

JOINT EXTERNAL EVALUATION  
OF IHR CORE CAPACITIES  
of the

# REPUBLIC OF THE PHILIPPINES

Mission report:

10–14 September 2018



World Health  
Organization



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- The WHO Regional Office for the Western Pacific.
- The Global Health Security Agenda Initiative for its collaboration and support.

## ABBREVIATIONS

<b>ADDRL</b>	Animal Disease Diagnosis and Reference Laboratory
<b>AMR</b>	Antimicrobial Resistance
<b>BAI</b>	Bureau of Animal Industry
<b>BFAR</b>	Bureau of Fisheries and Aquatic Resources
<b>CBRN</b>	Chemical, Biological, Radiological and Nuclear
<b>CDRRHR</b>	Center for Device Regulation, Radiation Health and Research
<b>DA</b>	Department of Agriculture
<b>DENR</b>	Department of Environment and Natural Resources
<b>DOH</b>	Department of Health
<b>DILG</b>	Department of Interior and Local Government
<b>DOLE</b>	Department of Labor and Employment
<b>DOST</b>	Department of Science and Technology
<b>DPCB</b>	Disease Prevention and Control Bureau
<b>EOC</b>	Emergency Operations Centre
<b>EB</b>	Epidemiology Bureau
<b>EQA</b>	External Quality Assessment
<b>FAO</b>	Food and Agriculture Organization of the United Nations
<b>FDA</b>	Food and Drug Administration
<b>FETP</b>	Field Epidemiology Training Program
<b>FETPAFI</b>	Field Epidemiology Training Program Alumni Foundation Incorporated
<b>HEMB</b>	Health Emergency Management Bureau
<b>HPAI</b>	Highly pathogenic avian influenza
<b>HPCS</b>	Health Promotion and Communication Service
<b>IAEA</b>	International Atomic Energy Agency
<b>ICAMR</b>	Inter-agency Committee on Antimicrobial Resistance
<b>ICS</b>	Incident Command System

<b>IEC</b>	Information, Education and Communication
<b>IHR</b>	International Health Regulations (2005)
<b>INFOSAN</b>	International Food Safety Authorities Network
<b>IPC</b>	Infection prevention and control
<b>ISO</b>	International Organisation for Standardization
<b>JEE</b>	Joint External Evaluation
<b>LGUs</b>	Local Government Units
<b>MOU</b>	Memorandum of Understanding
<b>NDRRMC</b>	National Disaster Risk Reduction and Management Council
<b>NHLN</b>	National Health Laboratory Network
<b>OCD</b>	Office of Civil Defense
<b>OIE</b>	Office International des Epizooties or World Organisation for Animal Health
<b>PCC</b>	Poison Control Centers
<b>PoEs</b>	Points of Entry
<b>PHEIC</b>	Public Health Emergency of International Concern
<b>PhilCZ</b>	Philippine Inter-Agency Committee on Zoonoses
<b>PhilRASFF</b>	Philippines Rapid Alert System for Food and Feed
<b>PIDSR</b>	Philippine Integrated Disease Surveillance and Response
<b>PNRI</b>	Philippine Nuclear Research Institute
<b>QRF</b>	Quick Response Fund
<b>RADDLs</b>	Regional Animal Disease Diagnostic Laboratories
<b>RADPLAN</b>	National Nuclear or Radiological Emergency Preparedness and Response Plan
<b>RITM</b>	Research Institute for Tropical Medicine
<b>SOP</b>	Standard Operating Procedures
<b>TEPHINET</b>	Training Programs in Epidemiology and Public Health Interventions Network
<b>WHO</b>	World Health Organization



# EXECUTIVE SUMMARY

## Introduction

The International Health Regulations (2005) (IHR) are the legal framework for global health security with all State Parties required to develop minimum core capacities to detect, assess, report and respond to acute public health events and emergencies. In the Western Pacific Region, the Asia Pacific Strategy for Emerging Diseases and Public Health Emergencies (APSED III) has been used as a common regional framework to guide Member States in implementing the IHR. APSED III also aligns with the Sendai Framework for Disaster Risk Reduction in strengthening resilient health systems and contributes to Sustainable Development Goals.

The Philippines, similar to other countries in the Region, continues to face threats from disease outbreaks and other public health emergencies. In recent years, the Philippines National IHR Focal Point has reported several public health events to the WHO, including human infection with MERS-CoV, Henipah virus, Zika Virus and Avian Influenza A/H5N6. The Philippines, due to its location, is also one of the most natural disaster-prone countries in the world. The Philippine Government is committed to building resilience within the country and has a strong foundation in emergency response. However, in the past decade, the Philippines has faced challenges in making solid progress in infectious disease control and public health. The health system in the Philippines is decentralised with the national government being the lead agency providing national policies and plans, regulations, standards and guidelines on health and the local governments the direct providers of health services, particularly public health programs and hospital care.

The IHR Monitoring and Evaluation Framework is used to review implementation of country core public health capacities under the IHR (2005) and provides opportunities for continuous improvement. The four components of the Framework are mandatory annual reporting to the World Health Assembly, and voluntary joint external evaluation, simulation exercises, joint external evaluation and after-action reviews (a qualitative review of actions taken to respond to an emergency as a means of identifying best practices, gaps and lessons learned). The Joint External Evaluation (JEE) examines the implementation of the IHR to develop a national action plan to further strengthen health security. The JEE uses a standard tool to review national capacities across 19 technical areas related to health security, with the JEE in the Philippines being the first in the WHO Western Pacific Region to use the second edition of the JEE tool. The JEE is a multi-sectoral process and is performed as a peer-to-peer collaboration between national and international experts.

This report is the product of the JEE in the Philippines in September 2018. JEE preparations commenced in the Philippines in 2017 with consultations with relevant agencies. An orientation workshop was held in March 2018 with two subsequent workshops conducted to finalise the self-evaluation. From 10 to 14 September 2018, a multi-disciplinary team of international and national experts jointly conducted a review of the Philippines IHR capacities in the 19 technical areas using the JEE tool. This report summarizes the findings of the JEE in the Philippines and provides recommended priority actions for each of the 19 technical areas.

## Findings from the joint external evaluation

The Philippines has developed capabilities in public health emergency preparedness and response across a range of technical areas in the JEE, demonstrated especially at the national level and in the human health sector. Various legislations, administrative requirements and guidelines, as well as inter-agency committees and councils, support implementation of IHR in the Philippines. In particular, the Philippine Inter-Agency Committee on Zoonoses (PhilICZ) has strengthened the collaboration between the Department of Health (DOH), Department of Agriculture (DA) and the Department of Environment and Natural Resources (DENR).

The Field Epidemiology Training Program (FETP) has strengthened health security in the Philippines by training a cadre of professionals for the core public health functions of surveillance, risk assessment and response at the local, regional and national levels. That it is embedded in the DOH, has a strong presence and is supported by the laboratory network is commendable.

The Philippines has also established a multi-sectoral coordination body for disaster risk reduction and management which facilitates a coordinated response to the many disasters that face the Philippines. The strong system developed for responding to disasters should be used as the model to reinvigorate and further strengthen the response to public health events such as communicable disease outbreaks and chemical and radiation emergencies. The public health emergency operations centre manual of operations is recognised as best practice among the international emergency management community.

While the Philippines has developed capabilities in various programme areas for public health emergency preparedness and response, there are still challenges in achieving a harmonized approach for implementation of the IHR. Several identified challenges are not only relevant to IHR implementation but are common across the health sector and include the implementation of policies and regulations; effective coordination between national and local levels and among sectors, and investments in institutional capacities.

To capitalize on the momentum generated by the JEE in the Philippines, the overarching priority recommendations of the JEE team are for the government to:

- Enhance high-level political commitment and accountability at all levels to advance implementation of IHR, with adequate resourcing and engagement of all relevant sectors.
- Develop an over-arching national action plan for health security, which is costed, map risk-based priorities to optimise resources within and across sectors, and guide investment and the harmonized implementation of the IHR.
- Strengthen monitoring and evaluation practices and foster a culture of continuous improvement by feeding the lessons from after-action reviews into ongoing refinements of the system.
- Designate an overall, high-level, multi-sectoral body, with leadership from the health sector, to oversee and set direction for the continued implementation of the national action plan, with the National IHR Focal Point playing a key role to improve coordination among all relevant stakeholders.
- Foster the institutional capacity of the health sector to lead the prevention, detection and response to public health events and emergencies.
- Further optimize the public health emergency preparedness and response action at regional and local levels, through investing in advocacy, guidance, training and exercising, to improve collaboration between national and sub-national levels.

## Conclusions

The Philippines has made good progress in implementing the provisions of the IHR. The development of a national action plan, in line with APSED III, will guide the Philippines in a more coordinated implementation of the IHR. Continued investment in preparedness and risk mitigation is essential to minimise morbidity and mortality, social disruption and economic impact, as part of broader efforts to move towards universal health coverage and sustainable development goals to “leave no one behind”.

The JEE team has appreciated the peer-to-peer learning process and the open and transparent interaction with our Philippines colleagues. In closing, the JEE team wishes to thank the Philippines for their preparation and active participation throughout this evaluation.

## SCORES AND PRIORITY ACTIONS

Technical areas	Indicator no.	Indicator	Score	Priority Actions
<b>PREVENT</b>				
National legislation, policy and financing	P.1.1	The State has assessed, adjusted and aligned its domestic legislation, policies and administrative arrangements in all relevant sectors to enable compliance with the IHR	2	Conduct holistic government-wide assessment of domestic legislation and policies, including their implementation and impact, to inform possible amendments where needed, to ensure effective implementation of IHR (2005)
	P.1.2	Financing is available for the implementation of IHR capacities	2	Develop a policy (i.e. either a law, administrative issuance, or joint administrative issuance) to underpin the national action plan for health security to have a clearer legal and institutional framework and identify clear roles, accountabilities and sources of financing.
	P.1.3	A financing mechanism and funds are available for timely response to public health emergencies	2	Enhance the accountability and stewardship of Local Government Units (LGUs) for IHR-related goals, through enhancing their awareness and capacity on IHR, optimizing resource allocation, and applying innovative institutional mechanisms with an improved oversight.
IHR coordination, communication and advocacy	P.2.1	A functional mechanism established for the coordination and integration of relevant sectors in the implementation of IHR	2	Develop a National standard operating procedure (SOP)/equivalent that describes the coordination and communication between the National IHR Focal Point and the multiple agencies in the implementation of the IHR. Strengthen mechanism and procedures for regular information sharing and joint risk assessments across animal health, human health and other relevant sectors, to ensure effective response to health emergencies. National IHR Focal Point to play key role in organizing exercises and after-action reviews and in ensuring that the lessons identified through these are used to update relevant procedures and plans in a timely manner and that these are shared with appropriate stakeholders.
Antimicrobial resistance	P.3.1	Effective multi-sectoral coordination on AMR	4	Finalize the multi-sectoral National Action Plan on Antimicrobial Resistance 2019-2023 and use this to mainstream AMR in relevant national human and animal health, food safety and environment action plans. Expand the AMR surveillance system by including the testing of animal and human samples at the sub-national level. Continue to strengthen infection prevention and control at all health care facilities and animal husbandry, through further engaging facility leadership.

Technical areas	Indicator no.	Indicator	Score	Priority Actions
	P.3.2	Surveillance of AMR	2	<p>Improve the use of antimicrobial medicines through:</p> <ul style="list-style-type: none"> <li>aligning the regulatory frameworks for antimicrobial medicines in both human and animal health,</li> <li>strengthening stewardship programme in both humans and animals</li> <li>enforcing legislation for and monitoring of the use of antimicrobials in primary production</li> </ul>
	P.3.3	Infection prevention and control	2	
	P.3.4	Optimize use of antimicrobial medicines in human and animal health and agriculture	2	
Zoonotic disease	P.4.1	Coordinated surveillance systems in place in the animal health and public health sectors for zoonotic diseases/ pathogens identified as joint priorities	3	<p>Develop a governance mechanism to ensure the activities of the PhilCZ, as stated in Administrative Order No. 10, are conducted.</p> <p>Update and regularly review National Zoonoses Control Plans for each of the five priority zoonoses.</p>
	P.4.2	Mechanisms for responding to infectious and potential zoonotic diseases established and functional	2	
Food safety	P.5.1	Surveillance systems in place for the detection and monitoring of foodborne diseases and food contamination	2	<p>Align and strengthen procedures for responding to food safety incidents and emergencies, including communication strategies domestically and internationally, operational and logistical arrangements and M&amp;E mechanisms.</p> <p>Strengthen food monitoring and facilitate access to and use of foodborne disease surveillance and food monitoring data by food safety regulatory authorities.</p> <p>Strengthen capacity in responding to food safety events along the food chain continuum, risk-based food inspection and food monitoring to reduce food safety risks at the sub-national level.</p> <p>Develop a coordination mechanism between relevant sectors to assess food safety risks using the post-market surveillance and disease surveillance systems.</p>
	P.5.2	Mechanisms are established and functioning for the response and management of food safety emergencies	2	
Biosafety and biosecurity	P.6.1	Whole-of-government biosafety and biosecurity system in place for all sectors (including human, animal and agriculture facilities)	2	<p>Finalize and enact the Joint Administrative Order on Biosafety and Biosecurity and establish an administrative mechanism to regularly review and update dangerous pathogen list.</p> <p>Expand the inventories of dangerous pathogens within all sectors through registration, licensing and inspection.</p> <p>Further develop existing training programmes, e.g. risk assessment, biosafety and biosecurity in laboratories and healthcare institutions, containment engineering and inspection, and conduct training across all sectors.</p>
	P.6.2	Biosafety and biosecurity training and practices in all relevant sectors (including human, animal and agriculture)	2	

Technical areas	Indicator no.	Indicator	Score	Priority Actions
Immunization	P.7.1	Vaccine coverage (measles) as part of national programme	2	<p>Increase vaccine coverage at national and subnational level by developing tailored strategies to reach all targeted populations and create vaccine demand and support implementation through sufficient resources and supervision at service delivery level.</p> <p>Address efficient management of vaccines for routine immunization by: i) timely procurement of vaccines, including stockpile for outbreak response, within the national legal framework, ii) strengthened distribution and regular monitoring of stocks at all levels, iii) ensuring sufficient cold chain capacity especially for the increased needs for national scale up and introduction of new vaccines</p> <p>Address raising vaccine hesitancy through evidence-based communication strategy, establishment of functional national immunisation technical advisory group and strengthening of adverse event following immunization surveillance and response.</p> <p>Plan and conduct high quality supplementary immunisation activities, with scope to be based on risk assessment, to prevent occurrence of vaccine-preventable diseases outbreaks, particularly measles, rubella and polio.</p>
	P.7.2	National vaccine access and delivery	2	
<b>DETECT</b>				
National laboratory system	D.1.1	Laboratory testing for detection of priority diseases	4	<p>Strengthen testing capabilities at Regional Animal Disease Diagnostic Laboratories (RADDLs) by securing funding and resources for reagents and kits, manpower and training and increase the sampling coverage in animal health sector.</p> <p>Streamline the coordination of specimen transport systems in both the human and animal health sectors at the sub-national level.</p> <p>Review and shorten approval processes for surge testing during outbreaks at national and sub-national laboratories in both human and animal sectors.</p> <p>Implement laboratory quality standards through accreditation (e.g ISO15189 and ISO17025) at national and regional reference laboratories.</p>
	D.1.2	Specimen referral and transport system	3	
	D.1.3	Effective national diagnostic network	3	
	D.1.4	Laboratory quality system	3	
Surveillance	D.2.1	Surveillance systems	3	<p>Enhance data quality, timeliness and completeness to improve indicator-based and event-based surveillance performance by:</p> <p>Conducting an external evaluation to identify main gaps and technical solutions;</p> <p>Regular monitoring of surveillance performance; and Improving data management (e.g. implement unique case ID).</p> <p>Improve animal/wildlife health surveillance system by streamlining, reporting and information sharing with human health surveillance at all levels.</p> <p>Conduct joint multi-sectoral risk assessments at all levels.</p>
	D.2.2	Use of electronic tools	3	
	D.2.3	Analysis of surveillance data	4	

Technical areas	Indicator no.	Indicator	Score	Priority Actions
Reporting	D.3.1	System for efficient reporting to OIE and WHO	3	Ensure timely reporting to WHO and OIE by updating and ensuring implementation of the protocol for notification.
	D.3.2	Reporting network and protocols in country	2	Review and streamline approval processes prior to official notification of suspected PHEIC Implement the two-way sharing of surveillance data and joint risk assessment reports: Between local, regional and national levels Between hospitals and public health Between animal and human health sectors
Human resources (animal and human health sectors)	D.4.1	An up-to-date multi-sectoral workforce strategy is in place	2	A stronger governance mechanism for the Human Resource for Health Network is required to ensure that the multi-sectoral workforce is included, monitored and tracked in the public health workforce strategy.
	D.4.2	Human resources are available to effectively implement IHR	2	Optimize the Learning and Development plan to strengthen outcomes-based learning approach and conduct post training evaluation to measure the impact.
	D.4.3	In-service trainings are available	2	
	D.4.4	FETP or other applied epidemiology training programme in place	5	Articulate the three levels of the FETP in the manual and ensure adequate numbers of staff are trained and available at the local, regional and national levels.
<b>RESPOND</b>				
Emergency Preparedness	R.1.1	Strategic emergency risk assessments conducted and emergency resources identified and mapped	2	Improve coordination of public health emergency preparedness between human and animal health and environment based on the findings of the current strategic emergency risk assessment. Strengthen the strategic health emergency risk assessments using multiple sources of information, with a focus on health risk, health impacts and the vulnerability of health system.
	R.1.2	National multi-sectoral multi-hazard emergency preparedness measures, including emergency response plans, are developed, implemented and tested	3	Use after-action reviews of health emergency and disaster responses to update legislation, procedures and plans for emergency preparedness and response. Prioritize the distribution of resources for public health emergency preparedness based on needs, especially at local levels.
Emergency response operations	R.2.1	Emergency response coordination	3	Develop a multi-sectoral, multi-hazard guidebook for public health emergencies.
	R.2.2	Emergency operations centre (EOC) capacities, procedures and plans	3	Expand public health emergency management training delivered to public health first responders (both those to be deployed on field response teams as well as those working in the EOC to ensure position-specific competencies are developed.
	R.2.3	Emergency Exercise Management Programme	3	Develop an integrated multi-sectoral, multi-hazard training and exercise program for public health emergencies.

Technical areas	Indicator no.	Indicator	Score	Priority Actions
Linking public health and security authorities	R.3.1	Public health and security authorities (e.g. law enforcement, border control, customs) linked during a suspect or confirmed biological, chemical or radiological event	3	Develop an operational manual and associated joint training program. Promote an understanding of the relevant legal instruments among all partners and units.
Medical countermeasures and personnel deployment	R.4.1	System in place for activating and coordinating medical countermeasures during a public health emergency	3	Conduct more exercises that include medical countermeasures for emerging diseases and other IHR relevant public health events (such as chemical and radiation events), especially at subnational levels.
	R.4.2	System in place for activating and coordinating health personnel during a public health emergency	4	Conduct training for human health, animal health and environment workforce in Emergency Management Team deployment and logistics management at all levels.
	R.4.3	Case management procedures implemented for IHR relevant hazards	3	Use the good practices and lessons learnt from health responses for natural disaster to formulate procedures and guidelines on medical countermeasures that can be adopted to improve domestic action and used as reference internationally.
Risk communication	R.5.1	Risk communication systems for unusual/ unexpected events and emergencies	3	Develop a robust risk communication plan/ Memorandum of Understanding (MOU) across all agencies and partners to ensure one coherent message is agreed upon in a timely manner. Create a risk communication manual for all relevant staff in health and partner agencies. Develop risk communication plans in advance for events with a high risk of occurrence according to emergency preparedness risk assessments/ registers.
	R.5.2	Internal and partner coordination for emergency risk communication	2	
	R.5.3	Public communication for emergencies	3	
	R.5.4	Communication engagement with affected communities	3	
	R.5.5	Addressing perceptions, risky behaviours and misinformation	2	

Technical areas	Indicator no.	Indicator	Score	Priority Actions
<b>IHR-RELATED HAZARDS AND POINTS OF ENTRY</b>				
Points of entry	PoE.1	Routine capacities established at points of entry (PoEs)	<b>4</b>	Develop an all-hazard preparedness and response SOP for PoEs comprising a multi sectoral approach.
	PoE.2	Effective public health response at points of entry	<b>3</b>	Strengthen the provision of assessment and care for affected animals at PoEs by establishing arrangements with veterinary facilities for their isolation and treatment.
Chemical events	CE.1	Mechanisms established and functioning for detecting and responding to chemical events or emergencies	<b>3</b>	Develop a national, integrated, multi-sectoral chemical incident preparedness, response, and recovery plan, incorporating an updated national chemical profile and hazard map. Develop a national chemical security plan as described in the Philippines Chemical, Biological, Radiological and Nuclear Action Plan.
	CE.2	Enabling environment in place for management of chemical events	<b>2</b>	Increase the number of existing Poison Control Centers that are recognized as meeting WHO guidelines. Develop a national, integrated, multi-sectoral chemical incident training and exercise program.
Radiation emergencies	RE.1	Mechanisms established and functioning for detecting and responding to radiological and nuclear emergencies	<b>2</b>	Finalize and disseminate the national RADPLAN, the associated SOPs for risk assessment, reporting, and investigation and associated plans for transport of materials, samples, and waste. Develop an integrated multi-sectoral national training and exercise program aligned to current International Atomic Energy Agency (IAEA) guidelines.
	RE.2	Enabling environment in place for management of radiological and nuclear emergencies	<b>2</b>	Enhance radiation detection and analysis infrastructure to support timely and systematic information exchange between radiation and human health authorities.

Scores: 1=No capacity; 2=Limited capacity; 3=Developed capacity; 4=Demonstrated capacity; 5=Sustainable capacity.

# PREVENT

## NATIONAL LEGISLATION, POLICY AND FINANCING

### INTRODUCTION

The International Health Regulations (IHR) (2005) provide obligations and rights for States Parties. In some States Parties, implementation of the IHR (2005) may require new or modified legislation. Even if new or revised legislation may not be specifically required, States may still choose to revise some regulations or other instruments in order to facilitate IHR implementation and maintenance. Implementing legislation could serve to institutionalize and strengthen the role of IHR (2005) and operations within the State Party. It can also facilitate coordination among the different entities involved in their implementation. See detailed guidance on IHR (2005) implementation in national legislation at [http://www.who.int/ihr/legal\\_issues/legislation/en/index.html](http://www.who.int/ihr/legal_issues/legislation/en/index.html). In addition, policies that identify national structures and responsibilities as well as the allocation of adequate financial resources are also important.

#### Target

*Adequate legal framework for States Parties to support and enable the implementation of all their obligations and rights made by the IHR. Development of new or modified legislation in some States Parties for the implementation of the Regulations. Where new or revised legislation may not be specifically required under a State Party's legal system, the State may revise some legislation, regulations or other instruments in order to facilitate their implementation in a more efficient, effective or beneficial manner. States Parties ensure provision of adequate funding for IHR implementation through the national budget or other mechanisms. Country has access to financial resources for the implementation of IHR capacities. Financing that can be accessed on time and distributed in response to public health emergencies, is available.*

### LEVEL OF CAPABILITIES

#### Legislation and policies

Philippines has enacted various legislation, administrative arrangements and guidelines to support implementation of IHR (2005) capacities to address infectious, chemical and radiation hazards. Examples include the DOH Administrative Order No. 2007-0002, which mandated the Epidemiology Bureau (EB) as the National IHR Focal Point; DOH Administrative Order No. 2007-0036 providing the Guidelines on the Philippine Integrated Disease Surveillance and Response (PIDSRS) Framework; and the DOH Administrative Order No. 2012-0022 providing the National Policy for the Implementation of International Health Regulations and Asia Pacific Strategy for Emerging Diseases.

Although assessments of various policies have been conducted through programme implementation reviews, a coordinated assessment of legislation, administrative orders and standards for alignment with the IHR has not been conducted. A review of the implementation of existing legislation and policies is also warranted.

## Financing

Various financing sources are available to support the implementation of IHR in the Philippines. The primary funding source is the national budget guided by the General Appropriations Act (GAA) both at the national and sub-national level. This national budget provides funding for DOH with each program receiving a budgetary appropriation to be implemented by the responsible agencies/units. The Philippine Health Insurance Corporation (PhilHealth) provides health financing and includes benefit packages for emerging and re-emerging infectious diseases. Some funding for zoonotic diseases has been made available through the PhilCZ.

The National Disaster Risk Reduction and Management Council (NDRRMC) provide funds for disaster risk management. LGUs are required to allocate 5% of their Internal Revenue Allotment to Local Disaster Risk Reduction and Management Funds (formerly known as Local Calamity Fund). Of this, 70% is allocated for disaster preparedness activities and 30% as Quick Response Fund (QRF) to be used for response and immediate recovery programs for public health emergencies, held by the Health Emergency Management Bureau (HEMB) of DOH. The total turn-around time for the release of the sub-allotment fund is about one to three weeks. In case of the Phreatic Eruption of Mayon Volcano in January 2018, it took five days from the time when the HEMB of the central DOH received a request letter from the DOH-Regional Office V (on 19 January) to the release of funds to Region V (on 24 January). On the occasion when the release of sub-allotment fund is anticipated to take more than one week, the requesting office is advised to utilize their regular fund initially.

In other sectors, such as animal health, and for some activities, for example risk communication, funds are limited to achieve IHR (2005) requirements and to respond to public health emergencies. The animal health sector, in particular, has faced challenges in accessing funds for the effective prevention, preparedness and response activities. The exception is when a zoonotic disease has had international trade attention or caused public health alarm, for example, avian influenza. Lack of, or insufficient compensation, for the culling of livestock animals poses disincentives for farmers to report disease which in turn prevents timely detection and response actions.

There is no strategic or investment plan to guide financing for the efficient, effective and harmonized implementation of IHR in the Philippines. Therefore, funding may not always be allocated to support priority actions or the relevant sectors for IHR implementation, especially at local level. All spending agencies use the Budget and Financial Accountability Reports to monitor and evaluate the utilization of funds against quarterly plans or targets, to improve efficiency, accountability and transparency of public fund use. However, the decentralized setting of the national and local government, as well as the high discretionary nature of budgeting and spending decisions, challenges the coherence of policy implementation and accountability.

## Indicators and scores

### **P.1.1 The State has assessed, adjusted and aligned its domestic legislation, policies and administrative arrangements in all relevant sectors to enable compliance with the IHR – Score 2**

#### *Strengths and best practices*

- The Philippines has enacted various legislation, administrative arrangements and guidelines for relevant technical areas to support implementation of IHR (2005).
- Monitoring, review and assessment of various policies have been conducted by program managers based on results of their program implementation reviews. Policies have been revised based on the findings from these programme implementation reviews and from other relevant research.

#### *Areas that need strengthening and challenges*

- No assessments of legislation and policies have been conducted in a coordinated manner across all sectors and programmes, and not specifically for IHR implementation.

- Implementation of legislation and policies seems challenging with various reasons. Therefore, the assessment should include funding, implementation and impact.

### **P.1.2 Financing is available for the implementation of IHR capacities – Score 2**

#### *Strengths and best practices*

- Various financing sources are available to support IHR (2005) implementation, with primary funding being national budget through the General Appropriations Act at the national and sub-national levels.
- The National and Local Disaster Risk Reduction and Management Councils also provide funds for disaster risk management with LGUs required to allocate 5% of their internal revenue allotment, of which 70% is intended for disaster prevention and mitigation, preparedness, rehabilitation and recovery and 30% for use in Quick Response Funds.
- The Philippine Health Insurance Corporation (PhilHealth) has benefit packages for emerging and re-emerging infectious diseases, as well as for regular in-patient and outpatient services.

#### *Areas that need strengthening and challenges*

- There is no overarching national action plan for health security. Not having this plan makes harmonized investment and prioritization challenging for the effective and efficient implementation of the IHR at national and local levels.
- The animal health sector has difficulties in accessing routine funding to ensure effective prevention, preparedness and response activities.
- Funding level and spending varies substantially by LGU, with some having insufficient funds or sub-optimal budget allocation to implement activities for IHR implementation.

### **P.1.3 A financing mechanism and funds are available for the timely response to public health emergencies – Score 2**

#### *Strengths and best practices*

- During times of emergencies and disasters, quick response fund (QRF) of the DOH is available and can be accessed when needed.
- Of the Local Disaster Risk Reduction and Management fund required by each LGU, 30% is allocated for a QRF to be used for response and immediate recovery programs for public health emergencies.

#### *Areas that need strengthening and challenges*

- The animal health sector does not have dedicated quick response funds, which prevents timely and effective response to zoonotic disease outbreaks. Lack of, or insufficient compensation, for the culling of livestock animals may prevent the reporting of zoonotic disease and therefore the timely detection and response actions to zoonotic outbreaks.
- There is limited coordination and flexibility to reallocate or transfer the QRF to other relevant Departments (or vice versa) to support effective response to public health emergencies.

### **Recommendations for priority actions**

- Conduct holistic government-wide assessment of domestic legislation and policies, including their implementation and impact, to inform possible amendments where needed, to ensure effective implementation of IHR.
- Develop a policy (i.e. either a law, administrative issuance, or joint administrative issuance) to underpin the national action plan for health security to ensure a clearer legal and institutional framework and identify clear roles, accountabilities and sources of financing.
- Enhance the accountability and stewardship of LGUs for IHR-related goals, through enhancing their awareness and capacity on IHR, optimizing resource allocation, and applying innovative institutional mechanisms with an improved oversight.

# IHR COORDINATION, COMMUNICATION AND ADVOCACY

## INTRODUCTION

The effective implementation of the IHR requires multi-sectoral/multidisciplinary approaches through national partnerships for efficient alert and response systems. Coordination of nationwide resources, including the designation of a national IHR focal point, and adequate resources for IHR implementation and communication, is a key requisite for a functioning IHR mechanism at country level.

### Target

*Multi-sectoral/multidisciplinary approaches through national partnerships that allow efficient, alert and response systems for effective implementation of the IHR. Coordinate nationwide resources, including sustainable functioning of a National IHR Focal Point – a national centre for IHR communications which is a key obligation of the IHR – that is accessible at all times. States Parties provide WHO with contact details of National IHR Focal Points, continuously update and annually confirm them.*

## LEVEL OF CAPABILITIES

The EB of the DOH is the designated National IHR Focal Point of the Philippines, led by its Director with other members being the Applied Epidemiology and Health Management Division Chief, Event-based Surveillance and Response Officer, FETP Officer, and Ports and Airports Health Services Division Chief.

The National IHR Focal Point is accessible 24/7 and communicated effectively to WHO with the last notification for Zika in 2016. The National IHR Focal Point assesses all verified health events using the IHR Annex 2 Decision Instrument, with the four criteria questions in Annex 2 incorporated into the national event-based surveillance form used for risk assessment. The Secretary of Health approves all notifications before they are sent to WHO.

The Philippines National IHR Focal Point participates in the annual IHR Crystal Exercise led by the WHO Regional Office for the Western Pacific and multidisciplinary coordination and communication mechanisms have been tested during real events such as MERS-CoV and Henipah events in 2014, Ebola Reston in Monkeys in 2015, Zika Virus in 2016, and Avian Influenza H5N6 in 2017.

The Philippines fosters multi-sectoral coordination and information exchange through several councils and committees established for specific diseases and threats. For surveillance, the National IHR Focal Point shares surveillance reports to the Bureau of Animal Industry (BAI) through e-mail. However, there are no SOPs or written guidance to demonstrate the coordination between the national IHR focal point and other relevant sectors.

The reporting of animal diseases and epidemiological events to the World Organisation for Animal Health (OIE) is facilitated by the OIE Focal Point for Animal Disease Notification in the Bureau of Animal Industry (BAI) of the Department of Agriculture (DA) and the OIE Focal Point for Aquatic Animals in the Bureau of Fisheries and Aquatic Resources (BFAR)-Fish Health Management and Quality Assurance Section, both in the DA. All required animal disease reports, whether terrestrial or aquatic, are approved by the Chief Veterinary Officer of the DA. Information from these reports are verified, validated and uploaded to World Animal Health Information System (WAHIS) of the OIE.

The human health sector has more capacity in place in this technical area compared to animal health sector.

## Indicators and scores

### **P.2.1 A functional mechanism established for the coordination and integration of relevant sectors in the implementation of IHR – Score 2**

#### *Strengths and best practices*

- There are various laws, administrative issuances and interagency steering committees and councils to facilitate coordination and communication between the National IHR Focal Point and other agencies during public health emergencies.
- The Philippines participates in the annual IHR Crystal Exercises.
- The National IHR Focal Point disseminates a weekly International Health Event report based on posted health events in WHO Event Information Site to selected bureaus within the DOH.

#### *Areas that need strengthening and challenges*

- As well as sharing reports of public health emergencies, routine surveillance reports should also be regularly and proactively shared by the National IHR Focal Point to other sectors.
- The IHR is not known well by the veterinary services and other sectors.
- There is lack of coordination and communication between the National IHR Focal Point and other relevant agencies.

### **Recommendations for priority actions**

- To develop a national SOP/equivalent that describes the coordination and communication between the National IHR Focal Point and the multiple agencies in the implementation of the IHR.
- To strengthen the mechanism and procedures for regular information sharing and joint risk assessments across animal health, human health and other relevant sectors to ensure effective response to health emergencies.
- The National IHR Focal Point to play key role in organizing exercises and after-action reviews and in ensuring that the lessons identified through these are used to update relevant procedures and plans in a timely manner and that these are shared with appropriate stakeholders.

# ANTIMICROBIAL RESISTANCE

## INTRODUCTION

Bacteria and other microbes evolve in response to their environment and inevitably develop mechanisms to resist being killed by antimicrobial agents. For many decades, the problem was manageable as the growth of resistance was slow and the pharmaceutical industry continued to create new antibiotics.

Over the past decade, however, this problem has become a crisis. Antimicrobial resistance is evolving at an alarming rate and is outpacing the development of new countermeasures capable of thwarting infections in humans. This situation threatens patient care, economic growth, public health, agriculture, economic security and national security.

### Target

*A functional system in place for the national response to combat antimicrobial resistance (AMR) with a One-Health approach, including:*

- a) Multi-sectoral work spanning human, animal, crops, food safety and environmental aspects. This comprises developing and implementing a national action plan to combat AMR, consistent with the Global Action Plan on AMR.*
- b) Surveillance capacity for AMR and antimicrobial use at the national level, following and using internationally agreed systems such as the WHO Global Antimicrobial Resistance Surveillance System (GLASS) and the OIE global database on use of antimicrobial agents in animals.*
- c) Prevention of AMR in health care facilities, food production and the community, through infection prevention and control measures.*
- d) Ensuring appropriate use of antimicrobials, including assuring quality of available medicines, conservation of existing treatments and access to appropriate antimicrobials when needed, while reducing inappropriate use.*

## LEVEL OF CAPABILITIES

There is high level commitment across the DOH and DA in the Philippines to combat antimicrobial resistance. In 2014, an Inter-agency Committee on Antimicrobial Resistance (ICAMR) was established through an Administrative Order with representatives from the Departments of Health, Agriculture, Science and Technology, Interior and Local Government, and Trade and Industry. The ICAMR is updating the National Action Plan to Combat Antimicrobial Resistance: One Health Approach for 2019-2023. The plan delineates the roles of government agencies and outlines monitoring and evaluation indicators.

Surveillance for the detection of antimicrobial resistance in humans and animals is being conducted in the Philippines; however, it is more advanced for humans with data from the Antimicrobial Resistance Surveillance Program in the human health sector is regularly published in annual reports. Guidelines for the use of antimicrobials in human and animal health have been developed, but implementation and compliance are an issue, particularly at the sub-national level. Expansion of the antimicrobial resistance monitoring into the animal health, environment and food sectors would contribute to identification of broader AMR issues in the Philippines.

The National Standards in Infection Control for Health Care Facilities was published in 2009, and the National Policy on Infection Prevention and Control Program was developed in 2016. Subsequently, Infection Prevention and Control (IPC) became a requirement for hospital licensing, and a National Technical Working Group for the Implementation of the IPC Program was established. Training of

Trainers on IPC for healthcare workers, regional IPC coordinators, licensing officers and surveillance offices was conducted nationwide in 2018. For animal health, the Philippine National Standard for Good Animal Husbandry Practices set guidance for IPC. Prevention and control programmes in animals have also been established for some diseases, such as avian influenza and rabies.

Guidelines for the rational use of antimicrobials and an Antimicrobial Stewardship Programme have been developed (National Antibiotic Guidelines and an Antimicrobial Use Methods Guide) with training of healthcare workers being conducted.

Appropriate legislation has been developed for the import, marketing, production and use of antimicrobials. However, compliance and enforcement is an issue.

## Indicators and scores

### P.3.1 Effective multi-sector coordination on AMR – Score 4

#### *Strengths and best practices*

- The ICAMR serves as a multi-sectoral coordination mechanism to mitigate and control antimicrobial resistance and it meets regularly.
- The Philippine Action Plan to Combat Antimicrobial Resistance: One Health Approach outlines a common vision, mission and targets to combat antimicrobial resistance across sectors.

#### *Areas that need strengthening and challenges*

- Aligning priorities, commitment and budget allocation for implementation of the Philippine Action Plan across members of the ICAMR.
- A review of the implementation of the Philippine Action Plan which leads to a revised Plan, especially the approach used to foster stronger multi-sectoral collaboration and commitment across sectors to combat antimicrobial resistance.
- Monitoring the implementation of the Philippine Action Plan in relevant sectors.
- Strengthening financial independence from external funding to implement the Philippine Action Plan.

### P.3.2 Surveillance of AMR – Score 2

#### *Strengths and best practices*

- The Antimicrobial Resistance Surveillance Program includes several sentinel sites in government hospitals, uses standardized methods for culture and susceptibility testing, participates in an external quality assessment scheme and conduct monthly reporting from the sentinel sites to the national level.
- Annual publication of the Antimicrobial Resistance Surveillance Program data to inform clinical practices and prescription of antimicrobials.
- Participation and contribution to the WHO Global Antimicrobial Resistance Surveillance System.

#### *Areas that need strengthening and challenges*

- Operational aspects of the Antimicrobial Resistance Surveillance Program and data accessibility.
- Aligning AMR surveillance into existing disease surveillance programmes at the hospital and health clinic levels.
- Expanding antimicrobial resistance surveillance to primary production, food and environment sectors.
- Monitoring antimicrobial use and consumption in the health, agricultural and primary production sectors and linking antimicrobial resistance, usage and consumption surveillance data in humans and animals.

### P.3.3 Infection prevention and control – Score 2

#### *Strengths and best practices*

- The National Standards in Infection Control for Health Care Facilities (2009) and the National Policy on Infection Prevention and Control Program (2016) are available.
- A National Technical Working Group for the Implementation of the Infection Prevention and Control Program was established in 2018.
- IPC is required for licensing for hospitals. IPC manuals are validated through monitoring of hospitals.
- For animal health, the Philippine National Standard for Good Animal Husbandry Practices is available. Prevention and control programmes in animals have also been established for some diseases, such as avian influenza and rabies.
- Provision of IPC training for healthcare workers and primary producers.
- On-going monitoring of the effectiveness of IPC measures through a surveillance system for health care-associated infection in selected health care facilities.

#### *Areas that need strengthening and challenges*

- Further engagement of hospital leadership to strengthen the role of the IPC committee and to embed IPC practice in all aspect of hospital care and services.
- Monitoring of IPC compliance in healthcare settings and primary production facilities, using an empowering, rather than punitive, approach.
- A surveillance system for health care-associated infection to standardize data collection and improve effective use of data for quality improvement.
- National policy and plan for a cohesive IPC in animal health covering aspects of biosecurity, animal vaccination and animal husbandry.

### P.3.4 Optimize use of antimicrobial medicines in human and animal health and agriculture – Score 2

#### *Strengths and best practices*

- In the human health sector, the national Antimicrobial Stewardship Program is implemented using the AMS Manuals of Procedures for hospitals, health profession-based training packages, antimicrobial use and consumption methodology guides and a monitoring mechanism through a Steering Committee.
- A separate Manual of Procedures for AMS in primary care settings is for pilot training and scale-up.

#### *Areas that need strengthening and challenges*

- Strengthening and linking antimicrobial use and consumption monitoring between the human and animal health sectors.
- Including the animal health sector in the Antimicrobial Stewardship Program or developing an antibiotic stewardship programme for the animal health sector.
- Eliminating the use of antimicrobials as growth promoters in livestock breeding.
- Regulating, controlling and monitoring the distribution and supply of antimicrobials.

## Recommendations for priority actions

- Finalize the multi-sectoral National Action Plan on Antimicrobial Resistance 2019-2023 and use this to mainstream AMR in relevant national human and animal health, food safety and environment action plans.
- Expand the AMR surveillance system by including the testing of animal and human samples at the sub-national level.
- Continue to strengthen infection prevention and control at all health care facilities and animal husbandry, through further engaging facility leadership.
- Improve the use of antimicrobial medicines through:
  - o aligning the regulatory frameworks for antimicrobial medicines in both human and animal health;
  - o strengthening stewardship programme in both humans and animals; and
  - o enforcing legislation for and monitoring of the use of antimicrobials in primary production.

# ZOONOTIC DISEASES

## INTRODUCTION

Zoonotic diseases are communicable diseases that can spread between animals and humans. These diseases are caused by viruses, bacteria, parasites and fungi carried by animals, insects or inanimate vectors that aid in its transmission. Approximately 75% of recently emerging infectious diseases affecting humans are of animal origin; and approximately 60% of all human pathogens are zoonotic.

### Target

*Functional multi-sectoral, multidisciplinary mechanisms, policies, systems and practices are in place to minimize the transmission of zoonotic diseases from animals to human populations.*

## LEVEL OF CAPABILITIES

The three government departments responsible for detection and response to zoonotic diseases in the Philippines are the DOH, the DA (with its BAI, BFAR and National Meat Inspection Service) and the DENR-Biodiversity Management Bureau. These three departments have teams at central and regional levels and at PoEs and form the PhilCZ. At the sub-national level, surveillance and response activities are undertaken by LGUs under the command of mayors and governors. Despite resources at all levels, coordination remains an issue for zoonotic diseases. The PhilCZ has not implemented all defined tasks and activities in LGUs rely on funding allocation and decisions made at the local level.

The PhilCZ has agreed to work on five priority diseases: rabies, anthrax, leptospirosis, Japanese B Encephalitis and Ebola Reston. With about 200 human deaths per year, rabies has the highest priority especially since the Anti-Rabies Act of 2007. Although the initial objective of reaching eradication by 2020 will not be achieved, the Philippines is progressing and has made several official declarations of rabies-free zones. Other important zoonoses in the Philippines include brucellosis, tuberculosis and salmonellosis. Highly pathogenic avian influenza (HPAI) has been addressed through a simulation exercise and during an outbreak in 2017.

The DOH, through the Emerging and Re-emerging Infectious Diseases (EREID) Program of the Disease Prevention and Control Bureau (DPCB), is the technical authority mandated to reduce the public health impact of zoonotic diseases. While the program has drafted national policies and implemented some interventions, further system strengthening is required to pursue the Philippine Health Agenda and strengthen the functionality and effectiveness of LGUs in zoonotic disease control.

## Indicators and scores

### **P.4.1 Coordinated surveillance systems in place in the animal health and public health sectors for zoonotic diseases/pathogens identified as joint priorities – Score 3**

#### *Strengths and best practices*

- Human resources are available at all levels and across the three sectors responsible for zoonotic diseases.
- The PhilCZ meets regularly and has listed five priority zoonoses.

- The EREID program of the DOH has been implemented as the technical authority with the responsibility for zoonotic disease surveillance.
- At the request of the DA, OIE conducted evaluations of the veterinary services in 2008, a Gap Analysis in 2010, a "One Health" mission in 2012, and a follow-up mission in 2016.

#### *Areas that need strengthening and challenges*

- Dedicated funding and better operational coordination for the PhilCZ to strengthen links between central, regional and local levels.
- Coordination between the three departments and the LGUs to improve surveillance and response for zoonotic diseases.
- In addition to the five priority diseases, other zoonotic diseases are also an issue in the Philippines, including brucellosis, tuberculosis and salmonellosis. Surveillance and risk assessments for these need to be included in zoonotic surveillance systems.
- The list of priority zoonoses should be routinely revised.
- Insufficient staffing and lack of formal reporting procedures, particularly in the veterinary sector and as identified through the OIE evaluations, have not been addressed.
- More proactive information sharing of surveillance data between all stakeholders.
- Regular evaluation of the methods, resources and results for the surveillance of zoonotic diseases.

### **P.4.2 Mechanisms for responding to infectious and potential zoonotic diseases established and functional – Score 2**

#### *Strengths and best practices*

- Response activities for zoonotic diseases are coordinated through the PhilCZ.
- Simulation exercises and strong involvement of DOH during HPAI outbreaks in poultry contributed to the absence of human cases during the outbreak in poultry in 2017.
- Rabies has been eradicated in several areas with nation-wide eradication foreseen in the future.

#### *Areas that need strengthening and challenges*

- After-action reviews have not been produced and the annual reporting of activities, resources, results and lessons learnt was not evident, except, to some extent, for rabies.
- Allocation of adequate funding at the central and local levels is required. The national rabies program has some foreign financial support, yet domestic funding should be considered, especially for animal vaccines.
- There are limited or no action on some neglected zoonoses.

### **Recommendations for priority actions**

- Develop a governance mechanism to ensure the activities of the PhilCZ are conducted.
- Update and regularly review national zoonoses control plans for each of the five priority zoonoses.

# FOOD SAFETY

## INTRODUCTION

Food- and water-borne diarrhoeal diseases are leading causes of illness and death, particularly in less developed countries. The rapid globalization of food production and trade has increased the potential likelihood of international incidents involving contaminated food. The identification of the source of an outbreak and its containment is critical for control. Risk management capacity with regard to control throughout the food chain continuum must be developed. If epidemiological analysis identifies food as the source of an event, based on a risk assessment, suitable risk management options that ensure the prevention of human cases (or further cases) need to be put in place.

### Target

*A functional system is in place for surveillance and response capacity of States Parties for foodborne disease and food contamination risks or events with effective communication and collaboration among the sectors responsible for food safety.*

## LEVEL OF CAPABILITIES

The Food Safety Act of 2013 and its associated rules and regulations are the basis of the national food safety system in the Philippines. The Food Safety Act mandates the Food Safety Regulation Coordinating Board (FSRCB) to monitor the implementation of the Act and its implementing Regulations, and to coordinate the food safety regulatory agencies across DOH, DA and the Department of Interior and Local Government (DILG). The FSRCB is also responsible for coordinating crisis management and planning during food safety emergencies. Many codes, rules, regulations, orders and standards form the comprehensive legal basis for food safety in the Philippines. However, compliance and enforcement capacity are inadequate and coordination across the food safety regulatory agencies remains a challenge.

The Philippines takes an all-hazards approach to emerging disease surveillance, risk assessment and response. The Epidemiological Bureau of the DOH is responsible for the collection, analysis and dissemination of information on the health status of the population and for the investigation of disease outbreaks (including those caused by unsafe food) and other threats to public health. The National IHR Focal Point and the International Food Safety Authorities Network (INFOSAN) Emergency Contact Point are in the Epidemiological Bureau, whereas the national contact point for the Philippines Rapid Alert System for Food and Feed (PhilRASFF) is based in the Food and Drug Administration (FDA). There are no SOPs for communication between the National IHR Focal Point, the INFOSAN Emergency Contact Point and the national contact point for PhilRASFF.

Food sampling and analysis is conducted both by FDA laboratories at national and sub-national level (Cebu and Davao) as well as by private laboratories accredited by the FDA. During food safety emergencies, human specimens are analysed by the Research Institute for Tropical Medicine (RITM) and regional hospital laboratories.

## Indicators and scores

### P.5.1 Surveillance systems in place for the detection and monitoring of foodborne diseases and food contamination – Score 2

#### *Strengths and best practices*

- Indicator and event-based surveillance systems for the detection of outbreaks and other public health emergencies have been established and include food safety events.
- There is regular reporting of foodborne disease outbreaks to the FSRCB.
- There is appropriate laboratory capacity to test human specimens and food samples.

#### *Areas that need strengthening and challenges*

- Strengthening collaboration between DOH, DA and the DILG for the investigation and response to food safety incidents and emergencies at subnational level.
- Establishing a mechanism to share foodborne disease surveillance data between the relevant food safety regulatory agencies.
- Strengthening laboratory capacity at subnational level for the analysis of human specimens and food samples during food safety emergencies.

### P.5.2 Mechanisms are established and functioning for the response and management of food safety emergencies – Score 2

#### *Strengths and best practices*

- The national rapid alert system for food and feed (PhilRASFF) includes capacity for risk communication during food safety emergencies.
- The designated INFOSAN Emergency Contact Point and PhilRASFF Contact Point.

#### *Areas that need strengthening and challenges*

- Establishing SOPs for communication and coordination between the National IHR Focal Point, the INFOSAN Emergency Contact Point and the National PhilRASFF Contact Point.
- Establishing formal procedures for food safety emergency response including communication strategies domestically and internationally, operational and logistical arrangements and evaluation and monitoring mechanisms.
- Training of relevant staff at subnational level on the investigation and response to food safety incidents and emergencies, including communication through the PhilRASFF system.

## Recommendations for priority actions

- Develop procedures for responding to food safety incidents and emergencies, including communication strategies domestically and internationally, operational and logistical arrangements and monitoring and evaluation mechanisms.
- Facilitate access to and use of foodborne disease surveillance and food monitoring data by food safety regulatory authorities.
- Strengthen capacity in foodborne disease outbreak response, risk-based food inspection and food monitoring to reduce food safety risks at the sub national level.
- Develop a coordination mechanism between human and animal health to assess food safety risks using the post-market surveillance and disease surveillance systems.

# BIOSAFETY AND BIOSECURITY

## INTRODUCTION

It is vital to work with pathogens in the laboratory to ensure that the global community possesses a robust set of tools – such as drugs, diagnostics, and vaccines – to counter the ever-evolving threat of infectious diseases.

Research with infectious agents is critical for the development and availability of public health and medical tools that are needed to detect, diagnose, recognize and respond to outbreaks of infectious diseases of both natural and deliberate origin. At the same time, the expansion of infrastructure and resources dedicated to work with infectious agents have raised concerns regarding the need to ensure proper biosafety and biosecurity to protect researchers and the community. Biosecurity is important in order to secure infectious agents against those who would deliberately misuse them to harm people, animals, plants or the environment.

### Target

*A whole-of-government multi-sectoral national biosafety and biosecurity system with dangerous pathogens identified, held, secured and monitored in a minimal number of facilities according to best practices; biological risk management training and educational outreach conducted to promote a shared culture of responsibility, reduce dual-use risks, mitigate biological proliferation and deliberate use threats, and ensure safe transfer of biological agents; and country-specific biosafety and biosecurity legislation, laboratory licensing and pathogen control measures in place as appropriate.*

## LEVEL OF CAPABILITIES

There is strong commitment in the Philippines to biosafety and biosecurity of infectious disease surveillance, the detection of high-risk pathogens and academic research. The National Committee on Biosafety of the Philippines in the Department of Science and Technology (DOST) has been working with DOH, DA and DENR to develop national legislation and regulations on biosafety and biosecurity and the classification of the high-risk pathogens. The Biosafety Clearing House of the Cartagena Protocol on Biosafety has also been used to develop and adopt biosafety policies, guidelines and measures and to make biosafety decisions for genetically modified organisms.

RITM has been compiling an inventory of high-risk pathogens. This began during the polio eradication program through a survey of health facilities to determine whether the polio virus or relevant clinical specimens were being stored. RITM houses a biosafety level 3 laboratory for detection of high-risk pathogens and has comprehensive institutional manuals and training programmes for biosafety and biosecurity, including for packing and transportation and risk assessment. These manuals and trainings in RITM are applicable for laboratory practice and the clinical management of infectious disease patients in DOH Emergency Department and isolation wards.

Similarly, in some tertiary educational institutions, such as the University of the Philippines, institutional biosafety manuals have been implemented and committees established for reviewing and approving research proposals. These institutions, together with other organizations (e.g. Biological Risk Association of the Philippines and Philippine Biosafety and Biosecurity Hospital Association) conduct regular trainings to equip healthcare workers, specifically pathologists and medical technologists, and researchers with awareness, knowledge and skills for biosafety and biosecurity.

## Indicators and scores

### P.6.1 Whole-of-government biosafety and biosecurity system in place for all sectors (including human, animal and agriculture facilities) – Score 2

#### *Strengths and best practices*

- The infection control and biosafety and biosecurity manuals from RITM is planned for implementation in healthcare institutions and clinical laboratories.
- A Joint Administrative Order between DOH and DA on Laboratory Biosafety and Biosecurity is pending final approval.
- The list of high-risk pathogens for human, animal and plants has been reviewed through a multi-sectoral approach and is pending approval.
- The National Committee on Biosafety of the Philippines is a multi-sectoral platform.
- The Biosafety Clearing House focal point has been used for developing and adopting policies and guidelines and making decisions pertaining the biosafety of genetically modified organisms.

#### *Areas that need strengthening and challenges*

- Final approval for the Joint Administrative Order between DOH and DA on biosafety and biosecurity and high-risk pathogen list is urgently required. Once approved, the licensing requirement of biosafety and biosecurity will be expanded for all clinical laboratories.
- Early involvement of other stakeholders, such as animal health, food safety, research and tertiary educational institutions, in briefing on licencing requirements of biosafety and biosecurity, would be beneficial.
- Using the experience and tools from compiling the inventory of polio-containing materials, inventories of other high-risk pathogens should be established across all sectors.

### P.6.2 Biosafety and biosecurity training and practices in all relevant sectors (including human, animal and agriculture) – Score 2

#### *Strengths and best practices*

- Some biosafety and biosecurity training modules have been established at institutional levels, such as at RITM and the University of the Philippines.
- Training in biosafety and biosecurity have also been conducted by different private organizations.
- Training and SOPs for the packaging and transport of laboratory specimens are available from the national laboratory referral system.

#### *Areas that need strengthening and challenges*

- Expanding training modules to include all areas of biosafety and biosecurity, such as risk assessment, containment engineering and inspection.
- Strengthening the collaboration among stakeholders to provide training efficiently and prioritize training to those who handle high-risk pathogens. Roll out the training program to all healthcare facilities and laboratories in all sectors.
- Obtaining secure funding for the full implementation of the National Biosafety and Biosecurity program.

### Recommendations for priority actions

- Finalize and enact the Joint Administrative Order on Biosafety and Biosecurity and set up administrative mechanism to regularly review and update the dangerous pathogen list.
- Expand the inventories of dangerous pathogens in all sectors through registration, licensing and inspection.
- Further develop the existing training programmes in relevant areas, e.g. risk assessment, biosafety and biosecurity in laboratories and healthcare institutions, containment engineering and inspection, and conduct training in all sectors.

# IMMUNIZATION

## INTRODUCTION

Immunizations are estimated to prevent more than two million deaths a year globally. Immunization is one of the most successful global health interventions and cost-effective ways to save lives and prevent disease. Measles immunization is emphasized because it is widely recognized as a proxy indicator for overall immunization against vaccine preventable diseases. Countries will also identify and target immunization to populations at risk of other epidemic-prone vaccine preventable diseases of national importance (e.g. cholera, Japanese encephalitis, meningococcal disease, typhoid and yellow fever). Diseases that are transferable from cattle to humans, such as anthrax and rabies, are also included.

### Target

*A national vaccine delivery system – with nationwide reach, effective distributions, access for marginalized populations, adequate cold chain and ongoing quality control – that is able to respond to new disease threats.*

## LEVEL OF CAPABILITIES

The routine immunization programme in the Philippines is well established, guided by the National Strategic plan 2016-2022 and managed by the National Immunization Program of the Family Health Office, in the Health Promotion and Communication Services of DOH. The national vaccine stockpile is stored and managed by RITM and the EB manages vaccine-preventable disease surveillance. Vaccine procurement and the development of national strategies and guidance is conducted at the national level, whereas immunization programme implementation has been devolved to LGUs. There is no fully functional independent national immunization technical advisory group to support the National Immunization Program in defining immunization strategies and priorities.

The routine immunization schedule includes vaccines for ten diseases (tuberculosis, diphtheria, pertussis, tetanus, polio, measles, rubella, mumps, hepatitis B and Haemophilus influenzae B). Vaccines against pneumococcus, rotavirus and human papilloma virus have been introduced sub-nationally, for roll out nationally. Introduction of vaccine against Japanese encephalitis is planned for 2019. The Philippines has sustained polio elimination since 2001 and achieved maternal and neonatal tetanus elimination in 2017.

Administrative data on routine immunization and demographic health surveys differ, suggesting data quality issues, particularly in defining the target population and those seeking private services. However, both data sources have shown some decreasing levels of vaccination coverage at levels that are below the national target of 95% and inadequate to achieve national disease elimination and control goals. Immunization coverage is uneven at subnational level. Low coverage could be due to inadequate vaccine availability at all levels and the presence of hard to reach populations. Supplementary immunization activities (SIAs) have been implemented for multiple vaccines to increase population immunity; since 2014 several national and subnational SIAs were conducted in response to measles outbreaks.

In 2016 a vaccine against dengue was trialed in the Philippines. In 2017, the reporting of adverse events following immunization against dengue led to public debate that affected vaccine demand and increased vaccine refusal especially for vaccines administered through school-based programs and non-health facility approaches; uptake of the second dose of human papillomavirus vaccine was also low in 2017 as was the coverage of SIAs conducted in response to measles outbreaks in 2018.

Vaccines for special populations, such as overseas foreign workers and travelers, including vaccines against typhoid fever, yellow fever and meningococci are available and supplied through Bureau of Quarantine.

For animal health, rabies vaccination of dogs has been hampered by insufficient funding, although the country can declare some areas as rabies-free. The BAIBAI has the capacity to produce Anthrax spore vaccine to control outbreaks.

## Indicators and scores

### P.7.1 Vaccine coverage (measles) as part of national programme – Score 2

#### *Strengths and best practices*

- The Philippines has a well-established routine immunization programme, guided by a comprehensive multi-year national strategic plan that aligns to the WHO Global Vaccine Action Plan and the Regional framework for implementation of the global vaccine action plan in the Western Pacific.
- The National Immunization Program has introduced several new vaccines since 2010 and has administered these beyond first-year of life. The routine immunization schedule is mostly in line with global guidelines and the national epidemiological context.
- The Philippines achieved polio elimination in 2001 and maternal and neonatal tetanus elimination in 2017.

#### *Areas that need strengthening and challenges*

- In the last three years, the national measles containing vaccine coverage decreased from 77% to 73%, with the majority of provinces and municipalities reporting coverage lower than 70% and there have been several measles outbreaks.
- The Philippines is at risk for polio re-emergence and experiences repeated outbreaks of vaccine preventable diseases such as diphtheria.
- Strategies to increase population immunity including SIAs and tailored vaccination approaches have not been adequately implemented.
- Due to recent vaccine controversies, there is a decreasing demand for immunization and increasing hesitancy and refusal.

### P.7.2 National vaccine access and delivery – Score 2\*

\*This indicator assesses the two key components of vaccine access and delivery; the score of 2 is driven by vaccine availability; the Philippines has higher capacity for cold chain.

#### *Strengths and best practices*

- An Effective Vaccine Management assessment was conducted in 2017 and an improvement plan was developed.
- Cold chain storage capacity, management and maintenance had improved remarkably at all levels, reaching cold chain coverage higher than 60% at service delivery level.
- Domestic funding for procurement of vaccines has steadily increased since 2010.

### *Areas that need strengthening and challenges*

- National level stock-outs for multiple vaccines lasting two or more months have been reported annually over the last five years mainly because of delayed procurement due to national regulations requiring multiple bidding and the absence of rapid and flexible mechanisms for procurement.
- Stock-outs for multiple vaccines have also been frequently reported at subnational levels, mainly due to inadequate distribution at service delivery level and poor monitoring and management of vaccine stocks.
- Adequacy of cold chain capacity will be challenged by planned expansion and introduction of new vaccines and aging equipment.

### **Recommendations for priority actions**

- Increase vaccine coverage at national and subnational level by developing tailored strategies to reach all targeted populations and create vaccine demand and support implementation through sufficient resources and supervision at service delivery level.
- Address efficient management of vaccines for routine immunization by: i) timely procurement of vaccines, including stockpile for outbreak response, within the national legal framework, ii) strengthened distribution and regular monitoring of stocks at all levels, iii) ensuring sufficient cold chain capacity especially for the increased needs for national scale up and introduction of new vaccines
- Address raising vaccine hesitancy through evidence-based communication strategy, establishment of functional national immunisation technical advisory group and strengthening of adverse event following immunization surveillance and response.
- Plan and conduct high quality supplementary immunisation activities, with scope to be based on risk assessment, to prevent occurrence of vaccine-preventable diseases outbreaks, particularly measles, rubella and polio.

# DETECT

## NATIONAL LABORATORY SYSTEM

### INTRODUCTION

Public health laboratories provide essential services including disease and outbreak detection, emergency response, environmental monitoring and disease surveillance. State and local public health laboratories can serve as a focal point for a national system, through their core functions for human, veterinary and food safety including disease prevention, control and surveillance; integrated data management; reference and specialized testing; laboratory oversight; emergency response; public health research; training and education; and partnerships and communication.

#### Target

*Surveillance with a national laboratory system, including all relevant sectors, particularly human and animal health, and effective modern point-of-care and laboratory-based diagnostics.*

### LEVEL OF CAPABILITIES

The national laboratory system in the Philippines comprises human clinical diagnostic laboratories and animal disease diagnostic laboratories, both government and private laboratories.

For human health, the National Health Laboratory Network (NHLN) provides strategic planning for approximately 4,000 clinical laboratories of various testing capabilities, both government and private, registered in the country, of which 15%, 70% and 15% are at primary, secondary and tertiary healthcare institutions, respectively. Basic laboratory services are available at primary levels while more complex tests are referred to the upper level laboratories through a referral system, including the regional, sub-national and national reference laboratories.

National reference laboratories for tuberculosis, vaccine preventable diseases (polio, measles, rubella, Japanese encephalitis, rotavirus), emerging and re-emerging infectious diseases (diphtheria, pertussis, tetanus, dengue, SARS-CoV, MERS-CoV, influenza, chikungunya and Zika), sexually transmitted diseases/transfusion-transmitted diseases (hepatitis B and C, HIV and syphilis), food and water-borne diseases (salmonella, cholera and shigella) and neglected tropical diseases (malaria, rabies, leprosy, schistosomiasis and filariasis) are housed within RITM and at the San Lazaro Hospital-STD/AIDS Central Cooperative Laboratory. These national reference laboratories are WHO accredited.

All registered clinical laboratories are legislated to comply with the quality assurance and control standards set by the Health Facility Development Bureau of the DOH, which require that all laboratories have internal quality assessment programs and participate in external quality assessment programs for the tests that they perform.

For animal health, the network comprises the Animal Disease Diagnosis and Reference Laboratory (ADDRL) at the BAI of the DA with 12 RADDLs at sub-national level. There are also provincial and private animal disease diagnostic laboratories. These diagnostic laboratories conduct post-mortem examination, perform bacterial/fungal isolation, antimicrobial sensitivity tests, agglutination tests for bacteria, parasitological examinations, immunologic assays, virus isolation and molecular testing. Capacities and capabilities vary according to level.

Food testing is conducted at the Food Nutrition Research Institute in the DOST. There are also private food testing laboratories. The National Reference Laboratory for Environmental, Occupational Health, Toxicology and Micronutrient Assay based at the East Avenue Medical Center in Manila conducts surveillance for, provides referral services and maintains quality assurance program.

Specimen transportation is being established within the national laboratory referral systems, by providing training on packing and transportation within the national laboratory networks.

## Indicators and scores

### D.1.1 Laboratory testing for detection of priority diseases – Score 4

#### *Strengths and best practices*

- There are 32 priority diseases identified through laboratory surveillance for human health, including the five core tests identified by the JEE tool.
- There is a national referral system with quality assurance programs for polio, HIV, tuberculosis, malaria, influenza and salmonella in the human health sector and a national referral system for HPAI and rabies in the animal health sector.
- In the animal health sector, laboratory testing is mainly established at various levels through the ADDRL of the BAI and DA RADDLs for HPAI, rabies, anthrax, Ebola Reston and Henipah virus.
- Testing capabilities and capacities, including advanced molecular detection methods, have been established at national and sub-national levels and use testing algorithms recommended by WHO and OIE.

#### *Areas that need strengthening and challenges*

- Improving collaboration, coordination and information sharing within and between the animal and human health laboratory networks.
- Surge capacity for testing at national and regional levels.
- Prioritising capacity development of national reference laboratories through risk assessments across all sectors, especially animal health.
- Better sharing of laboratory surveillance data across all sectors and to the public through annual laboratory surveillance reports.
- Increasing testing in the animal sector, especially when outbreaks are reported.

### D.1.2 Specimen referral and transport system – Score 3 (\*4 for human health sector)

#### *Strengths and best practices*

- Specimens from cases of reportable diseases or captured by the indicator-based and event-based surveillance system are referred from disease reporting units to regional offices or directly to national reference laboratories.
- Guidelines for specimen referral are included in the surveillance system manuals, and the Outbreak Manual of the RITM. Program specific referral guidelines exist for others, for example tuberculosis, transfusion-transmitted infections, sexually transmitted infections and antimicrobial resistance.
- There is a referral system for animal specimens through the RADDL network of the ADDRL.
- Training modules on specimen packing and transportation in line with international shipment standards are conducted at various levels.

#### *Areas that need strengthening and challenges*

- Standardizing shipment protocols and logistics arrangements, including the shortening of the approval process, across all sectors.
- Finalising the national guidelines for in-country transport of infectious substances.

- Due to the wide geographical distribution, varied economic development at regional and provincial levels and decentralized governance, each area has its own shipment and transport challenges.

### D.1.3 Effective national diagnostic network – Score 3

#### *Strengths and best practices*

- Tier-specific diagnostic testing strategies are well-documented in both human and animal health sectors with functional laboratory networks for disease specific surveillance programmes.
- Advanced molecular and serological testing is performed, as well as virus isolation, polymerase chain reaction, genetic characterization using Sanger and Next Generation Sequencing to determine genotypes, subtypes, subclades, mutations and resistance.
- Point-of-care diagnostics are being used for several priority disease prevention and control programmes, such as malaria, dengue, HIV screening and tuberculosis. DOH procures and transports the kits across the country.

#### *Areas that need strengthening and challenges*

- Insufficient samples have been taken in the animal health sector when outbreaks are reported.
- No rapid tests are being used in the animal health sector.
- Difficulties in procurement at sub-national and regional laboratories due to the absence of local distributors and suppliers.
- Funding and the prolonged duration of procurement and approval for surge testing capacity during outbreaks.

### D.1.4 Laboratory quality system – Score 3

#### *Strengths and best practices*

- National legislation for clinical laboratory licensing requires mandatory participation of external quality assurance programmes, which are overseen by a regulatory body and the laboratory inspection mechanism has been implemented through its regional offices.
- There is a national body for accreditation of laboratory services and conformity assessment.
- There is a national regulatory authority in charge of evaluation and registration for in vitro diagnostics and devices.
- There is a laboratory accreditation system for compliance to national standards for animal disease diagnostic laboratories.

#### *Areas that need strengthening and challenges*

- Licensing and accreditation for diagnostic laboratories at all levels, including research and academic laboratories that provide diagnostic services.
- Accreditation using international standards for all national and regional reference laboratories.

## **Recommendations for priority actions**

- Strengthen testing capabilities at the RADDLs by securing funding and resources for reagents and kits, manpower and training and increase the sampling coverage in animal health sector.
- Streamline the coordination of specimen transport systems in both the human and animal health sectors at the sub-national level.
- Review and shorten approval processes for surge testing during outbreaks at national and sub-national laboratories in both human and animal sectors.
- Implement laboratory quality standards through accreditation (e.g. ISO15189 and ISO17025) at national reference laboratories.

# SURVEILLANCE

## INTRODUCTION

The purpose of real-time surveillance is to advance the safety, security and resilience of the nation by leading an integrated surveillance effort that facilitates early warning and situational awareness of all IHR hazard-related events.

### Target

*(1) Strengthened foundational indicator- and event-based surveillance that are able to detect events of significance for public health and health security; (2) improved communication and collaboration across sectors and between sub-national (local and intermediate), national and international levels of authority regarding surveillance of events of public health significance; and (3) improved national and intermediate level regional capacity to analyse and link data from and between, strengthened, early-warning surveillance, including interoperable, interconnected electronic tools. This would include epidemiologic, clinical, laboratory, environmental testing, product safety and quality and bioinformatics data; and advancement in fulfilling the core capacity requirements for surveillance in accordance with the IHR and OIE guidelines.*

## LEVEL OF CAPABILITIES

There are several indicator-based surveillance systems in the Philippines. The Philippines Integrated Disease Surveillance and Response (PIDSRS) system includes 19 notifiable diseases plus there are separate surveillance systems for other diseases, for example tuberculosis and HIV/AIDS. There is also a syndromic surveillance system for acute bloody diarrhoea, acute haemorrhagic fever, acute meningo-encephalitis syndrome, severe acute respiratory infection and influenza-like-illness. The data sources for all systems are government health facilities, with data captured and processed at the local level by the Province or City Epidemiology and Surveillance Unit. These are sent to the Regional Epidemiology and Surveillance Units for collation and sending to the DOH-EB. Additionally, laboratory data entry from RITM are included with reconciliation of laboratory data and case-based data conducted at RITM.

For event-based surveillance, the Event-Based Surveillance and Response system (ESR), managed by the EB, allows for all administrative levels, as well as additional offices such as RITM and the Bureau of Quarantine, to report public health events. This system also includes regular exchanges with health actors at the field level and systematic media and website monitoring. An international component has been implemented whereby cross border events of interest are included in reporting.

Electronic tools support both surveillance systems. The ESR uses an online electronic reporting tool or real-time reporting at all administrative levels within the health sector. PIDSRS is also an online tool, however the data is entered offline. Data management and validation is lengthy process, done manually, to link laboratory and surveillance data and duplicate the records. At the time of the JEE, there were major reporting delays for measles with suboptimal completeness and timeliness of the overall reporting system. This was despite regular weekly reports produced by DOH by local level for their surveillance review.

Surveillance for zoonotic diseases is supported by two government agencies: The DOH for human health, and Department of Agriculture for animal health. The list of priority diseases for surveillance for animal health includes avian influenza, rabies, anthrax, Ebola Reston and Henipah virus. Data analysis and risk assessment are performed at local, provincial/city and national level following the national risk assessment process. However, risk assessments are not systematically conducted and there are no mechanisms for joint human and animal health risk assessments.

## Indicators and scores

### D.2.1 Surveillance systems – Score 3

#### *Strengths and best practices*

- There is an appropriate legal and operational framework for indicator- and event-based surveillance.
- The indicator-based surveillance system includes a list of notifiable diseases, syndromic surveillance, sentinel surveillance and central laboratory surveillance.
- The event-based surveillance system allows for local, regional, national and international reporting, and includes filtering, validation and assessment of reported events with an all hazards approach.

#### *Areas that need strengthening and challenges*

- The timeliness and completeness of both indicator- and event-based surveillance systems.
- Cases from the private sector are only partially captured by the surveillance system.
- Improved data management (e.g. implement unique case ID).
- Improving the harmonization and data exchange between human and animal/wildlife surveillance.

### D.2.2 Use of electronic tools – Score 3

#### *Strengths and best practices*

- Both indicator- and event-based surveillance systems are supported by dedicated electronic tools.
- Regular trainings for the use of these electronic tools are conducted.

#### *Areas that need strengthening and challenges*

- Using a dedicated secured electronic tool for laboratory data to be sent from RITM to improve data protection.
- Reconciliation of data from different sources (e.g. clinical data and laboratory data) and between indicator- and event-based surveillance systems.
- Integrating all notifiable diseases in one single electronic tool.

### D.2.3 Analysis of surveillance data – Score 4

#### *Strengths and best practices*

- Weekly analysis and reporting of surveillance data are conducted at city/province, regional and national level.
- Regular risk assessments are conducted at regional and national level.
- Laboratory data are part of the surveillance system.

*Areas that need strengthening and challenges*

- Multi-sectoral analysis of surveillance data between human and animal/wildlife sectors.
- Regular risk assessments at city/province level.
- Delay of reporting between local and national level and delay of information feedback from national level to regional and city/provincial levels.

**Recommendations for priority actions**

- Enhance data quality, timeliness and completeness to improve indicator-based and event-based surveillance performance by:
  - o Conducting an external evaluation to identify main gaps and technical solutions;
  - o Regular monitoring of surveillance performance; and
  - o Improving data management (e.g. implement unique case ID).
- Improve animal/wildlife health surveillance system by streamlining, reporting and information sharing with human health surveillance at all levels.
- Conduct joint multi-sectoral risk assessments at all levels.

# REPORTING

## INTRODUCTION

Health threats at the human–animal–ecosystem interface have increased over the past decades, as pathogens continue to evolve and adapt to new hosts and environments, imposing a burden on human and animal health systems. Collaborative multidisciplinary reporting on the health of humans, animals and ecosystems reduces the risk of diseases at the interfaces between them. The National IHR Focal Point, the OIE delegate of the Philippines, and OIE National Focal Point for the World Animal Health Information System (WAHIS) should have access to a toolkit of best practices, model procedures, reporting templates, and training materials to facilitate rapid (within 24 hours) notification of events that may constitute a Public Health Emergency of International Concern (PHEIC) to the WHO and a listed disease, infection or infestation notifiable to the OIE, and will be able to rapidly (within 24/48 hours) respond to communications from these organizations.

### Target

*Timely and accurate disease reporting according to WHO requirements and consistent reporting to/information of FAO and OIE.*

## LEVEL OF CAPABILITIES

The DOH-EB, as the designated National IHR Focal Point in the Philippines, and the relevant Bureaus within the DA, have demonstrated their capability to notify potential public health emergencies of international concern to WHO and OIE through both simulation exercises and real-life events. The EB is also the focal point for INFOSAN. From 2008 to 2016, seven notifications were posted on WHO IHR Event Information site from the Philippines and in 2017, two notifications were posted on the OIE World Animal Health Information Database. The most recent IHR notification from the Philippines was in January 2017 to report cases of Zika. These were notified to WHO five days after the event was captured through the event-based surveillance system.

There is also an adequate reporting system within the Philippines with weekly, monthly, quarterly and annual reports provided by the EB on surveillance data. The RITM also provide regular reports to its stakeholders. However, at the time of the JEE, major delays for measles reporting were noted both at national level and for the routine reporting of this data to WHO. Joint reporting and joint risk assessment between human and animal sector are not implemented.

## Indicators and scores

### D.3.1 System for efficient reporting to OIE and WHO – Score 3

#### Strengths and best practices

- The Philippines has demonstrated their capacity to report through the IHR and OIE mechanisms in both simulation exercises and real events.
- There is effective multilateral regional communication with neighbouring countries.

#### Areas that need strengthening and challenges

- The reporting delay between detection of an event of concern and its report to WHO/OIE.

### D.3.2 Reporting network and protocols in country – Score 2

#### *Strengths and best practices*

- There is a legal framework for reporting events to IHR and OIE.
- Weekly, monthly, quarterly and annual reporting of surveillance data within the country.

#### *Areas that need strengthening and challenges*

- Delay of reporting for some diseases (e.g. measles) due to data management process, online connection or lack of data from private sector.
- Zoonotic and human surveillance systems are not integrated at national level.

### **Recommendations for priority actions**

- Ensure timely reporting to WHO and OIE by updating and ensuring implementation of the protocol for notification.
- Review and streamline approval processes prior to official notification of suspected PHEIC.
- Implement the two-way sharing of surveillance data and joint risk assessment reports:
  - o Between local, regional and national levels;
  - o Between hospitals and public health; and
  - o Between animal and human health sectors.

# HUMAN RESOURCES

## INTRODUCTION

Human resources are important in order to develop a sustainable public health system over time by developing and maintaining a highly qualified public health workforce with appropriate technical training, scientific skills and subject matter expertise. Human resources includes nurses and midwives, physicians, public health and environmental specialists, social scientists, communication, occupational health, laboratory scientists/technicians, biostatisticians, IT specialists and biomedical technicians and a corresponding workforce in the animal health sector such as veterinarians, animal health professionals, para-veterinarians and veterinary epidemiologists.

The recommended density of doctors, nurses and midwives per 1,000 population for operational routine services is 4.45 plus 30% surge capacity. The optimal target for surveillance is one trained (field) epidemiologist (or equivalent) per 200,000 populations who can systematically cooperate to meet relevant IHR and PVS core competencies. One trained epidemiologist is needed per rapid response team.

### Target

*States Parties with skilled and competent health personnel for sustainable and functional public health surveillance and response at all levels of the health system and the effective implementation of the IHR (2005).*

## LEVEL OF CAPABILITIES

The Philippines Human Resources for Health Network comprises 18 multi-sectoral government agencies and non-government organizations, has been operational since 2006 and aims to harmonize human resources policy direction and develop an adequate, globally competent and sustainable health workforce. The Human Resources for Health Master Plan 2005-2030 and the Reformulated Human Resources for Health Master Plan 2014-2030 guide the health sector in proper planning, development, management, and utilization of human resources for health.

The National Database for Human Resources for Health Information System collects statistical information on health worker distribution by geographical location, sex, gender, age, type of facility ownership (private/government). Currently, the system captures data from 90% of hospitals and 60% of other health facilities. The Integrated Database System for Human Resources for Health Information System stores and reports information on deployment, migration, re-entry and retirement.

The DOH implements the Human Resource for Health Deployment Program to redistribute healthcare workers within the country to increase access to quality healthcare services, address inequitable distribution of healthcare professionals and improve local health systems. The national government augments local health workforce with various health professionals (doctors, nurses, medical technologists, midwives, dentists, pharmacists and nutritionist-dieticians), as well as support workers, to improve access to primary health care services. The augmentation prioritizes marginalized communities, economically disadvantaged municipalities and those with high burden of disease.

The DOH has a Competency Model and Standards, and a Learning and Development Plan is prepared annually by its offices and health facilities. This is developed based on a needs assessment or evolving organizational functions. Individual learning and development needs assessments are also conducted to identify competency gaps which are then addressed through competency-based short courses, assessment of prior learning, or formal education (e.g. Masters degree). Coaching, mentoring and

other forms of learning and development interventions are also used. International agencies provide grants and scholarships. The DOH is a Continuing Professional Development Provider and complies with the requirements of the Professional Regulation Commission for the accreditation of trainings conducted by the DOH.

The Philippine FETP was established in 1987 and in 1994 became an autonomous program funded by the Government of the Philippines. In 2000, the FETP became institutionalized under the Applied Public Health Division of the National Epidemiology Center (now the EB). The FETP is a well-established programme with sustainable capacity. There are three levels of training provided: one-week courses for those involved in the surveillance systems (basic), individual follow up after basic training (intermediate) and the two-year standard FETP (advanced). These levels require further articulation in the SOPs. There have been 113 FETP graduates; currently 62 are active in the public health system, 16 working in NGOs and developmental partners and two in academia. Two veterinarians have graduated from the FETP. In 1995, the FETP Alumni Foundation Incorporated (FETPAFI) was established to support FETP fellows and graduates. Field epidemiology capacity is being tracked under the Applied Epidemiology and Health Management Division (then Applied Public Health Division) of the EB. FETP graduates become Public Health Specialists in Applied Epidemiology.

## Indicators and scores

### D.4.1 An up-to-date multi-sectoral workforce strategy is in place – Score 2

#### *Strengths and best practices*

- The multi-sectoral Philippines Human Resources for Health Network and associated Resources for Health Master Plans show a commitment to developing an adequately skilled health workforce across the country.
- There are health information systems that collect data on the status of the health workforce.

#### *Areas that need strengthening and challenges*

- The Human Resources for Health Master Plan does not include multi-sectoral public health workforce roles such as epidemiologists, veterinarians, social scientists, IT specialists and community health workers.
- Human health resources are unevenly distributed throughout the country, with major cities having a higher proportion of public health professionals per 100,000 population. This is due to unfavorable working conditions, lack of permanent employment opportunities, and disparities in wages and benefits across the country.

### D.4.2 Human resources are available to effectively implement IHR – Score 2

#### *Strengths and best practices*

- The Human Resource for Health Deployment Program attempts to redistribute healthcare workers throughout the country.
- The DOH Learning and Development Plan results in annual review of competencies, aligned to training needs.
- The DOH is a Continuing Professional Development Provider and complies with the requirements of the Professional Regulation Commission for the accreditation of trainings.

#### *Areas that need strengthening and challenges*

- The Human Resource for Health Deployment Program may not be sustainable as it has not been implemented for several years. Human resources deployed under this program are project-based and are subject to the availability of funds from the National Government.
- Retaining health workers to remain in their local municipality is difficult.

**D.4.3. In-service trainings are available – Score 2***Strengths and best practices*

- Training, especially specific to health program implementation, is planned and delivered by assigned DOH bureaus/offices as mandated.
- Having the Health Human Resource Development Bureau in the DOH-Central Office and Human Resource Development Units in DOH Regional Offices and Hospitals provides for sound planning and consensus building.
- The Training Specialist positions at the regional level will focus on the learning and development needs at the local level, ensuring alignment with global and local strategies.
- The DOH E-learning platform increased access to health service trainings, bridging geographical barriers of face-to-face learning.
- Competency-based learning and development plans and interventions are well established.

*Areas that need strengthening and challenges*

- Although a DOH Academy has been established to lead learning and development efforts, it is still in its infancy and has no permanent workforce.
- Casual staff have limited access to trainings, despite providing a major component of the health workforce.

**D.4.4 FETP or other applied epidemiology training programme in place – Score 5***Strengths and best practices*

- The Philippines FETP has been established for 30 years, was institutionalized at the DOH in 1994 and has an annual budget allocation.
- There is a strong FETP alumni through the FETP Alumni Foundation Incorporated.
- The Philippines FETP is the first in Asia to be accredited by the Training Programs in Epidemiology and Public Health Interventions Network (TEPHINET) and one of the first eight countries accredited globally.

*Areas that need strengthening and challenges*

- Articulating the tiered training levels in the SOPs.

**Recommendations for priority actions**

- A stronger governance mechanism for the Human Resource for Health Network is required to ensure that the multi-sectoral workforce is included, monitored and tracked in the public health workforce strategy.
- Need to optimize the Learning and Development plan to strengthen outcomes-based learning approach and conduct post training evaluation to measure the impact.
- Articulate the three levels of the FETP in the manual and ensure adequate numbers of staff are trained and available at the local, regional and national levels.

# RESPOND

## EMERGENCY PREPAREDNESS

### INTRODUCTION

Emergency preparedness is defined as “the knowledge and capacities and organizational systems developed by governments, response and recovery organizations, communities and individuals to effectively anticipate, respond to, and recover from the impacts of likely, imminent, emerging or current emergencies.” A state of preparedness is the combination of planning, allocation of resources, training, exercising, and organizing to build, sustain, and improve operational capabilities at national, intermediate and local or primary response level based on strategic risk assessments. A strategic risk assessment identifies, analyses and evaluates the range of risks in a country and enables risks to be assigned a level of priority. Strategic risk assessments include analyses of potential hazards, exposures and vulnerabilities, identification and mapping of available resources, and analyses of capacities (routine and surge) at the national, intermediate and local or primary levels to manage the risks of outbreaks and other emergencies. Emergency preparedness applies to any hazard that may cause an emergency, including relevant biological, chemical, radiological and nuclear hazards, natural hazards, other technological hazards and societal hazards.

#### Target

- (1) Existence of national strategic multi-hazard emergency risk assessments, risk profiles, and resource mapping;*
- (2) Existence of multi-hazard emergency response plans;*
- (3) Evidence, from after action and other reviews, of effective and efficient multi-sectoral emergency response operations for outbreaks and other public health emergencies.*

### LEVEL OF CAPABILITIES

The National Disaster Risk Reduction and Management Council (NDRRMC) of the Philippines is a multi-sectoral body comprising leaders from relevant departments of government, institutions, local government associations, civil society organizations and the private sector. NDRRMC has four clusters, with the health cluster led by the HEMB of DOH.

National resources for emergency response have been identified and hazards and health facilities have been mapped. HEMB manages the risk assessment and resource mapping processes for health emergencies and disasters. The Health Emergency Alert Reporting System provides data for strategic multi-hazard risk assessment and was used for conducting the WHO Strategic tool for assessing risk in 2016.

Emergency preparedness is managed at the national level by public health, animal health and other relevant sectors, including PoEs. There are several plans and manuals that guide emergency preparedness in the Philippines – the overarching National Disaster Preparedness Plan 2015-2028; Disaster Preparedness Manual for guidance in the local level; multi-hazard response plans; Manual of Operations and SOPs for Health Emergency and Disaster Response Management; the Ninoy Aquino

International Airport Public Health Emergency Contingency Plan 3rd Edition (2018); the Philippine Avian Influenza Protection Program; as well as implementation plans for major gatherings. Chemical, biological, radiological and nuclear (CBRN) simulation exercises, including the field management of mass casualties during a chemical incident was undertaken in 2017.

There are plans for the management and distribution of the national stockpile in the Philippines and provision of funds for prepositioning logistics to the regions. Designated hospitals are established and the sub-allocation plan for funding DOH hospitals is updated annually. There is an inventory and monitoring of logistics, a training database of all Health Emergency Response Teams, as well as lists of Emergency Operation Centres (EOC) and national reference laboratories.

## Indicators and scores

### **R.1.1 Strategic emergency risk assessments conducted and emergency resources identified and mapped – Score 2**

#### *Strengths and best practices*

- The public health emergency operations centre (EOC) manual of operations is recognised as best practice among the international emergency management community.
- HEMB facilitates risk assessment and resource mapping for health emergency and disasters.
- The Health Emergency Alert Reporting System provides a good baseline data for strategic multi-hazard risk assessment.
- Systems for monitoring and distributing logistics are established.
- The annual National Health Emergency Preparedness Allocation by region and sub-allotment plan for the Implementation of Health Emergency Management program at national level.

#### *Areas that need strengthening and challenges*

- Risk assessment using the WHO Strategic tool for assessing risk should be strengthened and involve more stakeholders.
- Prioritizing resources based on needs, especially at the LGU level.
- Mapping health facilities, transfer casualties (eg. working on PoE management) and risk assessment of patients with specific infectious disease. SOPs for transferring casualties and patients with specific infectious diseases should be improved.
- Joint investigations and multi-hazard health risk assessments between human and animal health for zoonotic diseases outbreaks and chemical and radiation events.
- Developing a generic emergency plan applicable for frequent public health emergency diseases.

### **R.1.2 National multi-sectoral multi-hazard emergency preparedness measures, including emergency response plans, are developed, implemented and tested – Score 3**

#### *Strengths and best practices*

- There are several multi-sectoral and multi-hazard preparedness and response plans.
- Manual of procedures and SOPs for health emergencies are developed and streamlined to regional offices.
- A monitoring and evaluation tool is used and post incident evaluations are conducted after every emergency response.
- The roles and responsibilities of DOH and stakeholders are defined.

*Areas that need strengthening and challenges*

- Multi-sectoral implementation of preparedness and response plans need to be strengthened, and animal health emergency preparedness plans need to be implemented and tested.
- Developing a generic emergency plan for communicable diseases that can become public health emergencies, such as pandemic influenza.
- The availability of resources in the LGU level depends on the priorities of the Local Chief Executives.
- Capacity assessment and resource mapping is limited to the national and regional levels, with a lack of assessment at the LGU level.
- The lack of documentation of events and after-action reviews for biological disease outbreaks.

**Recommendations for priority actions**

- Improve coordination of public health emergency preparedness between human and animal health and environment based on the findings of the current strategic emergency risk assessment.
- Strengthen the strategic health emergency risk assessments using multiple sources of information, with focus on health risk, health impacts and the vulnerability of health system.
- Use after-action reviews of health emergency and disaster responses to update legislation, procedures and plans for emergency preparedness and response.
- Prioritize the distribution of resources for public health emergency preparedness based on needs, especially at local levels.

# EMERGENCY RESPONSE OPERATIONS

## INTRODUCTION

A public health emergency operations centre is a central location for coordinating operational information and resources for strategic management of public health emergencies and emergency exercises. Emergency operations centres provide communication and information tools and services, and a management system during a response to an emergency or emergency exercise. They also provide other essential functions to support decision-making and implementation, coordination and collaboration.

### Target

*Countries will have a coordination mechanism, incident management systems, exercise management programmes and public health emergency operation centre (EOC) functioning according to minimum common standards; maintaining trained, functioning, multi-sectoral rapid response teams, and trained EOC staff capable of activating a coordinated emergency response within 120 minutes of the identification of an emergency.*

## LEVEL OF CAPABILITIES

At the national level, the Office of Civil Defense (OCD), through their Operations Center, facilitates multi-sectoral coordination, monitoring and evaluation of all response activities, including resource mobilization. There is DOH representative in the Response Cluster when the EOC is activated. The DOH is also designated as the Office of Primary Responsibility for disease outbreaks, epidemics and pandemics, including for biological incidents (such as terrorism or accidental release). An interagency task force can be convened to respond to such an incident.

At the DOH, the HEMB facilitates command, control and coordination of DOH units at all levels of the health care system during public health emergencies and disasters through their Operations Center. This includes resource mobilization, gathering of information for decision making and early warning and alert to all concerned bureaus of the DOH, regional offices and DOH hospitals. The HEMB Operations Center also coordinates with the OCD Operations Center when multiple agencies are involved. The HEMB Operations Centre operates under an established Incident Command System (ICS) structure, which is activated during emergencies and disasters by the Secretary of Health and may operate 24/7. The HEMB Operations Center can be augmented with additional staff, enhancing the surveillance and information systems and upgrading its communications equipment. It convenes the Health Cluster during the preparedness and response phase of national level operations.

Regional, provincial and local governments also have established operation centers used for multi-sectoral and multi-hazard responses. During an emergency, EOCs at regional offices operate 24/7. All Disaster Risk Reduction Management Offices at the LGU level have their own EOCs. The roles and responsibilities of LGUs are defined in the National Disaster Response Plan.

The OCD conducts trainings on EOCs for LGUs and HEMB conducts an ICS Executive Course for DOH staff and a Health Emergency Response Operations course to train staff on field operations and management of an emergency operations center at all levels. HEMB maintains a training database of those trained in these courses.

The DOH, as a member of the NDRRMC and as one of the National Government Agencies in the Executive Branch, conducts and participates in exercises with multi-sectoral partners, ranging from table top to functional exercises. The DOH also deploys teams during planned events hosted by the National Government and to incidents arising from natural and human-induced hazards. A post-incident evaluation is conducted after each exercise and real events to identify gaps and address the issues raised.

## Indicators and scores

### R.2.1 Emergency Response Coordination – Score 3

#### *Strengths and best practices*

- An established and functional ICS structure is used at all levels of government and regular training and exercises are conducted.
- The national public health Emergency Operation Center is staffed by HEMB personnel at all times.

#### *Areas that need strengthening and challenges*

- The DOH Emergency Medical Teams Coordinating Cell currently does not have an identified work space, dedicated staffing or SOPs.
- There is no single guidance document for the health sector response to emergencies or public health events.

### R.2.2 Emergency Operations Centre Capacities, Procedures and Plans – Score 3

#### *Strengths and best practices*

- The national public health Emergency Operations Center can be staffed 24/7 with personnel trained in ICS and health emergency operations procedures.
- The EOC is well equipped and utilizes different types of media for communications and coordination.
- The EOC has a well-developed Manual of Operations to guide internal activities.
- The EOC is routinely activated for planned events and for public health emergencies and disasters.
- Upon activation, an established and functional ICS structure is used, with roles and responsibilities of key staff defined in the Manual of Operations.

#### *Areas that need strengthening and challenges*

- Internet connection stability hinders timely exchange of information.
- The roles of other partners in multi-sectoral responses are not clear.

### R.2.3 Emergency Exercise Management Programme – Score 3

#### *Strengths and best practices*

- The DOH regularly exercises priority contingency plans, for example for an earthquake.
- Coordination with partners and stakeholders for participation in exercises routinely takes place.
- The DOH has the capability to rapidly develop incident action plans for planned and unplanned events.

#### *Areas that need strengthening and challenges*

- Several partners and internal units of the DOH require training on how to conduct exercises.

### Recommendations for priority actions

- Develop a multi-sectoral, multi-hazard Guidebook for Public Health Emergencies.
- Expand public health emergency management training delivered to public health first responders (both those staff to be deployed on field response teams as well as those staff working in the EOC) to ensure position-specific competencies are developed.
- Develop an integrated multi-sectoral, multi-hazard training and exercise program for public health emergencies.

# LINKING PUBLIC HEALTH AND SECURITY AUTHORITIES

## INTRODUCTION

Public health emergencies pose special challenges for law enforcement, whether the threat is manmade or naturally occurring. In a public health emergency, law enforcement will need to quickly coordinate its response with public health and medical officials.

### Target

*Country conducts a rapid, multi-sectoral response for any event of suspected or confirmed deliberate origin, including the capacity to link public health and law enforcement, and to provide timely international assistance.*

## LEVEL OF CAPABILITIES

Public health and security organisations are members of NDRRMC and therefore work together during emergencies and disasters. The DOH, National Police and Armed Forces of the Philippines has response teams in which are coordinated through the operation center network. Joint exercises and workshops are conducted at least twice a year to allow for strengthening partnership, coordination, interoperability and getting to know counterparts by the response team members. There is a Memorandum of Agreement between DOH, partner agencies and international partners for health-related incidents. This includes information sharing, joint protocols and joint trainings. Disease surveillance at the PoEs have linkages with security agencies.

Laws, such as the Quarantine Act of 2004 and the Philippine Transnational Crime Act ensure linkages between relevant agencies during emergencies. A biennial Convention on Health Emergency Management is held for health sector partners, government agencies, non-government agencies and local governments. Participants can learn from experiences of other countries, local governments and institutions.

## Indicators and scores

### **R.3.1 Public health and security authorities (e.g. law enforcement, border control, customs) linked during a suspect or confirmed biological, chemical or radiological event**

#### *Strengths and best practices*

- The Quarantine Act of 2004 mandates that DOH and partners can secure persons suspected of having diseases with potential to be a public health event of international concern.
- There are established linkages between partners for information sharing through the NDRRMC.

#### *Areas that need strengthening and challenges*

- Promoting the role of border security to all relevant partners.
- Joint training and exercises for health and security responders.

### Recommendations for priority actions

- Develop an operational manual and associated joint training program.
- Promote an understanding of the relevant legal instruments among all partners and units.

# MEDICAL COUNTERMEASURES AND PERSONNEL DEPLOYMENT

## INTRODUCTION

Medical countermeasures are vital to national security and protect nations from potentially catastrophic infectious disease threats. Investments in medical countermeasures create opportunities to improve overall public health. In addition, it is important to have trained personnel who can be deployed in case of a public health emergency for response. Regional (international) collaboration will assist countries in overcoming the legal, logistical and regulatory challenges to deployment of public health and medical personnel from one country to another. Case management procedures should be available to all staff, and implemented across the system during health emergencies due to IHR related hazards.

### Target

*National framework for transferring (sending and receiving) medical countermeasures, and public health and medical personnel from international partners during public health emergencies and procedures for case management of events due to IHR related hazards.*

## LEVEL OF CAPABILITIES

The Philippines has developed strong policies for the sending and receiving of medical countermeasures and personnel. The Department of Foreign Affairs has a "one stop shop" for receiving donations and foreign teams. The Philippines National Police has a Critical Incident Management System Protocol to address security concerns related to sending, receiving and distributing medical countermeasures during shortages, which has been tested in actual incidents. Ad hoc mechanisms could be activated during health emergencies to facilitate procurement of vaccines for outbreak response (i.e. vaccines against Ebola, pandemic influenza, cholera, monovalent-type 2-oral polio vaccine).

The Philippines adheres to the WHO Classification and Minimum Standards on Emergency Medical Teams and was the first to apply these during the response to Typhoon Haiyan in 2013. During Typhoon Ondoy, the DOH requested assistance from the Global outbreak alert and response network. The Philippines has also deployed medical and public health teams to foreign countries, including Indonesia, Myanmar, Haiti, and Japan.

There is no national integrated policy for countermeasure deployment, protocols for accepting foreign scientists and technical experts. There are also no protocols or written algorithms for the transport and referral of patients to referral hospitals across the country, nor training for human health, animal health and environment workforce in emergency medical team deployment and logistics management.

There is an existing compendium for case management during disasters and Interim Guidelines are issued by the DPCB of the DOH as needed. Emerging Re-emerging Infectious Disease Case Management Guidelines are used for priority diseases and IHR relevant hazards. A Manual for Operations and Procedures for the prevention and control of emerging and re-emerging infectious diseases has been drafted. There is a functional disease surveillance system at the PoEs.

DOH has identified selected DOH hospitals with trained staff for IHR related diseases. There is a referral system for the transport of chemical and biological agents and samples from selected DOH hospitals to national referral laboratories and subnational laboratories.

## Indicators and scores

### R.4.1 System in place for activating and coordinating medical countermeasures during a public health emergency – Score 3

#### *Strengths and best practices*

- The National Disaster Responses Plan (draft) identifies procedures and decision-making tools for the sending and receiving of medical countermeasures during public health emergencies. The National Disaster Contingency Plan has been implemented.
- The Department of Foreign Affairs “one-stop shop” ensures organized and efficient use of medical countermeasures.

#### *Areas that need strengthening and challenges*

- A national integrated policy for countermeasures deployment plan is needed.
- Developing antidotes and vaccines in the Philippines and allowing DOH to procure regulated antidotes as per the Armed Forces of the Philippines and Philippine National Police.
- Developing a system for the import and acquisition of drugs for chemoprophylaxis against infectious diseases from international sources.
- There are no dedicated staff trained or assigned for logistics management for infectious disease outbreaks.
- Clearly identify processes to fast track procurement, fund mobilization for procurement and registration for use of emergency vaccines.

### R.4.2 System in place for activating and coordinating health personnel during a public health emergency – Score 4

#### *Strengths and best practices*

- There is an accreditation system for receiving resources from foreign counterparts.
- The Department of Foreign Affairs “one-stop shop” ensures organized and efficient mobilization of foreign medical teams during emergencies.
- The Philippines has sent and received health personnel during a public health emergency.

#### *Areas that need strengthening and challenges*

- The deployment of health staff during infectious disease outbreaks need to be strengthened.
- Protocols for accepting foreign scientists and technical experts.
- Training for human health and animal health staff who may be deployed during emergencies.

### R.4.3 Case management procedures implemented for IHR relevant hazards – Score 3

#### *Strengths and best practices*

- There is an existing compendium for case management and specific guidelines for priority diseases and emerging and re-emerging infectious diseases.
- The strong surveillance system at the PoEs as described in the Bureau of Quarantine Manual of Operations.
- Regional and local health offices have been trained in case management of relevant IHR diseases.

*Areas that need strengthening and challenges*

- Continuing training and capacity building of health staff on the medical management of cases during outbreaks.
- Improved logistic support for the transport of patients.
- Improved courier systems for infectious disease samples and specimens to the National Reference laboratory and subnational laboratories.

**Recommendations for priority actions**

- Conduct more exercises that include medical countermeasures for emerging diseases and other IHR relevant public health events (such as chemical and radiation events), especially at subnational levels.
- Conduct training for human health, animal health and environment workforce in Emergency Management Team deployment and logistics management at all levels.
- Use the good practices and lessons learnt from health responses for natural disaster to formulate procedures and guidelines on medical countermeasures that can be adopted to improve domestic action and used as reference internationally.

# RISK COMMUNICATION

## INTRODUCTION

Risk communications should be a multilevel and multifaceted process which aims at helping stakeholders define risks, identify hazards, assess vulnerabilities and promote community resilience, thereby promoting the capacity to cope with an unfolding public health emergency. An essential part of risk communication is the dissemination of information to the public about health risks and events, such as disease outbreaks. For any communication about risk caused by a specific event to be effective, the social, religious, cultural, political and economic aspects associated with the event should be taken into account, including the voice of the affected population.

### Target

*State Parties use multilevel and multifaceted risk communication capacity. Real-time exchange of information, advice and opinions between experts and officials or people who face a threat or hazard (health or economic or social wellbeing) to their survival, so that informed decisions can be made to mitigate the effects of the threat or hazard and protective and preventive action can be taken. This includes a mix of communication and engagement strategies, such as media and social media communications, mass awareness campaigns, health promotion, social mobilization, stakeholder engagement and community engagement.*

## LEVEL OF CAPABILITIES

### Risk communication systems

The DOH, the Department of Social Welfare and Development, the Philippine Information Agency and the NDRMMC have communication teams for risk communication during emergencies. The DOH is the national lead agency for risk communication during disease outbreaks and public health-related emergencies and has a risk communication plan incorporated into their response plan. The DOH Health Promotions and Communication Service (HPCS) is mandated to manage the risk communication plan, with HEMB responsible for disseminating information to the public and partners. Designated personnel in these offices are assigned with their roles and their responsibilities clearly defined in the response plan and there is a dedicated budget for the personnel, materials and activities. Messages are developed by the HPCS based on information provided by relevant DOH bureaus.

In the LGUs, the Provincial Health Offices and Rural Health Units are responsible for risk communication. Designated personnel have been trained in risk communication, however, not all LGUs have personnel appointed solely for risk communication.

### Internal and partner coordination

During emergencies, there are informal and formal mechanisms for internal communication within DOH, with other agencies and partners and with international partners. The DOH coordinates risk communication plans, strategies and messages with other health players during emergencies by providing department issuances and prototype information, education and communication (IEC) materials. DOH also shares its risk communication plans and messages with non-government organizations, civil society organizations and the private sector during emergency through advocacy and partner's meetings.

## Public communication during emergencies

DOH has designated spokespersons at the national and regional level authorized to provide statements on behalf of the agency. HPCS, in collaboration with other bureaus, is mandated to develop and disseminate information materials during emergencies and outbreaks through diverse media platforms (traditional media, quad media, social media and others). HPCS works with the Media Relations Unit for media and social media products and analytics are used to determine their reach. Communication teams coordinate with partners and stakeholders during emergencies and outbreaks and misinformation by media is immediately addressed through press releases. The DOH regional offices are responsible for providing local translation and local context to the public health messages.

## Community engagement with affected populations

There are designated personnel at the national and regional levels to conduct social mobilization and community engagement and LGU staff can be mobilized to assist. Some LGUs have also appointed community leaders for community engagement during emergencies and public-related outbreaks. The “bayanihan” spirit or community participation is one of the strengths of the Filipino people.

Social mobilization, health promotion and community engagement are incorporated in the National Response Plan with an on-going and functional feedback loop between at-risk or affected populations and response agencies. The HPCS provides health information to affected communities at the national level and has counterparts at the regional level.

## Addressing perceptions and risky behaviours

DOH, through HPCS, also monitors public perceptions and risky behaviours through DOH hotlines, social media messages and comments, focus group discussions and other mechanisms. Misconceptions are addressed using the DOH spokesperson and through social media postings.

## Indicators and scores

### R.5.1 Risk communication systems for unusual/unexpected events and emergencies – Score 3

#### *Strengths and best practices*

- There is close coordination between the DOH bureaus to develop and disseminate risk communication messages.
- There is an Administrative Order on the Implementing Guidelines and Standard Operating Procedure on Risk Communication and several disease specific risk communication plans.

#### *Areas that need strengthening and challenges*

- Although there are risk communication activities within DOH, there is no central risk communications plan with adequate personnel and funding at all levels.
- Developing a shared communication plan between DOH and other agencies, partners and stakeholders.
- Training in risk communications is required at all levels of the healthcare system, especially in LGUs.

### R.5.2 Internal and partner coordination for emergency risk communication – Score 2

#### *Strengths and best practices*

- Good communication among DOH offices during emergencies and disasters, and between government hospitals, regional health offices, provincial health offices and rural health units.
- Advocacy and coordination with external partners and stakeholders during emergencies and disasters.
- Prototype IEC materials developed by the DOH Central Office are disseminated to other health sectors and private sectors.

**Areas that need strengthening and challenges**

- Evaluating emergency risk communication coordination with partner agencies.
- Developing communication response plans with external partners and stakeholders and providing budget for coordination with external partners and stakeholders.

**R.5.3 Public communication for emergencies – Score 3****Strengths and best practices**

- DOH has designated spokespersons and a communication team in the national and local levels and a dedicated office mandated to provide health information to the public.
- The use of multimedia and multilingual approach enables the agency to provide health information across the diverse population.
- Social media analytics and media reach mechanisms are conducted to determine the effectivity of the materials released to the public.
- The approval process for media and social media products is well-established.
- There are sufficient and ready to access funds for public communication during emergencies.

**Areas that need strengthening and challenges**

- Conducting an impact evaluation on public communications during an emergency to provide evidence for the effectiveness of communication methods and strategies on behaviour change.

**R.5.4 Communication engagement with affected communities – Score 3****Strengths and best practices**

- There is a strong partnership between DOH and stakeholders in providing community engagement and strong social mobilization and community engagement capabilities at local levels.

**Areas that need strengthening and challenges**

- Training for information sharing between experienced experts and volunteers.
- Compiling social baseline data on the top five hazards in the country in terms of languages, living conditions, religious/cultural practices/trusted channels of communication, influencers.

**R.5.5 Addressing perceptions, risky behaviour and misinformation – Score 2****Strengths and best practices**

- Availability of social media and hotlines to assess public perception and misinformation, with feedback mechanisms.
- The risk assessment process used to assess public perception and misinformation.

**Areas that need strengthening and challenges**

- Providing a more timely response to address public misconceptions and concerns.
- Monitoring the effectiveness of public outreach through messaging and correcting misinformation.
- Improving regular sharing of information with other stakeholders.

**Recommendations for priority actions**

- Develop a robust risk communication plan/MOU across all agencies and partners to ensure one coherent message is agreed upon in a timely manner.
- Create a risk communication manual for all relevant staff in health and partner agencies.
- Develop risk communication plans in advance for events with a high risk of occurrence according to emergency preparedness risk assessments/registers.

# IHR-RELATED HAZARDS AND POINTS OF ENTRY

## POINTS OF ENTRY

### INTRODUCTION

All core capacities and potential hazards apply to “points of entry” and thus enable the effective application of health measures to prevent international spread of diseases. States Parties are required to maintain core capacities at designated international airports and ports (and where justified for public health reasons, a State Party may designate ground crossings), which will implement specific public health measures required to manage a variety of public health risks.

#### Target

*States Parties designate and maintain core capacities at international airports and ports (and where justified for public health reasons, a State Party may designate ground crossings) that implement specific public health measures required to manage a variety of public health risks.*

### PHILIPPINES LEVEL OF CAPABILITIES

The Bureau of Quarantine maintains the core capacities required for the two designated PoEs at the Manila and Cebu quarantine stations. Both have adequate staff to provide prompt assessment, care of ill travellers and land and water transport. The stations are equipped with basic medical equipment, screening tools, tools for public health control measures, vector surveillance and sufficient personal protective equipment both for droplet and fluid type of infection. The designated PoEs have a direct link to a dedicated hospital for extensive care and treatment of symptomatic travellers. Its major stations are equipped with isolation facilities adjacent to or near the perimeter of PoE terminals, although the isolation room includes only one bed. The designated PoE has a level two Biosafety laboratory.

The quarantine stations have trained staff for inspection of conveyances, food service establishments, inflight catering services and other potentially hazardous goods. There are also vector laboratories with entomologists and field officers trained in integrated vector programs for the terminals, conveyances and terminal perimeters.

The PoE have a public health emergency contingency plan which is regularly exercised. In 2010 the plan was piloted by the WHO Western Pacific Regional Office at the Manila Ninoy Aquino International Airport in Manila and was deemed compliant. If there was an unexpected public health event at a PoEs, the Bureau of Quarantine is the lead health authority to coordinate and communicate with all agencies working in the frontline at the designated ports. There was a strong demonstrated capacity in the human health sector at the PoEs, however, animal health requires strengthening, including the assessment and care of affected animal at PoEs.

## Indicators and scores

### PoE.1 Routine capacities established at points of entry – Score 4

#### *Strengths and best practices*

- There are well established and sustained core capacities at the two designated PoEs in Manila and Cebu, which includes the assessment, care and transport of ill travellers and adequate vector control programmes.
- Consistent training and updating of personnel conducted on a regular basis.
- PoE capabilities are frequently tested, upgraded and adapted corresponding to the demand of the public health risk.

#### *Areas that need strengthening and challenges*

- Training in chemical and radiation events at POE are required.

### PoE.2 Effective public health response at points of entry – Score 3

#### *Strengths and best practices*

- The Public Health Emergency Contingency Plan is integrated with exercise manuals of port terminals and national preparedness plans.
- Established dedicated hospitals for the intensive care and management of ill passengers.
- Ability to conduct public health control measures (derat, disinsect, disinfect).
- Ability to apply entry and exit controls for both arriving and departing travellers.
- Currently renovating existing isolation facilities in the Manila and Cebu stations.

#### *Areas that need strengthening and challenges*

- Testing of the Public Health Emergency Contingency Plan through functional exercises involving multiple agencies.
- Identifying space for managing ill travellers and to interview suspect or affected person, separate from other travellers.
- Increasing the capacity of isolation rooms from one bed and developing a contingency plan to treat many ill travellers in anticipation of mass casualty events.

### Recommendations for priority actions

- Develop an all-hazard preparedness and response SOP for PoEs comprising a multi sectoral approach.
- Strengthen the provision of assessment and care for affected animals at PoEs by establishing arrangements with veterinary facilities for their isolation and treatment.

# CHEMICAL EVENTS

## INTRODUCTION

Timely detection and effective response of potential chemical risks and/or events requires collaboration with other sectors responsible for chemical safety, industries, transportation and safe disposal. This would entail that State Parties need to have surveillance and response capacity to manage chemical risk or events and effective communication and collaboration among the sectors responsible for chemical safety.

### Target

*States Parties with surveillance and response capacity for chemical risks or events. This requires effective communication and collaboration among the sectors responsible for chemical safety, industries, transportation and safe disposal, animal health and the environment.*

## LEVEL OF CAPABILITIES

The laws and policies for chemical safety and chemical management in the Philippines are comprehensive, covering importation through disposal. Implementation is via a system of guidelines and mechanisms for several organizations at different levels of government. There is an inter-agency committee and technical advisory council that provide technical assistance on chemical management and chemical incidents. The Department of Labor and Employment (DOLE) has established guidelines at the facility level for chemical incident response and monitoring. Multi-sectoral coordination mechanisms at the regional, provincial and local level for the management of chemical incidents are incorporated in existing response plans.

There is a network of thirteen Poison Control Centers (PCC) in the Philippines, strategically located in regions where chemical hazards have been identified. Two are recognized as meeting WHO standards for poison centres. The centers are staffed with trained clinical toxicologists who can diagnose and manage poisoning cases due to chemicals and have adequate personal protective equipment and stocks of commonly used antidotes. The PCC, in collaboration with the National Poison Management and Control Center at the University of the Philippines, have developed case management manuals, clinical practice guidelines and a training program for healthcare workers for chemical poisonings which are used by hospitals nationwide.

There are existing platforms for reporting chemical incidents, such as the event-based surveillance system (see Surveillance) and the Health Emergency Alert Reporting System (see Emergency Preparedness). Data on poisonings from the PCC are also submitted to the DOH annually. The National Reference Laboratory can conduct chemical analyses of environmental and biological samples, as can regional laboratories of the DOST, DENR and DOLE and several private laboratories in the Philippines.

There are procedures for conducting risk assessments and rapid environmental and health assessments are routinely conducted by communities at risk of chemical exposures. The Bureau of Fire Protection, which operates at the local level, has an Operational Procedure, sufficient manpower and logistics for responding to fires and other incidents involving hazardous materials. Regular table top exercises and drills on hazardous material and chemical incidents are conducted as part of a training program for response to hazardous materials.

## Indicators and scores

### CE.1 Mechanisms established and functioning for detecting and responding to chemical events or emergencies – Score 3

#### *Strengths and best practices*

- Chemical events are routinely reported through the event-based surveillance system, supplemented by other sources of information about chemical exposures.
- The National Reference Laboratory, other government agencies and some private laboratories can conduct chemical testing and analysis for environmental and biological samples.
- There are manuals for the management of chemicals, treatment guidelines and algorithms for the management of chemical poisonings.
- There are thirteen designated PCC equipped with the necessary resources for responding to chemical incidents.
- The Philippines has dedicated response teams for hazardous materials and chemical incidents, as well as trained toxicologists, healthcare workers and engineers for chemical incident response.
- Direct reading equipment for environmental monitoring is available for rapid response activities.

#### *Areas that need strengthening and challenges*

- The capacities of the new PCC need to be clarified and strengthened; not all will be designated as treatment centers – some will be information centers only. Currently, two are recognized as meeting WHO standards; increasing the number of the remaining PCCs that attain accreditation would enhance the quality of the national PCC network.
- Coordination between agencies that respond to chemical emergencies.
- Having access to testing of environmental and biological samples in Luzon, the Visayas and Mindanao may decrease sample transport times and improve the timelines for early warnings.
- Public awareness of chemical safety and management processes is weak; advocacy and health promotion efforts to improve public awareness are warranted.
- Access to antidotes and chelating agents is not uniform across the country; improving stock at treatment centers, informed by local risk assessments, is required.

### CE.2 Enabling environment in place for management of chemical events – Score 2

#### *Strengths and best practices*

- The Philippines has a comprehensive legislative framework covering chemical management.
- There are training programs for clinical toxicology, chemical incident response management, handling hazardous materials and risk assessment and management.
- Table top exercises and drills are conducted as part of training programs for response to hazardous materials.
- There are funds available for chemical incident response, treatment of poisoning cases and laboratory analysis of environmental and biological samples.

#### *Areas that need strengthening and challenges*

- Chemical inventories and risk assessments at the national level are not routinely updated; a comprehensive national facility and hazard map does not exist.
- Individual organizational plans for preparedness, response, and recovery exist but are neither integrated between organizations, nor collectively tested to determine national capacity to a catastrophic large-scale chemical event.
- Training and exercise activities for chemical detection and response functions are fragmented across various organizations.

### Recommendations for priority actions

- Develop a national, integrated, multi-sectoral chemical incident preparedness, response, and recovery plan, incorporating an updated national chemical profile and hazard map.
- Develop a national chemical security plan as described in the Philippines CBRN Action Plan.
- Increase the number of PCC recognized as meeting WHO guidelines.
- Develop a national, integrated, multi-sectoral chemical incident training and exercise program.

# RADIATION EMERGENCIES

## INTRODUCTION

To counter radiological and nuclear emergencies, timely detection and an effective response towards potential radiological and nuclear hazards/events/emergencies are required in collaboration with sectors responsible for radiation emergency management.

### Target

*States Parties should have surveillance and response capacity for radiological emergencies and nuclear accidents. This requires effective coordination among all sectors involved in radiation emergencies preparedness and response.*

## LEVEL OF CAPABILITIES

The Philippines has two agencies authorized to regulate the use of radiation sources and the operation of radiation facilities – the Philippine Nuclear Research Institute (PNRI) of the DOST and the Center for Device Regulation, Radiation Health and Research (CDRRHR) of the DOH. The PNRI focuses on radioactive materials, while CDRRHR focuses on electrically generated sources of ionizing radiation.

All PNRI licensed facilities are required to have radiological safety assessments, facility emergency plans and procedures for responding to a nuclear or radiological emergency and a 24/7 reporting system for any accidents or incidents inside the facilities. As a result, PNRI has an inventory of radiation sources and the capacities of each facility and their staff. During an emergency involving radioactive material, the licensed facilities are required to coordinate and report to the PNRI. Any accidents inside a licensed facility are managed by the facility radiation protection officer.

The Philippines has arrangements in place through the PNRI for the management of external radiation events such as the 2011 Fukushima incident. During this incident, environmental monitoring for airborne and other possible contamination pathways was undertaken by PNRI. Information dissemination on possible health risks and interventions was conducted by CDRRHR and PNRI using public alerts, advisories, meetings, lectures and seminars. Health emergency response teams from the Health Emergency Management Service of the DOH were also alerted about the risk.

The Philippines' National Nuclear or Radiological Emergency Preparedness and Response Plan (RADPLAN) has been reviewed and revised numerous times but is still in draft form. The RADPLAN identifies two main components to radiation incident responses: a nuclear or radiological response and a non-nuclear or non-radiological response. The PNRI is responsible for the nuclear or radiological response elements of the plan, while the OCD has responsibility for the remainder. Coordination between the two agencies is overseen by the National Disaster Coordinating Council.

The RADPLAN includes a requirement for emergency preparedness and response plans for all participating agencies and the conduct of exercises by these agencies to test the facilities, equipment and manpower involved in emergency response at all levels.

## Indicators and scores

### RE.1 Mechanisms established and functioning for detecting and responding to radiological and nuclear emergencies – Score 2

#### *Strengths and best practices*

- The Philippines has several laws and issuances in place that specifically address radiation protection and safety, such as the PNRI Act and the FDA Law.
- The Philippines has an environmental radiation monitoring system for measuring background radiation in the air and sea.
- The Philippines has established laboratories at the PNRI for biological and chromosome assessment of victims of radiological accidents.
- DOH hospitals employ health physicists in nuclear medicine, radiotherapy and diagnostic and interventional facilities; these staff are knowledgeable on radiation protection and safety.

#### *Areas that need strengthening and challenges*

- Although infrastructure for radiation monitoring and analysis is technologically current, there is no centralized maintenance, calibration or upgrade plan.
- The PNRI is based in Manila and therefore the laboratory capacity for detection and characterization of radiological contamination is centralised.
- A specialized radiation emergency workforce capacity is limited; many personnel previously trained in PNRI, CDRRHR and HEMB have resigned, transferred or retired in recent years.
- The hospital-based health physicists require specific training on nuclear and radiological accident response, including coordination during a national level response.

### RE.2 Enabling environment in place for management of radiation emergencies – Score 2

#### *Strengths and best practices*

- PNRI is the designated national focal point for radiation and nuclear emergency in the country. FDA - CDRRHR is the DOH focal point for this emergency.
- The draft radiation response plan (RADPLAN) identifies the roles for several government agencies and has been reviewed extensively over the last several years.

#### *Areas that need strengthening and challenges*

- The coordination of response activities in the RADPLAN uses a different command and control structure to the ICS endorsed for other disasters and emergencies.
- SOPs for risk assessment, reporting, confirmation and investigation of radiological emergencies either do not exist or have not been evaluated through exercises.
- Radiation safety training provided by various government agencies and external training providers has not been standardized to International Atomic Energy Agency (IAEA) materials.

### Recommendations for priority actions

- Finalize and disseminate the national RADPLAN, the associated SOPs for risk assessment, reporting, and investigation and associated plans for transport of materials, samples, and waste.
- Develop an integrated multi-sectoral national training and exercise program aligned to current IAEA guidelines.
- Enhance radiation detection and analysis infrastructure to support timely and systematic information exchange between radiation and human health authorities.

# APPENDIX 1: JEE BACKGROUND

## Mission place and dates

Manila, the Philippines, 10-14 September 2018

## Mission team members:

- Dr. Mark Salter, United Kingdom, Public Health England (International team leader)
- Mr. Peter Rzeszotarski, United States of America, US Centers for Disease Control and Prevention
- Dr. Lin Cui, Singapore, Ministry of Health
- Mr. Zhengmao Li, People's Republic of China, National Health Commission
- Dr. Thomas Mollet, European Center for Disease Control and Prevention
- Dr. Patrice Gautier, World Organization for Animal Health
- Dr. Masaya Kato, WHO Regional Office for the Western Pacific
- Mr. Peter Hoejskov, WHO Regional Office for the Western Pacific
- Dr. Roberta Pastore, WHO Regional Office for the Western Pacific
- Dr. Thilaka Chinnayah, WHO Regional Office for the Western Pacific
- Dr. Reuben Samuel, WHO Nepal Country Office (Observer)
- Ms. Michelle McPherson, Australia, Independent Consultant (Report writer)
- Dr. Masami Miyakawa, WHO Regional Office for the Western Pacific (Report writer)
- Ms. Zhao Weili, WHO Regional Office for the Western Pacific (Report writer)

## Objective

To assess the Philippines capacities and capabilities relevant to the 19 technical areas of the JEE tool for providing baseline data to support the Philippines efforts to reform and improve their public health security.

## The JEE process

The JEE process is a peer-to-peer review. The entire external evaluation, including discussions around the priority actions, the strengths, the areas that need strengthening, best practices, challenges and the scores are collaborative, with JEE team members and host country experts seeking full agreement on all aspects of the final report findings and recommendations.

Should there be significant and irreconcilable disagreement between the external team members and the host country experts, or among the external experts, or among the host country experts, the JEE team lead will decide the outcome; this will be noted in the final report along with the justification for each party's position.

## Preparation and implementation of the mission

In 2017, the Philippines voluntarily requested a JEE as part of their commitment to the monitoring and evaluation of core capacities for IHR. Consultation with the relevant agencies commenced in 2017 and a JEE orientation workshop was conducted in March 2018 with participants from the relevant bureaus and agencies of the DOH, the BAI and the PNRI. A second workshop was conducted in June 2018 with participants from DOH, the OCD, the Philippine National Police and Bureau of Fire Protection. During this workshop focal points from DOH offices were assigned for each of the technical areas and the responses against the JEE tool were discussed. A third workshop was held in July 2018 to present each of the technical areas for final input and plan for the JEE mission.

The JEE mission began on 9 September 2018 with a briefing of the international experts of the JEE team. Between 10 and 14 September 2018, national and international experts jointly reviewed national capacities in the 19 technical areas of the JEE tool. Field visits were conducted on 11 September 2018 and provided an opportunity for more in-depth discussions and verification of capacities. Field sites included the RITM, FDA, Bureau of Quarantine, Ninoy Aquino International Airport Terminal, City Epidemiology and Surveillance Unit, BAI, National Disaster Risk Reduction Management Council Operations Center and Local Operations Center in Quezon City.

The mission concluded on 14 September 2018 with a joint review and consensus on JEE scores, recommendations and priority actions. The results of the assessment and observations of the Philippines preparedness and response capacities were presented to the Secretary of Health.

## Limitations and assumptions

- The evaluation was limited to one week, which restricted the amount and depth of information that could be managed.
- It is assumed that the results of this evaluation will be publicly available.
- The evaluation is not just an audit. Information provided by the host country will not be independently verified but will be discussed and the evaluation rating mutually agreed to by the host country and the evaluation team. This is a peer-to-peer review.

## Key host country participants and institutions

The Philippines lead representatives:

- Dr. Francisco T. Duque III, Health Secretary
- Dr. Maria Rosario Vergeire, Assistant Secretary, Public Health Services Team
- Dr. Rolando Enrique Domingo, Undersecretary, Chief of Staff
- Dir. Leda Hernandez, OIC-Director III, Disease Prevention and Control Bureau
- Dir. Celia Carlos, OIC-Director IV, Research Institute for Tropical Medicine
- Dir. Gloria Balboa, Director IV, Health Emergency Management Bureau
- Dir. Faith Alberto, OIC-Director IV, Health Promotion and Communication Service
- Dr. Ferchito Avelino, OIC-Director IV; National IHR Focal Point, Epidemiology Bureau
- Dr. Emelinda Lopez, Veterinarian IV, Animal Health and Welfare Division, BAI
- Dr. Daphne Jorca, Veterinarian III, Animal Health and Welfare Division, BAI
- Dr. Ma. Nemia Sualdito, Medical Officer V, Epidemiology Bureau
- Ms. Richelle Abellera, Nurse V, Epidemiology Bureau

## Participating institutions

### Department of Health

- Office of the Secretary
- Administration and Financial Management Team
  - » Financial and Management Service
  - » Administrative Service
- Health Policy and Systems Development Team
  - » Health Policy Development and Planning Bureau
  - » Bureau of Local Health Systems and Development
  - » Bureau of International Health Cooperation
  - » Health Human Resource Development Bureau
- Public Health Services Team
  - » Disease Prevention and Control Bureau
  - » Epidemiology Bureau
  - » Health Promotion and Communication Service
  - » Health Emergency Management Bureau
- Health Facilities and Infrastructure Development Team
  - » Health Facilities Development Bureau
  - » Knowledge Management and Information Technology Service
- Health Regulation Team
  - » Food and Drug Administration
  - » Health Facilities Services and Regulatory Bureau
  - » Bureau of Quarantine
- Procurement and Supply Chain Management Team
  - » Procurement Service
- Field Implementation and Coordination Team
  - » Luzon
  - » NCR and MM Hospitals
  - » Visayas-Mindanao

### Other ministries or agencies

- Department of Agriculture
- Department of Education
- Department of the Interior and Local Government
- Department of Science and Technology
- Department of Foreign Affairs
- Department of Social Welfare and Development
- Office of Civil Defense
- National Security Council

## Supporting documentation provided by host country

### NATIONAL LEGISLATION, POLICY AND FINANCING

- 1987 Philippine Constitution.
- Republic Act No. 8485: Animal Welfare Act and its Implementing Rules and Regulations
- Republic Act No. 9482: Anti-Rabies Act of 2007
- Republic Act No. 3639: Creating the BAI
- Republic Act No. 9711 Food and Drug Administration Act of 2008
- Executive Order No. 826 s. 2009: Powers, Functions and Responsibilities of Government Agencies in Response Ebola Reston Virus
- Executive Order No. 280 s. 2004: Powers, Functions and Responsibilities of Government Agencies in Response to Avian Influenza or Bird Flu
- Joint Administrative Order on Guidelines to Operationalize the PhilCZ- Final Draft (June 2018).
- Administrative Order No. 10 s. 1981: Powers of BAI Director
- Administrative Order No. 24 s. 2009 Implementing Guidelines on the National Veterinary Drug Residues Control Program in Foods Pursuant to Administrative Order No. 14, Series of 2006
- Presidential Decree No. 1177: Revising the Budget Process in Order to Institutionalize the Budgetary Innovations of the New Society
- Republic Act No. 10121: An Act Strengthening the Philippine Disaster Risk Reduction and Management System
- Implementing Rules and Regulations on Republic Act No. 10121
- Republic Act No. 7160: Local Government Code of 1991
- Republic Act No. 7875: An Act Instituting a National Health Insurance Program for All Filipinos and Establishing the Philippine Health Insurance Corporation for the Purpose
- Republic Act No. 9184 and its Implementing Rules and Regulations: Government Procurement Reform Act
- NDRRMC Memorandum Circular No. 158, S. 2017: Enhanced Philippine International humanitarian Assistance (PIHA)
- Joint Memorandum Circular No. 2013-1: Allocating and Utilization of the Local Disaster Risk Reduction and Management Fund (LDRRMF)
- Department of Health National Budget
- Executive Order No. 168, Creating the Inter-Agency Task Force for the Management of Emerging Infectious Disease in the Philippines
- Administrative Order No. 10 s. 2011: Creating the Philippine Inter-Agency Committee on Zoonoses, Defining its powers, functions, responsibilities, other related matters and providing funds thereof.
- Republic Act No. 10964, General Appropriations Act Volume II: Fiscal Year 2018: A Budget that Reforms and Transforms
- Executive Order No. 292: Administrative Code of the Philippines
- Administrative Order 2007-0036: Guidelines on the Philippine Integrated Disease Surveillance and Response (PIDSUR) framework
- Executive Order No. 489 s. 1991: Interagency Committee on Environmental Health.
- Bureau of Quarantine Law
- Republic Act No. 9271 "Quarantine Act of 2004"

- Republic Act No. 6675: An Act to Promote, Require and Ensure the Production of an Adequate Supply, Distribution, Use and Acceptance of Drugs and Medicines Identified by their Generic Names.
- FDA Circular No. 2017-011 "New Batch Notification Form and Procedures" which requires the batch notification of antibiotics before marketing
- FDA Memorandum No. 2018-006 on Disapproval of physician's sample of antimicrobials in line with Implementing Rules and Regulations of the Philippine Pharmacy Act
- FDA Memorandum Circular No. 2014-015 "Display of Antimicrobial Resistance) Infomercial"
- FDA Memorandum Circular No. 2016-007 "Display of Rational Dispensing, Information, Education and Communication (IEC) Posters."
- Department of Budget and Management Circular No. 2016-11: Guidelines Prescribing Electronic Submission of the Budget and Financial Accountability Reports (BFARS)
- Republic Act No. 9184 and its Implementing Rules and Regulations : Government Procurement Reform Act.
- Administrative Order No. 2007-0002: Designation of National IHR Focal Point

## IHR COORDINATION, COMMUNICATION AND ADVOCACY

- Republic Act No. 10121: An Act Strengthening the Philippine Disaster Risk Reduction and Management System
- National IHR Focal Point Designation Form
- Administrative Order No. 2007-0002: Designation of the National Epidemiology Center as the National IHR Focal Point
- Event-based Surveillance and Response Manual of Procedures
- Administrative Order No. 2012-0022: National Policy for the Implementation of International Health Regulation (IHR) and Asia Pacific Strategy for Emerging Diseases (APSED) in the Philippines
- Executive Order No. 168: Creating the Inter-Agency Task Force for the Management of Emerging Infectious Disease in the Philippines
- Weekly International Health Event Reports
- Notification received from other countries' IHR focal point
- Exercise Crystal 2017 Participants Evaluation
- Administrative Order No. 10, s.2011: Creating the Philippines inter-agency committee on zoonosis, defining its powers, functions, responsibilities, other related matters and providing funds thereof

## ANTIMICROBIAL RESISTANCE

- Administrative Order No. 42 s. 2014: Creating an Inter-Agency Committee for the Formulation and Implementation of a National Plan to Combat Antimicrobial Resistance in the Philippines
- Antimicrobial Resistance (ARSP) Annual Report, 2017
- The Philippine Action Plan to Combat Antimicrobial Resistance: One Health Approach, DOH, 2015.
- Operational Plan, ARSP, 2018
- Antimicrobial Resistance Surveillance Program Work and Financial Plan, 2018
- WHO Global Antimicrobial Resistance Surveillance System (GLASS) Report, 2016-2017
- National Antibiotic Guidelines, 2017
- Department Order No. 339j s. 1983: Creation of Committee on Resistance Surveillance Program

- Administrative Order No. 2015-0049: Rules and Regulations Governing the Anti-Microbial Resistance Surveillance Program Accreditation of Bacteriology Laboratories in the Philippines for the PhilHealth Reimbursement of Select Antibiotics in the Philippine National Drug Formulary
- PhilHealth Circular No. 2018-0009: Use of Restricted Antimicrobials in PhilHealth-Accredited Health Care Institutions in Accordance with the Antimicrobial Resistance Surveillance (ARSP)
- Certificate of participation by Antimicrobial Resistance Surveillance Reference Lab in Foodborne Infections EQAS 2015
- Certificate of participation by Antimicrobial Resistance Surveillance Reference Lab in Foodborne Infections EQAS 2016
- Certificate of participation by Antimicrobial Resistance Surveillance Reference Lab in Hong kong EQAS on Medical Microbiology, 2015
- DOH Administrative Order No. 2016-0002: Establishing Infection Prevention and Control (IPC). 10918: An Act Regulating and Modernizing the Practice of Pharmacy in the Philippines, Repealing for the Purpose Republic Act Numbered Five Thousand Nine Hundred Twenty One (Republic Act No. 5921), Otherwise Known as the Pharmacy Law
- Republic Act No. 6675: An Act to Promote, Require and Ensure the Production of an Adequate Supply, Distribution, Use and Acceptance of Drugs and Medicines Identified by their Generic Names (Generics Act of 1988)
- Republic Act No. 9711: An Act Strengthening and Rationalizing the Regulatory Capacity of the Bureau of Food and Drugs (BFAD) by Establishing Adequate testing Laboratories and Field Offices, Upgrading its Equipment, Augmenting its Human Resource Complement, Giving Authority to Retain its Income, Renaming it the Food and Drug Administration, Amending Certain Sections of Republic Act No. 3720, As Amended, and Appropriating Funds Thereof (FDA Act of 2009)
- Administrative Order No. 2016-0034: Philippine National Formulary System (PNFS)
- Republic Act No. 9502: An Act providing for Cheaper and Quality medicines, Amending for the Purpose Republic Act No. 8293 or the Intellectual Property Code, Republic Act No. 6675 or the Generics Act of 1988, and Republic Act No. 5921 or the Pharmacy law, and for Other Purposes (Universally Accessible Cheaper and Quality Medicines Act of 2008)
- Antimicrobial Stewardship program in Hospitals Manual of Procedures, 2016
- Philippine National Formulary, 2017
- Department Personnel Order No. 2014-4245: Creating of National Antibiotic Guidelines Committee (NAGCom)
- Philippine Clinical Practice Guidelines on the Diagnosis and Management of Urinary Tract Infection in Adults, 2013 Update
- Philippine Clinical Practice Guidelines on the Diagnosis and Management of Urinary Tract Infection in Adults, 2015 Update: Part 2
- Diagnosis, Empiric Management and Prevention of Community-Acquired Pneumonia in Immunocompetent Adults, 2016 Update
- Diagnosis, Treatment and Prevention of Typhoid Fever in Adults, 2017
- AMR progress report: AMR surveillance in CAR

## ZOONOTIC DISEASE

- DA Administrative Circular No. 03 s. 2018: Amendment on DA Administrative Order No. 01, series of 2012 on Declaring the List of Notifiable Animal Diseases
- Emerging and Re-emerging Infectious Diseases Program Meetings 2017
- Administrative Order No. 10 s. 2011: Creation of the Philippine Inter-Agency Committee on Zoonoses

- Activity Report- Community Simulation on EREID Preparedness and Response in CALABARZON (Oct 26-27, 2017)
- Executive Order No. 280 s. 2004: Powers, Functions and Responsibilities of Government Agencies in Response to Avian Influenza or Bird Flu
- Republic Act No. 9482 Anti-Rabies Act of 2007
- Executive Order No. 826 s. 2009: Powers, Functions and Responsibilities of Government Agencies in Response Ebola Reston Virus
- Algorithm Animal Human Joint Rabies Investigation
- Department Personnel Order No. 2005-1585: Creation of a Management Committee on Prevention and Control of Emerging and Re-emerging Infectious Diseases (DOHMC-PCREID).
- 2018 Work and Financial Plan Matrix version 2, June 5, 2018
- Bird Flu Regional Protocol, DOH Regional Office No. III
- Outbreak on Henipah Virus Infection, Philippines 2014
- Reston Ebolavirus in Humans and Animals in the Philippines: A Review (2011). Miranda MEG and Miranda NLJ
- DOH Administrative Order No. 2012-0022: National Policy for the Implementation of International Health Regulations and Asia Pacific Strategy for Emerging Diseases (APSED) in the Philippines
- Executive Order No. 168: Creating the Inter-Agency Task Force for the Management of Emerging Infectious Disease in the Philippines
- Bird Flu Report and Updates-Advocacy Meeting (August 31), DOH RO III
- Compendium of Emerging and Re-emerging infectious Diseases Policies-Final
- DRPJGMRMC Bird Flu Preparedness Plan
- Avian Influenza Protection Program-Manual of Procedures (2016)
- Emerging and Re-emerging Infectious Diseases Program Strat Plan 2018-2022 (February 26-Final Draft)
- Emerging and Re-emerging Infectious Diseases Program Draft-Omnibus National Policy (Draft), November 2017
- Joint Administrative Order on Guidelines to Operationalize the PhilCZ- Final Draft (June 2018)
- IDPCD-Work and Financial Plan 2016 and 2017
- PhilCZ Minutes of Meeting-March 2017 to June 2018
- Rabies 2017 Annual Report
- OIE Evaluation of Performance of Veterinary Services Gap Analysis Report Philippines
- OIE Evaluation of Performance of Veterinary Services Report Philippines
- OIE Evaluation of Performance of Veterinary Service One Health Report Philippines

## FOOD SAFETY

- Republic Act No. 10611: Food Safety Act of 2013
- PhilRSEF Information Notification, Alert Notification.Presidential Decree No. 856: The Code on Sanitation of the Philippines
- Administrative Order No. 1997-29: Creation of the Food and Waterborne Diseases Prevention and Control Program for Food and Waterborne Disease and Outbreak Management
- Republic Act No. 9711: Food and Drug Administration Act of 2009
- FDA List of Accredited Laboratories

- FSRCB Resolution No. 1: Creation of a Philippine Rapid Alert System for Food and Feed (PhilRASFF) and Designating DOH-FDA as the National Contact Point
- Philippine Integrated Disease Surveillance and Response Manual of Procedures
- FDA Advisory No. 2018-169: Voluntary Recall of 300 ml Bottles of Stella Artois Beer Due to the Possibility of Presence of Small Glass Particles
- Executive Order No. 489 s. 1991: Interagency Committee on Environmental Health
- FSRCB Resolution No. 1 series of 2018

## BIOSAFETY AND BIOSECURITY

- DOH Administrative Order No. 2015-0007: The Implementing Rules and Regulations of Republic Act No. 10611, "An Act to Strengthen the Food Safety Regulatory System in the Country to Protect Consumer Health and Facilitate Market Access of Local Foods and Food Products, and for Other Purposes" otherwise known as the "Food Safety Act of 2013"
- Executive Order No. 514 S. 2006: Establishing the National Framework, Prescribing Guidelines for the implementation, strengthening the National Committee of the Philippines, and for other Purposes
- Administrative Order No. 2007-0027: Revised Rules and Regulations Governing the Licensure and Regulation of Clinical Laboratories in the Philippines
- Manual on Packaging and Transport of Laboratory Specimens for Referral
- Administrative Order No. 2012-0021: National Framework of the National Health Laboratory Network
- Administrative Order No. 2014-0006: Guidelines on the Establishment of Regional Laboratory Network as Part of the National Framework of the National Health Laboratory Network
- Administrative Order No. 2016-0002: National Policy on Infection Prevention and Control in Healthcare Facilities
- Department Circular No. 2013-0435: Implementation of Service Capabilities of Laboratory at Various Levels
- Department Memorandum No. 2009-0086: Implementation of External Quality Assessment program as a Regulatory Requirement for Licensing of Clinical Laboratories
- Department Memorandum No. 2016-0135: Implementation of Administrative Order No. 2014-0006 entitled "Guidelines on the Establishment of Regional Laboratory Network as Part of the National Framework of the National Health Laboratory Network"
- Department Order No. 393-E s. 2000: Designation of National Reference Laboratories and Transfer of Corresponding Equipment, Instruments, Supplies, Specimens, Records from the Bureau of Research and Laboratories to the Designated National Reference Laboratories
- Department Personnel Order No. 2009-5148: Amendment to Department Order No. 393-E s. 2000 regarding "Designation of National Reference Laboratories and Transfer of Corresponding Equipment, Instruments, Supplies, Specimens, Records from the Bureau of Research and Laboratories to the Designated National Reference Laboratories"
- Health Care Waste Management Manual
- DOST-DA-DENR-DOH-DILG Joint Department Circular No.1 series of 2016: Rules and Regulations for the Research and Development, Handling and Use, Transboundary Movement, Release into the Environment, and Management of Genetically-Modified Plant and Plant Products Derived from the Use of Modern Biotechnology
- Republic Act No. 6969 of 1990: An Act to Control Toxic Substances and Hazardous and Nuclear Wastes, Providing Penalties for Violations Thereof, and for Other Purposes
- RITM Biosafety Manual

## IMMUNIZATION

- The Philippine Immunization Program Strategic Plan 2016-2022.
- Republic Act No. 101521: An Act on Mandatory Basic Immunization Services for Infants and Children Repealing for the Purpose Presidential Decree No. 996, as amended
- Republic Act No. 9994: Expanded Senior Citizens Act of 2010
- Republic Act No. 7846 - An Act Requiring Compulsory Immunization Against Hepatitis-B for Infants and Children Below Eight (8) Years Old, Amending for the Purpose Presidential Decree No. 996, and Appropriating Funds Therefore
- National Immunization Program Manual of Operations, Booklet 1 to 7
- PhilHealth Circular No. 015 s. 2011: Classificatory Guidelines to PhilHealth Circular Nos. 11, 11-A, and 11-B series of 2011
- PhilHealth Circular No. 34 s. 2006: PhilHealth Newborn Care Package
- PhilHealth Circular No. 024, s 2012: Entitlement to NHIP Benefits all Pantawid Pamilyang Pilipino Program Beneficiaries of the DSWD
- DOH Administrative Order No. 2011-0010: Implementing Procedures and Guidelines in Reporting FHSIS data to DOH Central Office
- Administrative Order No. 2017-0004: Philippine Health Agenda 2016-2022 Monitoring and Evaluation System
- 2017 National Demographic and Health Survey
- Field Health Information System (FHSIS) 2016 Annual Report
- Administrative Order No. 2014-0039: Strengthening the Capacity of LGUs in Identifying Potential Measles Outbreak and Planning for Appropriate Response
- Administrative Order No. 2006-0015: Implementing Guidelines on Hepatitis B Immunization for Infants
- Bureau of Quarantine Memorandum No. 2018-13: Guidelines on the Administration of and Issuance of International Certificate of Vaccination (ICV) for Cholera Vaccine (Amended: 2018-13-A)
- Bureau of Quarantine Memorandum No. 2018-14: Guidelines on the Administration of and Issuance of International Certificate of Vaccination (ICV) for Typhoid Vaccine
- Bureau of Quarantine Memorandum No. 25 s. 2015: Standardized Stamping of International Certificate of Vaccination (ICV)
- Bureau of Quarantine Cold Chain Process.
- Bureau of Quarantine Memorandum Circular No. 03 s. 2017: Inclusion of Cholera and Typhoid Vaccination to the Services being Rendered by the Bureau of Quarantine
- Bureau of Quarantine Memorandum Circular No. 07 s. 2016: BOQ Protocol on Re-issuance of International Certificate of Vaccination (ICV) Cards for and Re-vaccination of Yellow Fever Vaccine
- DOH Memorandum No. 2015-0187: Advisory on Measles Outbreak Response
- DOH Memorandum No. 2009-0108: Administration of 2nd dose Measles Vaccines to Children 15-23
- DOH Memorandum No. 2010-0161: Administration of Routine Second Dose Measles-Containing Vaccines for Children
- DOH Memorandum No. 2011-0008: Conduct of National Measles-Rubella (MR) Supplemental Immunization Activity
- DOH Memorandum No. 2017-0247: Guidelines on the Administration of Two (2) doses of Measles, Mumps and Rubella (MMR) Vaccine at 9 months and 12 months

- DOH Memorandum No. 2017-0445: Conduct of House-to-House Immunization of measles Containing Vaccines (MCV) to all Children Under Five Years Old
- DOH Memorandum No. 2018-0011: Implementation of the National Online Stock Inventory and Reporting System (NOSIRS) at the Regional Level starting January 15, 2018
- DOH Memorandum No. 2018-0137: Guidelines in the Conduct of Ligtas Tigdas
- DOH Department Personnel Order No. 2014-0273: Creation of National Verification Committee (NVC) for Measles Elimination and AFP/Polio Expert Committee
- Executive Order No. 168: Creating the Inter-Agency Task Force for the Management of Emerging Infectious Disease in the Philippines
- 2017 National Certification Committee Annual Progress Report: Maintaining Poliomyelitis-Free Status in the Philippines
- Effective Vaccine Management (EVM) Report, Philippines 2017
- 2018 Ligtas Tigdas SIA Report in NCR and Mindanao

## NATIONAL LABORATORY SYSTEM

- DOH Administrative Order No. 21 s. 2012 – National Framework for the National Health Laboratory Network
- DOH Department Circular No. 435 s. 2013 – Service Capabilities of Laboratories at Various Levels.
- Various DOH NHLN training manuals Establishing the National Biosafety Framework, Prescribing Guidelines for its Implementation, Strengthening The National Committee On Biosafety Of The Philippines, And For Other Purposes"
- Draft Joint Administrative Order of DOH & DA on "National Program on Laboratory Biosafety and Biosecurity"
- Republic Act 6969: Toxic substances and Nuclear Waste Control Act of 1990
- DOH Assessment tool for licensing of Clinical Laboratories
- Draft manual of Standards on Laboratory Biosafety and Biosecurity
- DOH Healthcare Waste Management Manual
- Draft of DOH Manual on Packaging and Transport of Laboratory Specimens for Referral
- RITM Biosafety Manual
- The University of the Philippines Biosafety Manual

## SURVEILLANCE

- DOH Administrative Order No. 2007-0036: Guidelines on the Philippine Integrated Disease Surveillance and Response (PIDSR) Framework
- Senate Bill No. 1647: An Act Providing Policies and Prescribing Procedures on Surveillance and Response to Notifiable Diseases, Epidemics, and Health Related Events, Amending for the Purpose Republic Act No. 3573 Entitled, "An Act Providing for the Prevention and Suppression of Dangerous Communicable Diseases and for other Purposes", and Appropriating Funds Therefore"
- Committee Report No. 599; House Bill No. 7134: An Act Providing Policies and Prescribing Procedures on Surveillance and Response to Notifiable Diseases, Epidemics, and Health Related Events, Amending for the Purpose Republic Act No. 3573 Entitled, "An act Providing for the Prevention and Suppression of Dangerous Communicable Diseases and for other Purposes", and Appropriating Funds Therefore
- Act No. 3573: Law on Reporting of Notifiable Disease (An Act Providing for the Prevention and Suppression of Dangerous Communicable Diseases and for other Purposes
- Event-Based Surveillance and Response system Manual of Procedures

- Event-Based Surveillance and Response system Monthly, quarterly and annual reports
- Results of Monitoring and Evaluation field monitoring
- DOH Administrative Order No. 2007-0028: Implementing Guidelines of the Executive Order No. 663: "Implementing the National Commitment for Bakuna ang Una sa Sanggol at Ina", attaining WHO's goal to Eliminate Measles and Neonatal Tetanus, Eradicate Poli, Control Hepatitis B and other Vaccine Preventable Diseases for the "Knock-out-Tigdas"
- DOH Administrative Order No. 2015-0044: Reiteration of DOH Policies and Governance Procedures to Address Disease Outbreaks
- DOH Department Circular No. 93s.of 1994: Guidelines for the Prevention and Control of Diarrhea and Cholera Outbreaks
- DOH Department Memorandum No. 2009-0227: Weekly Submission of PIDSR data (MDB files) from Regional Epidemiology and Surveillance Units to the National Epidemiology Center
- DOH Department Memorandum No. 2012-0221: Interim Guidelines for the Surveillance of Hand, Foot and Mouth Disease and Severe Enteroviral Disease
- DOH Department Memorandum No. 2014-0112: Technical Guidelines, Standards and Other Instructions for Reference in the Implementation of Sentinel-based Active Dengue Surveillance
- DOH Department Memorandum No. 2015-0309: Reactivation of Dengue Fast lanes and the Continuing Improvement of Systems for Dengue Case Management and Services
- DOH Department Memorandum No. 2016-0116: "Technical Guidelines, Standards and other Instructions for Reference in the Implementation of Zika Virus (ZIKV) Disease Surveillance" (with amendment: 2016-0116-A)
- DOH Department Personnel Order No. 2009-0644: Creation of an Implementation Working Group for the Philippine Integrated Disease Surveillance and Response (PIDSR) and Vaccine Preventable Disease (VPD) Surveillance System
- DOH Department Memorandum No. 2014-0370: Interim Guidelines for Quarantine of Travelers Arriving from Ebola-Affected Countries with Intense Transmission
- DOH Administrative Order No. 2008-0009: Adopting the 2008 Revised List of Notifiable Diseases, Syndromes, Health-related Events and Conditions
- DOH Administrative Order No. 2011-0018: Implementing Guidelines on Influenza and Pneumococcal Immunization for Indigent Senior Citizens.
- DOH Administrative Order No. 2005-0021: Guidelines on the Management and Control of Meningococcal Disease
- DOH Department Memorandum No. 2013-0205: Technical Guidelines Standards, and other Instructions for Reference in the Surveillance on Middle East Respiratory Syndrome Coronavirus (MERS-CoV)
- DOH Department Memorandum No. 2014-0157: Technical Guidelines Standards, and other Instructions for Reference in the Surveillance of Severe Acute Respiratory Infection (SARI)
- DOH Department Memorandum No. 2009-0133: Technical Guidelines Standards, and other Instructions for Reference in the Pandemic Response to Influenza A (H1N1)
- The Philippine Integrated Disease Surveillance and Response (PIDSR) Annual Report 2017

## REPORTING

- Event-Based Surveillance and Response (ESR) Manual of Procedures
- Annual ESR Report (2017)
- Immediate Notification 11 Aug 2017.
- Follow-up Report Nos. 1, 2, 3, 4 Aug-Dec 2017
- Final Report 27 June 2018

## HUMAN RESOURCES

- Reformulation of the Human Resources for Health Master Plan (HRHMP), April 29, 2013  
Dissemination Plan
- Operational Plan: 2014-2016
- HRH Strategy for the Philippines: 2014-2030
- House Bill No. 5608: An Act Institutionalizing the Human Resources for Health Network Philippines
- Joint Statement of Commitment for the Creation of the Human Resources for Health Network Philippines Memorandum of Understanding
- DOH Administrative Order No. 2014-0025: Guidelines on the Deployment of Human Resources for Health (HRH)
- DOH Administrative Order No. 2018-0009: Implementing Guidelines for the 2018 DOH Human Resource for Health (HRH) Deployment Program
- DOH Department Personnel Order No. 2018-0060: Authority for Midwifery Scholars under the DOH Pre-Service Scholarship Program to Received Scholarship Benefits for Academic Year 2017-2018
- Program Briefer: DOH Human Resource for Health (HRH) Deployment Program
- DOH Department Personnel Order No. 2018-0040: Authority for Medical Scholars under the DOH Pre-service Scholarship Program to Receive Scholarship Benefits for Academic Year 2017-2018
- DOH Pre Service Scholarship Program Brief
- Field Epidemiology Training Program Manual of Procedures
- DOH Administrative Order No. 2006-0031: Guidelines for Operationalizing the Competency-based HRM Management and Development (HRHMD) System
- DOH Administrative Order No. 2014-0041: Guidelines on the Recognition of Family Planning Training Providers of the DOH
- DOH Administrative Order No. 2015-0042: Guidelines for the Establishment of the DOH Academy
- DOH Department Order No. 2013-0100: Operational Guidelines on the Implementation of Department of Health Nurse Certification Program (DOH NCP) in Designated Hospitals
- DOH Department Order No. 2007-0053: Guidelines on the Attendance to Convention / Seminar / Conferences and Similar Human Resource Development Activities Outside of the DOH
- DOH Department Order No. 2012-0181: Guidelines on the Department of Health Nurse Certification Program
- DOH Department Order No. 2014-0094: Guidelines on the Allowable Rates of Payment for Human Resource Development Activities
- DOH Department Order No. 2018-0138: Guidelines on the participation of DOH Officials and Staff in International Engagements in support of Philippine Commitments and International Learning and Development Interventions
- FETP Draft Curriculum/FETP Manual of Operations
- FETP accreditation certificate from TEPHINET

- FETP flyers as advocacy materials
- FETP website <https://fetp20.wordpress.com>
- FETPAFI database.
- 2016 Veterinary Personnel
- Master in Veterinary Epidemiology Curriculum

## EMERGENCY PREPAREDNESS

- Administrative Order No. 168-04: National Policy on Health Emergencies and Disasters
- Contingency plan for Earthquake magnitude 7.2
- National Disaster Response Plan for Hydro-Met, Earthquake and Disasters and Consequence Management of Terrorism-Related Incidents
- Ready Project Report from National Disaster Risk Reduction Management Council (NDRRMC)
- Philippine Volcanology and Seismology Hazard Assessment of health facilities
- STAR Risk Assessment of the Philippines 2016
- Inventory of Logistics, Materials Utilization Report
- IIS Training Module
- Epidemiologic Assessment of Emergencies and Disasters in the Philippines 2005-2009; 2010-2015.
- Implementation Plan for Mass Gatherings
- National Disaster Preparedness Plan
- Local Government Disaster Preparedness Manual (Oplan Listo) (Checklist for Early Preparations for Mayors; Checklist of Minimum Preparations for Mayors)

## EMERGENCY RESPONSE OPERATIONS

- Republic Act No. 10121 "An Act Strengthening the Philippine Disaster Risk Reduction and Management System, Providing for the National Disaster risk reduction and management framework and institutionalizing the national disaster risk reduction and management plan, appropriating funds therefor and for their purposes"
- Executive Order No. 82 Operationalizing the practical guide for national crisis managers and the national crisis management core manual
- NDRRMC Memo No. 48 s. 2015 Provides for the localization of ICS forms in the Philippine context,
- NDRRMC Memo No. 43 s. 2016 Guidelines for the Interoperability of the Incident Management Teams and Response Clusters
- Human Security Act Republic Act No. 9372 of March 6, 2007 (An Act to Secure the State and Protect our People from Terrorism)
- Administrative Order No. 2004-0168 "National Policy on Health Emergencies and Disasters"
- Contingency Plan for Earthquake Magnitude 7.2
- National Disaster Response Plan
- Guidelines on the Management of the Dead and Missing Persons
- Department Memorandum No. 2017-0168 "Activity Checklist in Emergencies and Disasters"
- Department Order No. 2017-0411 "Guidelines on Conduct of Drills and Exercises for DOH"
- Administrative Order 2010-0029 Policies and Guidelines on the Establishment of Emergency Operation Center during Emergencies and Disasters
- HEMB Manual of Operations on Health Emergency and Disaster Response Management

## LINKING PUBLIC HEALTH AND SECURITY AUTHORITIES

- Republic Act No. 10121 "An Act Strengthening the Philippine Disaster Risk Reduction and Management System, Providing for the National Disaster risk reduction and management framework and institutionalizing the national disaster risk reduction and management plan, appropriating funds therefor and for their purposes"
- Memorandum of Agreement to the Organization of the Health Sector in Responding to Emergencies and Disasters
- Implementing Rules and Regulations of Republic Act 9271 or Quarantine Act of 2004

## MEDICAL COUNTERMEASURES AND PERSONNEL DEPLOYMENT

- Administrative Order No. 10 s. 2011: Creating the Philippine Inter-Agency Committee on Zoonoses, defining its powers, functions, responsibilities, other related matters and providing funds thereof
- Department Personnel Order No. 2005-1585: Creation of a Management Committee on Prevention and Control of Emerging and Re-emerging Infectious Diseases (DOHMC-PCREID)
- Executive Order No. 280: Defining the Powers, Functions, and Responsibilities of Government Agencies in Response to Avian Influenza (AI) or Bird Flu Virus and Related Matters thereto
- Executive Order No. 826: Defining the Powers, Functions, and Responsibilities of Government Agencies in Response to Ebola Reston Virus Infection and Matters Related thereto
- Executive Order No. 168: Creating the Inter-Agency Task Force for the Management of Emerging Infectious Diseases in the Philippines
- Republic Act No. 9482: Anti-Rabies Act and other Issuances on Rabies Control and Prevention Program
- Implementing Rules and Regulations of the Anti-Rabies Act of 2007 (Republic Act No. 9482); and the Revised IRR
- Avian Influenza Protection Program-Manual of Procedures (2016)
- Algorithm Animal Human Joint Rabies Investigation.
- Bird Flu Regional Protocol
- Compendium of Emerging and Re-emerging infectious Diseases Policies-Final
- Bird Flu Preparedness Plan
- Emerging and Re-emerging Infectious Diseases Program Draft-Omnibus National Policy (Draft) November 2017
- The 2016 Revised Implementing Rules and Regulations of Republic Act 9184 otherwise known as the Government Procurement Reform Act
- Administrative Order No. 2012-0013: Policy and Guidelines on Logistics Management in Emergencies and Disasters
- Administrative Order No. 2018-0018: National Policy on the Mobilization of Health Emergency Response Teams
- A sero-epidemiologic study of Reston ebolavirus in swine in the Philippines

## RISK COMMUNICATION

- Interim Guidelines on Risk Communication of AH1N1
- Philippine Preparedness and Response Plan for Pandemic and Avian Influenza
- Health Promotion and Communication Service (HPCS) Strategic Plan
- Communication and Multimedia Development
- Department of Social Welfare and Development Guidelines on Contingency Planning for Crisis Management
- Implementing Rules and Regulations of Republic Act No. 10121 "An Act Strengthening the Philippine Disaster Risk Reduction and Management System, Providing for the National Disaster risk reduction and management framework and institutionalizing the national disaster risk reduction and management plan, appropriating funds therefor and for their purposes"
- Work and Financial Plan of HPCS
- Stakeholders Meeting on Dengvaxia
- Risk Communication during times of Emerging and Re-emerging Infectious Diseases
- Interim Guidelines on Risk Communication on Dengvaxia Immunization Concerns
- Designation of Spokesperson
- Draft Guidelines and Standard Operating Procedure on the Dev't of Risk Communication Plans for Public Health Emergencies
- Approval Form on Information, Education, Communication material for Risk Communication.
- Report on Tuberculosis Advertising Campaign
- DOH Regional Office 7 in Action report on Risk Communication
- Monitoring of public message posted on Facebook
- Risk Communication for Rabies
- Perception Survey on Dengue School-based Immunization: Survey and Form
- Health Promotion and Communication Implementation Review on Dengue School-based Immunization
- Websites/ Social Media: DOH facebook: <https://www.facebook.com/OfficialDOHgov/> and DOH press releases: <https://www.doh.gov.ph/press-releases>

## POINTS OF ENTRY

- Bureau of Quarantine Public Health Emergency Contingency Plan
- Annual Report of Health Education and Sanitation (Sanitation and Food Safety)
- IHR List of Authorized Ports to Issue Ship Sanitation Certificate
- Republic Act No. 9271 "Quarantine Act of 2004"
- Implementing Rules and Regulations of Republic Act No. 9271 or Quarantine Act of 2004
- Republic Act No. 10863 Customs Modernization and Tariff Act
- Republic Act No. 10611 "The Food Safety Act of 2013"
- Executive Order No. 168 s. 2014 "Creating the Inter – Agency Task Force for the Management of Emerging Infectious Diseases in the Philippines"
- JMC No.2017 – 0001 "Integrated Policy Guidelines and Procedures in the Implementation of Inter-Agency Medical Repatriation Assistance Program (IMRAP) for Overseas Filipinos
- Administrative Order No. 2016- 0007 National Policy on the Health of the Migrants and Overseas Filipinos

- Memorandum Circular No. 2016 - 04 "Requirements on the Conduct of Disinfection through on Arrival or Top of Descent for International Flights Arriving and Departing in the Philippines"
- Memorandum Circular No. 2017 – 02 "Policy on Vessel Inspection and the Issuance of Ship Sanitation Certificate"
- OR/CR Ambulance for land transport
- Food Safety Audit Checklist for Food Service Establishments
- Issuance of Sanitation Certificate for Food Service Establishment Process Flow
- Inter-Island Inspection and issuance of Ship and I Sanitation Certificate (SSC) Process Flow
- Memorandum Circular No. 2014 - 06 "Policies and Guidelines Governing Health Measures for Arriving/Departing Passengers and Crew from/to International Travel due to MERS-CoV Outbreak in Arabian Peninsula and Europe
- Memorandum Circular No. 2014 - 07 "Policies and Guidelines Governing Health Measures for Arriving Passengers and Crew from All International Flights and Shipping Lines Due to MERS-CoV and Ebola Virus"
- Bureau Memorandum No. 2015 - 26 "Assessing the Health Condition of Arriving Passengers who Attended the Hajj (from MERS-CoV Affected Countries) using the Decision Algorithm"
- Department Memorandum No. 2014 - 0386 "Interim Guidelines on the Management of Patients with Ebola Virus Disease"
- Department Memorandum No. 2016 - 0453 "Interim Guidelines on Reducing the Risk of Zika Virus Transmission Through Blood Transfusion"
- Department Memorandum No. 2006 - 0104 "Guidelines on the Referral System of Repatriated Overseas Filipino Workers (OFW) Diagnosed with Human Immunodeficiency Virus (HIV) Abroad
- Memorandum Circular No. 2015 - 01 "Policies and Guidelines Governing Health Measures for Arriving Passengers and Crew from International Travels Due to MERS-CoV Outbreak in Arabian Peninsula and South Korea."
- Memorandum Circular No. 2016 - 08 " Bureau of Quarantine Process on Medical Repatriation/Evacuation.
- Bureau Order No. 2014 - 01 "Guidelines for the Mandatory 21-Day Quarantine period of Exposed / OFWs from Ebola-Affected Countries"
- Monthly Integrated Vector Management Report
- Memorandum Circular No. 2017 - 04 "Policies and Guidelines Governing Health Measures for Arriving Passengers and Crew from all International Flights and Shipping Lines due to MERS-CoV and Ebola Virus
- Process Flow Chart Issuance of Sanitation Certificate to Food Establishment
- Memorandum Circular No. 2016 - 06 "Monitoring of Aircraft Compliance to Aircraft Disinfection

## CHEMICAL EVENTS

- DENR Administrative Order No. 02 s. 2000 "Chemical Control Order for Asbestos"
- DENR Administrative Order No. 01 s. 2004 "Chemical Control Order for Polychlorinated Biphenyls (PCBs)"
- DENR Administrative Order No. 2005-27 "Revised Priority Chemical List"
- DENR Administrative Order No. 2015-09 "Rules and Procedures for the Implementation of the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) in Preparation of Safety Data Sheet (SDS) and Labelling Requirements of Toxic Chemical Substances"
- DENR Administrative Order No. 2013-24 "Chemical Control Order (COC)for Lead and Lead Compounds"

- DENR Administrative Order No. 29 s. 1992 "Implementing Rules and Regulations of Republic Act No. 6969"
- DENR Administrative Order No. 35 "Revised Effluent Regulations of 1990, Revising and Amending the Effluent Regulations of 1982"
- DENR Administrative Order No. 38 "Chemical Control Order for Mercury and Mercury Compounds"
- DENR Administrative Order No. 39 "Chemical Control Order for Cyanide and Cyanide Compounds"
- DENR Administrative Order No. 58 s. 1998 "Priority Chemicals List"
- Memorandum Circular No. 2017 – 0005 "Joint DOH-DOLE-CSC Administrative Order No. 2017-0001 entitled "National Occupational Health and Safety (NOHS) Policy Framework"
- Administrative Order No. 2008-0021 "Gradual Phaseout of Mercury in all Philippine Health Care Facilities and Institutions"
- Administrative Order No. 2014-0038 "Rules and Regulations Governing Household/Urban Pesticides Licensing of Establishments and Operators, Registration of their Products and for Other Purposes"
- Administrative Order No. 2017-0010 "Philippine National Standards for Drinking Water of 2017"
- Executive Order No. 79 "Institutionalizing and Implementing Reforms in the Philippine Mining Sector, Providing Policies and Guidelines to Ensure Environmental Protection and Responsible Mining in the Utilization of Mineral Resources"
- Occupational Safety and Health Standards (As Amended, 1989)
- Presidential Decree No. 1586 "Establishing and Environmental Impact Statement System Including Other Environmental Management Related Measures and for Other Purposes"
- Presidential Decree No. 856 "Code on Sanitation"
- Presidential Decree No. 114 "Creating the Fertilizer and Pesticide authority and Abolishing the Fertilizer Industry Authority"
- Presidential Decree No. 984 "Providing for the Revision of Republic Act No. 3931, Commonly Known as the Pollution Control Law and for other Purposes"
- Republic Act No. 9372 "The Human Security Act"
- Republic Act No. 9711 "Food and Drug Administration Act of 2009"
- Republic Act No. 10863 "An Act Modernizing the Customs and Tariff Administration"
- Republic Act No. 7942 "An act instituting a new system of mineral resources exploration, development, utilization, and conservation"
- Republic Act No. 8749 "An act providing for a comprehensive air pollution control policy and for other purpose"
- Republic Act No. 9165 "An act instituting the comprehensive Dangerous Drugs Act of 2002, repealing Republic Act No. 6245, otherwise known as the Dangerous Drugs Act of 1972, as amended, providing funds therefore, and for other purposes"
- Republic Act No. 9275 "An act providing for a comprehensive water quality management and for other purposes"
- Republic Act No. 7394 "The Consumer Act of the Philippines"
- Republic Act No. 9516 "An Act Further Amending the Provisions of Presidential Decree No. 1866"
- Department Circular No. 2011-0101 Subject: The Rules and Regulations Implementing Republic Act No. 9711 - The Food and Drug Administration Act of 2009
- Republic Act No. 10611 "Food Safety Act of 2013"
- Republic Act No. 10697 "The Strategic Trade Management Act"
- Roadmap for the National Chemical Safety Management Program (2016-2020)

- Resolution No. 68 "Resolution concurring in the ratification of the Rotterdam convention on the prior informed consent procedure for certain hazardous chemicals and pesticides in international trade"
- DENR Administrative Order No. 34, s. 1990 "Revised Water Usage and Classification/Water Quality Criteria Amending Section No. 68 and 69, Chapter III of the 1978 NPCC Rules and Regulations"
- Administrative Order 2013-0009 "National Chemical Safety Management and Toxicology Policy"
- Republic Act No. 9514 "An Act Establishing a comprehensive fire code of the Philippines, repealing presidential decree NO.1185 and for other purposes"
- Executive Order No. 489, s. 1991 "Institutionalizing the Inter-Agency Committee on Environmental Health"
- Republic Act No. 6969 "An Act to Control Toxic Substances and Hazardous and Nuclear Wastes, Providing Penalties for Violations thereof, and for Other Purposes"
- Republic Act No. 10121 "An Act Strengthening the Philippine Disaster Risk Reduction and Management System, Providing for the National Disaster Risk Reduction and Management framework and institutionalizing the National Disaster Risk Reduction and Management Plan, appropriating funds therefor and for other purposes"
- DENR Administrative Order No. 98-63 "Guidelines for Designation of DENR Recognized Environmental Laboratories"
- Department Order No. 393-E s. 2000 "Designation of National Reference Laboratories and Transfer of corresponding equipment, instruments, supplies, specimens, records from the bureau of research and laboratories to the designated national reference laboratories"
- Event-based Surveillance & Response Manual of Procedures (2014)
- Executive Order No. 489 "Institutionalizing the Inter-Agency Committee on Environmental Health"
- Bureau of Fire Protection Operational Procedures Manual
- Consolidated Report for the UNIDO Project to Improve the Health and Environment of Artisanal Gold Mining Communities in the Philippines by Reducing Emissions
- Department Order No. 2017-0023 "Department Order No. 2017-0023: Guidelines on the Sub-Allotment and Utilization of Funds to the East Avenue Medical Center- Toxicology Referral and Training Center (EAMCTRTC) for the implementation of the Chemical Safety and Toxicology Activities under the Occupational Disease Division of the Disease Prevention and Control Bureau"
- Department Order No. 2018-0087: Guidelines on the Sub-Allotment and Utilization of Funds to the East Avenue Medical Center-Toxicology Referral and Training Center (EAMCTRTC) for the implementation of the Chemical Safety and Toxicology Activities under the Occupational Disease Division of the Disease Prevention and Control Bureau"
- Department Order No. 2018- "Guidelines in the Establishment of Poison Control Centers in Selected Department of Health Hospitals"
- Department Order No. 2017-0027 "Guidelines on the Sub-Allotment and Utilization of Funds to the Department of Health Hospital Poison Centers/Units for the implementation of the Chemical Safety and Toxicology under the Occupational Disease Division of the Disease Prevention and Control Bureau"
- Department Order No. 2018-0109 "Guidelines on the Sub-Allotment and Utilization of Funds to the Department of Health - Retained Hospitals/ Medical Centers - Poison Centers/Units for the implementation of the Chemical Safety and Toxicology Activities under the Occupational Disease Division of the Disease Prevention and Control Bureau"
- Administrative Order No. 2018- "Guidelines on Alert, Notification and Response to Chemical Incidents."

- Summary Report of the health and environmental assessment activities undertaken by the joint DOH/UP-National Poison Management and Control Center in the Province of Guimaras from September 4-7, 2006
- Manual of Operations on Health Emergency and Disaster Response Management
- Annex B: Alert, Notification and Response to Major Chemical Events
- Annex A: Alert, Notification and Response to Minor Chemical Events
- Annex C: Alert, Notification and Response to Chemical Disasters
- TF Guimaras Update No.1
- National Disaster Risk Reduction and Management Plan (NDRRMP) 2011-2028
- Notice of Meeting: Emergency Meeting of the Inter-Agency Committee on Environmental Health (IACEH) to address Post-Marinduque Environmental Incident
- List of DOH Poison Control Centers and Their Clinical Toxicologists

## RADIATION EVENTS

- Department of Science and Technology, Philippine Nuclear Research Institute, Annual Reports 2011 – 2017
- Philippine Nuclear Research Institute, National Radiological Preparedness and Response Plan (RADPLAN), undated draft
- Presidential Decree No. 480, s. 1974 "Creating a Radiation Health Office in the Department of Health"
- Convention on Early Notification of a Nuclear Accident
- Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency
- Convention on Physical Protection of Nuclear Materials
- Vienna Convention on Civil Liability for Nuclear Damage
- Treaty on the Non – Proliferation of Nuclear Weapon (NPT)
- Comprehensive Test Ban Treaty
- Administrative Order No. 124, s. 1992 "Rules and Regulations Governing the Establishment, Operation and Maintenance of an X-Ray Facility in the Philippines"
- Administrative Order No. 2-A s. 1996 "Requirements for the Control of Radiation Hazards from Dental X-Ray Facilities"
- Administrative Order No. 41 s. 1996 "Requirements for the Control of Radiation Hazards from X-Ray Equipment Used in Veterinary Medicine"
- Requirements for the Control of Radiation Hazards from Dental X-Ray Facilities
- Administrative Order No. 149 s. 2004 "Basic Standards on Radiation Protection and Safety Governing the Authorization for the Introduction and Conduct of practices Involving X-Ray Sources in the Philippines"
- Department Circular No. 323 s. 2004 "Manual on Basic Radiation Protection and Safety of Xray Sources in the Philippines"
- Administrative Order No. 2013-0031 "Requirements for the Operation of a Therapeutic X-Ray Facility Utilizing Medical Linear Accelerators"
- FDA Memorandum Circular No. 2014 - 005 "Updated List of Medical Devices Required to be Registered Prior to Sale, Distribution, and Use"
- FDA Memorandum Circular No. 2014-005-A "Amendment to FDA Memorandum Circular No. 2014-005, Updated List of Medical Devices Required to be Registered Prior to Sale, Distribution, and Use"

- Republic Act No. 2067 "An Act to Integrate, Coordinate, and Intensify Scientific and Technological Research and Development and to Foster Invention; to provide Funds therefor; and for Other Purposes"
- Republic Act No. 5207 "An Act Providing for the Licensing and Regulation of Atomic Energy Facilities and materials, Establishing the Rules on Liability for Nuclear Damage, and for Other Purposes"
- Executive Order No. 128 "Reorganizing the National Science and Technology Authority"
- 19 FDA Circular No. 2017-013





JOINT EXTERNAL EVALUATION  
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of the

**REPUBLIC OF  
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**Mission report:**  
**10–14 September 2018**