Meningitis
6	Fever with headache, muscle pains and any of the following: eye irritation, jaundice, skin rash, scanty urination	Suspected Leptospirosis
7	Yellow eyes or skin with or without fever	Acute Jaundice Syndrome
8	Fever with other symptoms not listed above	Fever with Other Symptoms not specified above
9	Loose stools, 3 or more in the past 24 hours with or without dehydration	Acute Watery Diarrhea
10	Loose stools with visible blood	Acute Bloody Diarrhea
11	Open wounds and bruises/burns	Open Wounds & Bruises/Burns
12	Fractures	Fractures
13	Skin disease	Skin Diseases
14	Animal bites	Animal Bites
15	Eye itchiness, redness with or without discharge	Conjunctivitis
16	Spasms of neck and jaw (lock jaw)	Tetanus
17	High blood pressure (≥ 140/90)	High Blood Pressure
18	Known diabetes	Known Diabetes Mellitus
19	Difficulty of breathing and wheezing	Acute Asthmatic Attack
20	Floppy paralysis of the limbs which occurred recently in a child <15 years who is previously normal	Acute Flaccid Paralysis
21	Visible wasting, with or without bipedal pitting edema	Acute Malnutrition

E. Components of the SPEED System

Information management systems have five basic components, namely: People, Procedure, Hardware, Software, and Data[15]. SPEED, just like any information management system, also has the five basic components described below:

1. "People" = HEALTH HUMAN RESOURCE

This pertains to the human resources needed to run, manage, and maintain the system and those that ultimately use the system. SPEED requires the active participation of all decision makers, policy makers, health emergency managers, health workers and staff across all the levels of the Government, those coming from the Private Sector, even international humanitarian agencies. Each individual has a role in SPEED:



from diagnosing patients, reporting data, and to deciding when and what aid to send to those patients.

- Government
  - Department of Health
    - Central Offices (DOH-CO)
    - DOH-Autonomous Region in Muslim Mindanao (DOH-ARMM)
    - Centers for Health Development (CHD)
    - DOH Hospitals
  - Local Government Units
    - Provincial Health Office (PHO)
    - Municipal/City Health Office (MHO/CHO)
    - Rural Health Units
    - Barangay Health Stations/Centers
    - LGU Hospitals
  - Private Sector
    - Private organizations
    - Civil society
    - Private Hospitals
    - Professional Societies
    - Non-Government Organizations (NGOs)
  - International Humanitarian Agencies

2. "Procedure" = STRUCTURE

This component includes the structures that guide the "People" in using and managing the system. These include hierarchies, policies, plans, advocacy, and training. SPEED utilizes the existing devolved health care system and is built upon the existing IMS in the country. It upholds the various hierarchies, structures, and mechanisms set up by the LGUs in accordance with the Local Government Code of 1991. SPEED also adheres to the existing policies on Health Emergency Management and takes into consideration the newly enacted RA 10121. In effect, the usual reporting flow across all units of the Health Care System (from the LGU or hospitals, to the CHDs and up to DOH-CO) is observed (see Figure 8).

- Relevant policies include but are not limited to the following:
  - Philippine Health Care System
    - Republic Act (RA) 7160: Local Government Code of 1991
    - DOH-AO 2010-0036: Aquino Health Agenda: Achieving Universal Health Care for All Filipinos (AHA-AUHC)
    - DOH-AO 2010-0251: Functional Clustering of DOH Units and Attached Agencies for Implementation of the AHA-AUHC
  - Health Emergency Management Policies and Guidelines
    - RA 8185: Emergency Powers of the Local Government Units
    - RA 10121: Philippine Disaster Risk Reduction and Management Act of 2010
    - DOH-AO 2004-168: National Policy on Health Emergency and Disasters
    - SPEED Operations Manual for Managers
    - SPEED Training Manual
    - SPEED Administrative Order

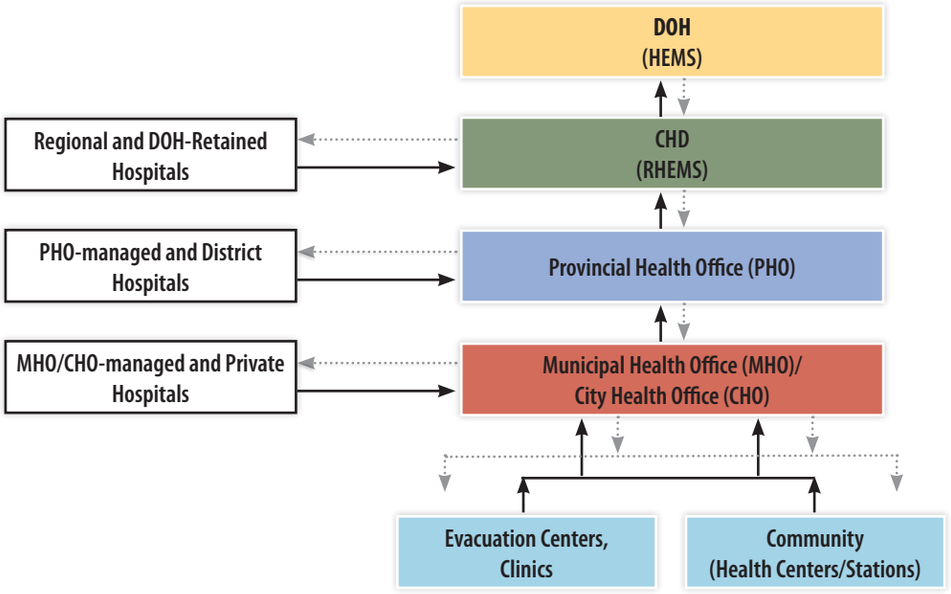


FIGURE 8. Reporting Flow within the Health Care System used by SPEED. The routes of data that SPEED utilizes are based primarily on the country's health care system framework. Data (solid black arrows) from the grass roots (evacuation centers, clinics or Barangay Health Centers/Stations) are sent up to the different levels via two routes: a) those belonging to municipalities and cities are sent to the MHO/CHO, then to the PHO and finally to the CHD; b) for cities in the NCR and other chartered cities, data are sent directly to the CHD. Data coming from all Regional and DOH Hospitals are reported to their respective CHDs. All data from the various CHDs are finally sent to DOH-HEMS. Gray dotted arrows reflect feedback mechanisms.

- Plans, capacity building, and advocacy activities are also included in this component.
  - A Plan is a stepwise approach in achieving an objective, often with the identification of relevant factors (scope, circumstances, and resources) that may contribute to its success or failure. Plans should be specific to their intended users and purpose, for example:
    - Emergency Preparedness Plan: a series of measures set up to strengthen the overall capacity and capability of the emergency services (at all levels) to respond in an emergency. This may include the analysis of potential problems, provision of policies, capacity building, resource analysis, and the identification of roles and responsibilities of people.
  - Capacity building is the strengthening of the capacity of not only the health human resources through trainings but also the enhancement of necessary facilities and equipment to improve the abilities of the involved institutions to respond to emergencies (DOH-HEMS). For SPEED, this includes:
    - SPEED Training of Trainors
    - Basic SPEED Training for Managers/Team Leaders
    - Basic SPEED Training for SPEED Reporters
      - Hospital SPEED Reporters
      - LGU SPEED Reporters
  - Advocacy aims at informing the public, especially the decision- and policy-makers on the importance of prevention and preparedness for emergencies and disasters. Efforts are focused to empower the community through education and promotion[1].

3. *"Hardware" = INFRASTRUCTURE*

This component is defined as the tangible machinery/equipment/supplies in the system designed to help the "People" perform specific tasks. It is not limited to hi-tech gadgets such as computers and their peripheral equipment or communication devices. Reporting forms are at the forefront of this particular component.

- Data collection tools
  - SPEED Reporting Forms 1 and 2
- SPEED server
- Computers
- Mobile phones
- Telephones
- Fax Machines

4. *"Software" = INSTRUCTION*

This is the computer program that directs or provides instruction on what the computer needs to do and how to do it. SPEED has a web-based software that can be accessed online through any computer or via a GSM-compatible mobile phone. Through the software, data sent in the system can be transformed into tables, graphs, and maps for easier data analysis and report generation.

- Technical Specifications of the SPEED web-based Software:
  - **Minimum Computer Requirements to use SPEED:** Mozilla Firefox 3.X, Internet Explorer 7.X, Or Safari 3.X; GSM Compatible Mobile Phone (Any Provider)
  - **Operating System:** Microsoft Windows Server 2008
  - **Programming Language:** Hypertext Preprocessor (PHP)
  - **Database Management System:** MySQL (open source)

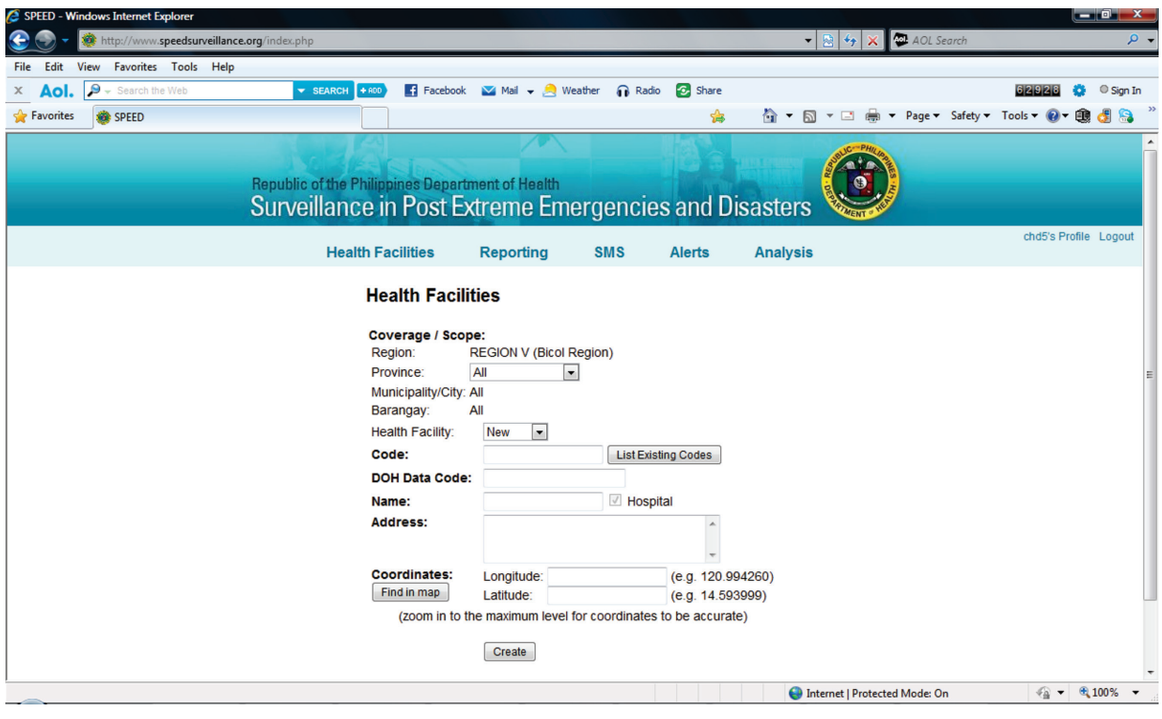


FIGURE 9. Screenshot of the web-based SPEED software

5. "Data" = DATA MANAGEMENT

This component is the manipulation of data collected to produce the needed information for dissemination (See Figures 3 and 4).

- Data collection
- Data storage
- Data validation
- Data analysis
- Report generation

SUMMARY

Features of the SPEED System

- SPEED is an early warning system and is activated only during emergencies and disasters.
- It has five components: People, Procedure, Hardware, Software, and Data Management.
- The SPEED System makes use of simple, standardized reporting forms as the default mode of submission of all data from the field. Furthermore, health workers can use the very familiar and easy to use Short-Messaging System (SMS or text messaging via mobile phone), the web-based SPEED software, and other submission modalities to send their collected data to the SPEED system from the field to provide real-time information to decision-makers.
- SPEED monitors a total of 21 identified disease entities (15 communicable diseases as syndromes and 6 non-communicable disease conditions) in evacuation centers and affected communities, while it monitors the same with the corresponding initial diagnoses in hospitals.
- It is simple and flexible enough to accommodate new priority events and reporting units (health facilities or evacuation centers) when necessary.
- SPEED is built upon the existing recording and reporting mechanisms used by health care workers.
- SPEED focuses only on descriptive analysis and is not confirmatory to warrant the declaration of outbreaks.
- SPEED has identified Immediate Notification Alert Thresholds (See Section IV) that may signify possible outbreaks that require immediate investigation.
- Data analysis and generation of reports are automated for rapid feedback to programs.

SECTION III

SPEED in the Preparedness Phase

HEM Preparedness Strategies and Activities

The National Policy on Health Emergency and Disasters (DOH AO 2004-168) defines the Health Emergency Management Staff (HEMS) of the Department of Health as the sole agency mandated to manage health emergency in the country and to be at the forefront of all these activities. DOH-HEMS acts as the primary DOH coordinating unit and Operations Center for all health emergencies and disasters, as well as incidents with the potential of becoming emergencies.

Based on the above policy, HEMS has developed its Health Emergency Preparedness Program using the Disaster Risk Management Approach involving multiple sectors to provide a comprehensive and synergistic integration and complementation of emergency management assets and resources. It also outlines the different Health Emergency Management strategies and their corresponding activities necessary for a preparedness program to be effective.

Table 4. Strategies Used in Health Emergency Management[1] adapted for SPEED

Strategy	Activities
Capacity Building	• Training health human resource on SPEED • Improving facilities and securing up-to-date equipment and supplies
Service Delivery	• Facilitating delivery of health services through information generated from SPEED • Timely, holistic, evidence-based and appropriate responses in emergency situations through SPEED
Health Information and Advocacy	• Informing the public on prevention and preparedness for emergencies and disasters • Empowering the community through health education and promotion • Collaborating with decision makers and institutions to gain support
Policy Development	• Developing local and regional plans for SPEED implementation • Developing local and regional policies, procedures, guidelines, and a protocol for SPEED Human Resource Development
Networking and Social Mobilization	• Building up the SPEED Network through meetings and activities • Registering health facilities • Establishment of MOAs and MOUs with involved sectors or societies
Research and Development	• Conducting research studies from data gathered by SPEED • Presenting case reports
Resource Mobilization	• Generating and distributing resources (logistics, human resources, finances) for SPEED
Information Management and Surveillance	• Installing, utilizing, and maintaining the SPEED system for local, regional and national use. • Generating information for dissemination through SPEED
Standards and Regulation	• Setting standards and accreditation criteria for SPEED
Monitoring and Evaluation	• Documenting events, best practices, and lessons learned • Evaluating response efforts and use of SPEED • Conducting simulation exercises

The Philippine Disaster Risk Reduction and Management Act of 2010 (R.A. 10121) stipulates the different measures that the national, regional and local governments need to plan and implement in preparation for and response to an emergency or disaster.

SPEED also employs an integrated emergency preparedness program to strengthen the overall capacity and capability of an area to manage such incidents effectively in terms of Health Information Management. The HEM preparedness strategies and activities discussed below are the most important tools for managers coming from all levels to ensure that the SPEED System is ready for use and activation at any given time.

I. Capacity Building

Just like the HEMS Emergency Preparedness Program, SPEED gives due emphasis to capacity building as improved capacities will ultimately be utilized for an effective and efficient emergency response whenever emergencies or disasters strike. Capacity building covers two areas, namely:

a. Training of Health Human Resources

Basic SPEED Training for all staff who is or will be involved in post disaster surveillance (Municipal Health Officers, City Health Officers, Provincial Health Officers, Regional, and National HEMS personnel) is currently being conducted by a pool of trainers all over the country. The training employs lectures and workshops covering all the topics in this Operations Manual for Managers and includes an actual hands-on demonstration on the different submission modalities (SMS or web-based, to name a few) that the system uses.

Trained LGU health officials and personnel are strongly encouraged to conduct SPEED training in their own areas to equip their Midwives, BHWs, staff, and volunteers, with the necessary skills and knowledge specific to SPEED.

This Operations Manual for Managers may be reproduced or downloaded from the SPEED website (http://www.doh.gov.ph/speed). Moreover, a practical, self-learning interactive resource training software are available (either via USB drives or DVDs) to provide users a quick training/ re-orientation/refresher on the principles, framework and procedures used in SPEED.

Interested parties may contact DOH-HEMS for possible SPEED Training and the SPEED training materials described above.

b. Facilities Enhancement

The capacity of Institutions across all the levels should also be improved by each governing unit, enhancing their facilities, making necessary measures to keep them safe from disasters, and procuring necessary equipment and supplies to ensure the prompt activation and efficient use of SPEED.

II. Advocacy

Advocacy is a very important strategy during the preparedness phase. It entails the promulgation of activities that help increase public awareness to gain much needed support. Securing the backing, especially those of decision makers and partners for resource mobilization, will also improve the sustainability of SPEED.

III. Policy Development

As discussed in the previous section, policies and plans provide the structure and legal framework that guides the people in using and managing a system.

a. SPEED Policies, Procedures, and Guidelines

The four major levels of the health care system (Municipal/City Health Offices, Provincial Health Offices, Centers for Health Development (Regional HEMS), and DOH-HEMS) should develop and implement policies, procedures, and guidelines for SPEED implementation that are appropriate to their corresponding jurisdictions. This will help ensure the clarity of hierarchies, define roles and responsibilities, and put in place well organized and cost-effective operations during times of emergencies and disasters.

A DOH Administrative Order for SPEED is being drafted to provide policy and guidelines for all levels of the health care system.

b. SPEED Emergency Preparedness and Response Plans

The development of SPEED Emergency Preparedness and Response plans should be based on an All-Hazards Approach and should consider all possible scenarios that can occur when an emergency is declared.

PLANS AND THE PLANNING PROCESS

Adapted from the Guidelines for HEM: Manual for Hospitals, all plans should clearly state the following:

- Purpose of the plan
- Concept of operations
- management structure, roles of personnel, and the unity of components
- SPEED Activation and De-activation procedures
- Escalation and de-escalation plan
    - This includes the steps and factors necessary to enlarge or reduce in size to adjust the capacity and capability of SPEED operations and logistics once it is activated
- Directory of SPEED hotlines and SPEED Team Members
- Minimum logistic requirements:
    - Mobile phones with at least PhP 1 credit, landline, and fax
    - Computer with internet access
    - SPEED reporting forms
- Guidelines and procedures for worker care and safety
    - This includes rotation of staff assigned to SPEED and the possible hiring of additional temporary staff or volunteers as needed.
- Agency and position responsible for maintaining and updating the plan
- Training and exercise schedule
- Contingency plans

The Planning Process, taken from the Guidelines for Health Emergency Management Manual, defines a short step-by-step approach on how to make an effective plan[16]:

1. Determine the authority responsible for the process
2. Establish a planning committee
3. Conduct a risk analysis – identify and analyze the hazards, vulnerabilities, and possible risks of the hazards
4. Set the planning objectives
5. Define the management structure for the process
6. Assign responsibilities
7. Identify and analyze capacities and resources
8. Develop the emergency management systems and arrangements
9. Document the plan
10. Test the plan
11. Review and update the plan on a regular basis

IV. Building the SPEED Network

The SPEED Network is the main support system for SPEED implementation comprised of the following units: the Municipal or City Health Office (MHO or CHO), Hospitals, NGOs, Private Organizations, Provincial Health Office, the CHD (RHEMS), and the National HEMS. Table 5 lists the responsibilities of each member during both the preparedness and response phases.

Table 5. Tasks and Responsibilities of Members of the SPEED Network.

Member	Tasks during Preparedness Phase	Tasks during Response Phase (Upon SPEED Activation)
City/Municipal Health Offices (CHO/MHO)	• Refer to SPEED Team Responsibilities (Tables 7-10)	• Refer to SPEED Team Responsibilities (Tables 7-10)
NGOs/Private Organizations	• Shall register with MHO/CHO as SPEED reporters as needed • When needed, may provide support to SPEED through training, coordination, IT support, advocacy, etc.	• If registered, shall submit complete data for SPEED to the usual higher reporting level on time • Operate in a clinic in an evacuation centre and shall report through the SPEED Reporter in charge
Hospitals	• Maintain an open communication line with its MHO/CHO/PHO/CHD and other stakeholders	• Ensure timely activation of SPEED once needed • Submit complete data for SPEED to the usual higher reporting level on time • Analyze their submitted data to monitor trends and health events • Perform appropriate actions when Immediate Notification Alert Thresholds are breached • Recommend to authorities possible actions and interventions based on available information and analysis

Member	Tasks during Preparedness Phase	Tasks during Response Phase (Upon SPEED Activation)

Provincial Health Offices (PHO)	• Maintain an open communication line with its MHOs, LGU Hospitals, its CHD, and other stakeholders
	• Identify, orient, and capacitate SPEED Technical Assistance and Response Team (START) members
	• Provide a SPEED Hotline for possible transmission of data/information and technical assistance to SPEED-related matters
		• Ensure that SPEED is activated in affected areas across all levels of its jurisdiction (municipalities, hospitals, cities) as needed
		• Initiate activation of SPEED when an emergency/disaster is of provincial concern (based on activation criteria)
		• Receive and verify reports from all stakeholders (SPEED hotline, MHO, and LGU hospitals)
		• Perform the SPEED Data Validation task for SPEED reports received from district and provincial hospitals.
		• Provide SPEED technical assistance to its LGUs/hospitals when requested or deemed necessary
		• Generate provincial level SPEED reports through the SPEED website
		• Activate and mobilize SPEED Technical Assistance and Response Team (START) as necessary
		• Perform descriptive analysis and generate graphs and reports as needed on available information for tailored and relevant response
		  • Monitor the status of Immediate Notification Alert messages through the MHO and updates its CHD
		  • Disseminate analysis and information to identified stakeholders or appropriate action which may include provision of logistical augmentation and technical assistance as needed
		  • Refer to PESU for epidemiological investigation when an Immediate Notification Alert Threshold is breached
		  • Recommend to authorities possible actions and interventions based on available information and analysis

Centers for Health Development (CHD)	• Ensure availability of services 24/7 through CHD Operations Centers
	• Maintain an open communication line with PHO (or CHO for chartered cities) and other stakeholders
	• Identify, orient, and capacitate START members
	• Provide a dedicated SPEED Hotline for possible transmission of data/information and technical assistance to SPEED-related matters
		• Initiate activation of SPEED when an emergency/disaster is of regional concern (based on activation criteria)
		• Ensure that SPEED is activated in affected areas across all levels of its jurisdiction (municipalities, hospitals, cities, and provinces) as needed
		• Receive and verify reports from all stakeholders (SPEED hotline, PHO, and the DOH-retained and Regional hospitals)
		• Performs the SPEED Data Validation task for SPEED reports received from regional and DOH-retained hospitals.
		• Provide SPEED technical assistance to LGUs when requested or deemed necessary
		• Generate regional level SPEED reports through the SPEED website
		• Activate and mobilize START as necessary
		• Perform descriptive analysis and generate graphs and reports as needed on available information for tailored and relevant response
		  • Monitor the status of Immediate Notification Alert messages through the PHO and update DOH-HEMS
		  • Disseminate analysis and information to identified stakeholders for appropriate action which may include provision of logistical augmentation and technical assistance as needed
		  • Refer to RESU for epidemiological investigation when an Immediate Notification Alert Threshold is breached
		  • Recommend to authorities possible actions and interventions based on available information and analysis

Member	Tasks during Preparedness Phase	Tasks during Response Phase (Upon SPEED Activation)

DOH-HEMS	• Ensure availability of services 24/7 through National HEMS Operations Center
	• Provide a dedicated SPEED Hotline for possible transmission of data/information and technical assistance to SPEED-related matters
	• Open and maintain communication lines with CHDs
	• Identify, orient, and capacitate START members
		• Monitor SPEED activation in affected areas across all levels of its jurisdiction (municipalities, hospitals, cities, provinces, and CHDs) as needed
		• Monitor the status of Immediate Notification Alert messages through the PHO and updates DOH-HEMS
		• Verify reports through the CHD for any questionable reports received from the lower levels and the media
		• Generate national-level SPEED report through the SPEED website
		• Activate and mobilize START as necessary
		• Perform descriptive analysis and generate graphs through EXCEL as needed on available information for tailored and relevant response
		  • Monitor the status of Immediate Notification Alert messages through CHDs
		  • Refer to NEC when an Immediate Notification Alert Threshold is breached epidemiological investigation
		  • Disseminate analysis and information to identified stakeholders for appropriate action which may include provision of logistical augmentation and technical assistance as needed
		  • Recommend to authorities possible actions and interventions based on available information and analysis

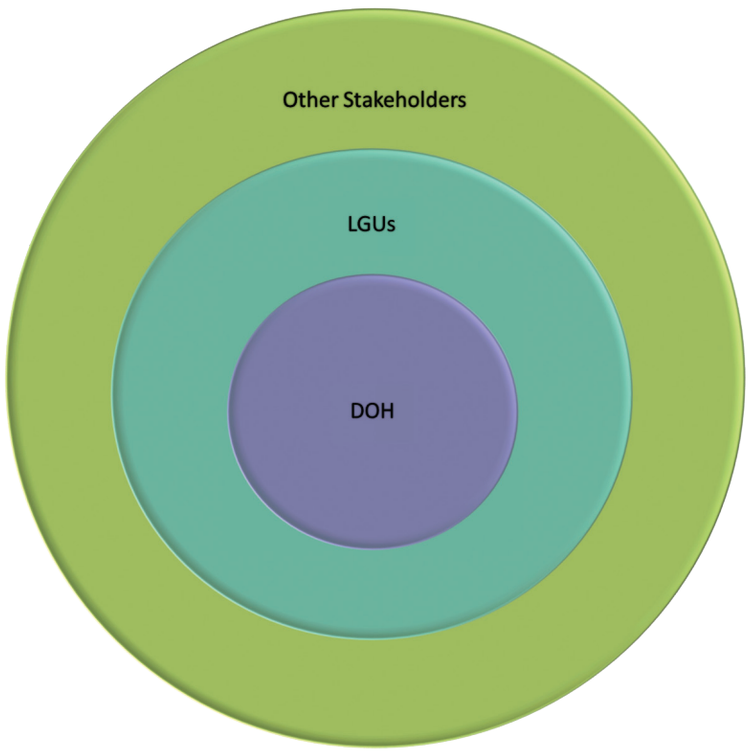


Figure 10. Members of the SPEED Network. Through HEMS, the Department of Health with all its Bureaus, Agencies, Units, Centers for Health Development, and Hospitals is indispensible to the SPEED network. It acts as the central link to all units of the SPEED Network and is able to tap and mobilize any and all its members as necessary. The LGU component is comprised of the health offices of the municipality, city, and provinces, together with all their governed health facilities, government organizations, people's organizations, and LGU-managed, military, and private hospitals. Other Stakeholders are composed of National Government Agencies, international NGOs, private organizations, and other humanitarian agencies that can provide assistance or act as SPEED reporters.

V. Organizing the SPEED Team

As with any team, an Organizational Structure must be clearly defined so that all the roles, functions, and chain of command are established. Figure 11 depicts a generic organizational structure:

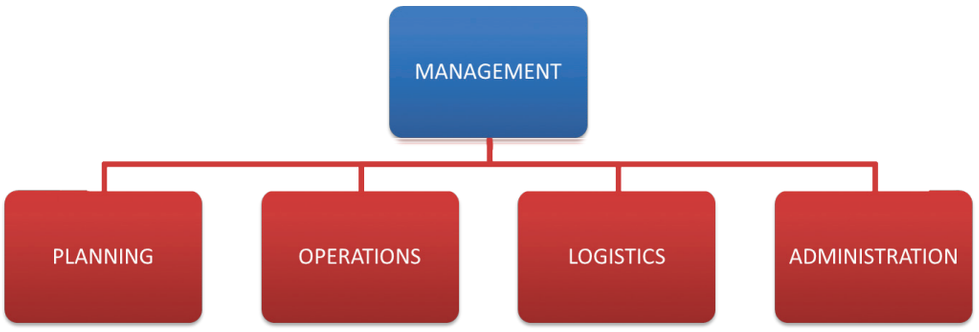


FIGURE 11. Example of an Organizational Structure

The SPEED Team – a group of local health workers with assigned tasks and responsibilities to undertake once SPEED is activated – should be established and organized at the municipality or city level during the preparedness phase.

Table 6 outlines the ideal minimum set of functions and the corresponding designations that a SPEED Team should have. In reality, however, there may not be enough health human resources in any given municipality or city especially in times of emergencies or disasters. Such functions or roles may need to be delegated to any regular, extra, or volunteer staff as a special function or role so that SPEED can be implemented. In addition, several functions may also be assigned to a single person –– as long as no function is compromised –– to ensure the proper and complete functioning of the SPEED system. In such scenarios, making relievers available and ensuring proper endorsements during shift changes should be considered.

TABLE 6. SPEED Team Functions and Designations

Function	SPEED Designation
Over-all Management	SPEED Team Leader (Municipal Health Officer or City Health Officer)
Operations	SPEED Data Manager SPEED Reporter
Administration/Coordination	SPEED Hotline Staff
Logistics/Transportation	SPEED Runner

The SPEED Team

a. Team Leader

Municipality: Municipal Health Officer/Head of Unit/Officer-in-Charge
For independent/chartered cities: City Health Officer/ Head of Unit/Officer-in-Charge

Primary Responsibilities (Preparedness Phase):

1. Ensures regular reporting mechanism is in place in the evacuation centers, all RHUs and hospitals within his/her area of responsibility
2. Organizes the team and assign tasks to members
3. Identifies all health facilities and register them into the SPEED System (See guidelines below)
    - Coordinates with the MSWD on the number of evacuation centers and their respective locations
    - Determines which health facilities (BHS, RHU, BHC, private clinics, mobile clinics, hospitals) will be activated as part of the SPEED network for data collection and feedback
    - Registers additional health facilities identified with the SPEED administrator (this shall be done in collaboration with the PHO for provinces; for Metro Manila, this shall be done in collaboration with the CHD)

Registering Health Facilities

As one of the major tasks to be carried out by the CHO/MHO, registering all their health facilities to the SPEED system is a vital activity for the preparedness phase. A Health Facility can be any of the following: a Rural Health Unit (RHU), Barangay Health Station/Center (BHS/C), a Hospital, or a designated evacuation center (duly recognized by the LGU or the Department of Social Welfare Development [DSWD]).

Since all SPEED-related data are collected and generated from such health facilities from the affected municipalities/cities, each health facility from all over the country is assigned a unique code by DOH-HEMS. This Health Facility Code (HF Code) is automatically reflected in the SPEED system; the MHO/CHO should, however, ensure that all HFs in its jurisdiction are registered. A booklet of registered health facilities with their corresponding HF codes will be made available for health workers as a ready reference.

However, in times of emergencies and disasters, there may be a need to set up new evacuation centers or health facilities (duly recognized by the LGU or the DSWD) to accommodate affected populations. In such cases, new HF codes for new evacuation centers or health facilities must be assigned. Such codes can be generated through the SPEED website with clear guidance from DOH-HEMS. (Please see also Section IV for the instructions in creating facility codes using the SPEED website for the newly established evacuation centers.)

Guidelines on Health Facility Code Creation

Health Facility codes must be unique to each Health Facility in order to properly identify a particular Health Facility. An existing Health Facility code cannot be used for a new Health Facility in SPEED. The SPEED System will automatically provide and alert if an existing Health Facility Code has been entered. Health Facility codes are advised to be as short as possible, since they have to be typed in the SMS message. Having short Health Facility codes minimizes errors in typing.

1. To create a Health Facility Code, use the Region Number, the predetermined 3-letter province code (refer to page 65 for the list of province codes), and a serial three-digit number, and a letter that corresponds to the type of HF the code will represent (H for Hospitals, R for RHU or Main Health Center, B for Barangay Health Station, E for Evacuation Center).

   Example 1: For the first Health Facility Code for the Main RHU of a municipality in Tarlac province, you can use:

   3TAR001R = *Region III (**3**), Tarlac Province (**TAR**), First Health facility (**001**), RHU (**R**)*

   Example 2: For the second Health Facility Code for a Hospital in Agusan Del Norte province, you can use:

   13ADN002H = *Region XIII (**13**), Agusan del Norte Province (**ADN**), Second Health facility (**002**), Hospital (**H**)*

   Special Cases: NCR and ARMM

   Example 3: For the first Health Facility Code for an Evacuation Center NCR in Pasay, you can use:

   NCRPAS001E = ***NCR**, Pasay City (**PAS**), First Health facility (**001**), Evacuation Center (**E**)*

   Example 4: For the first Health Facility Code for a Barangay Health Station in Lanao Del Sur in ARMM, you can use:

   ARMMLDS001B = ***ARMM** , Lanao del Sur Province (**LDS**), First Health facility (**001**), Barangay Health Station (**B**)*

2. It is best to keep the Health Facility Code short so as to minimize errors when sending SMS.

4. Ensures availability of logistics for SPEED
   - SPEED Forms 1 & 2
   - Computer (netbook/laptop/desktop) with internet access for the MHO/CHO
   - Mobile phones with adequate credits for the SPEED reporters
   - SPEED Hotline numbers at the MHO/CHO
   - SPEED interactive resource USB

5. Orients Team
    - Explains the mechanics of SPEED
        - Explains the 21 syndromes/events under SPEED
        - Explains the different ways of sending reports
            - SMS - Using the access code
            - Deliver/hand carry/pick up
            - Fax
            - Voice call (dictation)
            - E-mail
    - Explains how to fill out the paper form
        - Explains the instructions found in the paper form
        - Explains the items at the back of the paper forms (differential diagnosis, notification alert threshold, actions to be taken)
    - Explains how to use the SMS templates
    - Explains how a report is verified (e.g. What the report was , where it originated, when it was sent and who sent the report)
    - Explains the process of reporting Immediate Notification Alerts
    - Explains how a `hotline' functions
    - Defines the frequency of reporting
    - Determines and ensure that a common time for data collection at the health facilities is properly disseminated: start and stop (8am to 4pm)
    - Explains how daily narrative reports will be disseminated.
    - Determines when reporting shifts from daily to weekly
    - Determines when SPEED surveillance ends

Primary Responsibilities (Response Phase – once SPEED is activated):

1. Orients/Re-orients the team on how SPEED works
    - If possible, calls for a short meeting to do a quick orientation/review; Runners to go down to the evacuation camps/primary health facilities or SPEED reporting units to provide the re-orientation as necessary
2. Ensures activation and implementation of SPEED Preparedness plans when necessary
3. Validates data received from HFs
4. Prepares daily situational analysis and daily dissemination of reports
5. Coordinates with corresponding local authorities and stakeholders

TABLE 7. Summary of the Responsibilities of a SPEED Team Leader

EMERGENCY	Response Activities (Upon activation of SPEED)		
Preparedness Activities	**Submission of Data**	**Data Entry and Validation**	**Report Generation**
Organizes the team – Assigns tasks to members – Orient/Re-orient the team on how SPEED works Identifies sources of information and ensure registration of health facilities to the SPEED administrator Ensure availability of logistics for SPEED Ensure availability of Preparedness Plan		Validates data	Prepares daily situational analysis and ensures daily dissemination Performs coordination functions: – Coordinates with PHO – Updates Municipal Mayor – Attends meetings with stakeholders

b. Data Manager

The Data Manager can be the PHN or designated data encoder of the main RHU.

TABLE 8. Summary of the Responsibilities of a SPEED Data Manager

EMERGENCY	Response Activities (Upon activation of SPEED)		
Preparedness Activities	**Submission of Data**	**Data Entry and Validation**	**Report Generation**
Assists team leader in: • registering all the health facilities involved in surveillance	Ensures submission of data by all the health facilities	Enters data Receives Immediate Notification Alerts Checks "hotline" reports and verifies reports through phone Ensures that Notification Alerts and verified "hotline" reports are acted upon by the MHO/CHO	Assists team leader in: • generating reports • preparing daily situational reports

c. SPEED Hotline Staff

Any staff designated by the MHO/CHO or Head of Unit to be responsible for the hotline.

TABLE 9. Summary of the Responsibilities of a SPEED Hotline Staff

EMERGENCY	Response Activities (Upon activation of SPEED)		
Preparedness Activities	**Submission of Data**	**Data Entry and Validation**	**Report Generation**
		Receives calls from the "hotline" Refers calls to MHO/CHO through the data manager	

d. SPEED Runner

Any staff designated by the MHO/CHO or Head of Unit

TABLE 10. Summary of the Responsibilities of a SPEED Runner

Preparedness Activities	Response Activities (Upon activation of SPEED)		
	Submission of Data	Data Entry and Validation	Report Generation
	Collects data from sites with no communication access Submits data gathered from the sites to the data manager		

EMERGENCY

e. SPEED Reporter

The SPEED reporter may be a BHW, a community health worker, a midwife, a nurse, or a physician or other health professionals in the evacuation camps or hospitals and other health facilities involved in SPEED.

Primary Responsibilities (Response Phase – once SPEED is activated):

1. Collects daily consultation record from the physician/nurse/midwife/in charge of the clinic
2. Summarizes daily consultation report according to the SPEED form
3. Verifies ambiguous entries from the physician/nurse/midwife
4. Transfers summarized data to the SPEED Form 1 (from evacuation centers, health centers, and other health facilities except hospitals) and to SPEED Form 2 (from hospitals) at the end of the data collection period (4pm)
5. Sends daily SPEED report via any of the following and ensures a hardcopy is at hand:
   - Via SMS using the access code to the server
   - Via fax
   - Via hand/personal delivery
   - Via voice call dictation
6. Sends daily reports and immediate notification alert messages via SMS
7. Verifies with the team leader or the data manager whether SMS messages (daily reports and immediate notification alerts) have been received an hour after message is sent

NOTE

For hospitals, the Hospital HEMS coordinator will serve as the SPEED focal point. He is responsible in ensuring that data is submitted regularly and on time. In cases where there is no hospital HEMS coordinator, the staff in charge of disease surveillance or any staff designated by the hospital director (ER Nurse, OPD clerk, etc) SHOULD acts as the SPEED Reporter.

TABLE 10. Summary of the Responsibilities of a SPEED Reporter

Preparedness Activities	EMERGENCY Response Activities (Upon activation of SPEED)		
	Submission of Data	Data Entry and Validation	Report Generation
	Collects daily consultation records Verifies ambiguous entries Summarizes daily consultation report to SPEED forms Sends daily SPEED report Sends immediate notification alert messages Calls the team leader through the data manager to confirm receipt of messages		

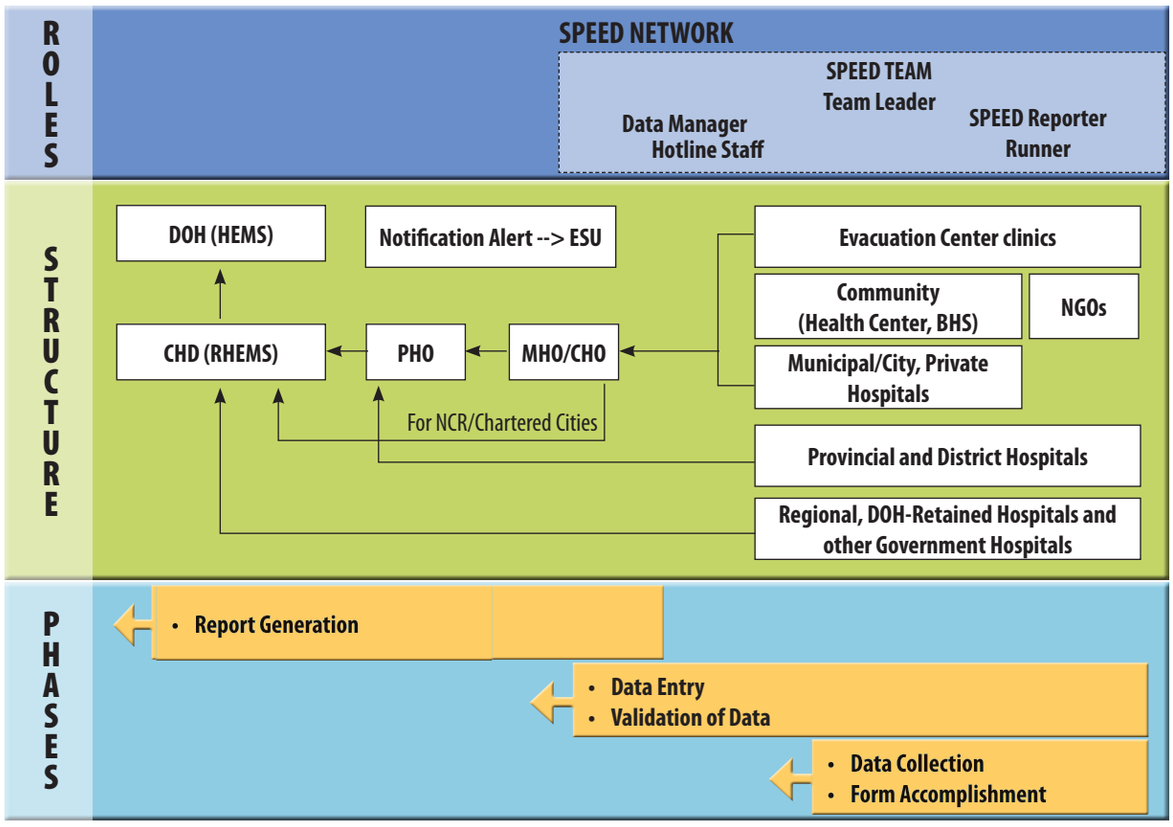


FIGURE 12. The structure of SPEED, involved health human resource and their roles, and the phases in data management are summarized in the above figure.

The health personnel at the MHO/CHO level constitute the SPEED Team while the health units at all levels make up the SPEED Network. The SPEED Team has a Team Leader, Data Manager, Hotline Staff, Runner and SPEED Reporter.

In times of emergencies (upon activation of SPEED) the evacuation centers, clinics, health centers, barangay health stations, municipal/city and private hospitals, and NGOs send data to the RHU. Provincial, district, and regional hospitals send data to the provincial and regional health offices respectively. There may be a different flow of reporting in areas where the District Health System exists (e.g. in ARMM, where the head of the Health District becomes part of the recipients of SPEED reports and alerts). The usual flow of reporting during non-disaster times maybe followed as well during SPEED activation if it will facilitate faster response. When an alert is raised, a referral is made to the ESU.

As to the functions or roles, these can be classified into three general activities: 1) Submission of data (data collection, accomplishment of forms and sending of SMS) is the responsibility of the SPEED reporter. This occurs at the Municipal/City Health Office levels and the provincial, district and regional hospitals; 2) Data entry and validation of data occur at the municipal, provincial and CHD levels; and, 3) Data analysis and generation of reports occur starting from the municipal level.

All of these should be in tight coordination so that data coming from the various data sources can be transformed into timely information that can be useful in the decision making activities of the health emergency manager.

SECTION IV

SPEED in the Response Phase

A. Rapid Health Assessment

In any event or situation with the potential of becoming an emergency or disaster, health emergency managers at various levels of care are placed in a decision making process in which the available information from the field is critical. They need first to determine if there is an emergency or not. If there is, then they need to identify rapidly emerging problems, determine if there are any health facilities or services that are affected, establish the information requirement and priorities for health action, rationally allocate resources, and implement the appropriate response. All decisions need to be made within the shortest time possible aimed at saving lives and minimizing injuries.

In SPEED, a Rapid Health Assessment is also indispensable to determine whether the SPEED System should be activated to facilitate the monitoring of the health status of the affected population (see Figure 5, Section 1).

B. Activating SPEED

SPEED Activation is the process of setting the SPEED System in motion, making it operational in all health facilities in affected or neighboring areas across all levels. This requires that all resources (from the SPEED Team to the SPEED Forms and equipment) are ready and available and that a call from any of the following is made to activate SPEED:

1. **Municipal Health Office/City Health Office** - upon the declaration of a state of calamity by the Local or National Government; or
2. **Provincial Health Office** - if the emergency is of regional and/or provincial concern; or
3. **Center for Health Development** - if the emergency is of regional concern; or
4. **Department of Health Central Office** - if the emergency is of nationwide concern as declared by the Office of the President or the National Disaster Risk Reduction and Management Council (NDRRMC).

CRITERIA FOR ACTIVATING SPEED

Mandatory Activation Criteria

ALL the governed health facilities MUST activate SPEED if:

1. there is an **official declaration** of a State of Calamity by the Local or National Government with the public health impact of the emergency/disaster exceeding capacity of the Local Government to respond; **OR**
2. the active **evacuation centers** are projected to last for **more than 2 days**.

Certain factors should be considered as their dynamic interplay in any event or emergency can lead to its progression into a disaster. Health emergency managers should exercise due diligence when assessing every situation as each emergency or disaster is made unique by the varying circumstances around it.

As such, in the absence of the above criteria, Health Emergency Managers MUST also activate SPEED if **ANY TWO** (2) of the following conditions are present:

- Any hazard with public health consequences affecting a significant population
- Increasing hospital consultations and admissions related to the disaster
- Occurrence of diseases with a potential for an outbreak
- Isolation of the community brought about by damaged to lifelines (roads, bridges, telecommunications, electricity) or a threat to security exists
- Disrupted health services and/or response among the affected population

NOTE: Any disease outbreak outside a disaster should be reported and monitored using the regular surveillance system

If any of the health emergency managers identified above (CHO/MHO/PHO/CHD/DOH-HEMS) decide to activate SPEED using the activation criteria set in Sec IV Part B (above), all the governed reporting units should enforce and make it operational. Neighboring areas may also activate SPEED if, after an emergency or disaster, the above criteria are met to catch displaced populations that they may be taking care of.

LOCAL USE OF SPEED

In case the local emergency did not meet the set SPEED activation criteria OR the local emergency did meet the set SPEED activation criteria but the emergency is just localized in specific barangays of the municipality/city, the CHO or MHO has the authority to use SPEED in his governed area if he/she deems it will help him in managing any local emergency. However, this may not necessarily translate into activating the entire SPEED system in all health facilities in his/her area. Assessments should still be conducted to determine if the situation meets the set criteria for Activating SPEED.

I. Steps in Activating SPEED

The Municipal Health Officers/City Health Officers activate and take charge of the SPEED System. They have the following responsibilities upon the onset of the emergency or disaster:

1. Coordinate with all agencies in the field to identify the following:
    i. Extent of damage of life lines, public and/or private health facilities to identify possible constraints in setting up the system, and possibly identify priority syndromes which may not be in priority list
    ii. Affected population at risk of increased morbidity and mortality from disaster-related risk factors
    iii. Human resources, equipment, and supplies available
2. Determine if the criteria are met for activating SPEED
3. Notify all governed health facilities (BHS/BHC, hospitals, etc.) and concerned authorities (LCE, CHD and DOH-HEMS) and disseminate that SPEED is being activated
4. Activate and mobilize the SPEED Team
5. Register all the new health facilities
6. Ensure that the system is in place
    i. SPEED Forms 1 & 2
    ii. Computers with internet access for MHO/CHO
    iii. Mobile phones with credits for SPEED Reporters
    iv. SPEED Hotlines
    v. Interactive Resource USB
    vi. Other modalities for report submission (e.g. two-way radio, etc.)
7. Re-orient/conduct refresher courses of SPEED Staff
    i. 21 Disease entities
    ii. How to fill out SPEED Forms
    iii. How to use SMS Template
    iv. Ways of sending reports
    v. Frequency of reporting
    vi. Flow of reporting
    vii. Data Validation process
    viii. Data analysis
    ix. Report writing and generation
    x. Immediate Notification Alert (INA) Thresholds

C. Registering New Evacuation Centers

Before data can be entered for a new Evacuation Center, a Health Facility code must first be created for it. *Data cannot be sent through SMS or entered online until the Health Facility code is created.*

To create a new Health Facility Code, *log into the SPEED website (www.doh.gov.ph/speed), see figure 13 below:*

1. Click "Health Facilities"
2. Choose the location of the Health Facility.
3. Choose "New" to add a new Health Facility. To edit an existing Health Facility, you can choose the Health Facility in the dropdown menu and edit the information.
4. Enter the chosen Health Facility code. (*See Section III on Guidelines on Health Facility Code Creation.*)
5. Enter the actual Name of the Health Facility. (Note: The name is the proper name of the Health Facility. THIS WILL NOT BE THE CODE FOR THE SMS REPORT.)
6. Enter the Address.
7. Enter the coordinates of the Health Facility. These will be the coordinates which will be used in the Maps. You can enter the coordinates by looking for the location in Google Maps. Simply click "Find in map" and the Longitude and Latitude will automatically update to where you click.
8. Click "Create".

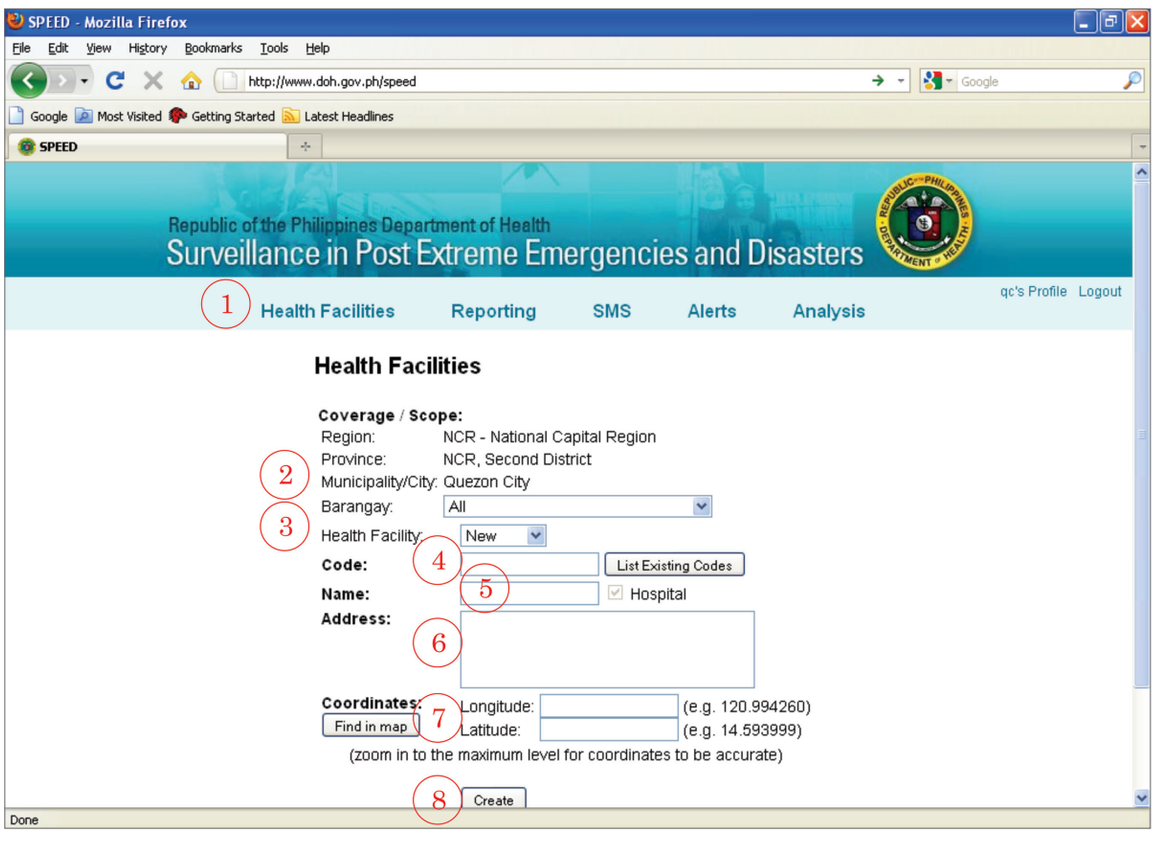


FIGURE 13. Steps in Creating Health Facility Codes

D. The 21 Disease Entities Monitored by the SPEED System

As part of the tasks of the MHO/CHO should SPEED be activated, the MHO/CHO staff should be oriented/re-oriented on the roster of 21 diseases/health events they will monitor. For the diseases with Immediate Notification Alert Thresholds set at Unusual clusters or increase (equal to 1.5 times the average number of cases over 3 weeks), the MHO/CHO must manually perform data analysis to determine if INA Threshold has been breached. For those with pre-determined INA Thresholds, the SPEED system will automatically generate and send an Immediate Notification Alert, signaling that the threshold has been breached. If there is no prior three-week data available, the best available reference may be used, for example: monthly average for the city, annual average for the province, etc.

Table 11. The 21 Disease Entities, their corresponding signs and symptoms, possible causes, and thresholds

Health Event CODE (SMS CODE)	Health Event/ Disease (SPEED Form 2)	Main Symptoms/ Signs (SPEED Form 1)	Possible Cause(s)	Immediate Notification Alert Threshold
1. FEV	Fever	Fever	_	Unusual clusters or increase
2. ARI	Acute respiratory infections	Cough, colds, or sore throat, with or without fever	Common colds, pneumonia, influenza	Unusual clusters or increase
Fever & Acute Respiratory Infections: Increased risk in inadequate shelter, overcrowding, and during the rainy season; also increased risk for the malnourished and those under the extremes of age (<1 year and >60 years)				
3. MEA	Suspected Measles	Fever with rash	Measles, German measles, chicken pox	One suspected case
4. AHF	Acute hemorrhagic fevers	Fever with spontaneous bleeding (e.g. nose or gum bleeding)	Dengue fever, blood dyscrasias, nutritional disorders, meningococcal disease	One suspected case
Measles : Increased risk in overcrowding, malnutrition, population movement, and <80% Measles immunization coverage (for areas with one suspected case). **Acute Hemorrhagic Fevers:** Increased risk in dengue hemorrhagic fever endemic areas, vector breeding sites (e.g. flooding), poor vector control				
5. MEN	Suspected Meningitis	*< 12 months:* fever (> 38° C) with bulging fontanels, or refusal to suckle *12 months and over:* sudden onset of fever (> 38° C) with severe headache and stiff neck	Bacterial meningitis, viral meningitis, encephalitis	2 suspected cases of meningitis in the same week in one evacuation centre or settlement
Meningitis: Increased risk in overcrowding and in areas where there are high rates of acute respiratory infection				
6. LEP	Suspected Leptospirosis	Fever with headache, muscle pains and any of the following: eye irritation, jaundice, skin rash, scanty urination	Leptospira infection	One suspected case
Leptospirosis: Increased risk during flooding and contamination of water by rat urine, contact with infected domestic and other animals (dogs, pigs, rats), inadequately treated drinking water sources, poor hygienic conditions in evacuation centers and immediate environment				
7. AJS	Acute jaundice syndrome	Yellow eyes or skin with or without fever	Viral Hepatitis, leptospirosis, chemical toxins	At least 3 cases in the same health facility or settlement in a week
Acute Jaundice syndrome: Increased risk of viral hepatitis during overcrowding, when inadequate quantity and/or quality of water, poor personal hygiene, poor washing facilities, poor sanitation				

Health Event CODE (SMS CODE)	Health Event/ Disease (SPEED Form 2)	Main Symptoms/ Signs (SPEED Form 1)	Possible Cause(s)	Immediate Notification Alert Threshold
8. FOS	Fever with other symptoms	Fever with other signs and symptoms not listed above	Malaria, urinary tract infection, typhoid fever	Increasing trends for 3 days associated with or without increase of specific mortality
9. AWD	Acute watery diarrhea	3 or more loose stools in the past 24 hours) with or without dehydration	Cholera, viral/ bacterial gastroenteritis	1 death or a cluster of 5 cases in one week among cases aged 5yo and up
10. ABD	Acute bloody diarrhea	Loose stools with visible blood	Amebiasis, salmonellosis, shigellosis	A cluster of 3 cases in one week or a doubling of cases in two consecutive weeks
Acute Bloody Diarrhea: Increased risk in overcrowding, inadequate quantity and/or quality of water, poor personal hygiene, poor washing facilities, poor sanitation. Shigella most common cause of bloody diarrhea.				
11. SDS	Skin diseases	Skin diseases	Chemical irritants, infections (scabies)	Unusual clusters or increase
12. CON	Conjunctivitis	Eye itchiness, redness with or without discharge	Chemical irritants, infections (trachoma)	Unusual clusters or increase
Skin disease, Conjunctivitis: Increased risk in overcrowding, inadequate water supply, poor hygienic conditions in evacuation centers and immediate environment, and exposure to chemical irritants such as volcanic dust.				
13. TET	Tetanus	Spasms of neck and jaw (lock jaw)	*Clostridium tetani* infection	One case of suspected tetanus
14. AFP	Acute Flaccid Paralysis	Paralysis of the limbs which occurred recently in a child <15 years who is previously normal	Poliomyelitis, neurologic disorders, electrolyte imbalance, vitamin deficiency	One case of suspected acute flaccid paralysis
Tetanus: Increased risk when there are no safe procedures for traditional births attendants, disruption of immunization program, open wounds due to trauma and poor hygiene **Acute Flaccid Paralysis:** Increased risk of polio when there is disruption of immunization program, overcrowding of none immune groups, and collapse of sanitary infrastructure				
15. WBS	Open Wounds and Bruises	Open wounds and bruises/ burns	Trauma	Unusual clusters or increase
16. FRS	Fractures	_	Trauma	Unusual clusters or increase
Fractures, wounds and bruises: Often caused by falls, collisions against blunt or sharp objects, or thermal injuries, occurring during the direct impact of the emergency or disaster				
17. ANB	Animal Bites	Animal bites	Bites/stings from displaced insects (scorpions), dogs, snakes	Unusual clusters or increase
Animal bites: Risk of rabies associated with dog bites; scorpion stings and snake bites are potentially fatal				
18. HBP	High Blood Pressure	High blood pressure >=140/90	_	Unusual clusters or increase
19. AAA	Acute Asthmatic Attack	Difficulty in breathing and wheezing	_	Unusual clusters or increase
20. KDM	Diabetes Mellitus	NB: May be asymptomatic	_	Unusual clusters or increase
Chronic Non-communicable Diseases: Disruption of drug supply in emergencies or disasters may lead to poor control of blood pressure, asthma, and diabetes and related complications				
21. AMN	Acute Malnutrition	Visible wasting, with or without bipedal pitting edema		One case
Acute malnutrition: Poor food supply; poor water supply and sanitation; poor maternal care, and; inadequate health service due to the disaster may lead to significant increase in malnutrition among children at risk				

E. Collecting and Submitting Data for SPEED

SPEED should ideally be activated within the first 24 hours post-disaster and reports are expected within 48–72 hours upon activation but no later than one week post disaster under the following conditions.

I. Data Collection Period

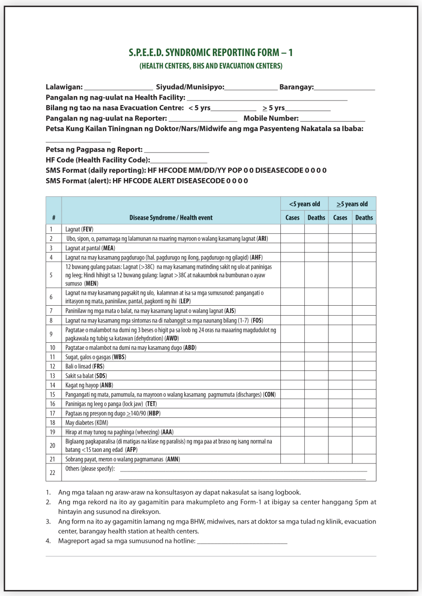
The data collection period starts daily at 8:00AM and ends at 4:00PM. This means that the cut-off period for data collection each day will be at 4:00PM; all consultations or cases seen after 4pm should be included in the report of the next day. For example: on February 12, all consultations or cases from 8:00 AM to 4:00PM should be included in the report for February 12. By 4:01pm, if cases are still seen, these should then be included in the report dated February 13.

The SPEED system is online 24/7. All reports made should be ideally submitted by 5:00PM daily via SMS or encoded online. However, in cases when delays are expected, reports should be submitted the soonest possible time as these would still be accepted by the system.

II. Frequency of Reporting

- Reporting will be done daily for the first three weeks and shifts to weekly reporting (unless terminated)
- Higher levels (Provincial, Regional, and National) shall monitor lower levels to make sure that data are validated.

III. Using the SPEED Reporting Forms



S.P.E.E.D. SYNDROMIC REPORTING FORM – 1
(HEALTH CENTERS, BHS AND EVACUATION CENTERS)

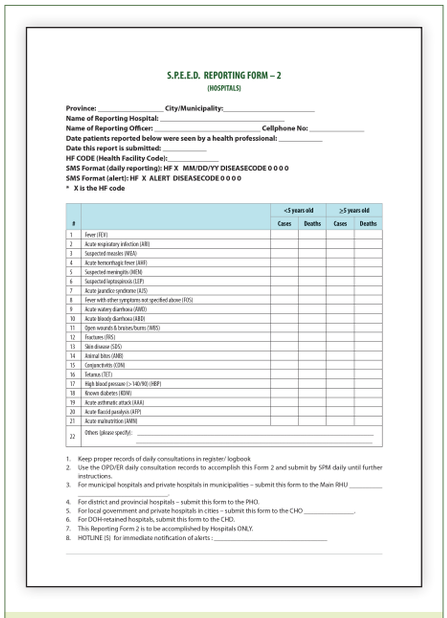
Lalawigan: ____________ Siyudad/Munisipyo: ____________ Barangay: ____________
Pangalan ng nag-uulat na Health Facility: ____________
Bilang ng tao na nasa Evacuation Centre: < 5 yrs ____________ ≥ 5 yrs ____________
Pangalan ng nag-uulat na Reporter: ____________ Mobile Number: ____________
Petsa Kung Kailan Tiningnan ng Doktor/Nars/Midwife ang mga Pasyenteng Nakatala sa Ibaba: ____________
Petsa ng Pagpasa ng Report: ____________
HF Code (Health Facility Code): ____________
SMS Format (daily reporting): HF HFCODE MM/DD/YY POP 0 0 DISEASECODE 0 0 0 0
SMS Format (alert): HF HFCODE ALERT DISEASECODE 0 0 0 0

#	Disease Syndrome / Health event	<5 years old		≥5 years old	
		Cases	Deaths	Cases	Deaths
1	Lagnat (**FEV**)				
2	Ubo, sipon, o, pamamaga ng lalamunan na maaring mayroon o walang kasamang lagnat (**ARI**)				
3	Lagnat at pantal (**MEA**)				
4	Lagnat na may kasamang pagdurugo (hal. pagdurugo ng ilong, pagdurugo ng gilagid) (**AHF**)				
5	12 buwang gulang pataas: Lagnat (>38C) na may kasamang matinding sakit ng ulo at paninigas ng leeg; Hindi hihigit sa 12 buwang gulang: lagnat >38C at nakaumbok na bumbunan o ayaw sumuso (**MEN**)				
6	Lagnat na may kasamang pagsakit ng ulo, kalamnan at isa sa mga sumusunod: pangangati o iritasyon ng mata, paninilaw, pantal, pagkonti ng ihi (**LEP**)				
7	Paninilaw ng mga mata o balat, na may kasamang lagnat o walang lagnat (**AJS**)				
8	Lagnat na may kasamang mga sintomas na di nabanggit sa mga naunang bilang (1-7) (**FOS**)				
9	Pagtatae o malambot na dumi ng 3 beses o higit pa sa loob ng 24 oras na maaaring magdudulot ng pagkawala ng tubig sa katawan (dehydration) (**AWD**)				
10	Pagtatae o malambot na dumi na may kasamang dugo (**ABD**)				
11	Sugat, galos o gasgas (**WBS**)				
12	Bali o linsad (**FRS**)				
13	Sakit sa balat (**SDS**)				
14	Kagat ng hayop (**ANB**)				
15	Pangangati ng mata, pamumula, na mayroon o walang kasamang pagmumuta (discharges) (**CON**)				
16	Paninigas ng leeg o panga (lock jaw) (**TET**)				
17	Pagtaas ng presyon ng dugo ≥140/90 (**HBP**)				
18	May diabetes (KDM)				
19	Hirap at may tunog na paghinga (wheezing) (**AAA**)				
20	Biglaang pagkaparalisa (di matigas na klase ng paralisis) ng mga paa at braso ng isang normal na batang <15 taon ang edad (**AFP**)				
21	Sobrang payat, meron o walang pagmamanas (**AMN**)				
22	Others (please specify): ____________				

1. Ang mga talaan ng araw-araw na konsultasyon ay dapat nakasulat sa isang logbook.
2. Ang mga rekord na ito ay gagamitin para makumpleto ang Form-1 at ibigay sa center hanggang 5pm at hintayin ang susunod na direksyon.
3. Ang form na ito ay gagamitin lamang ng mga BHW, midwives, nars at doktor sa mga tulad ng klinik, evacuation center, barangay health station at health centers.
4. Magreport agad sa mga sumusunod na hotline: ____________

FIGURE 11a. SPEED Reporting Form 1

SPEED Syndromic Reporting Form 1 (See Annex 1)**:** This is the form that will be used by the SPEED reporter to get the list of consults from the logbooks, forms, or records of health centers, BHS, and evacuation centers for submission to the MHO/CHO at the end of the data collection period (4:00 PM cut-off daily). Identifying and demographic information that should be supplied are: Name of province, City/Municipality, Barangay; Name of reporting health facility; Population size of evacuation center (broken down into the following age-group: <5 years old and ≥5 years old); Name of reporting officer Mobile number, Date of consultation being reported, Date report is submitted, the Health Facility code. SPEED Syndromic Reporting Form 1 is also available in Filipino (See Annex 2).



S.P.E.E.D. REPORTING FORM – 2
(HOSPITALS)

Province: _____ City/Municipality:_____
Name of Reporting Hospital: _____
Name of Reporting Officer: _____ Cellphone No: _____
Date patients reported below were seen by a health professional: _____
Date this report is submitted: _____
HF CODE (Health Facility Code): _____
SMS Format (daily reporting): HF X MM/DD/YY DISEASECODE 0 0 0 0
SMS Format (alert): HF X ALERT DISEASECODE 0 0 0 0
* X is the HF code

#		<5 years old		≥5 years old	
		Cases	Deaths	Cases	Deaths
1	Fever (FEV)				
2	Acute respiratory infection (ARI)				
3	Suspected measles (MEA)				
4	Acute hemorrhagic fever (AHF)				
5	Suspected meningitis (MEN)				
6	Suspected leptospirosis (LEP)				
7	Acute jaundice syndrome (AJS)				
8	Fever with other symptoms not specified above (FOS)				
9	Acute watery diarrhoea (AWD)				
10	Acute bloody diarrhoea (ABD)				
11	Open wounds & bruises/burns (WBS)				
12	Fractures (FRS)				
13	Skin disease (SDS)				
14	Animal bites (ANB)				
15	Conjunctivitis (CON)				
16	Tetanus (TET)				
17	High blood pressure (>140/90) (HBP)				
18	Known diabetes (KDM)				
19	Acute asthmatic attack (AAA)				
20	Acute flaccid paralysis (AFP)				
21	Acute malnutrition (AMN)				
22	Others (please specify): _____				

1. Keep proper records of daily consultations in register/ logbook
2. Use the OPD/ER daily consultation records to accomplish this Form 2 and submit by 5PM daily until further instructions.
3. For municipal hospitals and private hospitals in municipalities – submit this form to the Main RHU _____
4. For district and provincial hospitals – submit this form to the PHO.
5. For local government and private hospitals in cities – submit this form to the CHO _____.
6. For DOH-retained hospitals, submit this form to the CHD.
7. This Reporting Form 2 is to be accomplished by Hospitals ONLY.
8. HOTLINE (S) for immediate notification of alerts : _____

FIGURE 11b. SPEED Reporting Form 2

SPEED Hospital Reporting Form 2 (See Annex 3)**:** This is the form that will be used by the SPEED reporter in hospitals. The SPEED reporter will retrieve the daily consultation record from OPD and ER which lists the same syndrome code as Form 1 but this time the diagnosis is listed opposite the code. Identifying and demographic information that should be supplied are: Name of province, Name of city/municipality; Name of reporting hospital; Name of reporting officer, Mobile phone number, Date of consultation being reported, Date report is submitted, the Health Facility code.

SPEED Form 2 will be submitted to the following at the end of the data collection period (4:00PM cut-off daily):

1. *Municipal Health Office* - for municipally-managed hospitals, private clinics and private hospitals in the municipality
2. *Provincial Health Office*: for District and PHO-managed Hospitals
3. *City Health Office*: for city government-managed hospitals, private clinics, and private hospitals in the city
4. *Center for Health Development*: for DOH-retained hospitals

III.A Filling Out SPEED Reporting Forms

The fields in the two SPEED Reporting Forms are self-explanatory and all the data are available in the reporting health facility. To illustrate how to fill out both forms, see the following steps below (See Figure 12):

1. Summarize the data from:
    a. the logbook or patient records from health centers, BHS, and evacuation centers for SPEED Form 1
    b. the daily consultation records from the OPD and ER from hospitals for SPEED Form 2
2. Complete all the HF identifying and demographic information
3. Using the summarized data, write the total number of cases and deaths per disease syndrome per age group indicated in the form (<5years old; ≥5years old)
4. Indicate the name of the Main Repository Unit of reports at the end of page 1:
    a. For SPEED Form 1, write the name of the main RHU or the RHU or CHO utilized as the repository of reports;

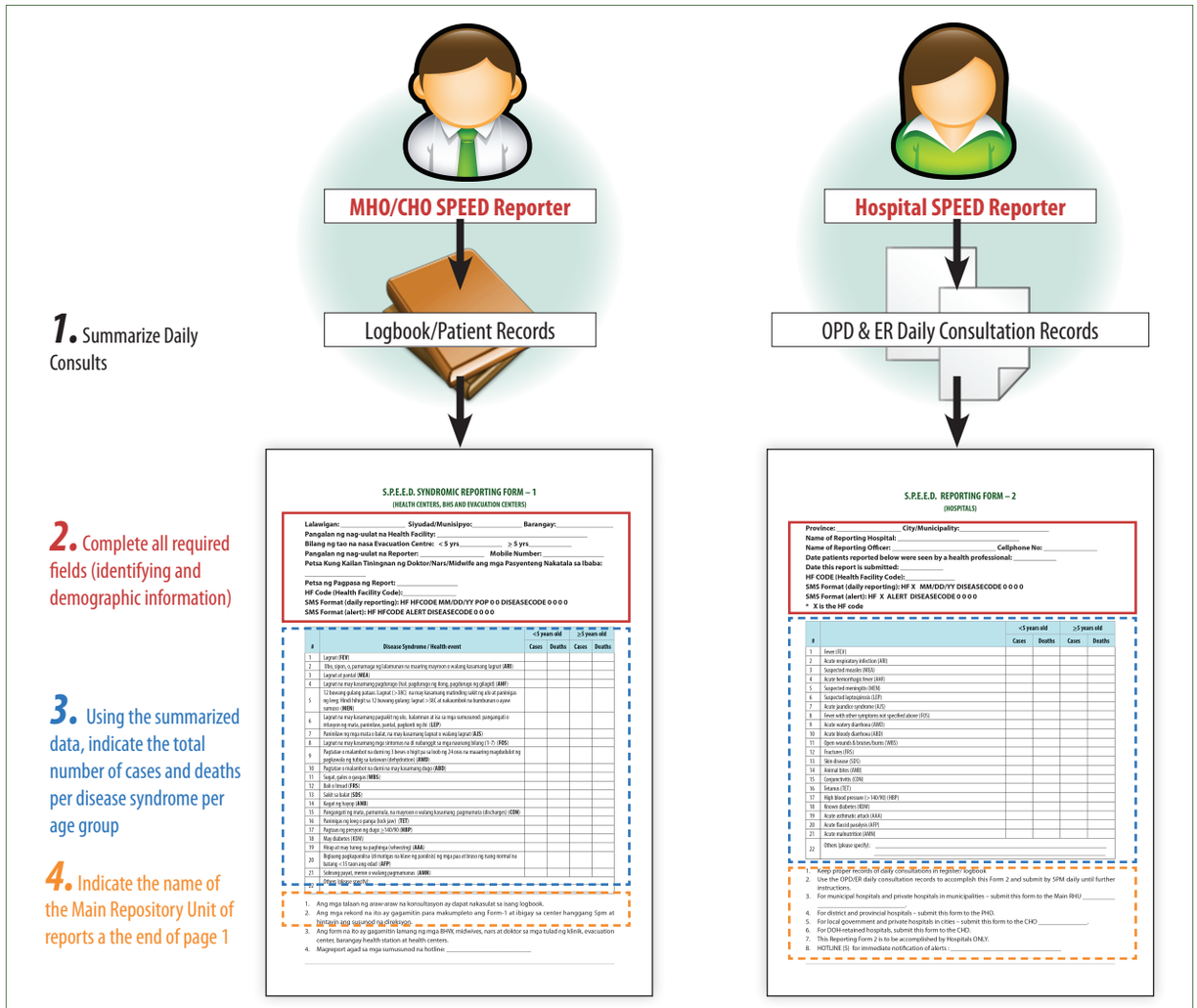
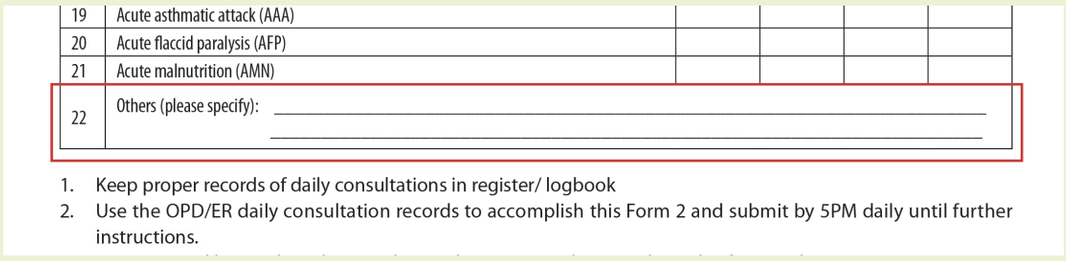


FIGURE 14. Steps outlining the correct use of the SPEED Forms

b. For SPEED Form 2, write either the name of the main RHU or RHU or CHO utilized as the repository of reports, the name of the MHO/CHO/PHO for local government or private hospitals, or the name of the CHD for DOH-retained and Metro Manila Hospitals.

IMPORTANT NOTES

- For both forms, syndromes or diseases that are not included in the 21 but are noted to be significant (e.g., the top 3 or 5 diseases in terms of incidence) during the daily reporting can be placed under item 22: "***Others (please specify)***".



19	Acute asthmatic attack (AAA)				
20	Acute flaccid paralysis (AFP)				
21	Acute malnutrition (AMN)				
22	Others (please specify): _____ _____				

1. Keep proper records of daily consultations in register/ logbook
2. Use the OPD/ER daily consultation records to accomplish this Form 2 and submit by 5PM daily until further instructions.

  - **Creation of new disease codes:** After consultation of the MHO/CHO with the PHO, diseases classified under "Others" may be assigned a new disease code upon recommendation of the PHO and careful review by DOH-HEMS after the emergency. The HEMS central office will create the new disease code as necessary especially if the disease proves significant. This provides the necessary flexibility to accommodate new disease entities with increasing significance.

- **Reporting patients with two or more disease conditions:** Each disease condition a patient has should be recorded as a separate case. For example, a patient having two disease conditions (fever and animal bites) is recorded as two separate cases (one for fever, another for animal bites). A patient with five disease conditions is recorded as five cases accordingly. However, the death of a person with multiple disease conditions should be recorded under his/her most probable cause of death.

- **Reporting follow-up consultations:** Each patient's follow-up consultation should be reported as separate cases.

- **Reporting of patients from another affected area:** All health facilities within affected areas should report ALL consultations seen at their clinics, ER, or OPD no matter where patients are from. Health facilities neighboring the affected areas may also start reporting upon the request of their respective province/CHD.

- **Reporting during human-generated situations:** Health facilities that cater to patients from affected and non-affected areas will only report cases of patients coming from affected areas. Ex. Cotabato Regional and Medical Center will only report cases coming from conflict-affected areas and not anymore those from non-conflict affected areas.

IV. Ways of Submitting Data into the SPEED System

Data for SPEED can either be submitted through SMS via any mobile phone or through the SPEED website via any computer with internet access. At the Health Facility level, any mobile phone capable of basic SMS will be sufficient to send and receive SPEED information. At the higher levels (Municipal, Provincial, Regional, and National), any computer connected to the Internet with a browser will be sufficient to access the SPEED website.

After the data collection period, once a SPEED reporter collects the necessary data through the SPEED Forms, he or she can immediately send the report using the SMS template. Another way is to send a duplicate copy (either through fax, personal delivery, email, or even oral dictation via the local SPEED hotline) of the SPEED Form to the Municipal or City Health Office. Once the copy is received at the MHO or CHO the SPEED Data Manager should encode the data into the SPEED website by 5:00PM (See Figure 6 in Section II: Overview of SPEED).

IMPORTANT NOTES

- Since the system deals with health records, it is imperative that all users safeguard their usernames and passwords with utmost care at all times.
- Only one computer should be logged into SPEED at any single time using a single username
- For problems, please contact SPEED system administrator at DOH-HEMS OPCEN via (+632) 711-1001 to 02.

IV.A Submitting Daily Report Data through a Mobile Phone

The Daily Report and Immediate Notification Alert can be submitted by sending a correctly formatted SMS message.

To send the Daily Report through mobile, send the SMS message with the format:

Where :

HF	is the mandatory keyword for SPEED
X	is the Health Facility Code
MM/DD/YY	is the consultation date being submitted
POP 0 0	represents population of those <5 yro and ≥ 5yro in the health facility/ health facility catchment
DISEASECODE	is the three-letter code for the disease being reported
0 0 0 0	represents the number of cases and deaths among <5 yro and ≥5yro, respectively

NOTE: Population (**POP 0 0**) is not required to send SPEED reports from hospitals.

For example, to send a Daily Report for the Health Facility WEST1 covering the date June 25, 2010, with <5 population of 20 and ≥5 of 40, and the following diseases/syndromes, see the steps below:

#	Disease Syndrome / Health event	<5 years old		≥ 5 years old	
		Cases	Deaths	Cases	Deaths
1	Fever **(FEV)**	1	1	1	1
2	Fever and any of the following: cough, colds or sore throat **(ARI)**	2	2	3	2
3	Fever with rash **(MEA)**				

Steps in sending the sample Daily Report via SMS:

1. Send the following message to the SPEED Access Code:

   HF WEST1 06/25/10 POP 20 40 FEV 1 1 1 1 ARI 2 2 3 2

   Access code for sending ACTUAL SPEED Reports when SPEED is activated: **23730796**

   Access code to send mock SPEED Reports when SPEED team is conducting drills or trainings: **23737063**

2. The SPEED system will reply with the message:

   This confirms receipt of your data for POP 20, 40 FEV 1,1,1,1 ARI 2,2,3,2 for WEST1 for 06/25/2010.

IMPORTANT NOTES WHEN SENDING REPORTS VIA SMS

1. The SPEED System will only reply if a correctly formatted message is sent. If it does not reply within one hour, there are only two possibilities: (a) either a wrongly formatted message was sent, or (b) the mobile network is unavailable (because of network congestion or damaged communications facilities). If it does not reply, the data should be sent to MHO/CHO either through fax, personal delivery or voice call dictation so it can be entered by the MHO/CHO. The text message can also be sent to the cellular phone number of the MHO/CHO and he/she will make sure to enter the data online. At the end of the week, duplicate copies of the SPEED Forms used should be aggregated and sent to the Municipal Health Officer (or City Health Officer).
2. The text message MUST always start with **HF**.
3. The Health Facility Code must be valid. Thus, it is important for SPEED reporters to know the code for Health Facility they are reporting for.
4. Likewise, SPEED reporters must know the three-letter code for the particular disease/syndrome they are reporting. These codes are found in the SPEED form.
5. The order of the disease/syndrome does not matter. For example, in the message above, FEV and ARI can be interchanged. The two messages below are equivalent to each other:

   HF WEST1 06/01/10 POP 20 40 FEV 1 0 1 1 ARI 2 2 3 2
   HF WEST1 06/01/10 POP 20 40 ARI 2 2 3 2 FEV 1 0 1 1

6. If there are no cases or deaths for a particular disease/syndrome, their 3-letter codes do not have to be included in the SMS message. If SMS templates are being used, the disease codes with no cases or deaths may be simply left blank.

   For example, to report only for 1 case of ARI under 5 for the Health Facility WEST1, you can send the SMS:

   HF WEST1 06/01/10 POP 20 40 ARI 1 0 0 0

7. SMS credits/load of SPEED reporters will not be deducted when sending messages to the system. However, mobile phones to be used in reporting must have at least Php 1 maintaining balance.

8. During emergencies or disasters, SPEED reporters can use any SIM card (Globe/TM, Smart) to send data to the system. But during trainings, participants can only use Globe/TM.

9. The mobile phone numbers of SPEED reporters do not have to be pre-registered with the SPEED System in order to send data.

10. Any phone which can send and receive SMS can be used.

11. The SPEED system can generate and send SMS templates for SPEED reporters. (See **Part VI Sending SMS Templates via SPEED Website** below for the steps)

12. If data which is more than 140 characters is to be sent, you can send multiple messages AS LONG AS YOU STILL SEND THE HEALTH FACILITY CODE, AND DATE.

    For example, the long message below can be broken up into two messages:

    HF WEST1 06/01/10 POP 200 4000 FEV 1 1 4 3
    ARI 5 0 7 0 MEA 9 7 12 11
    AHF 13 13 16 15 MEN 17 17 19 19
    LEP 2 2 23 23 AJS 5 2 27 27
    FOS 9 3 31 31 AWD 34 3 35 30
    ABD 7 7 39 21 WBS 4 2 33 12
    FRS 5 0 4 0 SDS 9 0 5 0
    ANB 5 4 5 5 CON 5 0 9 0

    Message 1:

    HF WEST1 06/01/10 POP 200 4000 FEV 1 1 4 3 ARI 5 0 7 0 MEA 9 7 12 11 AHF 13 13 16 15 MEN 17 17 19 19 LEP 2 2 23 23 AJS 5 2 27 27 FOS 9 3 31 31 AWD 34 3 35 30

    Message 2:

    HF WEST1 06/01/10 POP 200 4000 ABD 7 7 39 21 WBS 4 2 33 12 FRS 5 0 4 0 SDS 9 0 5 0 ANB 5 4 5 5 CON 5 0 9 0

IV.B Common Errors When Sending Reports via SMS

The SPEED System will only reply with a confirmation receipt if the message is correctly formatted. Here are some common errors:

1. **Sending data for a nonexistent Health Facility code.**

   Before sending any data, make sure that you are specifying a correct and existing Health Facility code. Make sure also to type and spell the Health Facility code correctly.

2. **Additional spaces in the Date.**

   The month, day, and year MUST NOT HAVE ANY SPACES in between them.

   Incorrect message:
   HF WEST1 06/01 / 10 POP 20 40 FEV 1 0 0 0

   Correct message:
   HF WEST1 06/01/10 POP 20 40 FEV 1 0 0 0

3. **Lack of spaces between the keywords.**

   There must be at least ONE (1) space in between the keywords and any numbers after them. There can be more than one space between the keywords.

   Incorrect message:
   HFWEST1 06/01/10 POP20 40 FEV1000

   Correct message :
   HF WEST1 06/01/10 POP 20 40 FEV 1 0 0 0

4. **Less (or more) than four values after the disease code.**

   There must always be FOUR (4) values after the disease code for each of the cases and deaths (<5 and ≥5).

   Incorrect message:
   HF WEST1 06/01/10 POP 20 40 FEV 1 0 1

   Correct message:
   HF WEST1 06/01/10 POP 20 40 FEV 1 0 1 0

5. **Substituting the number 0 with the letter O, and vice versa.**

   Do not substitute the number 0 with the letter O, and vice versa.

   Incorrect message:
   HF WEST1 O6/O1/1O POP 20 40 FEV 1 0 0 0

   Correct message:
   HF WEST1 06/01/10 POP 20 40 FEV 1 0 0 0

6. **Substituting the number 1 with the letter l, and vice versa.**

   Do not substitute the number 1 with the letter l, and vice versa.

Incorrect message:
HF WEST1 06/0i/i0 POP 20 40 FEV i 0 0 0

Correct message:
HF WEST1 06/01/10 POP 20 40 FEV 1 0 0 0

7. **Commas in the numbers.**

   Do not put commas in the numbers.

Incorrect message:
HF WEST1 06/25/10 POP 2000 4000 FEV 1,000 0 1 1 ARI 2 2 3 2

Correct message:
HF WEST1 06/25/10 POP 2000 4000 FEV 1000 0 1 1 ARI 2 2 3 2

8. **Additional text in the SMS message such as "Gud am", "jejeje", etc.**

   It is a computer that receives the SMS messages in the SPEED system, not a person.

IV.C Submitting Data Online

The Daily Report can also be sent using the SPEED website. Only the Data Managers at the MHO/CHO/PHO/CHD level (or their designated personnel) can enter data online.

Entering the Daily Report using the SPEED Online Form

To send the Daily Report online, log in to the SPEED website and enter the information in the SPEED Online Form:

1. Log in to the SPEED website by typing **http://www.doh.gov.ph/speed** (for training purposes, type **http://demo.speedsurveillance.org**) into the Internet browser. Enter your username and password.
2. Click "Reporting".
3. Click "Online Form".
4. Enter the Date of the report.
5. Choose the location of the Health Facility. The MHO/CHO can only choose from locations under its jurisdiction. A Health Facility must first be created before it can appear in the dropdown menu.
6. Enter information for the diseases/syndromes.
7. Click "Submit" at the bottom of the page.

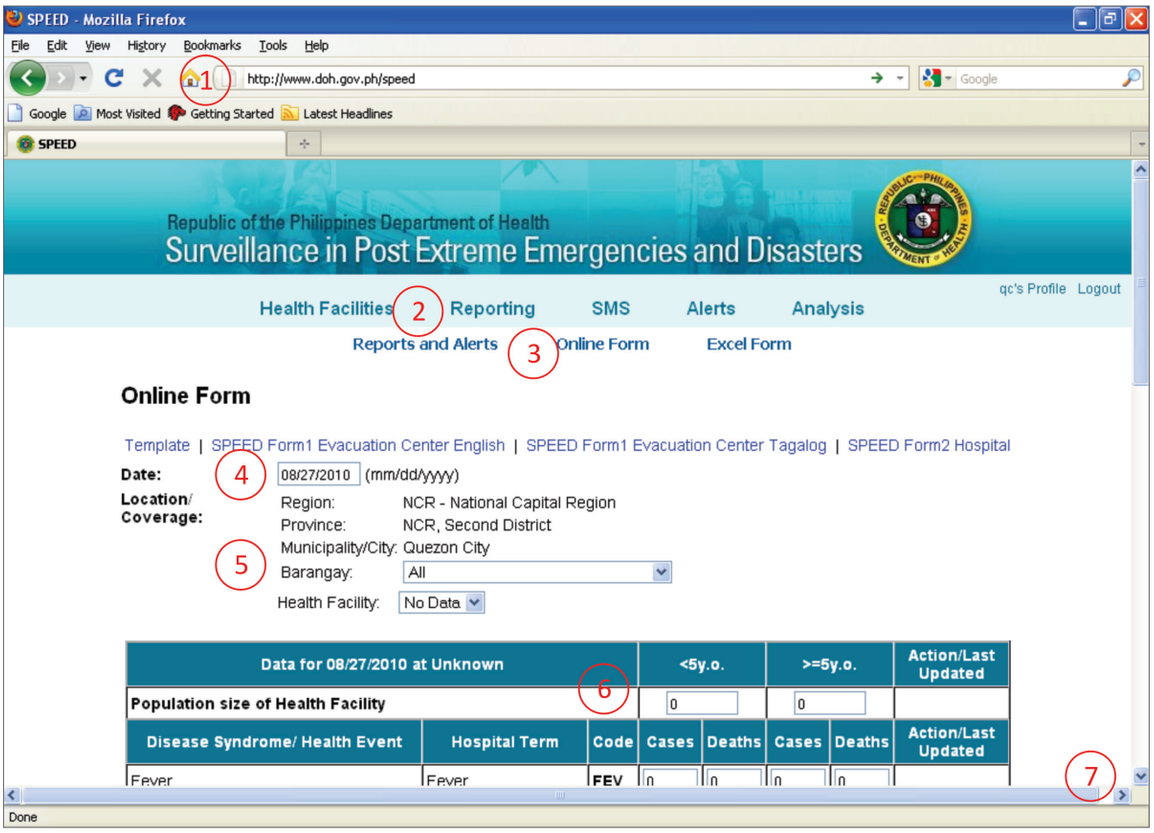


FIGURE 15. Steps in submitting data using the Online Form

To Modify an Existing Online Report:

1. Click "Reporting".
2. Click "Online Form".
3. Enter the Date of the report to be edited.
4. Choose the Location, by specifying the Region, Province, Municipality/City, Barangay, or Health Facility (depending on the available options).
5. Edit the existing data.
6. Click "Update".

Entering the Daily Report using the Excel Form

The Daily Report can also be sent using an Excel form. The Excel form can be used in instances when there is no access to the Internet, or access is inconsistent. The Health Facility worker and the MHO/CHO/PHO/CHD can all use the Excel form.

To send the Daily Report using the Excel form:

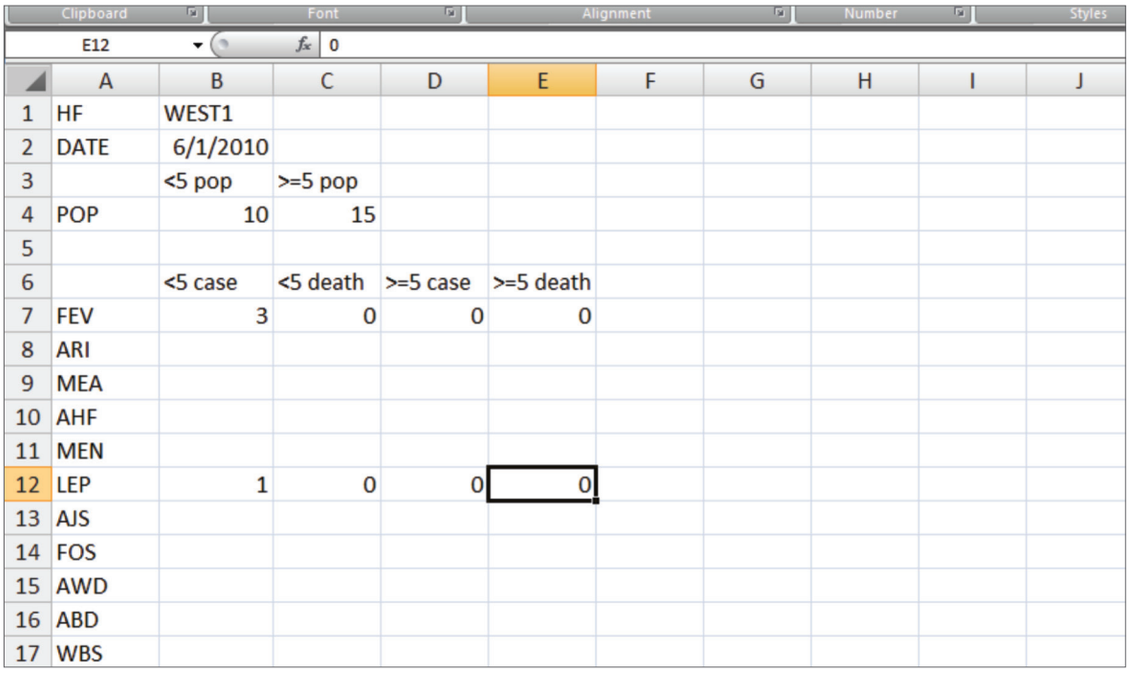
1. Open the file **SPEED_CSV_FORM.CSV** which may be downloaded by going to the Reporting section and clicking "Excel Form". Click "Template" and save the file to a computer.

2. Enter the data in the appropriate cell.
    - For the Health Facility (HF): Type the Health Facility Code on Row 1, Column B (B1) beside HF with the Health Facility CODE (e.g. WEST1) and NOT with the Health Facility NAME (e.g. Twin Hearts Evacuation Center)
    - Indicate the date of your report on Row 2, Column B (B2)
    - Indicate the size of the two populations:
        - For <5 population, on Row 4, Column B (B4)
        - For ≥5 population, on Row 4, Column C (C4)
- Fill in the corresponding number of cases and deaths for the 21 diseases:
    - If there are no cases or deaths for a particular disease, there is no need to type in a zero value
    - But, if there is at least one (1) case or death for any disease, all values (including zeroes) should be indicated

3. When all the data have been entered, save the file with the filename using the Health Facility code (or name) and the date reporters are submitting for.

    Example: data to be entered consists of: the Health Facility code WEST1 for June 1, 2010 with pop<5 = 10, pop≥5 = 15, FEV 3 0 0 0 and LEP 1 0 0 0 and no other cases or deaths, the sample should show:

    FILE NAME: **WEST1_06012010.CSV**



Clipboard | Font | Alignment | Number | Styles

E12 | 0

	A	B	C	D	E	F	G	H	I	J
1	HF	WEST1								
2	DATE	6/1/2010								
3		<5 pop	>=5 pop							
4	POP	10	15							
5										
6		<5 case	<5 death	>=5 case	>=5 death					
7	FEV	3	0	0	0					
8	ARI									
9	MEA									
10	AHF									
11	MEN									
12	LEP	1	0	0	0					
13	AJS									
14	FOS									
15	AWD									
16	ABD									
17	WBS									

4. When there is access to the internet, upload the file to the SPEED website by clicking "Reporting", then click "Excel Form" click "Browse" and upload the Excel file(s).

    The number of data entered will be shown (e.g. for data FEV 3 0 0 0 and LEP 1 0 0 0, when the file is uploaded, a note appears: 2 entries submitted for WEST1).

IMPORTANT NOTES WHEN SENDING REPORTS ONLINE

1. The file must ALWAYS be saved as a CSV Comma Delimited file. (There are many variations of the CSV file type).
2. Enter the data only in the appropriate cells. If they are entered in other cells, it will have an incorrect format and will not be read by the SPEED website.
3. If a cell is empty, it will be assumed that the value for the cell is 0.
4. Create a file for each date and Health Facility you are entering for. The SPEED CSV FORM also utilizes the same format as the SMS template.

V. Immediate Notification Alert

An *Immediate Notification Alert* (*INA*) is a message sent by a SPEED reporter which signals that the alert threshold for a particular disease entity being monitored under SPEED has been breached (See Table 11 for the various INA Thresholds). This signals the potential of or the beginning of an outbreak. Once an alert is raised, the health emergency manager (the Municipal or City Health Officer) verifies the alert message. He/she then may have to decide if further field investigation is warranted. The case is then referred to the proper surveillance unit who will then conduct further field investigation.

Example:

For the syndrome of fever with spontaneous bleeding (from the nose or gums), the immediate notification alert threshold is one case. If a SPEED reporter encounters a case in the field, then this threshold is breached and an Immediate Notification Alert should be sent to the MHO.

The SPEED website automatically monitors all reports sent and signals breaches in alert thresholds (see Figure 14 below). However, SPEED reporters can also manually send Immediate Notification Alerts.

V.A Ways of Manually Sending Immediate Notification Alerts

Sending an Immediate Notification Alert through SMS

To send the Immediate Notification Alert through mobile, send the SMS message with the format:

Where:

HF	is the mandatory keyword for SPEED
X	is the Health Facility Code
ALERT	is the keyword for Immediate Alert Notification
DISEASECODE	is the three-letter code for the disease being reported
0 0 0 0	represents the number of cases and deaths among <5 yro and ≥5yro, respectively

For example, to send an Immediate Notification Alert:

for the Health Facility WEST1; for Leptospirosis (LEP) with 1 case and 1 death under 5, and 1 case and 1 death over 5 (1,1,1,1)

Steps in sending the sample Immediate Notification Alert via SMS:

1. Send the following message to the same SPEED Access Number used for texting the SPEED Daily Reports:

   HF WEST1 ALERT LEP 1 1 1 1

2. The SPEED system will reply with the message:

   This confirms receipt of your possible ALERT for LEP 1,1,1,1 for WEST1 for 06/24/2010.

Sending Immediate Notification Alert through SPEED Hotlines

A SPEED Hotline should be established at each level of the health system (RHU, PHO for province; CHO for city in NCR and chartered cities; CHD OPCEN, HEMS National OPCEN). The SPEED Reporter may use the local SPEED Hotline to relay to the Municipal or City Health Officer the breach of thresholds. The Municipal or City Health Officer should then be the one to send an SMS using the above procedure to ensure that it is recorded into the system.

V.B SPEED Website Alerts Page

The Alerts page shows all alerts which are generated either through: (a) submission of the Immediate Notification Alert, or (b) breach of the Alert Threshold levels. This is the first page the MHO/CHO (and higher levels) see when logging in:

1. Click "Alerts".
2. Choose a Barangay.
3. Click "Update" to view the most recent information.

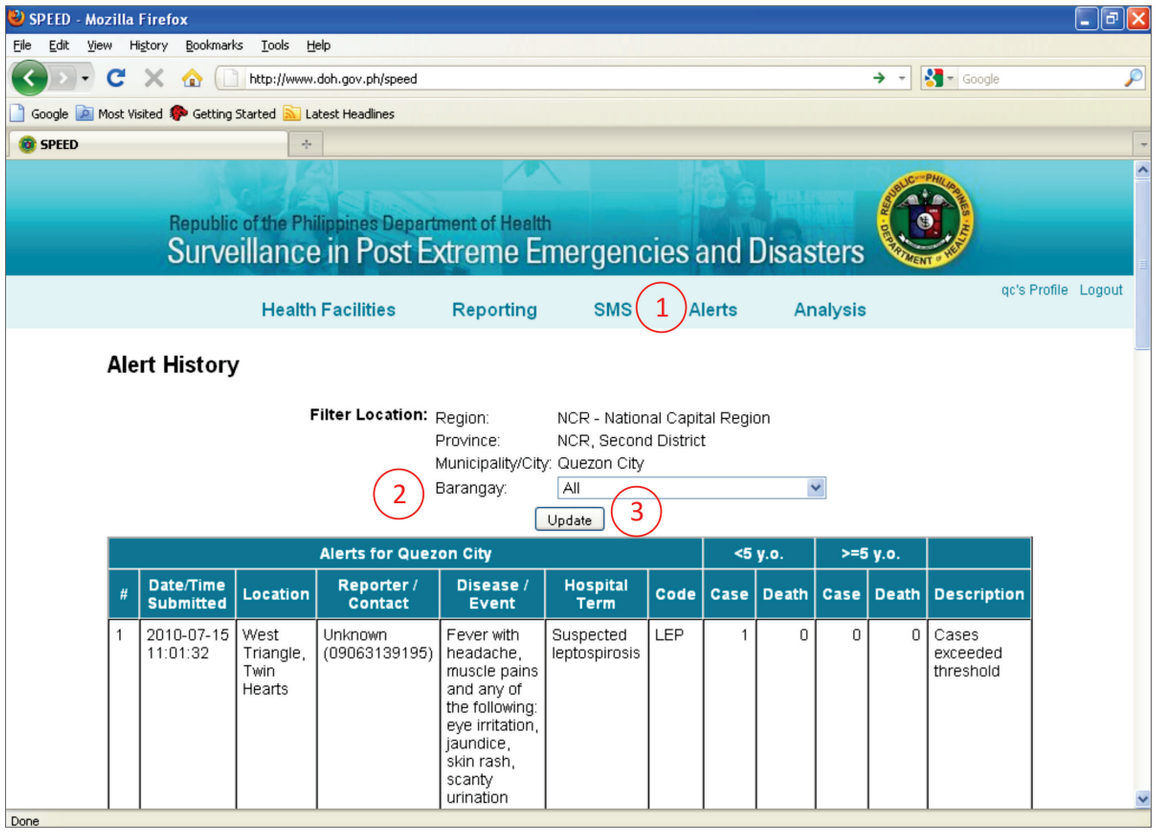


FIGURE 16. Steps on how to view all Immediate Notification Alerts

VI. Sending SMS Templates via SPEED Website

To facilitate the sending of reports via SMS, the SPEED Website can also be utilized to send SMS Templates to SPEED Reporters in the field. To send SMS templates, go to SMS" (See Figures 13a and 13b):

1. To send the SMS templates, click "Send Templates".
2. Choose a Barangay, or All for all barangays.
3. Click "Send to encoders in the location" to send to all registered mobile phone numbers assigned to that location.
4. To send to one number, enter the mobile number in the textbox and click "Send".

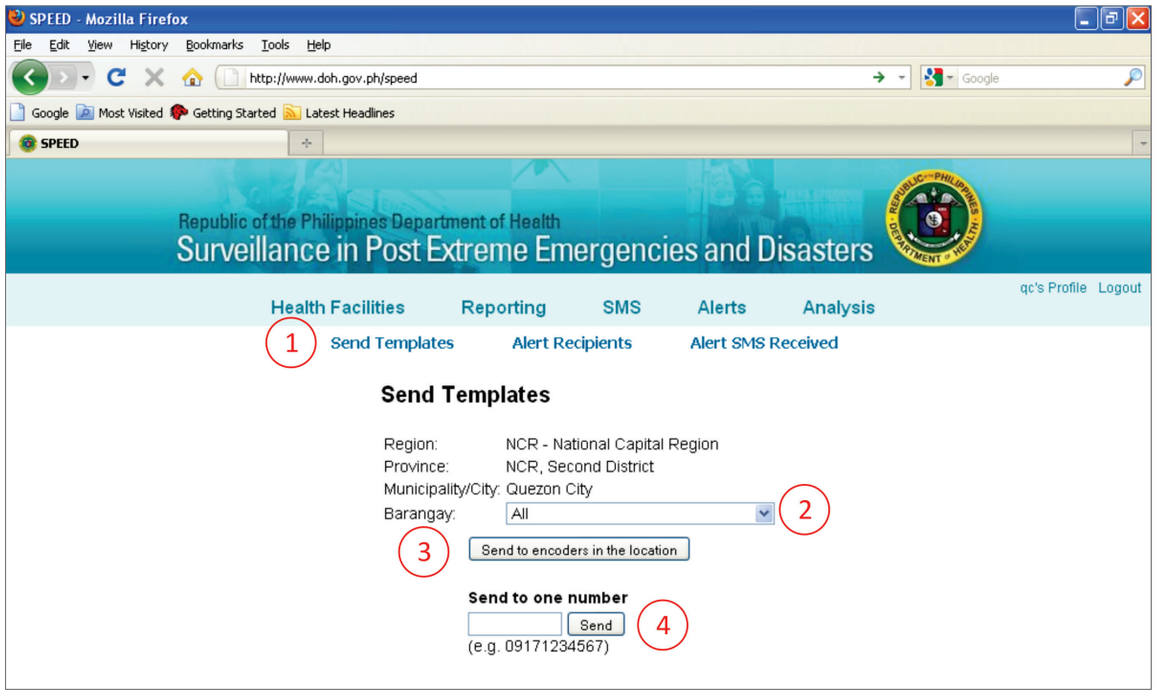


FIGURE 13a. Steps outlining the way to send SPEED SMS templates

VII. Registering SMS Immediate Notification Alert Recipients

1. To enroll mobile phone numbers which will receive Immediate Notification Alert messages, click "Alert Recipients".
2. Enter the mobile phone number, and click "Add Number". To remove the mobile phone number, click on the number and click "Remove Selected". There can only be five SMS INA recipients at any given time.

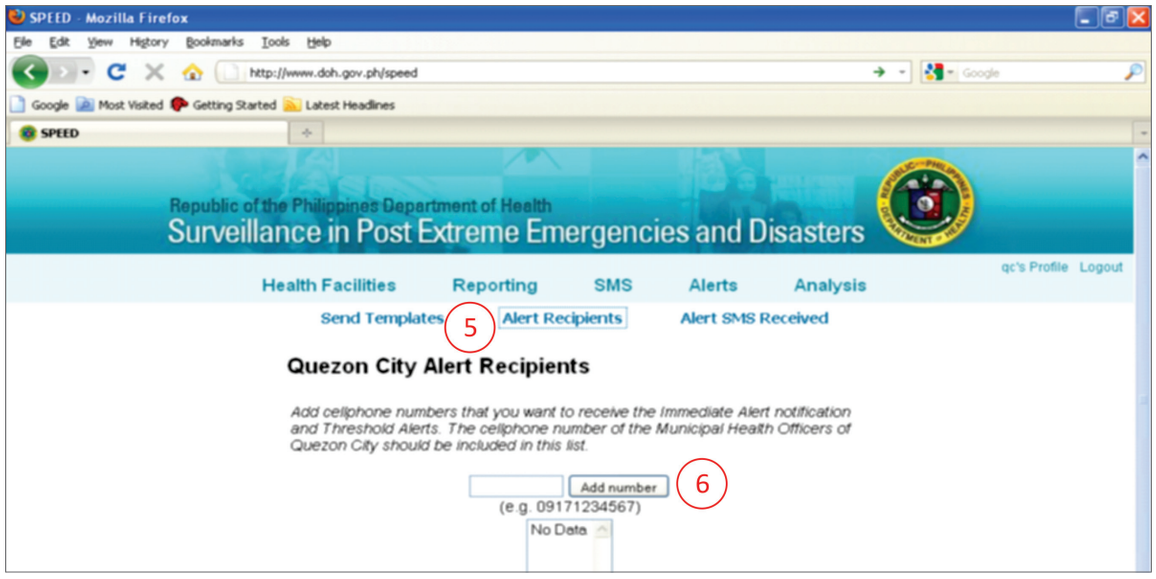


FIGURE 13b. Steps outlining way to send SPEED SMS templates

F. Generating Useful Information

The data collected from the field can then undergo descriptive analysis. Health emergency managers can either manually analyze the data on hand or use the web-based SPEED software to automatically generate tables and charts. Computer-assisted data management significantly reduces the time required to generate useful information for disaster management.

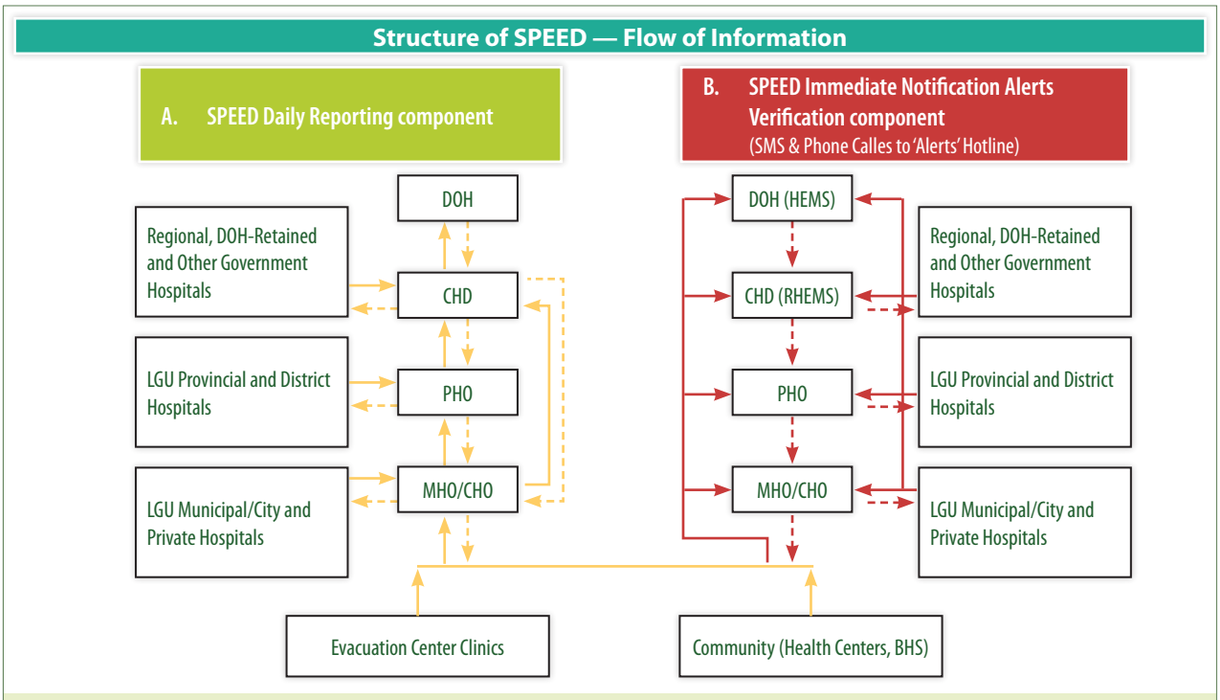


FIGURE 16. SPEED Daily Reporting and Immediate Notification Alert & Verification Flows

I. Validation of Data

Data must first be validated before reports can be generated out of it. Only the MHO/CHO level can validate data sent by their SPEED reporters. For hospital data, reports are validated by the following: MHO/CHO for LGU-managed hospitals and private hospitals in the municipality/city; PHO for provincial and district hospitals; and the CHD for DOH hospitals. Data analysis begins with validation of data and should look for the following:

- Missing entries (zero cases vs incomplete entries)
- Unusually high numbers
- Proportional morbidities not within expected range
- Cases of an event occurring for the first time since reporting started
- Duplications
- Unexpected distribution patterns for a specific community

Validation

It is accepting as true and veritable the data submitted via SMS or entered online. The MHO/CHO must take special care when he/she validates data, since this will be the data that will be used to generate reports by all levels. The MHO/CHO can even go to the extent of checking with the SPEED Reporter to determine if a particular data entry is correct and valid.

Validating the Daily Report online

To validate the Daily Report online, log in to the SPEED website and validate the submitted data:

1. Click "Reporting".
2. Click "Reports and Alerts". The page will show all data which was submitted, whether through SMS or the SPEED_CSV_FORM.CSV form.
3. Choose an Alert Date/Time. Click "Show".

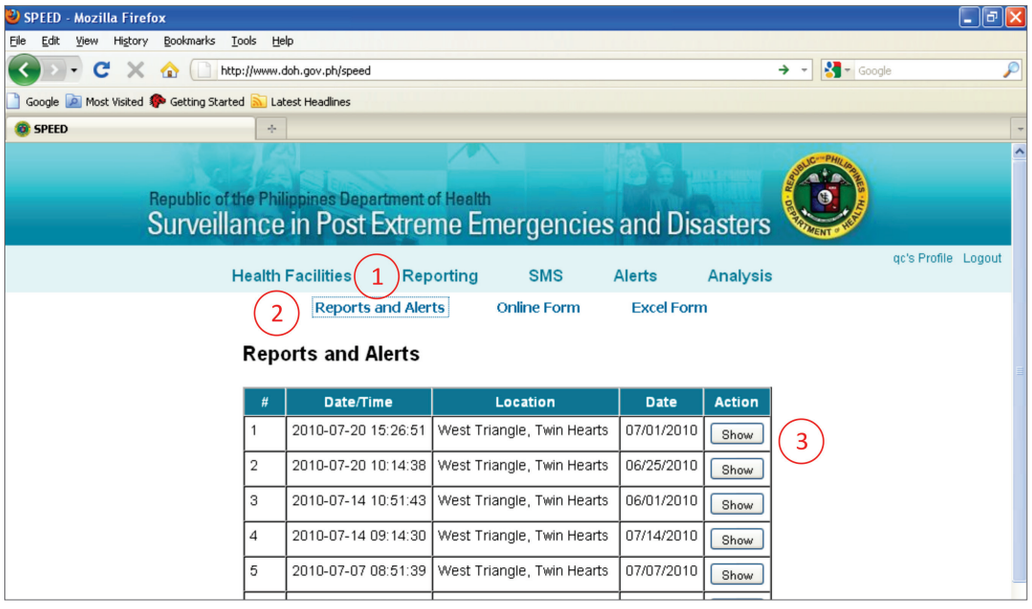


FIGURE 17a. Steps on how to view and validate data

4. Click "Accept" to validate the data. Click "Hide" to hide.

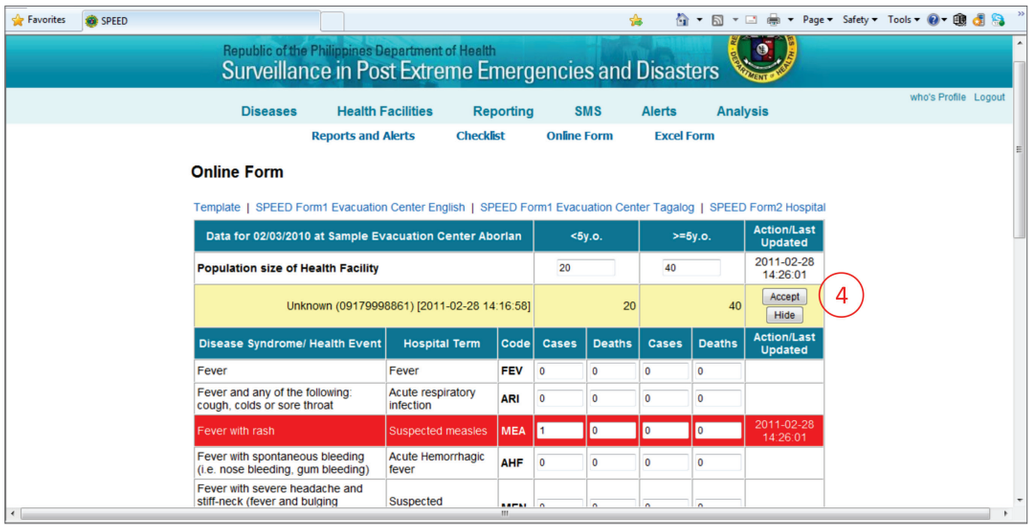


FIGURE 17b. Steps on how to view and validate data

If afterwards there is a need to change the accepted data, the new values in the Disease Syndrome can be entered. Once entered, click "Submit". The MHO/CHO/PHO/CHD should fully exert his/her wisdom as a doctor/team leader in validating the data, before clicking "accept" or "hide."

Clicking "hide" would mean deleting the data from the system. If on further investigation, the data was found to be valid, it should be re-entered using the SPEED online form (See Submitting Data Online) based on the completed SPEED Reporting Forms 1 or 2.

If the MHO/CHO/PHO/CHD feel that further verification is needed, he/she may opt **not** to "click" any of the 2 buttons (accept or hide). Once verified within 24 hours, click "accept."

To use the Checklist function

To view the Checklist of which health facilities have submitted the Daily Report for a particular date:

1. Click "Reporting".
2. Click "Checklist".
3. Choose the date you want to view.
4. Click "Update".
5. Click "View" to access the needed data

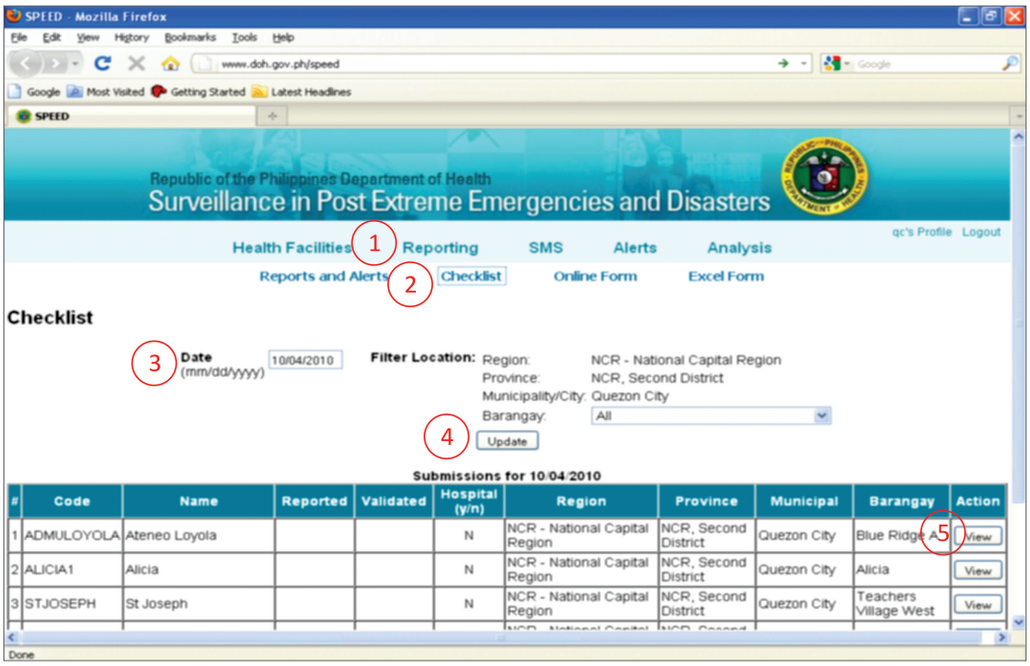


FIGURE 18. Viewing the list of which health facilities have reported

II. Generation of Graphs, Tables, Maps, and Status Reports

The SPEED web-based software has built-in functions that enable users to generate graphs, tables, maps, and document status report templates automatically. The MHO/CHO level (and higher) can generate reports for barangays which are under its jurisdiction. The National level can generate reports for all municipalities and from all levels and facilities.

II.A Tabulation Function

To view Tabulation of cases and deaths per age group of disease conditions in a particular area or health facility,

1. Click "Analysis".
2. Click "Tabulation".

3. Choose the Date Range you would like to generate a report for. By default, the Date Range starts two weeks prior to the present date. You can adjust the Date Range accordingly.
4. Choose if you would like to generate reports for All Health Facilities, Hospitals Only, or Non Hospitals Only.
5. Choose the Barangay – by selecting the appropriate Region, Province, Municipality or City – or Health Facility you would like to generate a report for. Select "All" to generate a report for all Barangays or Health Facilities.
6. Click "Update" to generate the Totals.
7. Data can be downloaded in Excel format by clicking "Download" and "Save As…" to your computer.

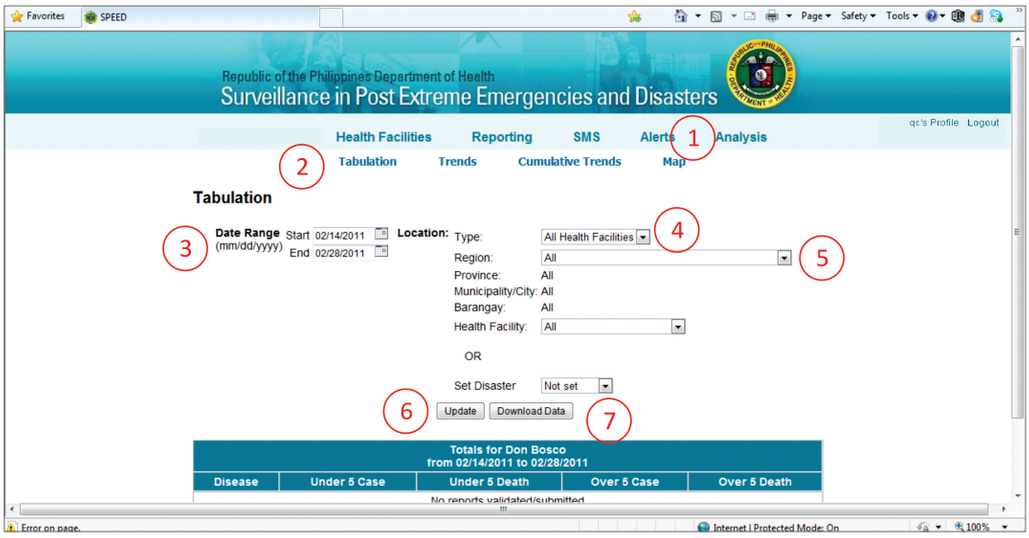


FIGURE 19. Using Tabulation function to generate reports

II.B Trends Function

To view Trends or the graphical representation of the cases and deaths per age group per disease condition in a particular area or health facility,

1. Click "Analysis".
2. Click "Trends".
3. Choose a Date Range.
4. Choose a Disease.
5. Choose if you would like to generate reports for All Health Facilities, Hospitals Only, or Non Hospitals Only.
6. Choose a Barangay and/or Health Facility.
7. Click "Plot Selected Disease" to plot a specific disease. You can also click "Plot < 5yo Cases", "Plot < 5yo Deaths", "Plot >= 5yo Cases" and "Plot >= 5 yo Deaths". You can also generate the graphs for all the diseases by clicking "Generate Document Template".

8. To view the Cumulative Trends, click "Cumulative Trends". Cumulative Trends add the previous day's total to present day's total.

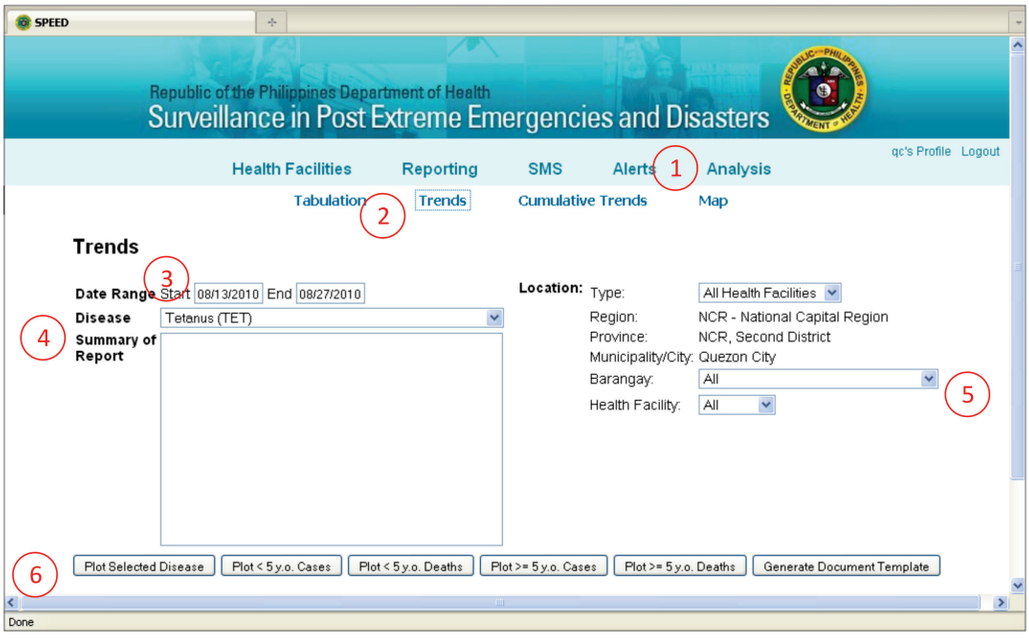


FIGURE 19. Using Trends function to generate reports

II.C Maps Function

To view Maps or the distribution of a particular disease during a particular date range,

1. Click "Analysis".
2. Click "Map".
3. Choose a Date Range.
4. Choose a Disease.
5. Click "Update".
6. The mapping tool in SPEED utilizes Google Maps. To zoom in on the map, just left click on the map. To zoom out, right click on the map. The slider found in the left-hand side can also be used to zoom in (Click the + sign) or out (click the – sign). To navigate the map, click on the circular disk with NSEW directions.
7. To view details for a particular location, click on any of the markers on the page.

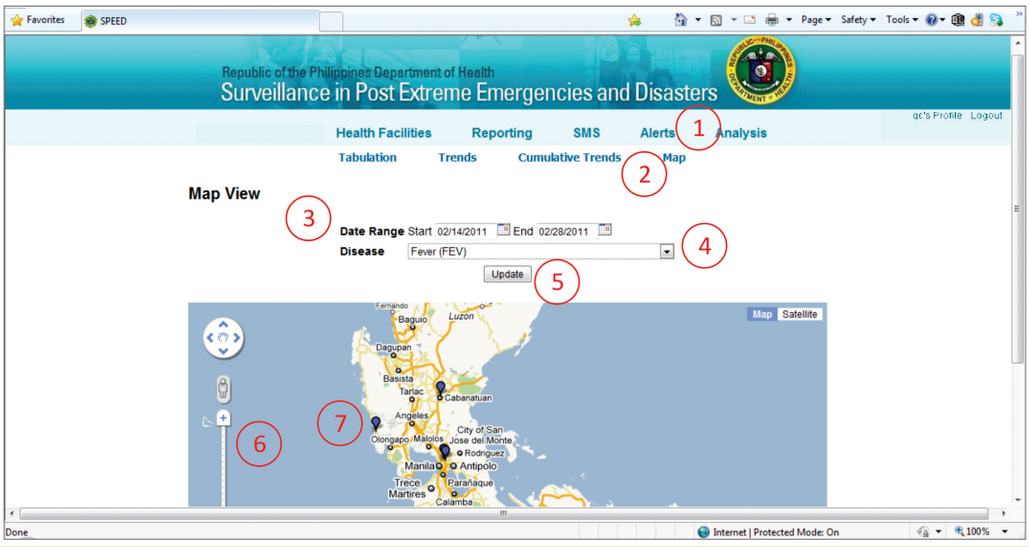


FIGURE 20. Using Maps function to generate reports

II.D Document Template Function

To write a Status Report, you can use the Document Template.

1. Click "Analysis".
2. Click "Trends".
3. Choose a Date Range.
4. Choose a Barangay and/or Health Facility.
5. Enter text in "Summary of Report". This will contain a descriptive narrative of the report. Please refer to page 57 Generation of SPEED Reports for the suggested format of the narrative report.
6. Click "Generate Document Template".
7. A new web page will appear with the Report details (name of reporter, Health Facility, date, Summary of Report, and graphs). The page will include graphs for all the Diseases for the specified date range. You can print this page. If you would like to edit it, you can copy paste it to Microsoft Word or any text editor.

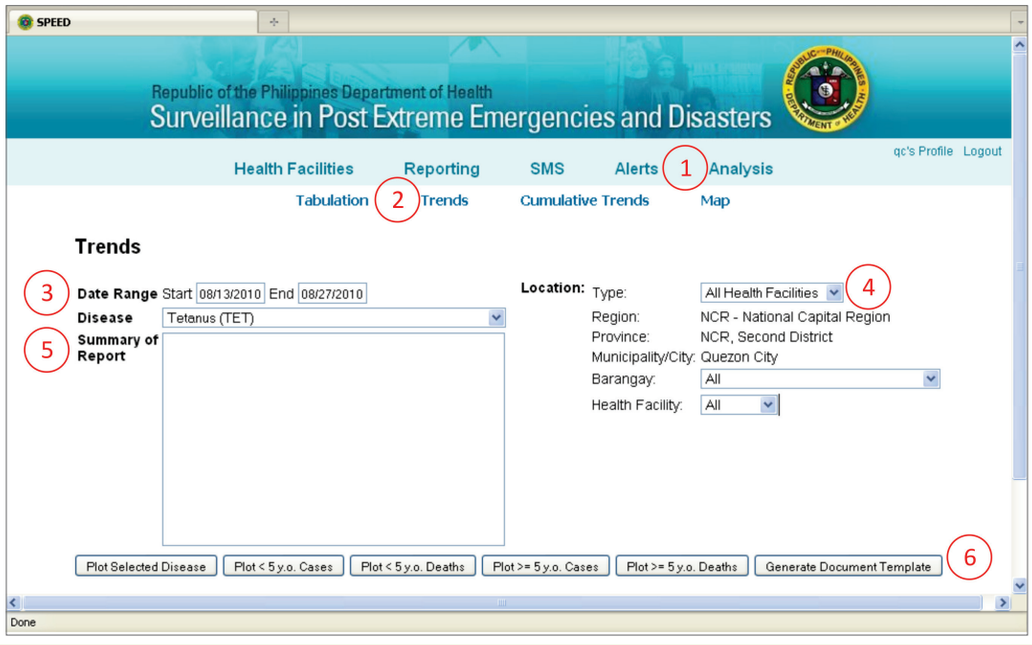


FIGURE 18. Using Document Template function to generate Status reports

III. Descriptive Analysis of Information

Analysis and preparation of reports should start at the level of the affected municipality or city by the main RHU.

- Analysis by person, time (graph), place (maps)
- Total number of cases/age group/day (municipality/city)
- Total number of deaths/age group/day (municipality/city)
- Total number of cases/age group/day/health facility
- Total number of deaths/age group/day/health facility

IV. Generation of SPEED Reports

Once the available information is analyzed, reports can be written to inform the authorities who will manage and institute the appropriate response plans. SPEED reports should be officially cleared by local authorities before dissemination to stakeholders. SPEED reports are not necessarily stand-alone documents; rather, they can supplement existing reporting formats required by higher authorities.

Suggested Outline for SPEED Daily/Weekly Reports

I. Background
   - A. Nature of Emergency
   - B. Date
   - C. Affected Area

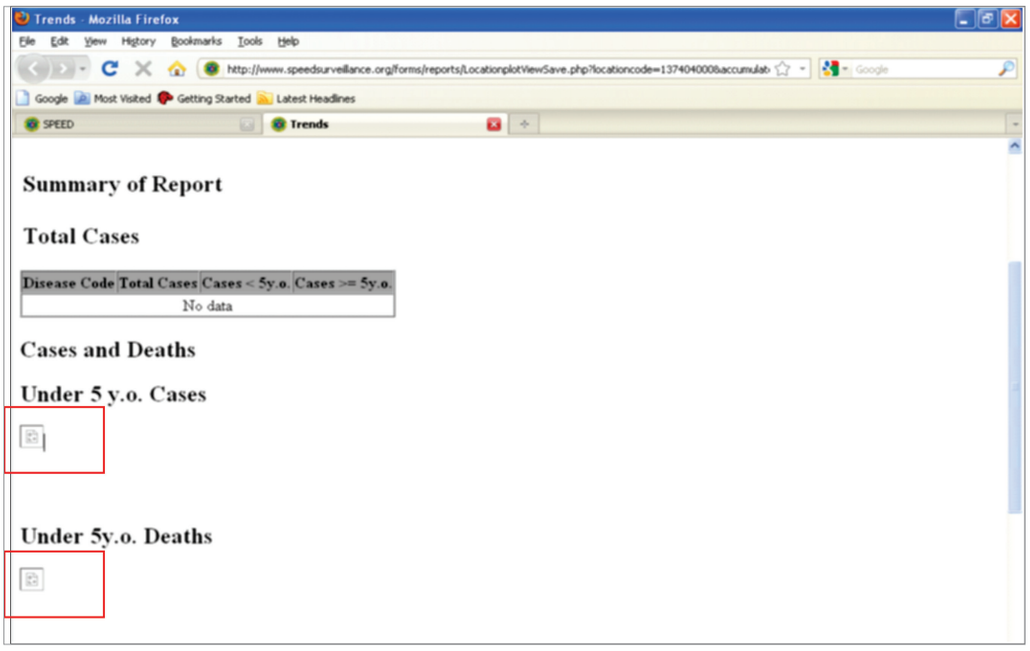
II. Health Consequences
   - A. Affected Health Facilities
   - B. Affected Population
   - C. Daily/weekly updates of syndromes/events under SPEED with tables/charts/maps generated
   - D. Significant information (ex. relationship of the significant diseases reported in relation to the environmental condition/health status, like vaccination coverage.)

III. Actions Taken (actions taken by the health facility (MHO/CHO), the LGU, other agencies)

IV. Recommendations (specify according to the levels and agencies to which they are directed)

V. Common Internet Problems

V.A Images and maps do not load



This may be due to a poor Internet connection. Check that your connection to the Internet is functioning.

1. If the Internet connection is functioning, logout of the SPEED website by clicking "Log out" at the upper right hand corner of the screen.
2. If you are using Mozilla Firefox, click "View" and click "Reload". If you are using Internet Explorer, click "View" and click "Refresh".
3. Go to the SPEED website and log in again.

V.B Options under Main Menu do not update

This occurs when you click on one of the options in the Main Menu (i.e. Health Facilities, Reporting, SMS, Alerts, Analysis) and the options beneath it do not update or are incorrect. Again, this may be due to a poor Internet connection.

1. Check that your connection to the Internet is functioning.
2. If the Internet connection is functioning, click on the option in the Main Menu again. The options beneath it should not be correct.
3. If it is still incorrect, log out of the SPEED website and log in again using the directions above.

VI. Feedback of Information

Feedback mechanisms to the reporting sources are a very important component of surveillance. It recognizes the importance of those who collect data by making them aware that the data they collected has been utilized and resulted to corresponding actions.

Existing mechanisms of feedback such as meetings on SPEED operational issues will not only improve the quality of data collection but will also empower the local community to actively apply effective measures in implementing the system and improve their level of performance. Health emergency managers can employ feedback mechanisms when significant findings are present that could affect operations.

What does a health emergency manager need to feedback?

a. Significant results/findings of managing the data collected
    a. Descriptive analysis
    b. Significant actions taken by higher level
    c. Recommendations
b. Operational issues
c. Performance of the SPEED Team

VII. Monitoring and Evaluation of SPEED During the Response Phase

Simple and quick systems check should also be employed by health emergency managers during the response phase to ensure that its components are functioning effectively and that the data from the field reach the Team Leaders. Operational issues should be documented and relayed to the higher reporting unit as soon as possible so that solutions can be instituted. Table 12 shows the possible scenarios that can affect the functioning of the SPEED system and the corresponding recommendations to undertake by identified units/individuals within the specified time frames. The section on Common Internet Problems also provides a short troubleshooting guide when problems are encountered when using the SPEED website.

Table 12. Possible Scenarios During an Emergency/Disaster and Recommended Actions

Scenario	Recommended Options	By Whom	Time Frame
All communications lines are down	Proceed with paper-based reporting to ensure that reports are acted upon at the level of disaster until lines are re established. Send SMS or upload to server once communication lines are restored	SPEED Team at the municipal level	ASAP
No reports received a week post disaster	Higher level/s may go down to investigate and assist (See START)	PHO, CHD, Central Office	One week post disaster
No SMART, GLOBE/TM coverage (No signal)	Proceed with paper-based reporting and send report via fax, personal delivery, or voice call dictation (landline) to MHO/PHO	SPEED reporters	ASAP
No internet access in the community	MHO may encode manually using paper form or Excel form to generate reports MHO may access the internet cafe at the adjacent municipality or at the PHO	MHO	ASAP

Scenario	Recommended Options	By Whom	Time Frame
No electricity	Ensure provision of generator for temporary power supply	LGU/PHO/CHD/central office	Within 3 days of SPEED activation
Breakdown of SPEED software/ server	Contact IT consultant; check back-up system in the USA	HEMS, IMS	ASAP
No available SPEED forms (e.g. forms were damaged due to floods)	May request from PHO/CHD/central office for forms May summarize the daily consultation in an improvised summary form and transfer data as soon as SPEED form is available	MHO-SPEED reporters	ASAP
Team leader (MHO/CHO) also affected by the disaster	Augment human resources to take charge until the MHO of the main RHU can function	PHO/CHD	Within 3 days post disaster
Damaged main RHU	May use nearest health facility as temporary validating unit Request for START	MHO/PHO	Within 3 days post disaster with proper coordination with the other MHO
Whole municipality is affected and the health facilities become non-functional (damaged)	PHO assists Request for START	PHO	Within 3 days post disaster
When 2 or more municipalities are affected	PHO assists Request for START	PHO	Within 3 days post disaster
When the seat of the provincial government/city government is affected	CHD or both CHD and National assist Request for START	CHD	Within 3 days post disaster
Series of outbreaks are being detected	PHO/CHD/national assists	PHO/CHD/national	ASAP

VIII. The SPEED Technical Assistance and Response Team (START)

The SPEED Technical Assistance and Response Team (START) is a specialized rapid deployment group equipped with technical skills (IT, basic epidemiology, SPEED activation, coordination, risk communication) and resources (netbooks, cellphones, two-way radio, SPEED forms, generator) that can be mobilized in situations where RHU or the CHO affected by the disaster to such a degree that it is unable to activate SPEED.

The team may be formed at the provincial, CHD and central office level composed of any staff trained on SPEED and ready with all the resources to face all possible conditions. START Teams from other provinces, regions or central offices can also be deployed to assist during a large-scale emergency or disaster.

VII.A When is START activated and mobilized?

1. Upon request of local authorities
2. Order from the national government
3. In the context of being proactive (especially during cases of an unprecedented magnitude of disaster and evidenced by rapid assessments), health managers from the higher levels may mobilize START as necessary.

VII.B Levels of Response Support by START

Logistical Response Support

This occurs when the local SPEED Team requires additional logistics (forms, hardware, etc.) to function. In these situations, START (from any level) augments the required logistics to facilitate the operation of the SPEED system by the local SPEED Team.

Partial Response Support

This occurs when the local SPEED Team requires additional technical staff and logistics to function. In these situations, START (from any level) provides the additional staffing and resource requirements to assist the local SPEED Team in the activation and operation of the system.

Total Response Support

This occurs when the capacity of the local SPEED Team and their resources are completely overwhelmed by the emergency/disaster that they are unable to even activate SPEED within 48 hours. This may arise when the members of the SPEED Team themselves are affected or when there is a complete collapse of the Municipal or City Health Office. In these situations, START (from any level) COMPLETELY provides the staffing and logistics and takes over in the activation and operation of the SPEED system until such time that the local SPEED Team is able to resume operation.

G. Deactivating SPEED

SPEED Deactivation is the process of rendering the active SPEED System inoperative and dormant across all levels.

The criteria for SPEED deactivation are as follows:

1. **When there is an official declaration that the emergency is over *OR***
2. **When the conditions that warrant SPEED activation no longer exist**

SPEED shall only be deactivated by the following:

1. **Municipal Health Office/City Health Office**
2. **Provincial Health Office**
3. **Center for Health Development**
4. **Department of Health Central Office**

ABBREVIATION AND ACRONYMS

BHC	-	Barangay Health Center
BHS	-	Barangay Health Station
BHW	-	Barangay Health Worker
CHD	-	Center for Health Development
CHO	-	City Health Office
DOH	-	Department of Health
ED	-	Emergency Department
EHA	-	Emergency and Humanitarian Action
ER	-	Emergency Room
GOARN	-	Global Outbreak Alert and Response Network
HEPO	-	Health Education and Promotion Officer
HEMS	-	Health Emergency Management Staff
HF	-	Health Facility
IMS	-	Information Management System
INA	-	Immediate Notification Alert
IT	-	Information Technology
LCE	-	Local Chief Executive
LGU	-	Local Government Unit
LHAD	-	Local Health and Development
MHO	-	Municipal Health Office
MDRRMC	-	Municipal Disaster Risk Reduction & Management Council
MSWD	-	Municipal Social Welfare and Development
NCR	-	National Capital Region
NEC	-	National Epidemiology Center
NDRRMC	-	National Disaster Risk Reduction and Management Council
NGO	-	Non-Government Organization
OPCEN	-	Operations Center
OPD	-	Out-Patient Department
PIDSR	-	Philippine Integrated Disease Surveillance and Response
PESU	-	Provincial Epidemiology and Surveillance Unit
PHO	-	Provincial Health Office
PHN	-	Public Health Nurse
PHT	-	Public Health Team
RESU	-	Regional Epidemiology and Surveillance Unit
RHEMS	-	Regional Health Emergency Management Staff
RHU	-	Rural Health Unit
SPEED	-	Surveillance in Post Extreme Emergencies and Disasters
START	-	SPEED Technical Assistance and Response Team
WHO	-	World Health Organization
WPRO	-	WHO Western Pacific Regional Office

GLOSSARY

Activation – based on specific criteria, is the process of setting the SPEED System in motion, making it operational in all health facilities in affected or neighboring area(s) across all levels; SPEED should ideally be activated within the first 24 hours post disaster.

Contingency Plan – a forward planning process in a state of uncertainty, in which scenarios and objective are agreed, managerial and technical actions defined, and potential response systems put in place to better respond to an emergency (UNHCR)

Emergency – any actual threat to public safety; an exceptional event of any magnitude that produces damage and injury demanding immediate action

Data Validation – a process of ensuring the completeness of data and correctness of information; the MHO/CHO validates data from SPEED reporters

Data Manager – member of the SPEED Team; a Public Health Nurse of any staff of the main Rural Health Unit designated to encode data

Deactivation – a process of rendering the active SPEED System inoperative and dormant across all levels with cautious consideration of the criteria set for deactivation.

Disaster – any emergency, any actual threat to public safety and or public health, whereby local emergency management, services, and measures are UNABLE to meet the immediate needs of the community whether due to lack of time, capacity or resources, resulting in unacceptable levels of damage or numbers of casualties.

Guidelines – a statement of to implement policies and deals more with the technical know-how required in their implementation

Health Facility – an evacuation center, hospital, or any health facility where patients are seen and managed after a disaster

Hotline – a designated SPEED contact number at each level of the health system as a means to receive and transmit messages, data, notification, and technical assistance

Health Information System – a system that integrates data collection, processing, reporting, and use of the information necessary for improving health service effectiveness and efficiency through better management at all levels of health services

Immediate Notification Alert – a short message sent out to notify the next reporting level that the threshold for such disease/event is breached so that further investigation can be done. It signals the potential of or the beginning of an outbreak

Information System – a system that provides information support to the decision-making process at each level of an organization

Minor Emergency – any emergency where capacity and resources are adequate for emergency response.

Major/Extreme Emergency – any emergency where response is constrained by insufficient resources to meet immediate needs.

Plan – a stepwise approach in achieving an objective, often with the identification of relevant factors (scope, circumstances, and resources) that may contribute to its success or failure

Policy – a formal statement by a government, organization, or institution that expresses a set of goals, the priorities within those goals, and the preferred strategies for achieving those goals. It is primarily on the mandate of the institution

Post-emergency/disaster – period immediately after the emergency or disaster, not after the declaration that emergency or disaster is over

Preparedness – measures taken to strengthen the capacity of the emergency services to respond in an emergency. Emergency preparedness is done at all levels.

Procedure – a statement, like guidelines, that also explains how to implement policies but is focused more on the administrative side.

Rapid Health Assessment – the collection of subjective and objective information to measure damage and identify the basic needs of the affected population that require immediate response

Reporting Forms – two standard forms used for SPEED reporting

SPEED Reporter – member of the SPEED Team; a midwife, nurse, barangay health worker, NGO, physician or other health professional who is tasked with submitting the Daily Report for SPEED

SPEED Runner – member of the SPEED Team; any trained RHU staff responsible for collecting all the data in the different registered health facilities under its jurisdiction.

SPEED Network – main support system for SPEED implementation composed of the Municipal or City Health Office (MHO or CHO), Hospitals, NGOs, Private Organizations, Provincial Health Office, the CHD (RHEMS), and the National HEMS; each member unit has corresponding responsibilities during both the preparedness and response phases.

SPEED Team – group of local health workers with assigned tasks and responsibilities to undertake once SPEED is activated.

System – a collection of components that work together to achieve a common objective

Vulnerable groups – those who, because of constraints of an economic, social, ethnic, biological, physical or geographical nature, are less able to cope with the impact of hazards than other members of their community or society.

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Annexes

Three-Letter Provincial Codes for SPEED Health Facility Codes

Region 1		Region 2	
LAU	La Union	NVZ	Nueva Vizcaya
ILN	Ilocos Norte	CAG	Cagayan
ILS	Ilocos Sur	ISA	Isabela
PNG	Pangasinan	QUI	Quirino
		BTS	Batanes
Cordillera Administrative Region		**Region 3**	
MTP	Mountain Province	BTN	Bataan
IFU	Ifugao	ZAM	Zambales
BGT	Benguet	TAR	Tarlac
ABR	Abra	PAM	Pampanga
APA	Apayao	BUL	Bulacan
KAL	Kalinga	NUE	Nueva Ecija
		AUR	Aurora
Region 4A		**Region 4B**	
RIZ	Rizal	OCM	Occidental Mindoro
CAV	Cavite	ORM	Oriental Mindoro
LAG	Laguna	ROM	Romblon
BTG	Batangas	PAL	Palawan
QUE	Quezon	MAR	Marinduque
Region 5		**Region 6**	
CAT	Catanduanes	CAP	Capiz
CMN	Camarines Norte	AKL	Aklan
SOR	Sorsogon	ANT	Antique
ALB	Albay	NOC	Negros Occidental
MAS	Masbate	ILO	Iloilo
CMS	Camarines Sur	GUI	Guimaras
Region 7		**Region 8**	
NOR	Negros Oriental	SLY	Southern Leyte
CEB	Cebu	ESM	Eastern Samar
BOH	Bohol	NSM	Northern Samar
SIQ	Siquijor	WSM	Western Samar
		LEY	Leyte
		BIL	Biliran

Region 9		Region 10	
ZSB	Zamboanga Sibugay	MOC	Misamis Occidental
ZDN	Zamboanga Del Norte	MOR	Misamis Oriental
ZDS	Zamboanga Del Sur	BUK	Bukidnon
		LDN	Lanao del Norte
		CAM	Camiguin
Region 11		**Region 12**	
DOR	Davao Oriental	SCT	South Cotabato
CVL	Compostela Valley	SKD	Sultan Kudarat
DDS	Davao Del Sur	NCT	North Cotabato
DDN	Davao Del Norte	SAR	Sarangani
Region 13 – CARAGA		**Autonomous Region for Muslim Mindanao**	
ADN	Agusan Del Norte	TTW	Tawi-Tawi
ADS	Agusan Del Sur	BAS	Basilan
SDS	Surigao Del Sur	SUL	Sulu
SDN	Surigao Del Norte	MAG	Maguindano
DIN	Dinagat Islands	LDS	Lanao Del Sur
National Capital Region		**National Capital Region**	
CAL	Caloocan City	PSG	Pasig City
MAL	Malabon City	PAT	Pateros
NAV	Navotas City	MAR	Marikina City
VAL	Valenzuela	TAG	Taguig City
		QUE	Quezon City
National Capital Region		**National Capital Region**	
MAN	Manila	LAS	Las Pinas City
MAK	Makati City	MUN	Muntinlupa City
MND	Mandaluyong City	PAS	Pasay City
SAN	San Juan City	PAR	Paranaque City

S.P.E.E.D. SYNDROMIC REPORTING FORM – 1

(HEALTH CENTERS, BHS AND EVACUATION CENTERS)

Province: _____ **City/Municipality:**_____ **Barangay:**_____
Name of Reporting Health Facility: _____
Population size of Evacuation Centre: < 5 yrs_____ **≥ 5 yrs**_____
Name of Reporting Officer: _____ **Mobile Number:** _____
Date the patients reported below were seen by a health professional: _____
Date this report is submitted: _____
HF Code (Health Facility Code):_____
SMS Format (daily): HF X MM/DD/YY POP 0 0 DISEASECODE 0 0 0 0
SMS Format (alert): HF X ALERT DISEASECODE 0 0 0 0
*** X is the HF code**

#	Disease Syndrome / Health event	<5 years old		≥5 years old	
		Cases	Deaths	Cases	Deaths
1	Fever (**FEV**)				
2	Cough, colds or sore throat with or without fever (**ARI**)				
3	Fever with rash (**MEA**)				
4	Fever with spontaneous bleeding (i.e. nose bleeding, gum bleeding) (**AHF**)				
5	12 months and over: sudden onset of fever (> 38° C) with severe headache and stiff neck; < 12 months: fever (> 38° C) with bulging fontanel, or refusal to suckle (**MEN**)				
6	Fever with headache, muscle pains and any of the following: eye irritation, jaundice, skin rash, scanty urination (**LEP**)				
7	Yellow eyes or skin with or without fever (**AJS**)				
8	Fever with other symptoms not listed above (**FOS**)				
9	Loose stools, 3 or more in the past 24hrs with or without dehydration (**AWD**)				
10	Loose stools with visible blood (**ABD**)				
11	Open wounds and bruises/burns (**WBS**)				
12	Fractures (**FRS**)				
13	Skin disease (**SDS**)				
14	Animal bites (**ANB**)				
15	Eye itchiness, redness with or without discharge (**CON**)				
16	Spasms of neck and jaw (lock jaw) (**TET**)				
17	High blood pressure ≥140/90 (**HBP**)				
18	Known diabetes (**KDM**)				
19	Difficulty in breathing and wheezing (**AAA**)				
20	Floppy paralysis of the limbs which occurred recently in a child < 15 years who is previously normal (**AFP**)				
21	Visible wasting with or without bipedal pitting edema (**AMN**)				
22	Others (please specify): _____ _____				

1. Keep proper records of daily consultations in register/ logbook
2. Use the daily consultation records to complete Form-1 and submit daily to the Main RHU _____by 5pm until further instructions are given
3. This form is to be filled by BHW/community health workers, midwives, nurses and doctors in temporary clinics, evacuation centre clinics, BHS & Health Centres
4. HOTLINE (S) for immediate notification of alerts : _____

Main Symptoms, Alert Threshold and Recommended Verification Actions

Health conditions	Possible diseases	Notification Alert threshold	Immediate action by health staff once alert threshold is crossed
Cough, colds or sore throat with or without fever (**ARI**)	Common colds, Pneumonia, Influenza	1.5 times the average # of cases noted from the previous three weeks	
Fever with rash (**MEA**) Fever with spontaneous bleeding (i.e. nose bleeding, gum bleeding) (**AHF**) Suspected leptospirosis (**LEP**) Acute flaccid paralysis (**AFP**)	Measles, German measles, chicken pox Dengue, blood dyscrasias, Nutritional disorders, Meningococcal disease Leptospirosis Poliomyelitis, Neurologic Disorders, Electrolyte imbalance, Vitamin deficiency	**One case**	Report to the MHO/CHO or to next higher level for verification/ field investigation & specimen collection
Suspected meningitis (**MEN**)	Bacterial meningitis, viral meningitis, encephalitis	**Two suspected cases** of meningitis in the same week in the same reporting health facility or settlement	Report to the MHO/CHO or to next higher level for field investigation & immediately collection of CSF to confirm the cases
Yellow eyes or skin with or without fever (**AJS**)	Viral Hepatitis, Leptospirosis, Chemical intoxication	A **cluster** of at least 3 cases in the same reporting health facility or settlement in one week	Report to the MHO/CHO or to next higher level for verification/ field investigation & specimen collection
Fever with other signs and symptoms not listed above (**FOS**)	Malaria, urinary tract infection, typhoid	**Increasing trend for 3 days** associated with or without unusual increase of specific mortality	Report to the MHO/CHO or to next higher level for verification/ field investigation & specimen collection
Loose stools, 3 or more in the past 24hrs with or without dehydration (**AWD**)	Cholera, Viral/ bacterial gastroenteritis	**One death** for acute watery diarrhoea in patients 5 years of age or older A **cluster** of 5 cases in one week of watery diarrhoea in patients 5 years of age or older	Report to the MHO/CHO or to next higher level for verification/ field investigation & specimen collection
Loose stools with visible blood (**ABD**)	Amebiasis, Salmonellosis, Shigellosis	A **cluster** of 3 cases of acute bloody diarrhoea in the same evacuation center in one week, or the doubling of cases in two consecutive weeks	Report to the MHO/CHO or to next higher level for verification/ field investigation & specimen collection
Spasms of neck and jaw (lock jaw) (**TET**)	Tetanus	**One case** of suspected tetanus	Report to the MHO/CHO or to next higher level for verification/field investigation; investigate hygienic practices used for deliveries in neonatal tetanus
Visible wasting with or without bipedal pitting edema (**AMN**)	Severe acute malnutrition	**One suspected case**	Report to the MHO/CHO or to next higher level for verification/field investigation

S.P.E.E.D. SYNDROMIC REPORTING FORM – 1

(HEALTH CENTERS, BHS AND EVACUATION CENTERS)

Lalawigan: _____ Siyudad/Munisipyo:_____ Barangay:_____
Pangalan ng nag-uulat na Health Facility: _____
Bilang ng tao na nasa Evacuation Centre: < 5 yrs_____ ≥ 5 yrs_____
Pangalan ng nag-uulat na Reporter: _____ Mobile Number: _____
Petsa Kung Kailan Tiningnan ng Doktor/Nars/Midwife ang mga Pasyenteng Nakatala sa Ibaba: _____
Petsa ng Pagpasa ng Report: _____
HF Code (Health Facility Code):_____
SMS Format (daily reporting): HF HFCODE MM/DD/YY POP 0 0 DISEASECODE 0 0 0 0
SMS Format (alert): HF HFCODE ALERT DISEASECODE 0 0 0 0

#	Disease Syndrome / Health event	<5 years old		≥5 years old	
		Cases	Deaths	Cases	Deaths
1	Lagnat (**FEV**)				
2	Ubo, sipon, o, pamamaga ng lalamunan na maaring mayroon o walang kasamang lagnat (**ARI**)				
3	Lagnat at pantal (**MEA**)				
4	Lagnat na may kasamang pagdurugo (hal. pagdurugo ng ilong, pagdurugo ng gilagid) (**AHF**)				
5	12 buwang gulang pataas: Lagnat (>38C) na may kasamang matinding sakit ng ulo at paninigas ng leeg; Hindi hihigit sa 12 buwang gulang: lagnat >38C at nakaumbok na bumbunan o ayaw sumuso (**MEN**)				
6	Lagnat na may kasamang pagsakit ng ulo, kalamnan at isa sa mga sumusunod: pangangati o iritasyon ng mata, paninilaw, pantal, pagkonti ng ihi (**LEP**)				
7	Paninilaw ng mga mata o balat, na may kasamang lagnat o walang lagnat (**AJS**)				
8	Lagnat na may kasamang mga sintomas na di nabanggit sa mga naunang bilang (1-7) (**FOS**)				
9	Pagtatae o malambot na dumi ng 3 beses o higit pa sa loob ng 24 oras na maaaring magdudulot ng pagkawala ng tubig sa katawan (dehydration) (**AWD**)				
10	Pagtatae o malambot na dumi na may kasamang dugo (**ABD**)				
11	Sugat, galos o gasgas (**WBS**)				
12	Bali o linsad (**FRS**)				
13	Sakit sa balat (**SDS**)				
14	Kagat ng hayop (**ANB**)				
15	Pangangati ng mata, pamumula, na mayroon o walang kasamang pagmumuta (discharges) (**CON**)				
16	Paninigas ng leeg o panga (lock jaw) (**TET**)				
17	Pagtaas ng presyon ng dugo ≥140/90 (**HBP**)				
18	May diabetes (KDM)				
19	Hirap at may tunog na paghinga (wheezing) (**AAA**)				
20	Biglaang pagkaparalisa (di matigas na klase ng paralisis) ng mga paa at braso ng isang normal na batang <15 taon ang edad (**AFP**)				
21	Sobrang payat, meron o walang pagmamanas (**AMN**)				
22	Others (please specify): _____ _____				

1. Ang mga talaan ng araw-araw na konsultasyon ay dapat nakasulat sa isang logbook.
2. Ang mga rekord na ito ay gagamitin para makumpleto ang Form-1 at ibigay sa center hanggang 5pm at hintayin ang susunod na direksyon.
3. Ang form na ito ay gagamitin lamang ng mga BHW, midwives, nars at doktor sa mga tulad ng klinik, evacuation center, barangay health station at health centers.
4. Magreport agad sa mga sumusunod na hotline: _____

Main Symptoms, Alert Threshold and Recommended Verification Actions

Health Events	Possible diseases	Immediate Notification Alert Threshold	Immediate Action by Health Staff Once Alert Threshold Is Crossed
(ARI) Lagnat at alin man sa mga sumusunod na sintomas: ubo, sipon at pananakit ng lalamunan	Sipon, pulmonya, trangkaso	Isa't kalahating beses (1.5 times) ng dami ng kasong nakita sa nakalipas na tatlong linggo	
(MEA) Lagnat na may kasamang pantal (AHF) Lagnat na may pagdurugo (hal. Pagdurugo ng ilong at gilagid) (LEP) Suspected leptospirosis (AFP) (Biglaang pagkaparalisa (di matigas na klase ng paralisis) ng mga paa at braso ng isang normal na batang <15 taon ang edad)	Tigdas, German measles, Bulutong Tubig Dengue, blood dyscrasias, Kakulangan sa nutrisyon, meningo Leptospirosis Poliomyelitis, Neurologic Disorders, Electrolyte imbalance, Vit. deficiency	Kapag may isang kahinahinalang kaso	Ireport sa MHO/CHO o sa pinakamataas na pinuno para maberipika o magkaroon ng imbestigasyon at kumuha ng specimen
(MEN) Suspected meningitis	Meningitis na dulot ng bacteria o mikrobyo, encephalitis	Maaaring may dalawang kaso ng meningitis sa loob lamang ng isang linggo	Ireport sa MHO/CHO o sa pinakamataas na pinuno para magkaroon ng imbestigasyon at kumuha agad ng CSF para makumpirma ang kaso.
(AJS) Naninilaw na mata o balat na maaaring may lagnat o wala	Viral Hepatitis, Leptospirosis, Chemical intoxication	Maaaring may dalawang kaso ng meningitis sa loob lamang ng isang linggo	Ireport sa MHO/CHO o sa pinakamataas na pinuno para maberipika o magkaroon ng imbestigasyon at kumuha ng specimen & specimen collection
(FOS) Lagnat na may kasamang iba pang simtomas na wala sa mga nabangit sa itaas	Malarya, UTI, Tipus	Patuloy na pagtaas ng kaso sa loob ng 3 araw na maaring magdulot ng pagtaas din ng kaso ng mamamatay	Ireport sa MHO/CHO o sa pinakamataas na pinuno para maberipika o magkaroon ng imbestigasyon at kumuha ng specimen & specimen collection
(AWD) Pagtatae ng higit pa sa 3 beses sa loob ng 24 oras na maaaring magdulot ng pagkawala ng tubig sa katawan.	Kolera, Pagtatae dulot ng mikrobyo o bacteria	May isang namatay dahil sa malalang pagtatae ng pasyeteng may edad 5 taon o hight pa. May isang grupo ng 5 kaso ng pagtatae ng mga pasyente na may edad 5 taon o higit pa sa loob ng isang lingo	Ireport sa MHO/CHO o sa pinakamataas na pinuno para maberipika o magkaroon ng imbestigasyon at kumuha ng specimen & specimen collection
(ABD) Pagtatae na may kasamang dugo	Amebiasis, Salmonellosis, Shigellosis	May isang grupo ng hindi bababa sa 3 kaso ng malalang pagtate na may kasamang pagdurugo sa loob ng isa hanggang dalawang linggo sa loob ng evacuation center, o pag doble ng bilang ng kaso sa loob ng 2 linggo	Ireport sa MHO/CHO o sa pinakamataas na pinuno para maberipika o magkaroon ng imbestigasyon at kumuha ng specimen & specimen collection
(TET) Paninigas ng leeg at panga	Tetanus	Kapag may isang kahinahinalang kaso ng tetanus	Ireport sa MHO/CHO o sa pinakamataas na pinuno para magkaroon ng imbestigasyon kung tama ang pagpapa-anak para maiwasan ang tetano sa sanggol
(AMN) Sobrang payat, meron o walang pagmamanas	Malalang kakulangan sa sustansya	Kapag may isang kahinahinalang kaso	Ireport sa MHO/CHO o sa pinakamataas na pinuno para magkaroon ng imbestigasyon

S.P.E.E.D. REPORTING FORM – 2

(HOSPITALS)

Province: _____ City/Municipality:_____
Name of Reporting Hospital: _____
Name of Reporting Officer: _____ Cellphone No: _____
Date patients reported below were seen by a health professional: _____
Date this report is submitted: _____
HF CODE (Health Facility Code):_____
SMS Format (daily reporting): HF X MM/DD/YY DISEASECODE 0 0 0 0
SMS Format (alert): HF X ALERT DISEASECODE 0 0 0 0
*** X is the HF code**

#		<5 years old		≥5 years old	
		Cases	Deaths	Cases	Deaths
1	Fever (FEV)				
2	Acute respiratory infection (ARI)				
3	Suspected measles (MEA)				
4	Acute hemorrhagic fever (AHF)				
5	Suspected meningitis (MEN)				
6	Suspected leptospirosis (LEP)				
7	Acute jaundice syndrome (AJS)				
8	Fever with other symptoms not specified above (FOS)				
9	Acute watery diarrhoea (AWD)				
10	Acute bloody diarrhoea (ABD)				
11	Open wounds & bruises/burns (WBS)				
12	Fractures (FRS)				
13	Skin disease (SDS)				
14	Animal bites (ANB)				
15	Conjunctivitis (CON)				
16	Tetanus (TET)				
17	High blood pressure (>140/90) (HBP)				
18	Known diabetes (KDM)				
19	Acute asthmatic attack (AAA)				
20	Acute flaccid paralysis (AFP)				
21	Acute malnutrition (AMN)				
22	Others (please specify): _____ _____				

1. Keep proper records of daily consultations in register/ logbook
2. Use the OPD/ER daily consultation records to accomplish this Form 2 and submit by 5PM daily until further instructions.
3. For municipal hospitals and private hospitals in municipalities – submit this form to the Main RHU _____ _____.
4. For district and provincial hospitals – submit this form to the PHO.
5. For local government and private hospitals in cities – submit this form to the CHO _____.
6. For DOH-retained hospitals, submit this form to the CHD.
7. This Reporting Form 2 is to be accomplished by Hospitals ONLY.
8. HOTLINE (S) for immediate notification of alerts : _____

Main Symptoms, Alert Threshold and Recommended Verification Actions

Health conditions	Possible diseases	Immediate Notification Alert Threshold	Immediate Action By Health Staff Once Alert Threshold Is Crossed
Cough, colds or sore throat with or without fever (**ARI**)	Common colds, Pneumonia, Influenza	1.5 times the average # of cases noted from the previous three weeks	
Fever with rash (**MEA**) Fever with spontaneous bleeding (i.e. nose bleeding, gum bleeding) (**AHF**) Suspected leptospirosis (**LEP**) Acute flaccid paralysis (**AFP**)	Measles, German measles, chicken pox Dengue, blood dyscrasias, Nutritional disorders, Meningococcal disease Leptospirosis Poliomyelitis, Neurologic Disorders, Electrolyte imbalance, Vitamin deficiency	**One case**	Report to the MHO/CHO or to next higher level for verification/ field investigation & specimen collection
Suspected meningitis (**MEN**)	Bacterial meningitis, viral meningitis, encephalitis	**Two suspected cases** of meningitis in the same week in the same reporting health facility or settlement	Report to the MHO/CHO or to next higher level for field investigation & immediately collection of CSF to confirm the cases
Yellow eyes or skin with or without fever (**AJS**)	Viral Hepatitis, Leptospirosis, Chemical intoxication	A **cluster** of at least 3 cases in the same reporting health facility or settlement in one week	Report to the MHO/CHO or to next higher level for verification/ field investigation & specimen collection
Fever with other signs and symptoms not listed above (**FOS**)	Malaria, urinary tract infection, typhoid	**Increasing trend for 3 days** associated with or without unusual increase of specific mortality	Report to the MHO/CHO or to next higher level for verification/ field investigation & specimen collection
Loose stools, 3 or more in the past 24hrs with or without dehydration (**AWD**)	Cholera, Viral/ bacterial gastroenteritis	**One death** for acute watery diarrhoea in patients 5 years of age or older A **cluster** of 5 cases in one week of watery diarrhoea in patients 5 years of age or older	Report to the MHO/CHO or to next higher level for verification/ field investigation & specimen collection
Loose stools with visible blood (**ABD**)	Amebiasis, Salmonellosis, Shigellosis	A **cluster** of 3 cases of acute bloody diarrhoea in the same evacuation center in one week, or the doubling of cases in two consecutive weeks	Report to the MHO/CHO or to next higher level for verification/ field investigation & specimen collection
Spasms of neck and jaw (lock jaw) (**TET**)	Tetanus	**One case** of suspected tetanus	Report to the MHO/CHO or to next higher level for verification/field investigation; investigate hygienic practices used for deliveries in neonatal tetanus
Visible wasting with or without bipedal pitting edema (**AMN**)	Severe acute malnutrition	**One suspected case**	Report to the MHO/CHO or to next higher level for verification/field investigation