



**Malaysia Strategic Workplan for Emerging Diseases
(MySED Workplan)
2012-2015**

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Abbreviations:

APSED	Asia Pacific Strategy for Emerging Diseases
CDC	Communicable Disease Control
DCD	Disease Control Division
DVS	Department of Veterinary Services
EBS	Event Based Surveillance
EIP	Epidemic Intelligence Program
EOC	Emergency Operation Centre
EQA	External Quality Assurance
FET	Field Epidemiology Training
FETP/N	Field Epidemiology Training Program/Network
FSQD	Food Safety and Quality Division
HAI	Hospital Acquired Infection
HCW	Health Care Worker
HIACC	Hospital Infection and Antibiotic Control Committee
IBS	Indicator Based Surveillance
ICT	Information and Communication Technology
IHR	International Health Regulations
IMR	Institute for Medical Research
IPC	Infection Prevention and Control
IQC	Internal Quality Control
LTAC	National Laboratory Technical Advisory Committee
MKAK/NPHL	National Public Health Laboratory
MOH	Ministry of Health
MOHE	Ministry of Higher Education
MOSTI	Ministry of Science, Technology and Industries
MySED	Malaysian National Strategic Plan for Emerging Diseases
NFP	National Focal Point
PHEIC	Public Health Emergency of International Concern
RRT	Rapid Response Team
SARS	Severe Acute Respiratory Syndrome
SEARO	South East Asia Regional Office
SOP	Standard Operating Procedure
TAG	Technical Advisory Group
TOR	Terms of Reference
WHO	World Health Organization
WPRO	Western Pacific Regional Office

Foreword

The Asia Pacific region including Malaysia has experienced numerous public health emergencies in recent years arising from emerging and re-emerging diseases. Emerging diseases such as Nipah virus, SARS, Avian Influenza and Influenza A(H1N1) has caused significant challenges to the national healthcare systems and the country's economic growth and development.

Threats posed by these emerging diseases compel health systems to be constantly prepared and vigilant against the occurrence of these disease threats. Experiences learned during the Nipah, SARS and Influenza A (H1N1) outbreaks has further strengthened national capacities to respond to such situations in order to protect the health of populations in Malaysia and abroad.

Malaysia is committed to enhance regional and international health security, through the development of Malaysia Strategic Workplan for Emerging Diseases (2012-2015) or MySED Workplan (2012-2015) based on the Asia Pacific Strategy for Emerging Diseases or APSED 2010. This document aims to minimize the health, economic and social impact of emerging diseases in Malaysia and to further improve the health protection of the population of Malaysia. This strategic workplan would function through inter and intra agency partnerships for preparedness planning, and the containment and control of public health emergencies.

We believe that with the implementation of this MySED Workplan (2012-2015), Malaysia will be prepared to face the continuous threat of any public health emergency. As such I would like to congratulate the Secretariat for engaging with the multisectoral partners within and outside the Ministry of Health to ensure the implementation of the IHR 2005 core capacities in Malaysia.

DATUK DR. NOOR HISHAM ABDULLAH
Director General of Health, Malaysia

Foreword

The World Health Organization (*WHO*) *Foreign Policy and Health Security* document states, that a core component of security includes all health security threats. These threats include disease threats, along with other threats such as military, environmental, and economic threats that interfere with national stability.

Malaysia Strategic Workplan for Emerging Diseases (2012-2015), abbreviated as “MYSED Workplan 2012-2015”, was formulated as part of Malaysia’s continuing commitment towards meeting the (WHO) International Health Regulations or IHR (2005) core capacity requirements to ensure regional and global health security. MYSED Workplan 2012-2015 continues from the achievements of the previous 2008-2010 Workplan and is in line with the 66th World Health Assembly and the 63rd Western Pacific Regional Committee Meeting (RCM) resolutions regarding the allocation of necessary resources for national IHR implementations. The development and implementation of MySED Workplan 2012-2015 embodies the multisectoral approach which involves national multisectoral collaboration with the relevant stakeholders. The aim is to ensure effective preparedness planning as well as the establishment and maintenance of the core capacities in dealing with the emerging diseases and other public health emergencies. In alignment with the regional Asia Pacific Strategy for Emerging Diseases or APSED 2010 Workplan, the MySED 2012-2015 Workplan established seven Technical Working Group Committees to coordinate and implement activities for the following areas; Surveillance, Assessment & Response, Laboratory, Zoonoses, Infection Prevention & Control, Risk Communication, Public Health Emergency Preparedness and Monitoring & Evaluation.

I would like to congratulate the editors and Technical Working Group Committees for their collaborative efforts to develop the objectives of this strategic plan. I have confidence that MYSED 2012-2015 will aid the national planning and review process in monitoring and evaluation of the implementation of IHR 2005 in Malaysia.

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1. Introduction

The Asia Pacific region continues to face health security threats arising from emerging diseases and public health emergencies. With the introduction and implementation of the International Health Regulations (IHR 2005) effectively in Jun 2007, member countries are obligated to assess and then to comply with the minimum requirement stated under the IHR 2005. As one of the implementation strategy in the region, WHO Western Pacific Regional Office (WPRO) together with South East Asia Regional Office (SEARO) has developed the Asia Pacific Strategy for Emerging Diseases, or APSED to provide a strategic direction and priority actions for managing health security threats arriving from emerging diseases and other acute public health events.

In line with the 66th World Health Assembly and the 63rd Western Pacific Regional Committee Meeting (RCM) resolutions regarding allocation of necessary resources for IHR implementation in the country, Malaysia has developed the MYSED Workplan 2012-2015 as a continuation from the achievements of the previous MYSED Workplan 2008-2010.

In alignment with the regional Asia Pacific Strategy for Emerging Diseases or APSED 2010 Workplan, the MySED 2012-2015 Workplan seven (7) Technical Working Group Committees have been established to coordinate and implement activities for the following focus areas;

- i. Surveillance, Assessment & Response
- ii. Laboratory
- iii. Zoonoses
- iv. Infection Prevention & Control
- v. Risk Communication
- vi. Public Health Emergency Preparedness
- vii. Monitoring & evaluation

The workplan provides a strategic framework as a guiding principle to conduct the annual IHR Monitoring framework assessment and then to build the core capacities required under the IHR 2005. The workplan will remain flexible in order to meet evolving needs and priority activities.

2. MySED Workplan (2012-2015) Summary

2.1 Vision

To minimize the health, economic and social impact of emerging diseases and public health emergencies in Malaysia.

2.2 Goal

To improve health protection in Malaysia through productive partnerships for the preparedness, planning, prevention, prompt detection, characterization, and the containment and control of emerging diseases.

2.3 Objectives

MySED (2012-2015) Workplan has five interrelated objectives for the short, medium and long term capacity needed to reduce the threat of emerging diseases and public health emergencies. The objectives are:

Objective 1 : Reduce the risk of emerging diseases

Objective 2 : Strengthen early detection of outbreaks of emerging diseases and public health emergencies

Objective 3 : Strengthen rapid response to emerging diseases and public health emergencies

Objective 4 : Strengthen effective preparedness for emerging diseases and public health emergencies

Objective 5 : Build sustainable technical collaboration and partnership within Malaysia and the Asia Pacific Region

2.4 Structure of Work Plan (7 focus areas)

MySED (2012-2015) work plan is divided into 7 focus areas which include Surveillance, Risk Assessment and Response, Laboratory, Zoonoses, Infection Prevention and Control, Risk Communications, Public Health Emergency Preparedness and Monitoring and Evaluation. The implementation strategy and steps will be listed for each of focus areas according to the functional or minimum systems required under the APSED (2010). For each of the focus areas, the activities required to fulfill all the gaps found in the baseline data collection will be listed together with measurement tools, responsible unit, implementation level and the time frame. The time frame is divided into 4 quarters in a year in which each quarter covers for 3 months duration.

3. Focus Areas

3.1 Surveillance, Risk Assessment and Response

3.1.1 Introduction

The International Health Regulations, 2005 define the collective responsibility to protect global health and strengthen national capacity to rapidly detect and respond to potential public health events. An effective surveillance, risk assessment and response system should include an integrative indicator-based surveillance (IBS) and event-based surveillance (EBS) systems. These systems are able to detect and monitor public health events and trigger a rapid response at any level. IBS and EBS systems are complementary and both are essential components of a national surveillance system.

Currently, Malaysia has established an indicator-based surveillance system and yet to enhance the event-based surveillance system. The IBS is supported by a web-based notification system called *e-notification*. In addition, we also have a web-based early outbreak reporting system called

e-wabak which combines the reporting function for both IBS and EBS. *E-wabak* has the potential to be expanded to include all hazards. The challenge would be to integrate and harmonize the existing surveillance systems to be meaningful and effective.

3.1.2 Key Components

The key components required for an effective system of surveillance, risk assessment and response at the national and local levels are:

- Event-based surveillance (EBS)
- Indicator-based surveillance (IBS)
- Risk assessment capacity
- Rapid response capacity
- Field epidemiology training (FET)
- Essential IHR requirement

EBS is the organized and rapid capture of information about events that are potential risks to public health. Information may be found in internet-accessible information sources such as news media sites, disease reporting networks, and other *ad hoc* reports transmitted through formal and informal channels. EBS can provide near real-time data on potential and confirmed disease outbreaks and other public health events, including events related to the occurrence of disease in humans, such as clusters of cases of disease and events related to potential human exposure (e.g. diseases and deaths in animals, contaminated food or water, and environmental hazards, including chemical, radiological and nuclear events).

IBS is the systematic collection and analysis of timely, reliable and appropriate data on priority diseases, syndromes and conditions. Data collection follows a predefined format and includes specific case or syndrome definitions. Data reporting and analysis occur regularly, typically once a week, and alert or epidemic thresholds are often used to identify outbreaks. IBS aims at outbreak detection, monitoring of disease trends and disease control programmes and programme planning. Use of appropriate information and communication technology (ICT) tools may aid in improving

the quality of collection and collation of surveillance data at the national and local levels.

Risk assessment is a systematic process for gathering, assessing and documenting information to assign a level of risk for a potential public health event. This enables objective evidence-based decisions while giving consideration to the uncertainties and limitations of the information available at a particular point in time. It involves understanding the identity and character of a hazard and evaluating the risk of an adverse outcome in a population following exposure to that hazard. The process can also assess the risk associated with potential intervention measures. During an event, risk assessment is an ongoing process, not a one-time activity.

Rapid response capacity in this context refers to the ability to mobilize a routine and rapid investigation of and response to public health events at national and local levels. This includes development and deployment of rapid response teams (RRTs) to any level in the public health sector. FET has proved invaluable in establishing national capacities for early detection, prompt investigation and effective response to public health events. FET focuses on learning by doing in a work setting and building competencies applicable to emerging disease outbreaks and other public health events.

3.2 Laboratory

3.2.1 Introduction

Laboratories play an important and supportive role in the early detection of an outbreak response to emerging diseases. In Malaysia, we have an effective network of laboratories to provide laboratory services, which are the national reference laboratories, public health laboratories, point of care hospital laboratories and research laboratories. These laboratories have the capacity and capability to conduct diagnostics for various pathogens, including exotic emerging pathogens responsible for public health threat. In line with IHR (2005) requirements, we have achieved the minimum capacity and capability for early detection of pathogens that may lead to an event of national or international concern.

The highlight of this focus area is to enhance and strengthen the current infrastructure available to ensure more efficient and effective laboratory response for public health purposes because laboratories provide support to the medical and public health sectors through rapid identification of pathogens. In addition, laboratory-based surveillance provides early warning of circulating pathogens/emerging serotype that has potential to be a national public health threat.

3.2.2 Key Components

The key components of laboratory capacity-building to support emerging disease management are:

- National policy, standards, legal framework for laboratory
- Laboratory capacity mapping, assessment and networking
- Laboratory support for surveillance and response
- Accurate laboratory diagnosis
- Laboratory biosafety and biosecurity

A national Laboratory Technical Advisory Committee (LTAC) will be established to develop strategies to strengthen the laboratory component of the public health system to effectively respond to emerging diseases. This committee will advocate the formulation of national policies and standard procedures to ensure an effective laboratory management system in the country. Accurate and timely laboratory diagnosis is essential for evidence-based clinical case management. To achieve this aim, internal quality control (IQC) and external quality assurance (EQA) will be strengthened in reference and other relevant laboratories for priority pathogens. In addition, networking between laboratories and coordination among diagnostic, research, food, veterinary and analytical laboratories at the national, regional and international level will facilitate the exchange of information and resources to improve the response to public health threats, for example sharing of samples, reagents, proficiency testing panels, training materials and guidelines. Laboratory networking will also establish links between regional and global reference laboratories to provide highly specialized services and

expertise. Strengthening collaborative operational research on laboratory issues will provide evidence for effective intervention of public health crisis.

The LTAC will advocate the importance of laboratory biosafety and biosecurity with the development of a biorisk policy to promote best practices through education and awareness training. This will ensure that diagnoses of emerging diseases are conducted in safe environments, and appropriate levels of laboratory biosafety and biosecurity are matched to the levels of assessed risk (i.e. according to the agent handled).

3.3 Zoonoses

3.3.1 Introduction

In a 2006 WHO publication (*WHO/SDE/FOS/2006.1*), it is stated that 'at least 61% of all human pathogens are zoonotic, and have represented 75% of all emerging pathogens during the past decade'. Emerging and re-emerging zoonoses continue to pose substantial public health problem globally and Malaysia is no exception. An emerging zoonosis is defined by WHO/FAO/OIE as "a zoonosis that is newly recognized or newly evolved, or that has occurred previously but shows an increase in incidence or expansion in geographical, host or vector range".

Various factors contribute to emergence of infectious diseases and zoonoses such as animal-human-environment interface; population movements and urbanization; ecological changes; globalization and international travel, ecotourism, social and cultural factors such as food habits and farming practices. Other factors include new technological development for improved detection and diagnostic procedures as well as natural disasters such as floods. Several challenges in response to emerging and re-emerging infections include: preparedness in terms of capacities and capabilities, early and accurate surveillance as well as rapid response and initiation of prevention and control measures. Early identification of pathogen and expertise with regard to proper diagnostic and treatment tools is also crucial. Other challenges include multisectoral cooperation, political commitment and cross-border issues.

Under Asia Pacific Strategy for Emerging Diseases (APSED) 2005, a framework was developed to address any zoonotic disease events and emergencies. It covers all areas of work including risk reduction, surveillance for information sharing, coordinated response, and collaborative research. Under APSED 2010 and within the concept of 'One Health', the coordination mechanism is further strengthened with linkages to food safety, environment, wildlife and other relevant sectors.

The framework strengthens links between human and animal health sectors, clearly defines the roles and responsibilities and takes advantages of the existing resource and expertise of each sector. Malaysia has established the coordination mechanism through the Inter Ministerial Committee on the Control of Zoonotic Diseases since 1999 following the Nipah outbreak. Experiences and lessons learned from highly pathogenic avian influenza H5N1 in poultry and Nipah in the past provide a good foundation to consolidate and strengthen national and regional coordination mechanisms for surveillance information-sharing and coordinated responses between multisectors especially the human health, veterinary and wildlife professionals.

The way forward for Malaysia to reduce risks of emerging diseases and zoonoses in today's globalized situation is through the scope of World Health Organization International Health Regulations (IHR) 2005 and OIE Terrestrial Animal Health Code 2011 with the 'One Health' approach of collaboration and continued core capacity building using the APSED Strategy, which is MySED 2012-2015. As required by WHO IHR & OIE Terrestrial Health Code, Malaysia regularly share country experiences and findings related to zoonotic risks and events of potential national and international concern with the global community.

3.3.2 Key Components

The zoonoses focus area of MySED 2012-2015 aims to strengthen existing functional coordination mechanism that is effective in bringing together all relevant stakeholders. The key components of the zoonoses coordination

and collaboration are:

- sharing of surveillance information;
- coordinated response;
- risk reduction; and
- research.

In line with APSED 2010, there have been several activities conducted such as information sharing, development of manuals, guidelines, coordinated response to outbreak investigations and research collaboration.

Two inter-ministerial meetings and four technical meetings have been conducted since 2011. MySED 2012-2015 Workplan for focus area Zoonoses will continue to provide framework for activities in the next three years, 2012 to 2015.

3.4 Infection Prevention and Control

3.4.1 Introduction

Establishing effective infection prevention and control (IPC) practices in health care settings is essential to reduce the risk of transmission of emerging diseases to health care workers, patients, their families and the community. Systematic establishment of good IPC practices is a challenge, and there is room for significant improvement in many hospitals and other health care facilities in the region. IPC is an essential component of any disease prevention and outbreak control and it should always be given priority.

Good IPC should be practiced at all times and enhanced during an outbreak. Infection in healthcare staff can critically affect delivery of health care services and would also hamper provision of surge capacity when it is most needed.

3.4.2 Key Components

The following components have been identified as key strategies for

IPC:

- National Policy and Strategy
- Education, training and capacity building
- Program monitoring and compliance with IPC practices

3.5 Risk Communication

3.5.1 Introduction

Risk Communication is the purposeful exchange of information about the existence, nature, form, magnitude, severity, or acceptability of the public health risks between stakeholders with the intention of changing behaviour and managing actions to minimize or reduce the risk. The definition covers:

- i. Risk existence – incidence and prevalence
- ii. Nature of risks – biological, physical, mechanical, chemical, psychosocial, physiological, ergonomic and environmental.
- iii. Form of risk – Mode of exposures (water, air, inhalation, direct contact etc.)
- iv. Magnitude of risk – probability of harm that ranges from 0% to 100%
- v. Severity of risk – degree ranges from mild discomfort to death
- vi. Acceptability – perceived threat, susceptibility and severity
- vii. Stakeholders – including those directly and indirectly affected, decision makers and those that influence decisions and interested groups or parties.

Health risk could escalate into a public health crisis when it seriously affects the image or functions of the organizations or community. Typically a public health crisis comes unannounced and occurs suddenly, causes serious ill health or death, stresses the organization and requires immediate attention and action. Common public health crises are outbreaks due to infectious diseases including emerging infectious diseases. Failure to control public health crises will result in disaster.

Risk communication is carried out before, during and after crisis. However, risk communication during crisis requires special consideration because of dynamicity of the situation, highly charged emotion/outrage or concern of the

people and concurrent attention by the politicians and media. Risk communication before crisis is to increase the awareness towards a state of alertness whilst post crisis communication aims to sustain healthy behaviours in preventing recurrence of the public health crisis.

Risk communication has been acknowledged as an integral component of crisis management. Failure to implement effective risk communication may result in delayed control measures, increased threat to life, public uncertainties, insecurity, restlessness and outrage as well as the larger impact to tourism and economic loss. Hence, it is crucial for risk communication to be timely, transparent and trustworthy to gain public confidence, trust and cooperation to adopt positive behaviour that contributes to effective management of the public health crisis.

The risk communication process encompasses assessing the public health risk, the information needs of internal and external stakeholders, the media and public perceptions before formulating strategic communication.

3.5.2 Key Components

The key components of risk communication are three interlinked functional areas that were identified during past outbreak responses, namely:

- i. Operational communication
- ii. Health emergency communication
- iii. Behaviour change communication

3.6 Public Health Emergency Preparedness

3.6.1 Introduction

Public health emergencies, particularly those events caused by outbreaks of emerging diseases, pose a serious threat to national and regional health security. Recent experience has demonstrated that effective preparedness can ensure a rapid public health emergency response and minimize negative health, economic and social impacts. Through experience and lessons learnt

from pandemic preparedness, public health emergency preparedness should involve a two-tiered approach, as described below.

Emergency planning

The first tier is to formulate, exercise, evaluate and revise a public health emergency response plan. Experience with exercising and revising these plans explicitly highlights the need to ensure a continuous cycle of developing and maintaining up-to-date emergency response plans.

Increasing readiness

The second tier is to increase readiness and capacity to activate the plan. This effort can involve strengthening event-specific activities (such as stockpiling essential medicines for treatment and personal protective equipment), and actions related to routine generic capacity-building. Many routine activities intended to improve readiness (such as strengthening surveillance, risk assessment and response systems, and risk communications) have already been described in the document. This focus area describes public health emergency planning with an emphasis on the continuous planning cycle and some specific preparedness activities that are critical but not yet addressed as separate focus areas under this Strategy, such as the National IHR Focal Point functions, clinical case management and response logistics.

3.6.2 Key Components

The key components (preparedness activities) requiring specific attention to ensure effective public health emergency preparedness and response under this focus area are:

- i. Public Health Emergency Planning;
- ii. National IHR Focal Point functions;
- iii. Points-of-entry preparedness;
- iv. Response logistics;
- v. Clinical case management; and
- vi. Health care facility preparedness and response.

3.7 Monitoring and Evaluation

3.7.1 Introduction

Monitoring and evaluation (M&E) are integral components of MySED 2012-2015 Workplan as it is also a component of APSED (2010). Robust M&E is fundamental to meet two critical management needs: accountability and learning. In the context of this Strategy, accountability can be defined as the ability to demonstrate that the Strategy is effective in achieving its objectives, that its priorities are appropriate, and that resources have been used optimally. Similarly, learning (within the context of M&E) can be defined as understanding what is working and what can be done better, which in turn helps to ensure that decisions are based on evidence, facilitating continuing improvement.

The general objective of the M&E focus area is to monitor and evaluate activities and performance of each of the six MYSED focus areas in order to strengthen the national capacities in managing public health emergencies of international concern.

Specific Objectives

- i. To assess the suitability of indicators and measurement methodologies proposed by focus areas
- ii. To recommend appropriate indicators and measurement methodologies
- iii. To collate and compile data from focus areas
- iv. To verify and validate data received from focus areas
- v. To monitor the status of implementation and performance of focus areas
- vi. To evaluate effectiveness of the strategies of focus areas
- vii. To give feedback to focus areas and stakeholders for improvement

3.7.2 Key Components

Establishment of national workplans to achieve APSED (2010) objectives

will support a structured approach to capacity-building. Clear timelines and progress indicators to monitor workplan implementation can then be used to monitor implementation of APSED, as well as the progress of National capacity-building towards IHR (2005) compliance, when appropriate. The national workplan enables Malaysia to assess our own progress and identify needs and opportunities. This approach may be particularly useful to facilitate coordination for intervention and implementation.

A combination of national, state and district level components is proposed to strengthen the M&E system under the Strategy. The Monitoring and Evaluation Technical Coordinator will be looking at the overall achievements at the national level. However, the respective Technical Coordinator for each of the six focus areas, have to monitor the performance of each activity identified at the states, districts, hospitals, points of entry and laboratories.

A number of MySED (2012-2015) indicators will be identified and monitored at the national, state and district levels. These indicators will be selected from the IHR Monitoring Framework for monitoring progress in the implementation of IHR core capacities in Malaysia and supplemented, where necessary, by indicators set up for areas requiring specific consideration under MySED (2012-2015) and APSED (2010). The M & E indicators from relevant existing programmes are utilized to reduce the burden of data collection.

3.7.3 (i) Responsibility at National Level:

The desk officer of the responsible sector or division must collate and compile returns or data from state level monthly or as per routine schedule of the identified activity and submit to the Technical Coordinator of each focus area after verification and validation by the respective sector/division head.

Focus area	Technical coordinators / Deputy Technical Coordinators
1. Surveillance, Risk Assessment & Response	<ul style="list-style-type: none"> • Dr. Wan Noraini Wan Mohamed Noor • Dr. Badrul Hisham Abdul Samad
2. Laboratory	<ul style="list-style-type: none"> • Dr. Faridah Mohd Amin • Dr Norzahrin Hasran
3. Zoonoses	<ul style="list-style-type: none"> • Dr. Khebir Verasahib • Dr Norita Shamsuddin
4. Infection Prevention & Control	<ul style="list-style-type: none"> • Dr. Rohani bt. Jahis • Dr. Suraya Amir Husin • Dr. Noraini Mohd Yusof
5. Risk Communication	<ul style="list-style-type: none"> • Dr. Husnina bt. Ibrahim • Mr Sasitheran Nair
6. Public Health Emergency Preparedness	<ul style="list-style-type: none"> • Dr. Devan Kurup • Dr. Kasuadi Hussin
7. Monitoring & Evaluation	<ul style="list-style-type: none"> • Dr. Norhayati Rusli • Dr. Husna Maizura Ahmad Mahir

A. Format of reporting:

The desk officer is required to use the standard format as in Annex 1.

B. Frequency of reporting:

The data is required to be compiled monthly or as per routine schedule of the identified activity and submitted to the Technical Coordinator after verification and validation by related sector/division head.

C. Analysis:

The data should be analyzed by all Technical Coordinators **annually** before submitting to the Head of International Health Sector, Disease Control Division, Ministry of Health, Malaysia.

D. Reporting:

A consultation with relevant stakeholders may be held and reported annually.

3.7.3 (ii) Responsibility at State level:

At State level, the responsible person for overall implementation of activities under MySED 2012-2015 is the State Director of Health. However the Deputy Director of Health (Public Health) is responsible for coordination of the activities under MySED 2012-2015.

The desk officer of the responsible unit must collate and compile returns or data from districts monthly or as per routine schedule of the identified activity and submit to the Deputy Director of Health (Public Health) after verification and validation by the respective unit.

Focus area	Technical coordinators / Deputy Technical Coordinators
1. Surveillance, Risk Assessment & Response	<ul style="list-style-type: none"> • Head of Surveillance/CDC Unit
2. Laboratory	<ul style="list-style-type: none"> • Head of Surveillance/CDC Unit/PHL
3. Zoonoses	<ul style="list-style-type: none"> • Head of CDC Unit
4. Infection Prevention & Control	<ul style="list-style-type: none"> • Head of CDC Unit / Head of Occupational & Environmental Health Unit
5. Risk Communications	<ul style="list-style-type: none"> • Head of Health Promotion Unit
6. Public Health Emergency Preparedness	<ul style="list-style-type: none"> • Head of Surveillance/CDC Unit

A. Format of reporting:

The Responsible officer of the respective unit is required to use the standard format as in Annex 1.

B. Frequency of reporting:

The data is required to be compiled as per existing requirements or as decided by respective Technical Coordinators and submitted to the Head of CDC Unit after verification and validation by Unit.

C. Analysis:

The data should be analysed by all **Responsible Officer** monthly or as per routine schedule of the identified activity before submitting to State Health Director/Deputy State Health Director (Public Health).

D. Reporting:

A consultation with relevant officer responsible for respective Focus Areas may be held before the report is submitted to the national level.

Strengthening M&E activities at all level will help identify national gaps in M&E and improve national capacity. Evaluation will be conducted at the conclusion of the Strategy implementation period, when appropriate and agreed upon at National level. However, a balance is needed to ensure that M&E helps build national capacity and improve the ownership.

4. Resources Needs and Funding

Effective implementation of the MySED (2012-2015) Work Plan require adequate human resources including human, financial and resources investment at all levels; national, state and district level. The initial funding will come from operational budget however for development or conducting any specific project that will fulfill the implementation of MySED (2012-2015) a specific budget will be requested according the need of any programme area.

List of Contributors (by Focus Area)

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- d. Dr. Badrul Hisham Abd Samad
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Food Safety and Quality Division
Ministry of Health, Malaysia

3. Laboratory

- a. Dr. Faridah Mohd Amin
Public Health Physician
National Public Health Laboratory Sungai Buloh
Ministry of Health, Malaysia

- b. Dr. Norzahrin Hasran
Public Health Physician
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- c. Dr Salina Mohamed Sukor
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- d. Dr Chang Li Yen
Medical Microbiology Department
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- e. Ms T.S. Saraswathy a/p Subramaniam
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- f. Mr Khairul Azan Hashim
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- g. Mr Amrish Shah Osman
Science Officer
National Public Health Laboratory Sungai Buloh
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- h. Dr. Mohana Anita a/p Anthonysamy
Research Officer
Biosafety Department
Ministry of Science, Technology and Environment

4. Infection Prevention and Control

- a. Dr. Rohani Jahis
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Ministry of Health, Malaysia

- b. Dr. Noraini Mohd Yusof
Public Health Physician
Family Health and Development Division
Ministry of Health, Malaysia

- c. Dr. Suraya Amir Husin
Public Health Physician
Medical Development Division
Ministry of Health, Malaysia

- d. Dr. Shahanizan Mohd Zin
Public Health Physician
Medical Development Division
Ministry of Health, Malaysia

- e. Dr. Leong Chee Loon
Infectious Diseases Physician
Kuala Lumpur Hospital

- f. Dr. Kamarul Azhar Mohd Razali
Consultant Paediatrician (Infectious Diseases)
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- g. Dr. Norazah Ahmad
Head, Bacteriology Unit
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- h. Dr. Saraswathi Bina Rai
Public Health Physician
State Epidemiological Officer
Penang State Health Department
- i. Dr. Priya a/p Rangunath
Public Health Physician
Disease Control Division
Ministry of Health, Malaysia
- j. Ms. Wan Noraini Wan Yussof
Science Officer
National Public Health Laboratory Sungai Buloh
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5. Risk Communication

- a. Dr. Husnina Ibrahim
Public Health Physician
District Medical Officer of Health
Federal Territory of Kuala Lumpur & Putrajaya State
Health Department
- b. Mr Thavaraj a/l Subramaniam
Risk Communication Consultant
- c. Dr. Sulaiman bin Che Rus
Consultant Epidemiologist
- d. Dr. Fatimah binti Othman
Deputy State Health Director (Public Health)
Johor State Health Department
- e. Ms Zawaha Idris
Institute for Health Behavioural Research

- f. Mr Sasitheran a/l Krishnan Kutty Nair
Health Education Officer
Health Promotion Division
Ministry of Health, Malaysia
- g. Mr Abdul Jabar Ahmad
Director
Health Promotion Division
Ministry of Health, Malaysia
- h. Mohamed Farouk bin Abdullah
Principal Assistant Director
Allied Health Sciences Division
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6. Public Health Emergency Preparedness

- a. Dr. Devan Kurup
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Disease Control Division
Ministry of Health, Malaysia
- b. Dr. Wan Noraini Wan Mohamed Noor
Public Health Physician
Disease Control Division
Ministry of Health, Malaysia
- c. Dr. Mohd Safiee Ismail
Public Health Physician
Family Health and Development Division
Ministry of Health, Malaysia

- d. Dr. Anis Salwa binti Kamarudin
Public Health Physician
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- e. Dr. Kasuadi Hussin
Public Health Physician
Medical Development Division
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- f. YBhg. Datuk Dr. Mohamed Alwi Hj Abdul Rahman
Emergency Medicine Physician
Selayang Hospital

- g. Dr. Rosidah Ibrahim
Emergency Medicine Physician
Serdang Hospital

- h. Dr. Hamizar Iqbal Abdul Halim
Public Health Physician
District Medical Officer of Health
Negeri Sembilan State Health Department

- i. Dr. Surinah Asan
District Health Officer
Johor State Health Department

- j. Dr. Johari Awang Besar
District Medical Officer of Health
Sabah State Health Department

- k. Mr Mohamad Husni Abd Aziz
National Security Council
Prime Minister's Department

- l. Mr. Abdul Hamid Osman
Environmental Health Officer
Disease Control Division
Ministry of Housing and Local Government

- m. Mr Mohd Ridzuan Mohamad Salleh
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7. Monitoring and Evaluation

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- b. Dr. Husna Maizura Ahmad Mahir
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- e. Dr. Param Jeeth Singh a/l Pakar Singh
Public Health Physician
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- f. Dr. Koay Teng Khoon
District Medical Officer of Health
Sabah State Health Department

- g. Dr. Asiah Ayob
Public Health Physician
Perak State Health Department

- h. Dr. Norita Shamsudin
Public Health Physician
Disease Control Division
Ministry of Health, Malaysia

- i. Mr. Dass a/l Kandunni
Melaka State Health Department

MYSED WORKPLAN 2012-2015

Focus Area: Surveillance, Risk Assessment and Response																										
A. Core Components: Event-based Surveillance																										
	Activities	Indicator and Target	Target Group	Measurement Tools	Responsible Unit(s)	Implementation Level (N/S/D)*	2012				2013				2014				2015							
							Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4				
1	To produce a National EBS Guideline	Availability of National EBS Guideline One guideline	Surveillance Section/ CDC Unit at state level / MOH at district level	Availability of guideline	Surveillance Section, MOH	N																				
2	Strengthen current capacity via training and exercise management -to conduct training on EBS -to conduct simulation exercise (cross-reference with PHEP-item A.6)	Frequency of EBS training conducted. (to harmonize with PHEP) Once a year	Surveillance Section/ CDC Unit at state level / MOH at district level	Return format on training conducted (new) – cross-cutting with all groups	MOH Related agencies	N/S/D																				
3	Computer-based archiving of events notified -To develop an interface for multiple hazards reporting <i>Note: Development of new ICT tool is dependent upon approval by ICT Committee (JPICT) of MOH</i>	Development of an electronic interface for all events Interface established for all events	Surveillance Section/ CDC Unit at state level / MOH at district level	Functioning interface system	Surveillance Section, MOH	N																				

4	To regularly update directory of agencies' focal points and experts -cross-reference with PHEP (item A.7 and E.1)	Updated directory of agencies' focal points and experts (to harmonize with PHEP) Yearly	Surveillance Section/ CDC Unit at state level / MOH at district level	Availability of updated directory	MOH	N/S/D																	
5	To evaluate Event Based Surveillance System	Evaluation conducted Within 1 year after the production of guidelines	Surveillance Section/ CDC Unit at state level / MOH at district level	Evaluation report	Surveillance Section, MOH	N																	

* N – National S – State D – District

Focus Area: Surveillance, Risk Assessment and Response																										
B. Core Components: Indicator-based Surveillance																										
	Activities	Indicator and Target	Target Group	Measurement Tools	Responsible Unit(s)	Implementation Level (N/S/D)*	2012				2013				2014				2015							
							Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4				
1	To review list of priority notifiable diseases based on standard and clear prioritization process and regular updating	Reviewed priority list Every 5 years	Disease Control Division, MOH (CDC Section)	Expert review report	Surveillance Section, MOH Universities	N																				
2	To share and exchange information data with related agencies, at all levels of MOH and regional <i>Note: The platform of sharing and exchanging information data, varies among diseases</i>	Frequency of information data sharing and exchange	Disease Control Division, MOH (CDC Section)	List of participating agencies	Various Sectors within Disease Control Division, MOH	N																				
3	To produce summary report of relevant surveillance data for circulation <i>Note: The frequency of report produced and circulated, varies among diseases</i>	Number of reports circulated	Disease Control Division, MOH	Summary report	Various Sectors within Disease Control Division, MOH	N																				

4	To review 'Case Definitions Of Infectious Diseases In Malaysia 2 nd Edition, 2006' book	Reviewed 'Case definitions of infectious diseases in Malaysia' Every 5 years (commence 2013)	Disease Control Division, MOH (CDC Section)	'Case Definitions Of Infectious Diseases In Malaysia 2 nd Edition, 2006'	Surveillance Section, MOH	N														
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* N – National S – State D – District

Focus Area: Surveillance, Risk Assessment and Response																						
C. Core Components: Risk Assessment Capacity																						
	Activities	Indicator and Target	Target Group	Measurement Tools	Responsible Unit(s)	Implementation Level (N/S/D)*	2012				2013				2014				2015			
							Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1	To develop a local rapid risk assessment format to cater for acute public health events (incorporate into EBS)	Format developed November 2013	Surveillance Section, MOH	Rapid risk assessment format	Surveillance Section, MOH	N																
2	To conduct training on risk assessment for acute public health events (WHO module) Cross-reference with PHEP (integrated training-item A.6)	Number of training done per year (to harmonize with PHEP) Yearly	All levels	Yearly return (new)	All levels	N/S/D																
3	Monitoring and evaluation of risk assessment conducted for acute public health events	Frequency of formal review and systematic analysis done 4 events per year (via the Biannual Technical Epid Meeting)	All levels	Review report	All levels	N/S/D																

* N – National S – State D – District

Focus Area: Surveillance, Risk Assessment and Response																										
D. Core Components: Rapid Response Capacity																										
	Activities	Indicator and Target	Target Group	Measurement Tools	Responsible Unit(s)	Implementation Level (N/S/D)*	2012				2013				2014				2015							
							Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4				
1	To conduct RRT and RAT training (including PHEIC) Cross-reference with PHEP – integrated training i.e. item A.6	Frequency of training (to harmonize with PHEP) Yearly	RAT/RRT Community	Training report	Disease Control Division, MOH	N																				
2	To review and update 'Infectious Disease Outbreak Rapid Response Manual, 2003'	Updated 'Infectious Disease Outbreak Rapid Response Manual, 2003' December 2013	Disease Control Division, MOH	Infectious disease outbreak rapid response manual	Surveillance Section, MOH	N																				
3	To conduct post-mortem of outbreak management Cross-reference with item C.3 (within Core Component: Risk Assessment Capacity)	Frequency of post-mortem done 4 post-mortems per year (via the Biannual Technical Epid Meeting)	All levels	Post-mortem report	All levels	N/S/D																				
4	Timely reporting of preliminary report into outbreak registry	Percentage of outbreak reported within stipulated timeframe ≥80%	All levels	Report	All levels	N/S/D																				

* N – National S – State D – District

Focus Area: Surveillance, Risk Assessment and Response																										
E. Core Components: Field Epidemiology Training																										
	Activities	Indicator and Target	Target Group	Measurement Tools	Responsible Unit(s)	Implementation Level (N/S/D)*	2012				2013				2014				2015							
							Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4				
1	To strengthen regional network of field epidemiologist	Number of ASEAN +3 FETN joint activities organised or /and participated Yearly	Field epidemiology trained/trainer/ trainee	Calendar of events	Field epidemiology trained/trainer / trainee	N																				
2	To improve rapid response capacity through links with field epidemiology trained graduates	Number of investigations jointly conducted with field epidemiology trained graduates (≥2 per year)	All levels	Calendar of training programs	All levels	N/S/D																				
3	To develop advanced training modules and conduct training for FET	Number of trainings conducted per year Yearly	EIP Supervisors/ trainers	Calendar of Training programs	EIP Supervisors/ trainers	N																				
4	To ensure periodic review of expected competencies for FET graduates based on needs and local demands	FETP curriculum and competencies reviewed 1 in 5 years	EIP management	Revised EIP curriculum	EIP management	N																				

* N – National S – State D – District

Focus Area: Surveillance, Risk Assessment and Response																						
F. Core Components: Legislation & Policy																						
	Activities	Indicator and Target	Target Group	Measurement Tools	Responsible Unit(s)	Implementation Level (N/S/D)*	2012				2013				2014				2015			
							Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1	To review existing national law (s) and/or regulation(s) and/or policy and identify areas that need to be revised, in order to support early warning functions of surveillance	List of law(s), regulation (s) and/or policy reviewed Once in every 5 years or earlier if required	Public Health Specialist, Legal Office, MOH Inspectorate and Enforcement Unit, MOH	Documents reviewed	Public Health Specialist, Legal Office, MOH Inspectorate and Enforcement Unit, MOH	N																

* N – National S – State D – District

Focus Area: Surveillance, Risk Assessment and Response																						
G. Core Components: Essential IHR Requirement & Procedures																						
	Activities	Indicator and Target	Target Group	Measurement Tools	Responsible Unit(s)	Implementation Level (N/S/D)*	2012				2013				2014				2015			
							Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1	To develop standard operating procedures (SOP) for National IHR Focal Point Cross-reference with PHEP	Formulation of SOP (to harmonize with PHEP) December 2013	National IHR Focal Point	SOP document	International Health Sector, MOH	N																
2	To participate in annual IHR NFP exercise (Crystal Exercise with WHO Regional Office) Cross-reference with PHEP (Item B.1b)	Frequency of participation (to harmonize with PHEP) Yearly	Disease Control Division, MOH	Crystal exercise report	International Health Sector, MOH	N																

* N – National S – State D – District

Focus Area: LABORATORY							2012				2013				2014				2015			
Activities	Indicator and Target	Target Group	Measurement Tools	Responsible Unit(s)	Implementation Level (N/S/D)*	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
A National policy, standards, legal framework for laboratory																						
1	To establish a national Laboratory Technical Advisory Committee (LTAC) for Infectious Diseases.	LTAC established. 2 meeting per year	MOH (hospital laboratory, IMR, MKAK/MKA, health centers) and other (Universities, MOSTI, Veterinary, Army and private laboratories).	Minutes of meeting	DCD (NPHL)	N																
2	Consolidate and strengthen existing policies and legislation on Diagnostic laboratory services and identify the regulatory unit/authority. This include compliance with quality standards. <ul style="list-style-type: none"> To compile existing policies and legislations To review and update if necessary To identify the regulatory body to ensure compliance 	<ul style="list-style-type: none"> To complete compilation by Mac 2013 To review every 2 years A unit / department established 		Review report (Policies and legislations)	LTAC	N																

3	Strategic planning for strengthening laboratory services on diseases preparedness and response plan include dissemination and knowledge transfer related to policies, standards and guidelines. <ul style="list-style-type: none"> To conduct workshop To disseminate through training activities 	Strategic plan prepared. <ul style="list-style-type: none"> At least one workshop per year Minimum one training per state (80% accomplished) 		Workshop and training report	LTAC sub-committees	N/S/D																
B. Laboratory capacity mapping, assessment and networking																						
1	To develop tools for establishment of a national registry on laboratory capacity and capability.	National registry mapping of capacity and capability of diagnostic and research laboratories established and updated (at least 80%)	MOH (hospital laboratory, IMR, MKAK/MKA, health centres) and other (Universities, MOSTI, Veterinary, Army and private laboratories	Data management Tool , standard reporting format																		
2	To update National Inventory / database on laboratory services every 3 years (MOH and all relevant laboratories).																					
3	<ul style="list-style-type: none"> To Identify laboratory network to provide support during public health crisis To establish communication and data flow within the network. 	Workflow of communication within network developed		Minutes of meeting																		

4	<p>To strengthen laboratory response with effective networking.</p> <ul style="list-style-type: none"> • To establish policy for laboratory response based on laboratory infrastructure and pathogen risk groups. • To define roles and responsibilities of diagnostic laboratories within the public health network according laboratory BSL, facilities and skilled manpower. • To identify point of care laboratory (hospital pathology laboratory), public health laboratory, reference laboratory (IMR, Universities, VRI) providing the relevant laboratory services. 	Policy established with roles and responsibilities defined																			
C. Accurate laboratory diagnosis																					
1	Establish national quality assurance sub - committee under LTAC.	National quality assurance sub - committee formed.	MOH (hospital laboratory, IMR, MKAK/MKA, health centres) and other (Universities, MOSTI, Veterinary, Army and private laboratories).	LTAC sub - committee	LTAC	N															
2	To implement the policy for relevant laboratories to be accredited to international standards or national standards adapted from international standards (where applicable).	Policy implemented (100% national reference laboratories and laboratories with pathologist accredited)		Percentage. of laboratory accredited	LTAC sub - committee	N															

3	<ul style="list-style-type: none"> To regularly review existing SOP (collection, packaging, transport of clinical and non-clinical specimens) To regularly review laboratory procedures to be compatible with national/international norms. To develop new SOPs if necessary 	To review every 2 years SOPs updated and new SOP developed in line with APSED requirements		Review reports, minutes of meeting.		N																
4	<p>To strengthen the EQA programme</p> <ul style="list-style-type: none"> To expand EQA (National and International) program participation coverage to relevant laboratories and testing. To identify and expand the EQA local service providers. 	Number of laboratory participation (100% MOH laboratories) Number of local providers(100% national reference laboratories)		Percentage of Laboratories participation and number of local providers.		All levels																
5	<p>To establish the policy for evaluation of new diagnostic kits and reagents. To identify competent laboratories to conduct kits evaluation.</p>	Policy established. Laboratories identified.(At least 5 for core competency)	MOH (Disease Control Division)	Number of laboratories	LTAC	N																

D. Laboratory support for surveillance												
1	To improve existing mechanism for sharing information between laboratory (public and private) and public health surveillance (clinical).	Data management tools for information networking & sharing improved.	MOH (hospital laboratory, IMR, MKAK/MKA, health centers) and other (Universities, MOSTI, Veterinary, Army and private laboratories)	Open access of the information	DCD (NPHL)	N/S/D						
2	To strengthen existing national laboratory based surveillance system. To expand laboratory based surveillance programme to cover priority pathogens To expand the current web based application coverage (laboratories and pathogens)	An integrated expanded national lab surveillance system established. Web based application established.		No. of participating laboratories in surveillance network Lists of pathogens in the programme		N/S/D						
E. Laboratory support for outbreak preparedness and response												
1	To develop training module on laboratory procedures for identification of priority pathogens associated with community outbreaks. To conduct training and simulation exercises for laboratory staff on specimen collection, specimen processing according to risk groups, pathogen identification, reporting and risk communications.	Training module developed 1 workshop per year at national level. 1 workshop per year at region level.	Laboratory personnel.	Training modules and workshop reports	IKU/IMR/NPHL	N						

2	Strengthen existing collaboration/partnership/networking among human and animal health, food and environmental laboratories at national and international levels.	Establish collaborative project/partnership/networking i.e. technical meeting or communication.	Animal and human health diagnostic laboratories	Number of collaborative projects/partnership/networking.	DCD (NPHL)	N														
3	Develop laboratory preparedness plan to include stockpiling of laboratory related items (laboratory reagents, rapid tests and sampling kits / container) to ensure immediate mobilization for priority diseases.	Work plan developed.	MOH laboratories.	Stockpile inventory report		N														
F.	Laboratory Biosafety and biosecurity (*national legislation for compliance to biosecurity is currently drafted under MOD)																			
1	To establish national biosafety and biosecurity) committee.	National biosafety and biosecurity (biorisk) committee under LTAC established	NPHL, IMR, MOH, MOHE, MOSTI, MOD, MOE	LTAC meeting and TOR of subcommittee	DCD (surveillance sector)	N														

2	<p>To develop biorisk policy.</p> <p>To review and disseminate guidelines / standards related to biosafety and biosecurity.</p> <p>To develop programmes to ensure continuous biorisk management training at national, state and local level (training module should include safe shipment of infectious substances according to IATA, decontamination and management of infectious waste.</p>	<p>Policy developed 1 training programme per year at national level</p> <p>1 training programme per year at regional level</p>	<p>Table 1</p> <p>National biorisk committee, MOH</p>	<p>Minutes of meeting A biorisk training module develop</p> <p>Training report</p>	DCD	N/S/D																			
3	<p>Implementation and Monitoring of biorisk management and practices. e.g containment laboratory designation and authorization or certification.</p>	<p>Biorisk assessment / inspection conducted</p>		<p>report</p>	DCD	N/S/D																			
G.	Operational research on laboratory issues																								
1	<p>To map epidemiology and biostatistics laboratories conducting operational research on laboratory issues</p>	<p>List of research laboratories identified</p>	<p>All laboratories.</p>	<p>Survey reports</p>	LTAC	N																			

Focus Area: Zoonoses														
A.	Core Components: Sharing of surveillance information													
A1	Strategy: Strengthen intersectoral zoonoses committee between animal and human health authorities at national and state (including district) levels													
	Activities	Indicator and Target	Target Group	Measurement Tools	Responsible Unit(s)	Implementation Level (N/S/D)*	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1	To conduct regular interagency meeting at national	Number of Interagency Zoonoses Control Committee Meeting per year. Target: twice per year	MOH, DVS, Wildlife services, local government & universities	Minutes of meeting	MOH DVS	N								
A2	Strategy: Strengthen arrangements to share and assess (epidemiology and laboratory) surveillance data of human, animal and food safety													
1	To regularly share scheduled routine surveillance information of identified priority zoonoses	Number of reports shared Target: quarterly	MOH, DVS, Wildlife services	Report	MOH, DVS, Wildlife services	N/S								
2.	To promptly share incident reporting of zoonotic event between MOH and related agencies.	Percentage of total number of incidents shared between MOH and related agencies Target≥ 80%	MOH, DVS, Wildlife services	Documents (Email/ Report)	MOH, DVS, Wildlife services	N								

B. Core Components: Coordinated Response												
B1 Strategy: Strengthen capacity building for national rapid response to zoonotic diseases												
1	To develop standard operating procedures for detection, risk assessment and response to zoonotic diseases	Number of SOP developed when necessary Target: SOP for zoonoses developed 1/year	MOH, DVS, Wildlife services	SOP document	MOH, DVS, Wildlife services	N						
2	To conduct training in zoonotic diseases	Number of training conducted Target: training conducted 1/ year	MOH	Training conducted	MOH, DVS	N						
C. Core Components: Risk reduction												
C2 Strategy: Strengthen risk reduction strategies for priority zoonoses												
1	To compile and share available risk reduction strategies for zoonoses [Note: existing DVS manual on SALT, GAHP, MOH manual on HACCP, GMP, GHP, SK1M, Garispanduan Pusat Penjualan Unggas di Pasar oleh KPKT, etc.]	No of documents compiled & shared Target open	MOH, DVS, Wildlife services	Database of documents/ SOP/ Guideline/ protocols	MOH, DVS, Wildlife services	N						

D.	Core Components: Research						
D1	Strengthen collaborative research on zoonoses						
1	To coordinate and conduct collaborative research on zoonotic diseases	Number of collaborative research conducted when necessary Target : Open	MOH, DVS, Wildlife services, universities	Research reports/ scientific papers	MOH, DVS, Wildlife services, universities	N	On-going

Focus Area: Infection Prevention and Control

Strategy 1: Strengthening the National Policy and Strategy on Infection Prevention and Control (IPC)

Activities	Indicator and Target	Target Group	Measurement Tools	Responsible Unit(s)	Implementation Level (N/S/D)*	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
Compliance to infection control activities in all health care settings	i) Practice of standard precaution by HCWs ≥80%	HCW	Standard Precaution Compliance Audit Form *	Medical Development Division Family Health Development Division DCD	N, S, D													
	ii) Hand hygiene practice among HCW ≥75%	HCW	Hand Hygiene Audit Tool	Medical Development Division Family Health Development Division DCD	N, S, D													
	iii) Health care associated infection (nosocomial) = <2.5%	HCW & patients	Point Prevalence Survey	Medical Development Division Family Health Development Division DCD	N													

Strengthen infection control committees at various level – national, state, hospital and district	i) No of state health department and PKD with infection control committee. Target 100%	State health department, hospital, PKD	List of institutions with infection control committee	Medical Development Division, Family Health Development Division, DCD State Health Department, hospital, District Health Office	N, S, D																
Identify national centre of excellence to become IPC resources for country	One centre identified	Hospital /centre	Name of centre	DCD Medical Development Division Family Health Development Division																	
Review and Update practices on infection control policy, procedure including mechanism for rapid notification of unusual occurrences of infectious disease	Infection Control Policy is reviewed and circulated to all relevant departments	Health care set-up & HCW	Documented Reviewed Policy	Medical Development Division Family Health Development Division DCD	N																
Ensure constant, sufficient and appropriate provision of PPE's	At least 2 set of PPE per HCW at any one time. At least 2 surgical mask per patient (BOR) – Am Journal of Infection Control	Clinics and hospitals	Stockpiling Audit Form	State Director	S D																

Strategy 2: To Enhanced Capability and Capacity Building on IPC										
Training on infection control and prevention for all HCW: hospital, clinics and field (during outbreak)	i. Develop training module	HCW	Module developed and ready to be used	Medical Development Division Family Health Development Division DCD HECC	N					
	ii. Training once a year per district	HCW	Training Session Once a year	Medical Officer of Health	D					
	iii. Simulation exercise once a year per state	HCW	Simulation Exercise 1x / year	State Director	S					
Review module for post-basic training on infection control for paramedics	Module reviewed	HCW	Module developed and ready to be used	Medical Development Division Family Health Development Division DCD	N					

Establish database of trained / skilled personnel in infection control in health care settings	Database established	HCW	Database existence and updated	Medical Development Division Family Health Development Division DCD	S (Matron – KA- Per) D																
Produce IEC material on infection control and disseminated it to all level and relevant agencies.	1 IEC material related to IPC produce per year	Public & HCW	Material produce	HECC	N																

Strategy 3: To Integrate Program Monitoring Between Departments

To develop checklist for monitoring/auditing

i) Hand Hygiene Compliance Audit	Checklist developed	HCW	5 Moments of hand hygiene	Medical Development Division Family Health Development Division DCD	N																
ii) Standard Precaution Compliance Audit	Checklist developed	HCW	Audit on proper use of PPE	Medical Development Division Family Health Development Division DCD	N																

		HCW	Audit on patient isolation /cohort	Medical Development Division Family Health Development Division DCD	N															
Regular auditing at health care facilities (system, work-process & healthcare worker) a) List of audit b) Schedule of audit	1)Healthcare facilities with isolation / cohort area for emerging diseases Target- 80% 2) Healthcare facilities with Pandemic / Emerging Disease Plan Target -100% 3)HCW - hand hygiene Target – 75% -PPE Target – 50%	Hospital, clinic Hospital, clinic	Audit tool Audit tool Audit tool	Medical Development Division Family Health Development Division DCD Planning and Development Division	S, D															
Strengthen surveillance system: i) Hospital-acquired infection Point Prevalence Survey (PPS)	% of hospital with HCAI rate <2.5% by 2015 Target – 75%	Hospital	PPS report	Medical Development Division	N,S															
ii) Event based surveillance on infectious disease outbreak in healthcare setting	No. of outbreak Target - 0	Hospital Clinics	Reporting system	Hospital Clinic	S,D															

iii) National Antibiotic Resistance Surveillance (NARS)	No. of Antimicrobial agents which resistance against nationally identified organisms has stabilised or decreased Target- At least five drugs for which resistance has stabilised or decrease by 2015	Hospital	NARS	IMR	N,S								
iv) Alert Organism Surveillance 1) MRSA 2) ESBL (Extended Spectrum Beta Lactamase)	% of hospital with MRSA/ESBL rate within the control process	Hospital	Alert organism Surveillance report	Medical Development Division	N,S								

Focus Area: Risk Communication																	
Operation Communication																	
Activities	Indicator and Target	Target Group	Measurement Tools	Responsible Unit(s)	Implementation Level (N/S/D)*	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
S: Strengthening of Risk Communication Programme A: Review current RC programme with input from reports of RC after major public health crisis. (?cross cutting 5.1.1.8) Surveillance, RA, Response	I: Report on major public health crisis produced and disseminated. T: Within one month following end of crisis	Internal and external stakeholders	Report on crisis	Health Education Division IHBR	N												
Health Emergency Communication																	
S: Enhance the structure for RC to address public health crisis. A: Establishment of National Disaster Health Crisis Committee whose members include on RC.	I: Inclusion of RC in public health crisis management committee T: Present in all committee meetings following crisis declared.	Relevant stakeholders to crisis	Minutes of meeting	Disease Control Division	N												
S: Preparedness on RC to address public health crisis A: Implementation of national risk communication plan (?cross cutting 5.1.1.4 and 5.1.1.7) (? PHEP item A6)	I: no. of simulation exercise T: at least once a year	At all levels	Report	Health Education Division	N,S,D												

S: Enhance RC dissemination A: Press released or press conference (PC)	I: frequency of press release or PC T: first press release within 24-48 hours following declaration of crisis	Media and public	Press statement	Disease Control Division Health Education Division	N															
S: Production of target specific RC messages A: Development of health messages following needs assessment	I: no of IEC Materials produced T: 90% of IEC materials been distributed	Public	List of IEC distribution	Health Education Division IHBR SHD DHO	N,S,D															
S: Enhancing capability and capacity in RC A: RC Training for public health emergency (cross cutting with Public Health Emergency & Preparedness- ?item A5)	I: List of training done T: at least once per year at every level	Epidemiologists HEOs	Report	Health Education Division IHBR SHD	N,S,D															
Behaviour Change Communication																				
S: Strengthening community engagement and mobilisation A: Engage and mobilise the community	I: List of community base activities (eg. active COMBI). T: Community conduct at least one activity every 6 month	Community	COMBI Returns	HED IHBR SHD DHO	N,S,D															

Focus Area: Public Health Emergency Planning

A. Core Components: National command, control and coordination structure and EOC

	Activities	Indicator and Target	Target Group	Measurement Tools	Responsible Unit(s)	Implementation Level (N/S/D)*	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
1.	To review and strengthen the Crisis Preparedness and Response Centre (CPRC) and organisation structure of Ministry of Health (MOH) within the ministry of health that will support all the response functions	-Operationalisation of CPRCs at all levels during public health and medical crisis	National/ State/District	CPRC activated at all levels within 24 hours.	Disease Control Division Medical Development Division	All Levels													
2.	To improve relevant operational guidelines and Standard Operating Procedures (SOPs) for public health and medical emergency response (e.g. operation communication, logistic functions in relation to public health emergency response, updated contacts, task folders and SOPs)	Integration of existing guidelines into specific SOPs	National/ State/District	Manuals/ SOPs	Disease Control Division Medical Development Division Engineering Services Division, MOH Relevant Agencies	All levels													

3.	To improve personnel capability via standardised training programmes which include simulation and exercise.	Simulation/Exercise No. of integrated training	National/ State/District	5 times a year 1 per year	Disease Control Division Medical Development Division	All levels														
B. Core Components: National IHR Focal Point Functions																				
1 a	Regularly test and update multisectoral and multidisciplinary coordination and communication mechanisms during actual event occurrence	As and when needed	National IHR Focal Point	Communication Reports	Disease Control Division Medical Development Division	*N														
1 b	Regularly test and update multisectoral and multidisciplinary coordination and communication mechanisms through simulation or table top exercises	At least once a year (Table Top/ field exercise)	All related public health providers	Report	Disease Control Division	*N														
2	To conduct annual updates on the status of IHR implementation to stakeholders across all relevant sectors	At least once a year	All related sectors	Report (IHR Evaluation Report)	Disease Control Division	*N														

C. Core Components: Point of Entry Preparedness												
1.	<p>Emergency preparedness and response</p> <ul style="list-style-type: none"> •To develop communication link and procedures between : •Health authority at points of entry with the National IHR Focal Point, state health department, district and other Points-of-Entry (POE's) •Health authority with other relevant agencies at POE •Health authority at POE with other International POE's. 	Documented communication procedures	Airports, Sea Ports, Ground Crossings	Assessment tool for core capacity requirements at designated airports, ports and ground crossings, October, 2009 (WHO/HSE/IHR/LYO/2009.9)	Disease Control Unit at POE.	POE						
2.	To develop core capacity requirements for POEs in line with IHR 2005 requirements	All designated POE's	Airports, Sea Ports, Ground Crossings	Assessment tool for core capacity requirements at designated airports, ports and ground crossings, October, 2009 (WHO/HSE/IHR/LYO/2009.9)	Disease Control Unit at POE.	POE						

7.	Periodic training and/or simulation exercises to familiarize contact points of key sectors/services at point of entry with the public health and medical contingency plan and respective roles and functions within it.	All designated POE's. Annually on Rotation among POE's	Airports, Sea Ports, Ground Crossings	Assessment tool for core capacity requirements at designated airports, ports and ground crossings, October, 2009 (WHO/HSE/IHR/LYO/2009.9)	POE	POE															
8.	To establish bilateral or multilateral arrangements or agreement concerning prevention and control of infectious diseases at designated POE. Meetings should be conducted as per arrangement/agreement among member states.	Based on arrangement/agreement. Report for every Meeting	Disease Control Division, MOH HQ, POE.	-	Disease Control Division, MOH HQ	Disease Control Division, MOH HQ, POE.															
D. Core Components: Response logistics																					
Core Components: Human Resource development																					
1.	To Identify response logistics focal point or person with established Terms of Reference (TOR) within the Ministry of Health	To identify appropriate person/s as focal point	Disease Control Division, MOH	No. of response logistics focal points	Disease Control Division, MOH Medical Development Division, MOH	*N															

2	To include person/s trained in response logistics in the rapid response team for emergency response	To train appropriate person/s as focal points	National, State and District MOH	No. of training sessions. Number of person/s trained in response logistics	Disease Control Division, MOH Medical Development Division, MOH	*N																
E. Core Components: Clinical Management																						
1.	To develop and establish for rapid mobilization of experts in clinical management to provide on-the-ground support during emergencies: <ul style="list-style-type: none"> To develop a cadre of clinicians at national level trained for emergency response 	<ol style="list-style-type: none"> Registry of all relevant experts with relevant certification and/or experience in public health and medical emergencies Review and updating of existing SOPs 	All Relevant Specialists	<ol style="list-style-type: none"> Establishment of the registry at : National, Regional & State Levels SOPs being produced involving multi agencies 	Medical Development Division, MOH Disease Control Division, MOH Relevant Agencies	All levels																

2.	<p>Formulate guidelines and training materials -To identify priority diseases with knowledge gaps in clinical management and develop training materials and guidance documents</p> <p>(Cross cutting issue with Focus Area: Surveillance and Risk Assessment)</p> <p>(by creating IT based data management)</p>	Strengthening and improving existing syndromic surveillance system	All related HCP	<p>Number of trained personnel</p> <p>Distribution of the guidelines.</p>	<p>Medical Development Division, MOH</p> <p>Disease Control Division, MOH</p>	All Levels																
F. Core Components: Health care facility preparedness and response																						
1.	To enhance and revise the national guidance and training materials on health care facility preparedness and response planning and support to the planning process.	All health care facilities should revise a national guidance and training materials on health care facilities preparedness and response planning and support to the planning process.	Stakeholders and Health Care Providers (HCPs) at national, state and district levels.	<p>-OSHA - NIPPP -KPIs</p> <p>Regular training (4 monthly)</p> <p>Annual simulation exercise</p>	Disease Control Division, Medical Development Division, State Health Directors, Hospital Directors, District Health Officers	Hospital District Health Office, State Health Department and other Health Care Facilities																

2.	To improve and strengthen health care facility preparedness and response plans.	<p>1. Provision of standardised training. Conduct regular/refresher courses.</p> <p>2. Reviews and updates of SOPs. SOPs for collaborative measures via trainings and workshops.</p>	All HCPs	<p>1. Training (as mentioned in Item A3)</p> <p>2. Simulation exercise (as mentioned in Item A3)</p>	Disease Control Division, Medical Development Division, State Health Directors, Hospital Directors, District Health Officers	Hospital District Health Office, State Health Department and other Health Care Facilities	
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MYSED MONITORING & EVALUATION WORKPLAN

Focus area	Indicators & Targets
Surveillance, Assessment & Response	<ol style="list-style-type: none"> 1. Number of evaluation and review conducted on acute public health events per year. Target: ≥ 4 per year 2. Percentage of outbreak reported within the stipulated timeframe. Target: ≥ 80% per year 3. Percentage of PHEIC notified to WHO within 24 hours. Target: 100%
Laboratory	<ol style="list-style-type: none"> 1. Number of laboratories with capacity to meet diagnostic & confirmatory laboratory requirements for Ministry of Health priority disease [as in National Laboratory Based Surveillance Guideline, MOH, 2006.] Target: ≥ 1 new test method for priority diseases developed per year
Zoonoses	<ol style="list-style-type: none"> 1. Percentage of total number of incidents shared between MOH and related agencies. Target : ≥ 80% per year
Infection Prevention & Control	<ol style="list-style-type: none"> 1. Hand hygiene practice among health care workers Target : ≥ 75% (national standard)
Risk Communication	<ol style="list-style-type: none"> 1. Number of staff being trained in Risk Communication Training for public health emergency per year. Target: ≥ 20 staff being trained per year 2. Percentage of press release submitted as instructed by the Director General of Health/Head of Program/Head of Division. Target: 100%
Public Health Emergency Preparedness	<ol style="list-style-type: none"> 1. No. of simulation exercises conducted per year. Target: ≥ 15 simulation exercises conducted per year

MYSED MONITORING & EVALUATION INDICATORS REPORTING FORMAT

A. FOCUS AREA: SURVEILLANCE, RISK ASSESSMENT & RESPONSE						
No.	Activities	Indicators	Target	Achievement	Status	Comment
1.	Evaluate and review the management of acute public health events (i.e. focusing on the interaction of the surveillance, risk assessment and response systems to visualize how timely and accurate information enables an evidence-based approach to decision making for public health action)	Number of evaluation and review conducted	≥ 4 acute public health events per year			
2.	Timely reporting of preliminary report into the outbreak registry	Percentage of outbreak reported within the stipulated timeframe	≥ 80%			
3.	Notification of Public Health Emergencies of International Concern (PHEIC) within 24 hours	Percentage of PHEIC notified to WHO within 24 hours	100%			

B FOCUS AREA LABORATORY						
No.	Activities	Indicators	Target	Achievement	Status	Comment
1	To update National Inventory / database on laboratory services (MOH and all relevant laboratories)	Number of laboratories with capacity to meet diagnostic and confirmatory laboratory requirements for Ministry of Health priority disease*. *as stated in National Laboratory based surveillance guideline , MOH, 2006	≥ 1 new test method for priority diseases developed and offered by Public Health Laboratories and/or Institute Medical Research per year			

C FOCUS AREA ZOOSES						
No.	Activities	Indicators	Target	Achievement	Status	Comment
1	To promptly share incident reporting of zoonotic events between MOH and related agencies	Percentage of total number of incidents shared between MOH and related agencies	≥ 80%			

D FOCUS AREA INFECTION PREVENTION AND CONTROL						
No.	Activities	Indicators	Target	Achievement	Status	Comment
1.	Compliance to infection control activities in all health care settings	Hand hygiene practice among HCW	≥ 75% [national standard]			

E FOCUS AREA RISK COMMUNICATION						
No.	Activities	Indicators	Target	Achievement	Status	Comment
1.	S: Enhancing capability and capacity in RC A: Risk Communication Training for public health emergency	Number of staff being trained per year	≥ 20 staff being trained per year			
2.	S: Enhance RC dissemination A: Press release following crisis / public health emergency based on instruction by KPK / Ketua Program / Pengarah Bahagian	Percentage of press release submitted as instructed by KPK / Ketua Program / Pengarah Bahagian	100%			

F FOCUS AREA PUBLIC HEALTH EMERGENCY PREPAREDNESS						
No.	Activities	Indicators	Target	Achievement	Status	Comment
1.	To improve personnel capability to respond to any acute public health emergency via simulation exercises	No. of simulation exercises conducted per year	≥ 15 simulation exercises conducted per year			

SUMMARY

No.	Focus area	No. of indicators
1	Surveillance, Assessment & Response	3
2	Laboratory	1
3	Zoonoses	1
4	Infection Prevention and Control	1
5	Risk Communication	2
6	Public Health Emergency Preparedness	1
	TOTAL	9