



MINISTRY OF HEALTH  
REPUBLIC OF INDONESIA



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# The ASEAN Protocol of Cross-Border Contact Tracing and Rapid Outbreak Investigation



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# **The ASEAN Protocol of Cross Border Contact Tracing and Rapid Outbreak Investigation**

The ASEAN Secretariat  
Jakarta

The Association of Southeast Asian Nations (ASEAN) was established on 8 August 1967. The Member States are Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand and Viet Nam.

The ASEAN Secretariat is based in Jakarta, Indonesia.

For inquiries, contact:

The ASEAN Secretariat

Community Relations Division (CRD)

70A Jalan Sisingamangaraja

Jakarta 12110, Indonesia

Phone: (62 21) 724-3372, 726-2991

Fax: (62 21) 739-8234, 724-3504

E-mail: [public@asean.org](mailto:public@asean.org)

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# PREFACE

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Contact tracing is one of the efforts to break a chain transmission in communicable diseases control. The cross-border situations have many challenges and it can be potentially improved by developing a contact tracing system to strengthen national cross border mechanism.

Under the International Health Regulation 2005, it is important for every ASEAN Member States (AMS) to have the capacity to immediate prevent, detect and respond to any kind of threat that causes the Public Health Emergencies (PHE) through collective response for public health security. Each AMS should strengthen its core public health systems in order to meet sufficient capacities on early detection and rapid response to PHE. Regional connectivity and coordination are essential, including investing in the existing capacities.

To bridge the lack of effective communication mechanism among relevant border authorities among ASEAN Member States (AMS) and the lack of good quality information, it is important for ASEAN to establish a cross-border public health response protocol for contact tracing and rapid outbreak investigation among AMS in order to prevent and mitigate possible waves of COVID-19 and other similar cases in the future.

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# ● A. BACKGROUND

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Coronavirus Disease 2019 (COVID-19) was first detected in December 2019 and has spread throughout the world. The World Health Organization (WHO) declared as a pandemic on 11 March 2020. As of 3 May 2020, it has spread to 214 countries and territories worldwide. Globally, as of 11 January 2022, there have been 308,458,509 confirmed cases of COVID-19, including 5,492,595 deaths. The case also occurs in 10 ASEAN Member States (AMS). As of 11 January 2022, and the case are reported as follows:

- Brunei Darussalam recorded 172 new cases and 2 deaths on January 11, taking the total to 15,678 cases and 59 deaths.
- Cambodia saw 120 new cases and 1 death on January 11, bringing the totals to 120,636 cases and 3,015 deaths.
- Indonesia recorded 3,719 new cases and 39 deaths on January 11, bringing the tally to 4,267,451 cases and 144,144 deaths.
- Lao PDR recorded 6,089 new cases on January 11, taking the total to 119,521 cases amid 448 deaths.
- Malaysia saw 21,816 new cases and 136 deaths on January 11, bringing the tally to 2,788,860 cases and 31,696 deaths.
- Myanmar recorded 868 new cases and 15 deaths on January 11, bringing the tally to 532,167 cases and 19,293 deaths.
- The Philippines reported 142,845 new cases and 707 deaths on January 11, bringing the totals to 2,998,530 cases and 52,293 deaths.
- Singapore saw 5,643 new cases on January 11, taking the tally to 286,397 cases amid 838 deaths.
- Thailand recorded 49,033 new cases and 100 deaths on January 11, taking the tally to 2,284,609 cases and 21,850 deaths.
- Vietnam's Ministry of Health confirmed a total of 1,914,393 cases of COVID-19. Vietnam has also recorded 34,531 deaths due to the pandemic.

There is no effective communication mechanism among relevant border authorities among ASEAN Member States (AMS) and the lack of good quality information, therefore, it is important for ASEAN to establish a cross-border public health response protocol for contact tracing and rapid outbreak investigation among AMS in order to prevent and mitigate possible waves of COVID-19 and other similar cases in the future. Especially in the aspect of uniformity, accuracy, and detailed information sharing on the contact tracing of individuals as well as inadequate regional mechanism.

According to the Asia Pacific Strategy for Emerging Diseases and Public Health Emergencies (APSED III) there is a common framework to address shared threats and respond mechanism as required by the International Health Regulations (2005) (IHR 2005).

The framework provides an important collaborative platform for Member States, WHO and partners to work together to strengthen preparedness and response to outbreaks and public health emergencies. Furthermore, the ASEAN Health Ministers during the Special Video Conference of the ASEAN Health

Ministers Meeting in Enhancing Cooperation on COVID-19 on 7 April 2020 had recognized the importance of WHO International Health Regulations (IHR 2005) and they agreed to strengthen the coordination mechanism, particularly in the cross-border public health responses collaboration (e.g. contact tracing and outbreak investigation through existing bilateral and regional cooperation mechanisms) to prevent, contain, and control the outbreak of the current/future global pandemic at its early stage.

In order to fulfill this high necessity, it has been decided to have a common protocol which should be agreed upon among the AMS and this protocol will be named as “The ASEAN Protocol of Cross Border Contact Tracing and Rapid Outbreak Investigation”, supported by GIZ commissioned by the German Federal Ministry for Economic Cooperation and Development (BMZ) under the Project titled “Strengthening Regional Initiatives in ASEAN on COVID-19 Response and other Public Health Emergencies”.

### **A.1. IHR 2005 Implementation in AMS**

Under the IHR (2005), it is important for every AMS to have the capacity to promptly prevent, detect and respond to any kind of threat that causes the public health emergencies through collective response for public health security. Each AMS should strengthen their core public health systems in order to meet sufficient capacities on early detection and rapid response to PHE. Regional connectivity and coordination are essential, including investing in the existing capacities. Implementation of the IHR (2005) in order to attain core capacities should be developed through collaborative actions that promote and protect the health of the ASEAN Community. There are some key components that have a critical contribution on public health emergencies, that is the functions of the IHR NFPs, points of entry (POE), well-maintain surveillance at all level including the emergency response structures and hospital preparedness.

For all AMS, it is important to build regional capacities for strengthening regional preparedness, surveillance,

risk assessment and response systems that are facilitated by ASEAN Secretariat. In addition, it is also required to establish a regional mechanism of monitoring and evaluation system, utilizing the existing ASEAN platform, such as the ASEAN EOC Network, ASEAN Centre for Public Health Emergencies and Emerging Diseases (ACPHEED). Data sharing mechanisms, simulation exercises, outbreak reviews, and Joint External Evaluations (JEE) will all be part of the monitoring and evaluation system, which will emphasize learning for continuous improvement, while also simultaneously establishing and sustaining national capacities as required by the IHR 2005.

### **A.2. IHR National Focal Point**

Under the article 4 of the International Health Regulation 2005 (IHR 2005) (WHO, 2005):

1. A National IHR Focal Point and the authorities responsible in each State shall designate or establish within its respective jurisdiction for the implementation of health measures under these Regulations.
2. National IHR Focal Points shall be accessible at all times for communications with the WHO IHR Contact Points.

The functions of National IHR Focal Points shall include:

- a. Sending to WHO IHR Contact Points, on behalf of the State Party concerned, urgent communications concerning the implementation of these Regulations; and
  - b. Disseminating information to, and consolidating input from, relevant sectors of the administration of the State Party concerned, including those responsible for surveillance and reporting, points of entry, public health services, clinics and hospitals and other government departments.
3. WHO shall designate IHR Contact Points, which shall be accessible at all times for communications with National IHR Focal Points. WHO IHR Contact

Points may be designated by WHO at the headquarters or at the regional level of the Organization.

4. States Parties shall provide WHO with contact details of their National IHR Focal Point and WHO shall provide States Parties with contact details of WHO IHR Contact Points. These contact details shall be continuously updated and annually confirmed. WHO shall make available to all States Parties the contact details of National IHR Focal Points it receives pursuant to this Article (source: WHO/ NATIONAL IHR FOCAL POINT GUIDE)

The following functions are derived directly from the IHR (2005) which is mandatory components of terms of reference for National IHR Focal Points (WHO, 2005):

1. Remaining accessible at all times for communication with WHO IHR Contact Points: it should be put into consideration that NFPs will not be possible for a single individual to carry out this function so it should be an office. It is critical that the NFP be contactable at all times, and functional communication devices are essential.
2. On behalf of the State Party concerned, sending to WHO IHR Contact Points urgent communications arising from IHR implementation, in particular on:
  - a. Notifying WHO IHR Contact Points of all events which may constitute a public health emergency of international concern within a State Party's territory in accordance with the Annex 2 decision instrument, as well as any health measure implemented in response, and, following notification, continuing to give WHO public health information about the notified event
  - b. Information-sharing during unexpected or unusual public health events (Article 7): Providing WHO IHR Contact Points with all relevant public health information if there is evidence of an unexpected or unusual public health event within a State Party's territory which may constitute a public health emergency of international concern
  - c. Consultation (Article 8): If the State Party so chooses, keeping WHO advised on events occurring within a State Party's territory which do not require notification, and consulting with WHO on appropriate health measures
  - d. On other reports (Article 9): Responding to WHO requests for consultations and attempts to obtain verification for reports from sources other than notifications or consultations on events occurring within the territory of the State Party; and informing WHO of receipt of evidence of a public health risk identified outside the State Party's territory that may cause international disease spreads evidenced by imported/exported human cases, or contaminated vectors or products
  - e. Verification (Article 10): Responding to WHO requests for verification of reports from sources other than notifications or consultations of events which may constitute a public health emergency of international concern allegedly occurring in the State's territory
  - f. Provision of information by WHO (Article 11): Serving as focal point for information sent by WHO under Article 11.1, and consulting with WHO as to making information available under this article
  - g. Determination of a public health emergency of international concern (Article 12): Consulting with the WHO Director-General on determination and termination of a public health emergency of international concern under this article.
3. Disseminating information to relevant sectors of the administration of the State Party concerned, including those responsible for surveillance and reporting, points of entry, public health services, clinics and hospitals and other government departments: NFPs will ensure that all relevant sectors are provided with information on public health risks, events potentially constituting public health emergencies of international concern on

temporary and standing recommendations, as well as other information provided by WHO under the IHR.

4. Consolidating input from relevant sectors of the administration of the State Party concerned, including those responsible for surveillance and reporting, points of entry, public health services, clinics and hospitals and other government departments in order to establish efficient and functional channels of communication to receive and consolidate input which is necessary for the analysis of national public health events and risks.

ASEAN Member States are the State Parties to the IHR (2005) and therefore, they have designated their respective National Focal Point (NFP) for the purpose of strengthening collaboration among AMS on outbreak response and containment. Following this

IHR (2005) requirement, the implementation of the Protocol should also designate similar mechanisms and procedures by designating the same NFP as the IHR 2005 for the Protocol. Therefore, the designated NFP will conduct both IHR (2005) and The Protocol mechanism and procedures.

The ASEAN Focal Points of existing regional network, such as the ASEAN Emergency Operation Centre (EOC) Network must carry out intensive informal communication with the Focal Points at the AMS level (National ASEAN Focal Points). One thing that needs to be avoided is the redundancy of the National ASEAN Focal Point. **It is preferred to have** the same person from the National IHR Focal Point institution whom the main role is to build a communication network among other AMS.



## B. CONTACT TRACING

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Contact tracing is critical in order to stop the transmissions from the confirmed cases through identification of contact and investigation to make sure proper control measures, such as testing and quarantine. Rapid diagnosis of contact during its quarantine should be conducted to mitigate further transmissions. Particularly in a condition of low COVID-19 incidence, this epidemiological practice of contact tracing must be fully vigilant.

A system should be in place to identify cases, specimen collection and shipment to a well-functioning laboratory and a feedback mechanism to follow-up if quarantine or other proper treatments are needed. These contact tracing activities should be conducted within at least three days per confirmed COVID-19 case.

There are several challenges to conduct contact tracing due to its complicated and time-consuming procedures, particularly in identifying all contacts of a confirmed case that by nature the virus could be transmitted from person to person without manifesting any symptoms as well as the geographical constraints.

The contact tracing mechanism should be built on sufficient common understanding as well as benefit of the contact itself. Good collaboration between contact and tracer could be developed only after a contact is fully understood of his/her role in stopping the local transmission. Contribution of contact in preventing further spread in their workplace or community or family should be agreeable by the respective contact. Further, a contact should be informed that quarantine measures, if needed, will be provided by government and community-based social support services in order to avoid hampering too much of his or her daily economic earnings. Security and convenience assurance are key components of contact tracing.

From the recording and reporting aspects, contact tracing data should be managed carefully in terms of privacy and security in order to avoid data leakage. Therefore, data system development should be built with high security procedures from the design phase up to defining variables phase included in the system as well as structured safe access.

The development of contact information system should be well integrated with COVID-19 case and laboratory information systems and should be an integral important part of control measures. Therefore, data privacy and security should be a top priority in developing the contact tracing information system, utilizing password-based authentication following the recommendation of JMOIR. The crucial point is to stop the transmission while maintaining privacy.

Contact tracing mechanisms will achieve its effectiveness after reaching sufficient coverage. For that reason, it is clear that well-trained and well-equipped manpower should be in place. A digital data tool has a significant and important role, although it cannot solely function on its own. Digital data tool still relies on the implementation of conventional epidemiological investigation approaches, requiring public health personnel who perform case investigations to use their communication skill in advising the people who potentially exposed to COVID-19 on further follow up.

The threat of data leakage and underreporting would be put into strong consideration. WHO is running multiple tracks at once: bringing together private sectors, innovators and governments to scale up technology and digital inclusion, and on the ground in humanitarian settings to set up early warning systems for COVID-19 transmission and provide much needed support.

## B.1. Crossed Border Contact Tracing

There is a critical integral part of contact tracing, in particular for the ASEAN Member States, which is border crossing. Virus and other diseases agent, as are widely known, could spread across large areas or even across country administrative borders that causes PHE in the region. In consequences, it is crucial to take agreeable collaborative control measure effort. The purpose of this “Cross Border Contact Tracing and Rapid Outbreak Respond Protocol” framework is to support ASEAN Member States and partners in bringing common understanding and capacities as mandated by the IHR (2005) on early detection and rapid response, including multisectoral as well as multidisciplinary on effective management of health emergencies. The Protocol should be used on a voluntary basis in accordance to the context and regulation in each ASEAN Member State. It is developed based on the existing concepts and tools in ASEAN, such as the ASEAN EOC Network and the ASEAN Travel Corridor Arrangement Framework (ATCAF) Task Force, with important aspects should be taken into consideration in developing further the interoperability framework, informal information sharing, and backup systems to enable the tracing of cross-border infection transmissions. This collaborative system should be in accordance with the procedures defined by each public health authority with potential privacy and security implications assessed and appropriate safeguards provided.

As a regional preparedness effort, it is also considered important to strengthen regional contact tracing and rapid outbreak investigation mechanism and capacity in responding to emerging and re-emerging infectious diseases with potential cause of pandemics or public health emergencies. This protocol will be in line with and detail the implementation of IHR (2005) for the region, to complement and strengthen current processes of the existing national and ASEAN mechanisms and platforms, such as the ASEAN Emergency Operations Centre (EOC) Network and Joint Multisectoral Outbreak Investigation and Response (JMOIR). It also supports the

operationalization of the ASEAN Strategic Framework for PHE. By implementing this Protocol, AMS will strengthen the national early warning system for public health emergencies.

**The Protocol developed in line with the WHO document on health system for health security, with the objectives to:**

- Promote a common understanding of what each health system in every country, in particular the ASEAN Member States, contributes to better national and global health security.
- Identify the essential components of health systems and other sectors that play an important role in meeting the demands imposed by public health emergencies.
- Explain how countries can define, prioritize and monitor actions and invest in health emergency, health systems and other sectors for multisectoral and multidisciplinary management of health emergencies toward better global health security.
- ASEAN Member States could develop intercountry collaboration by identifying and fully understanding of existing every country health systems for health security.
- Facilitate partners and donors in better supporting AMS in strengthening health security by identifying where more investment in health systems is most needed, how to best do so and how to sustain financing.
- Highlight challenges related to implementation of health systems for health security.

The Protocol is also in line with the health systems for health security framework, as described below.

- **All-hazards approach**—Management of the entire spectrum of public health emergency threats and events is based on the recognition that there are common elements (and common

capacities required) in the management of different types of risks, including in responses to a public health emergencies.

- **Risk-based approach**—The risks that public health emergencies pose to communities are directly related to communities' exposure to hazards, their vulnerabilities to these hazards and their capacity to manage them. Member countries should have a good capacity in identify of the risks and mitigate to which they are exposed at local, subnational, and national levels, including the possibility of cross border transmissions. Countries must build, strengthen and maintain their health systems for health security capacities to meet the demands imposed by relevant risks identified.

National authorities should therefore build capacities for the prevention and control of these diseases and risk factors that involve multiple sectors and disciplines. At the same time, there are contributions and important roles played by other stakeholders, including individuals, families, communities, intergovernmental organizations, religious institutions, parliaments, civil society, academia, the media, voluntary associations and the private sector.

Regional collaboration among AMS, in particular the cross-border collaboration between neighboring countries should be developed in terms of data sharing and notification on cross border contact tracing. Between two or more AMS, there are a lot of border crossings, which are the official border crossings and the traditional unguarded border crossings. Data sharing agreements and cross border notification formats should be developed.

Effectively anticipating, preventing and managing health emergencies requires a whole-of-society, whole-of-government, One Health, multi-level engagement approach, including intercountry collaboration and data sharing.

## **B.2. Existing Disease Surveillance in each AMS**

Each of the AMS has its own disease surveillance system, which in line with the IHR (2005) requirement in terms of capacity for early detection and rapid response to any outbreak, including mitigation of the risk factors. A routine surveillance data collection, collation and analysis should be in place to detect the unusual change of disease data. It is also important to have rapid response team with competent and well-trained staff in order to detect as early as possible and carry out rapid containment.

### **B.2.1. National ASEAN Focal Point**

The National ASEAN Focal Point should preferably be the same person as the National IHR Focal point. The roles and functions of National ASEAN Focal Points shall be similar to those of the National IHR Focal Point, which include sending to ASEAN Center for Public Health Emergency and Emerging Diseases (ACPHEED), while the National EOC should share the information with the ASEAN EOC Network led by Malaysia, on behalf of the National Health Authority, urgent communications concerning the unusual health situation or outbreak conditions, disseminating information to, and consolidating input from, those responsible for surveillance and reporting, points of entry, public health services, clinics and hospitals and other government institutions.

The roles and functions of the National ASEAN Focal Point are in line with roles and functions of the National IHR Focal Point:

1. Notification: Notifying the ACPHEED of all events which may constitute a public health emergency of international concern within an AMS Party's territory as well as any health measure implemented in response, and following up notification about the notified event;
2. Information-sharing during unusual public health events and potential transmission to neighboring AMS through the ASEAN EOC

Network as well as through the ATCAF, providing with all relevant public health information if there is possibility of cross bordering public health event within and among AMS's territory which may constitute a public health emergency of international concern;

3. Consultation: according to the existing policies of each AMS, keep WHO and ASEAN informed, if necessary, on events occurring within an AMS territory which do not require notification, and ensure on appropriate health measures;
4. Feedback reports: Responding to cross border notification, feedback notification should be shared through the ASEAN Focal point regarding action being taken based on cross border notification received before as stated in ATCAF.
5. Shared information: serving as a focal point for information sent by WHO related to the possibility of cross border spread and action needed to mitigate further spread between the AMS.
6. Consultation with the WHO Director-General on determination and termination of a public health emergency of international concern within and between the AMS.

### B.2.2. ASEAN Health Focal Point

The ASEAN-EOC Network will provide surveillance, early warning and information sharing for the entire region. While both EOCs and IHR are in place in the respective AMS, sharing of information will be faster with the formation of an ASEAN-EOC Network because the focal points of respective AMS EOC will now know each other and the monthly Video Conference will facilitate sharing of suspicious events. The establishment of ASEAN-EOC Network amongst AMS is to enhance the effectiveness of regional surveillance and response towards EID or public health emergencies and reiterates AMS commitment to

accelerate progress towards a world safe and secure from infectious diseases threats and to promote global health security.

### B.2.3. Emergency Operation Centre (EOC) for Public Health

The Emergency Operations Centre (EOC) is the central location where responsible personnel gather to coordinate operational information and resources for strategic management of public health events and emergencies, especially those that may constitute a public health emergency of international concern (PHEIC).

Each AMS uses different terminologies, procedures, communications and information tools for their EOC. They have different ranges of functions and levels of capacities according to the country's capacities, capabilities and terms of reference. Effective communication and coordination within and between EOCs and response systems are critical for the success of public health emergency response.

#### ASEAN-EOC Network

In order to have a strong collaborative mechanism, an ASEAN-EOC Network is initiated as part of Regional Surveillance and Response mechanism. The proposal to have an ASEAN EOC Network was presented in the 10th AEGCD Meeting which was held on 18-20 August 2015 in Bandar Seri Begawan, Brunei Darussalam. The idea of having ASEAN EOC Network was then presented to ASEAN SOMHD Meeting on 14-17 September 2015 in Da Lat Vietnam and the meeting decided for Malaysia to prepare a concept paper on ASEAN EOC Network. The concept paper has been submitted to AEGCD for review and support by the ASEAN Member States which subsequently was presented at the ASEAN SOMHD Meeting in year 2016 for approval of implementation.

Each AMS is required to establish their own EOC to strengthen their coordination and response capacity through effective communication and collaboration between EOCs and response systems.

### **B.3. Contact Tracing System in Each AMS**

According to the WHO guidelines on Contact Tracing in the context of COVID-19, adjusting contact tracing to epidemiological scenarios as part of Diseases Surveillance system is required. WHO characterizes SARS-CoV-2 transmission into four epidemiological scenarios, one of them with four sub-categories. Contact tracing approaches need to be adapted to local transmission dynamics and response capacity should be ready to enhance for higher levels of transmission.

Targeted contact tracing approaches according to SARS-CoV-2 transmission patterns are as follows:

1. No case: a well-trained contact tracing workforce should be identified and ready to deploy and scale up (i.e., have the required tools) to respond to first cases.
2. Sporadic cases: exhaustive contact tracing and case investigation for all cases is essential to rapidly suppressing transmission.
3. Clusters: contact tracing is essential to reduce transmission within clusters and to identify events that lead to high levels of virus transmission. Public Health and Social Measures (PHSM) can then be implemented to reduce the occurrence of such events.
4. Community transmission (including 4 sub-categories of increasing incidence): contact tracing remains an important activity in high incidence scenarios where capacity to trace and follow-up all contacts may be at the breaking point. Contact tracing activities should be targeted rather than abandoned. It is possible to prioritize tracing of higher risk exposure contacts based on capacity.

### **B.4. Cross Border Between AMS**

Cross bordering of people between AMS is common. There are some reasons for cross bordering, such as economic interest, trade purposes, social interest or even family relationship. In a situation of outbreak or even a pandemic, these common activities build a greater risk of disease transmission. Although there is an official procedure for cross bordering, remain vigilant for disease transmission is critical. Port Health Authority is the only health designated body at the border. Under the IHR (2005), the Port Health Authority has a special function as a point of entry for each member state. Capacity to detect and respond should be in place with the direct access communication with the National IHR focal point. At the central government, the IHR National Focal point should be always have access to communicate with WHO IHR Contact Points

Following the adoption of the ASEAN Declaration on an ASEAN Travel Corridor Arrangement Framework (ATCAF) at the 37<sup>th</sup> ASEAN Summit and the adoption of ATCAF at the 30<sup>th</sup> ASEAN Coordinating Council (ACC) Meeting. The Ad Hoc Task Force (TF) is established, pursuant to the decision of the 6<sup>th</sup> Meeting of the ASEAN Coordinating Council Working Group on Public Health Emergencies (ACCW-PHE) on 18 February 2021. The purpose of the Ad Hoc Task Force on the operationalization of the ASEAN Travel Corridor Arrangement Framework (TF-ATCAF) is to develop the ATCAF to facilitate essential business travels among ASEAN Member States, while prioritizing public health safety, particularly in controlling the transmission of COVID-19, without precluding the application of the ATCAF to other categories of travel in the future, so as to demonstrate the commitment to maintain necessary interconnectedness within the region. The ATCAF should take into account existing bilateral arrangements among ASEAN Member States.



As stated in the ATCAF Article 7.1., for the purposes of effective contact tracing and infection control, the receiving ASEAN Member State will endeavor to immediately notify the sending ASEAN Member States of positive cases. In this connection, the 7.1.1 may be considered:

- 7.1.1. Health authorities of the receiving ASEAN Member State should notify the relevant counterparts, where justified for public health reasons, within 24 hours of receipt of the evidence of travelers who have tested positive for COVID-19, and, to the extent possible, their close contacts, at points of entry, in line with the reporting system of the International Health Regulations (IHR) through National Focal Points (ATCAF)
- Article 8.1. Measures for Returning Travelers: Travelers returning from their travel under the ATCAF will be subject to their sending ASEAN Member State's prevailing health policy and measures

## **B.5. Data Sharing Mechanism**

As stated in ATCAF Article 11: Transparency, Data Sharing, and Confidentiality, data sharing to inform travelers who tested positive for COVID-19 and their close contacts will be arranged between the relevant countries in accordance with prevailing procedures and regulations under IHR (2005) through their National IHR Focal Points, as stated at the Article 7: Notification for Travelers with COVID-19. The Initiating and Responding ASEAN Member State will provide information of its National IHR Focal Point through the Information Form. ATCAF should work towards enabling a common approach to verifying the authenticity of digital certificates, taking into consideration, where relevant, official guidelines set by the WHO. This approach could encompass the verification of COVID-19 PCR test results, COVID-19 vaccination certification, and other health status-related documents that may be required. The TF-ATCAF may also consider developing a common set of standards for non-digitally verifiable relevant health documents and cater for the specimens of such health documents issued by ASEAN Member States to be shared with other ASEAN Member States for verification of authenticity.

# ● C. CROSS-BORDER INFORMATION SHARING

## C.1. Purpose

1. Containment of Cross-border Potential Emergency Event in ASEAN Member State (AMS);
2. To share information on cross-border potential emergency event among ASEAN Member States (AMS);
3. The investigation and containment of cross-border potential emergency event ASEAN Member States (AMS).

## C.2. Definition

Potential emergency event (PEE) is the incident of a person who suffers from a disease with a potential emergency or has contacted with the source of transmission of a potential emergency disease, traveling around ASEAN Member States.

## C.3. Types of Potential Emergency Event (PEE) and Implications of the Emergency Event

Potential Emergency Event (PEE) can be found in every ASEAN Member States. The types of potential emergency event (PEE) in this formulation are as follows:

### C.3.1. Patients of Potential Emergency Event (PEE Case)

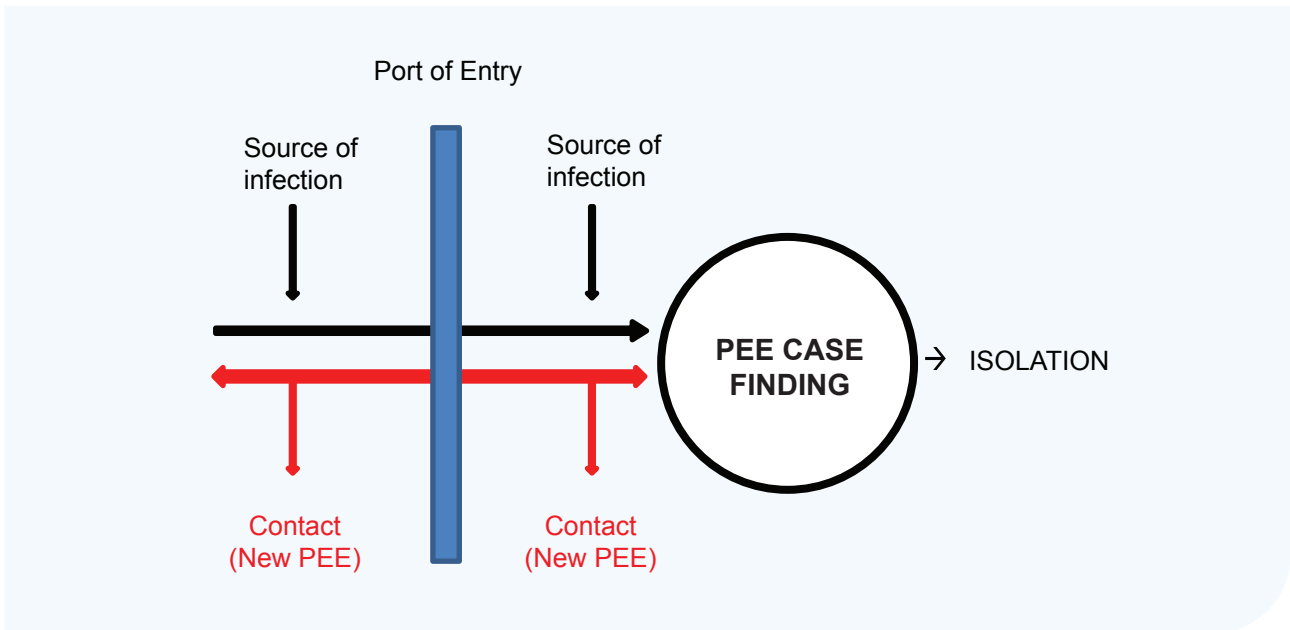
A person who suffers from PEE disease, either with clinical symptoms or asymptomatic, and has a history of traveling to other ASEAN Member states within the last few days according to the incubation period of the disease.

The incubation period of asymptomatic patient is calculated based on the date of diagnosis examination with a positive result of PEE disease.

The emergency situations that can occur in a PEE case are the incident of transmission and spreading to the larger population and a wider area, as well as the source of PEE transmission that can be transmitted and spread to a wider area according to the way of its transmission. Not only during the period of illness, but also the transmission can occur before showing symptoms (according to the types of illness); therefore, the transmission can occur in ASEAN countries which have previously visited.

The source of transmission of PEE cases can be found both in the currently visited ASEAN countries and in the previously visited ASEAN countries.

**Figure 1** Source of Infection of PEE CASE/entry



*Note: Source of infection and Contact (new PEE) must be investigated / control*

### C.3.2. PEE Contact Traveling to Other ASEAN Countries (PEE Contact/ Exit)

PEE contact/exit is a person who is suspected of being infected by PEE disease, and that person travels to other ASEAN countries during the incubation period of PEE disease. This PEE can occur because the PEE Case as source of transmission that associated with the PEE contact is known after the PEE contact has been in other ASEAN countries.

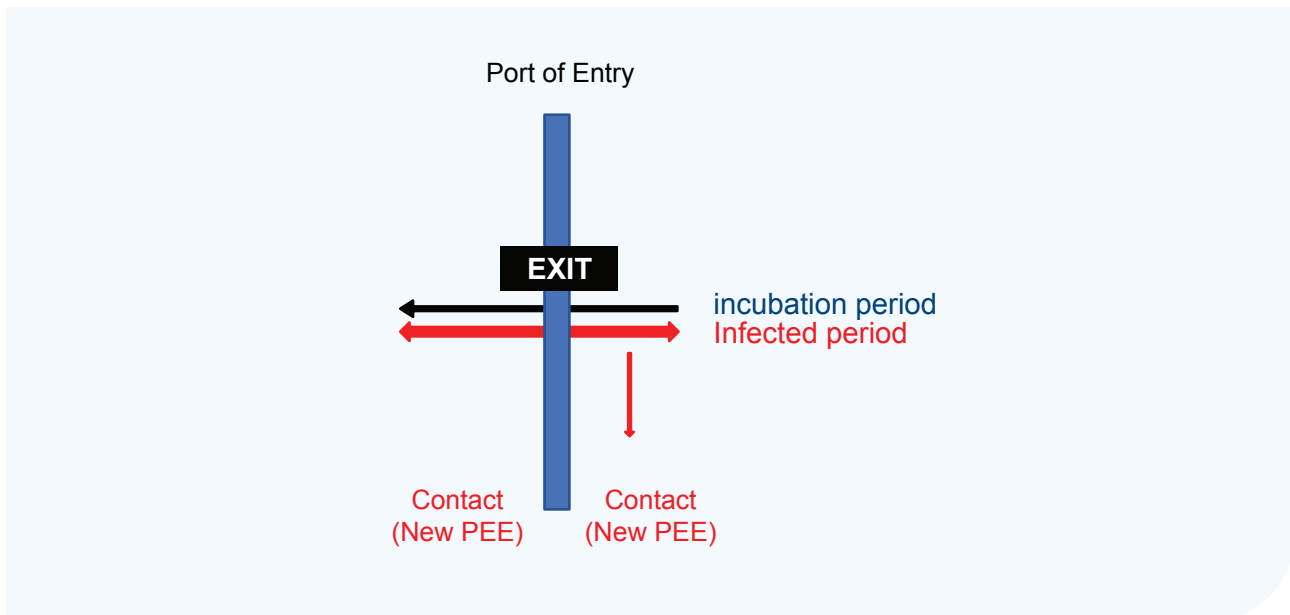
PEE contact/exit can be infected with PEE disease in the following ways, those are:

1. Close contact with case of PEE disease (during the infectious/infected period).

2. Being in the areas of transmission, including in hospitals/health facilities which treat PEE patients as well as in locations/areas of PEE transmission.
3. Persons who are part of or suspected of being infected from the cluster of PEE.
4. An emergency situation with which PEE contact/ exit can occur because PEE contact can develop the illness and become a new source of transmission in the visited ASEAN countries. PEE contact/exit must be found and managed; therefore, the transmission can be prevented and/or stopped.



**Figure 2** Risk of Transmission of PEE CONTACT/exit



*Note: PEE contact/exit must be quarantine, source of infection and contact (new PEE) must be investigated / control*

### C.3.3. PEE Contact Coming from other ASEAN Countries (PEE Contact/Entry)

Basically, the definition of PEE contact/entry is the same as the point 2; that is, a person who is suspected of being infected with PEE which caused by various ways as discussed earlier; however, the occurrence of the contact is in other ASEAN countries based on the incubation period.

PEE contact/entry is the same as PEE contact/exit when a person suspected of having infected with PEE disease and travels to other ASEAN countries during the incubation period. Nevertheless, the difference is PEE can be detected upon arrival in the visited ASEAN countries.

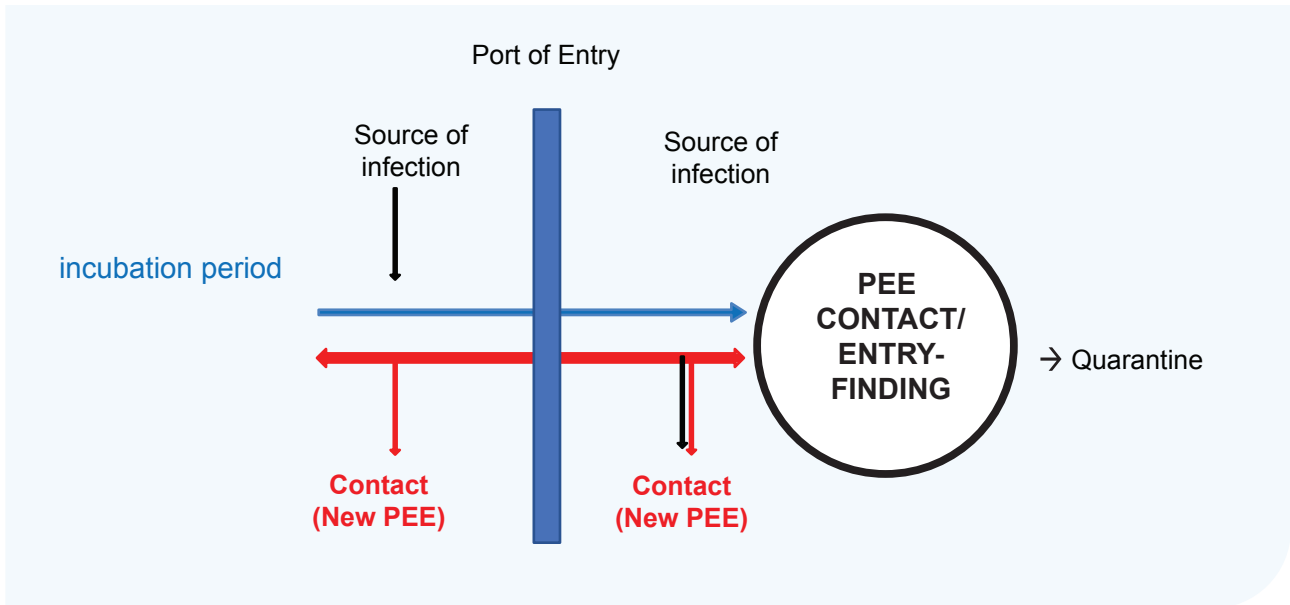
They are known that they have contacted with the source of PEE transmission in the previous visited ASEAN countries. PEE contact/entry can be infected by PEE disease in the same ways as PEE contact/exit, as follows:

1. Close contact with people with PEE disease (during the infectious period).
2. Being in the areas of transmission, including in hospitals/health facilities which treat PEE patients, as well as in locations/areas of PEE transmission.
3. Patients are part of or suspected of being infected from the cluster of PEE.

An emergency situation in which PEE contact/exit can occur because PEE contact can develop the illness and become a new transmission in the region of visited ASEAN countries. Furthermore, an emergency situation can also occur due to the source of transmission that can be transmitted and spread to the population and a wider area—the transmission coming from the previously visited ASEAN countries.

PEE contact/entry must be quarantined in order to prevent the continuous transmission. Further, the source of transmission in previous visited ASEAN countries must be investigated and managed to prevent and/or stop the transmission.

**Figure 3** Source of Infection of PEE CONTACT/entry



*Note: Source of infection and Contact (new PEE) must be investigated / control*

#### C.3.4. PEE Case with History of Round Trip among ASEAN Countries (PEE Case/Exit-Entry)

PEE case/exit-entry is the same as PEE case; that is, a person who is infected by PEE disease, either there are clinical symptoms or asymptomatic, and has a history of traveling to other ASEAN countries in the last few days according to the incubation period of the disease. Incubation period of asymptomatic patient is calculated based on the date of diagnosis examination with a positive result of PEE disease.

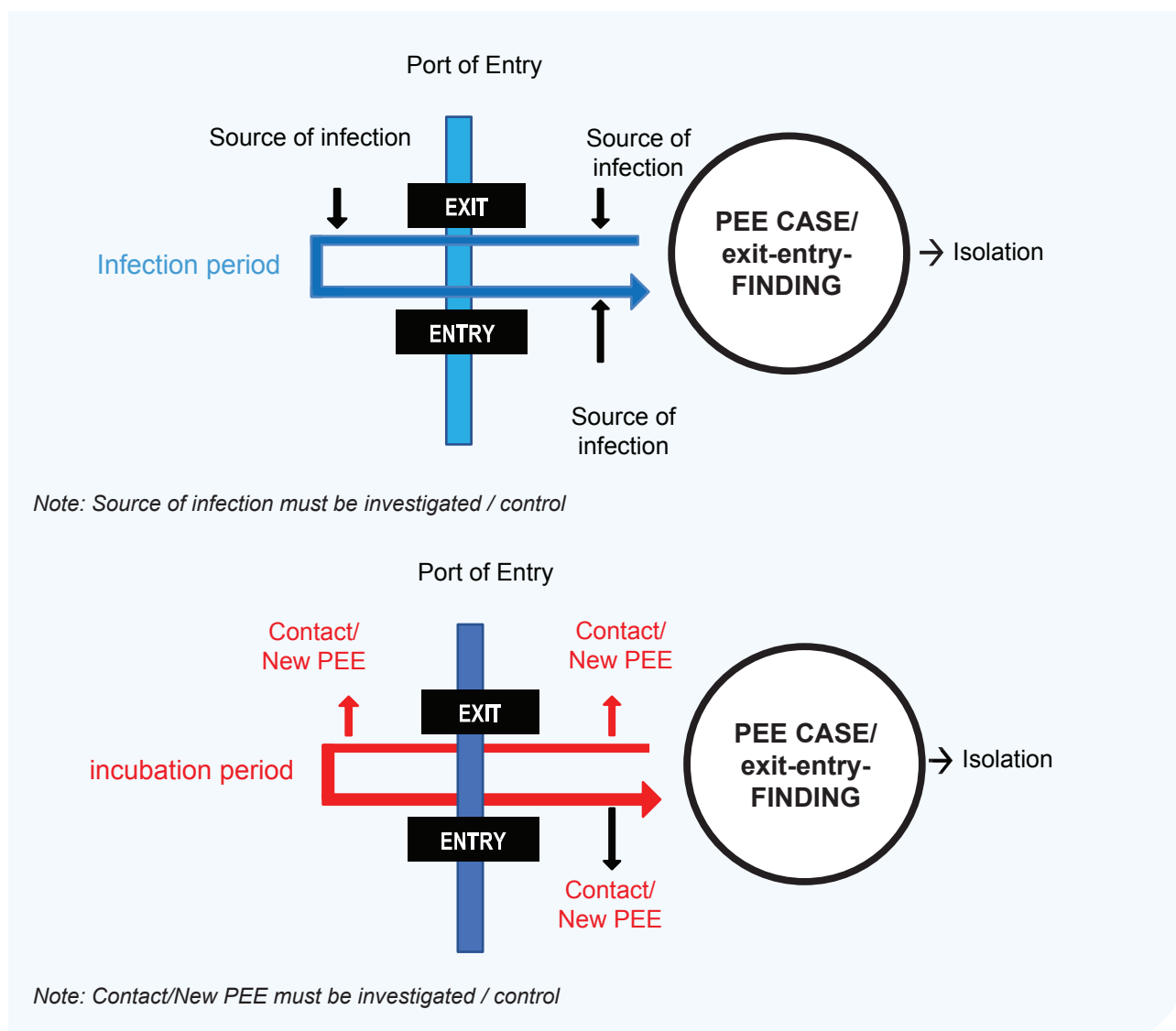
The difference is that PEE case/exit-entry travel from one ASEAN country to other countries but has returned to the origin ASEAN country. PEE case/exit-entry

suffers from PEE right after they return from other ASEAN countries and arrive at their origin countries.

An emergency situation that can occur in a PEE case/exit-entry is the occurrence of transmission and spread to population and a wider area, both in the origin ASEAN countries (after and before traveling to other ASEAN countries) or in other visited ASEAN countries.

The source of PEE case/exit-entry transmission can also be found in the origin ASEAN countries (after and before traveling), as well as other visited ASEAN countries.

**Figure 4** Source of Infection and Contact of PEE Case/exit-entry



## C.4. The Mechanism (Protocol) of Cross-border Contact Tracing and Information Sharing

### C.4.1. General Mechanism

1. Every region in ASEAN Member States can have a PEE.
2. To overcome the possibility of the emergence of PEE, every ASEAN Member States establishes a Local Focal Point in each district/ city area and Point of Entry.
3. The Local Focal Point (LFP) is a technical implementer of PEE monitoring (surveillance), reporting the incident of PEE and responding to investigation and containment of PEE in the district/city area and Point of Entry.
4. The determination of LFP and its mechanism are in accordance with the existing arrangement in each ASEAN Member State.
5. Every finding of a PEE in the district/city/point of entry area is informed by the LFP to the LFP of the related ASEAN Member States under coordination of each National Focal Point. This cross-border information sharing is in accordance

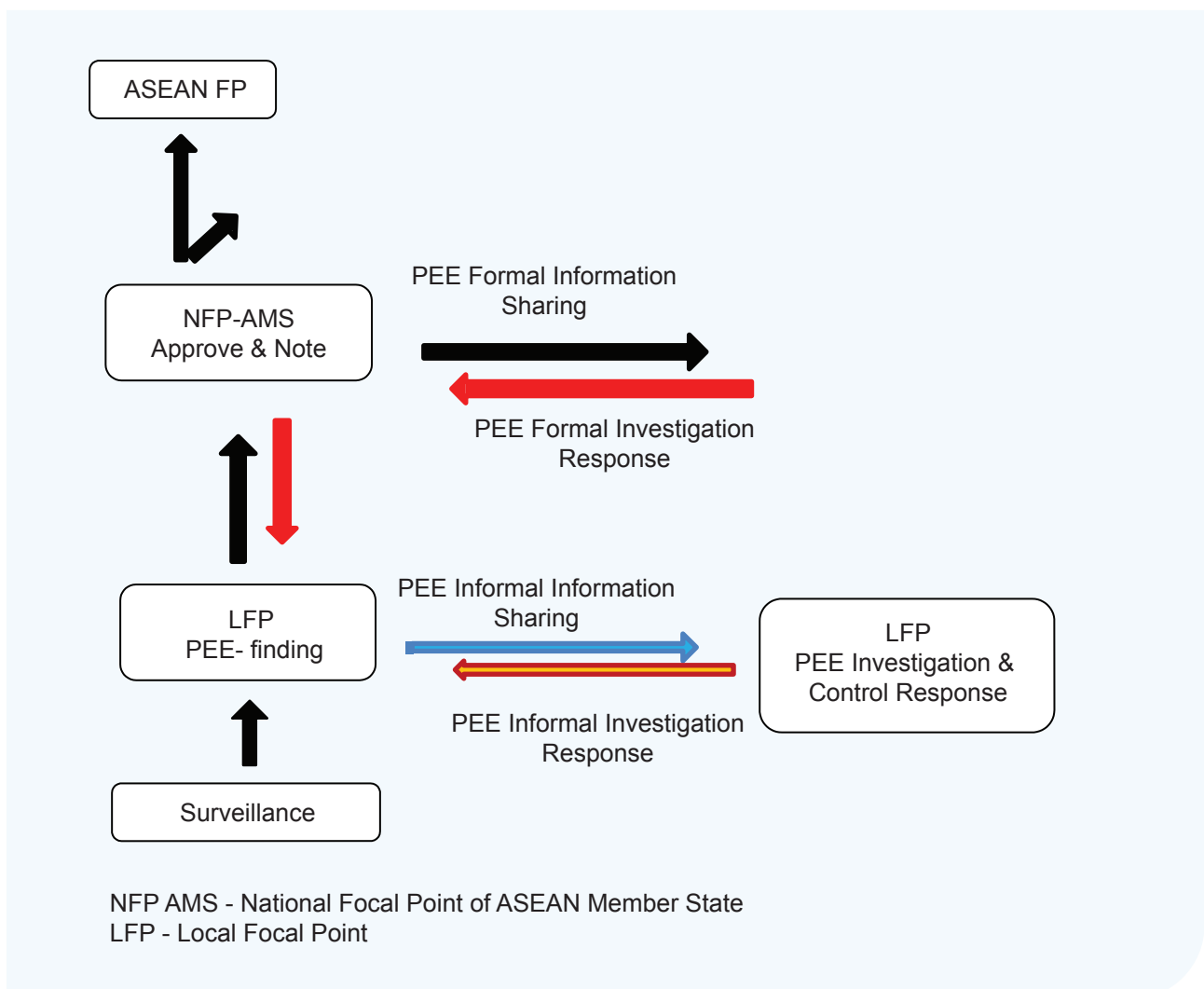
with the agreement of Joint Multi-sectoral Outbreak Investigation and Response (JMOIR).

6. Every information related to PEE through cross-border information sharing mechanism, investigation, and containment are carried out by each relevant ASEAN Member States in order to obtain magnitude of the problems and the containment action.
7. The results of PEE investigation/containment are informed back by the LFP relevant AMS to the LFPAMS which provide initial information about the incident of PEE under coordination with each relevant National Focal Point of AMS. This feedback is very important to know the certainty of diagnosis, the magnitude of

the problems of potential emergency event and the containment efforts to manage PEE.

8. If necessary, as a follow-up of potential emergency event, it can be done by cooperation/coordination in investigation and containment for the incident areas in 2 AMS which have an outbreak of PEE through mechanism has been agreed in JMOIR. Joint Outbreak Investigation could be conducted jointly or independently by each country. However, the result should be shared and coordinated among the respective country.
9. The general mechanism flow of cross-border information sharing of PEE can be seen in the following scheme below:

**Figure 5** Crossborder Information Sharing of PEE



## C.4.2. Specific Mechanism

As previously discussed, there are 4 types of potential emergency event (PEE), and each potential emergency event has the potential to cause an emergency at different times and locations, either the source of infection or the threat of transmission and spread over a wider population; thus, it requires different investigation and management.

### C.4.2.1. Cross-border Sharing of PEE Case (Potential Emergency Patients with Travel History from other ASEAN Countries)

#### The steps of cross-border information sharing of PEE case

##### 1. PEE Case Finding and Reporting (a)

The Local Focal Point team receives information on the incident of PEE contact/exit. The potential emergency case with travel history from other ASEAN countries (PEE case) is found by hospitals, health centers, health facilities, and port health offices as well as community reports, then it will be reported to the Local Focal Point. Through this PEE case, an investigation and management are carried out by the local PEE containment team.

The Local Focal Point will confirm on the incident of a PEE case and complete all the required PEE case documents (Form 1).

##### 2. Informal Cross-border Information Sharing of PEE Case (b)

In this PEE case, the LFP sends initial (informal) information on the incident of PEE case to the relevant ASEAN LFP according to the specified form (Form 1). It is expected that cross-border information sharing can be carried out immediately (within 24 hours from the report PEE case received).

##### 3. PEE Case Report to National Focal Point (c)

Besides providing informal information on the incident of PEE case to the LFP of the relevant AMS, the LFP also reports the incident of PEE case to the National Focal Point by attaching the same reporting form (Form 1). This reporting procedure is regulated by each ASEAN country.

##### 4. Formal Cross-border Information Sharing of PEE Case (d)

The NFP examines and gives approval as well as conveys information on the incident of PEE case to the NFP of relevant AMS, therefore an investigation and management can be carried out immediately. PEE case data and information are in accordance with the specified PEE case form (Form 1) by adding notes if needed.

##### 5. Coordination of PEE Case Investigation and Management by NFP of relevant ASEAN Country (e)

With the information about PEE case, the NFP of relevant ASEAN countries will immediately conduct the coordination of PEE case investigation and management in their regions/areas.

For instance, the PEE case is COVID-19, the investigation and management are directed at:

- a. To find the source of transmission of COVID-19 case, treatment, and isolation
- b. To identify the incident of other PEE cases and determine PEE cluster
- c. To trace all close contacts of the identified COVID-19 cases
- d. To manage COVID-19 cluster so that there is no continuous transmission
- e. To strengthen alertness and preparedness to overcome the possible expansion of COVID-19 case.

## **6. The Response of PEE Case Investigation and Containment in the relevant ASEAN Regions (f)**

After the LFP teams of relevant ASEAN received informal information on the incident of PEE case, the team will immediately investigate and carried out containment.

The targets of investigation and containment are as follows:

- a. To find the source of PEE case transmission (other PEE cases, hospitals that attend PEE case, transmission location, PEE case cluster, and/or other sources of transmission)
- b. To find additional cases in the same cluster unit with PEE case
- c. To find close contacts with PEE case while PEE case is in the relevant ASEAN regions according to their incubation period.
- d. To implement the PEE case management in accordance with the pattern of PEE case transmission
- e. To strengthen alertness and preparedness to overcome the possible wider transmission of PEE case.

## **7. Feedback Information to the Countries that initial Reported the PEE Cases (g)**

The results of PEE case investigation are informed back to the ASEAN countries that reported PEE case.

The information of the investigation consists of:

- a. The source of PEE transmission; whether, it has been found or has not been found (case, hospital, cluster, location/area of transmission).
- b. Clinical picture of PEE case that has been found.
- c. The result of diagnosis supporting examination.
- d. The estimation of PEE incubation period.
- e. The size of PEE cluster (number of cases, deaths, number of contacts, and so forth.).

Information on the investigation result is needed by the PEE case management team to determine the number of the problem with PEE case, clinical and epidemiological pictures, and determine how to manage it.



## Form 1

### PEE Case Data to be Sent by the AMS LFP to the relevant AMS LFP

1. Identity of reporter
  - a. Origin country of reporting (list of countries)
  - b. Reference number (according to the conditions of each institution)
  - c. Name of LFP reporter and phone number/email address (list of member/contact of LMS team)
  - d. Region/area of LFP reporter (list of regions/areas)
2. Identity of reporting destination country
  - a. Name of relevant AMS country (list of countries)
  - b. Name of relevant region/area (list of regions/areas)
3. Letter date (the date the letter is issued)
4. Personal information of PEE case
  - a. Case ID (case ID standardization)
  - b. Name
  - c. Age
  - d. Personal identity (choose)
    - 1) ID number
    - 2) Passport
    - 3) Other..... (e.g. license)
- e. Address (ID Card/Domicile)
  - 1) Country
  - 2) Province and district (LFP)
  - 3) Complete address
- f. Mobile/phone number
- g. Email address
- h. Transportation
  - 1) Departure/arrival date from other AMS
  - 2) Vehicle type/police number
- i. The PEE Case(s)
  - 1) Health status of case/cluster (PEE is a patient)
    - a) Date of investigation/examination
    - b) Diagnosis of PEE (List of PEE)
    - c) Sign/symptom (list of signs/symptoms)
    - d) Laboratory result
    - e) Action: inpatient, outpatient, isolation (option)
  - 2) Risk of transmission while in the reporting ASEAN region
    - a) Number of cases in one cluster with patients
    - b) Number of contact/quantities of the infected contacts

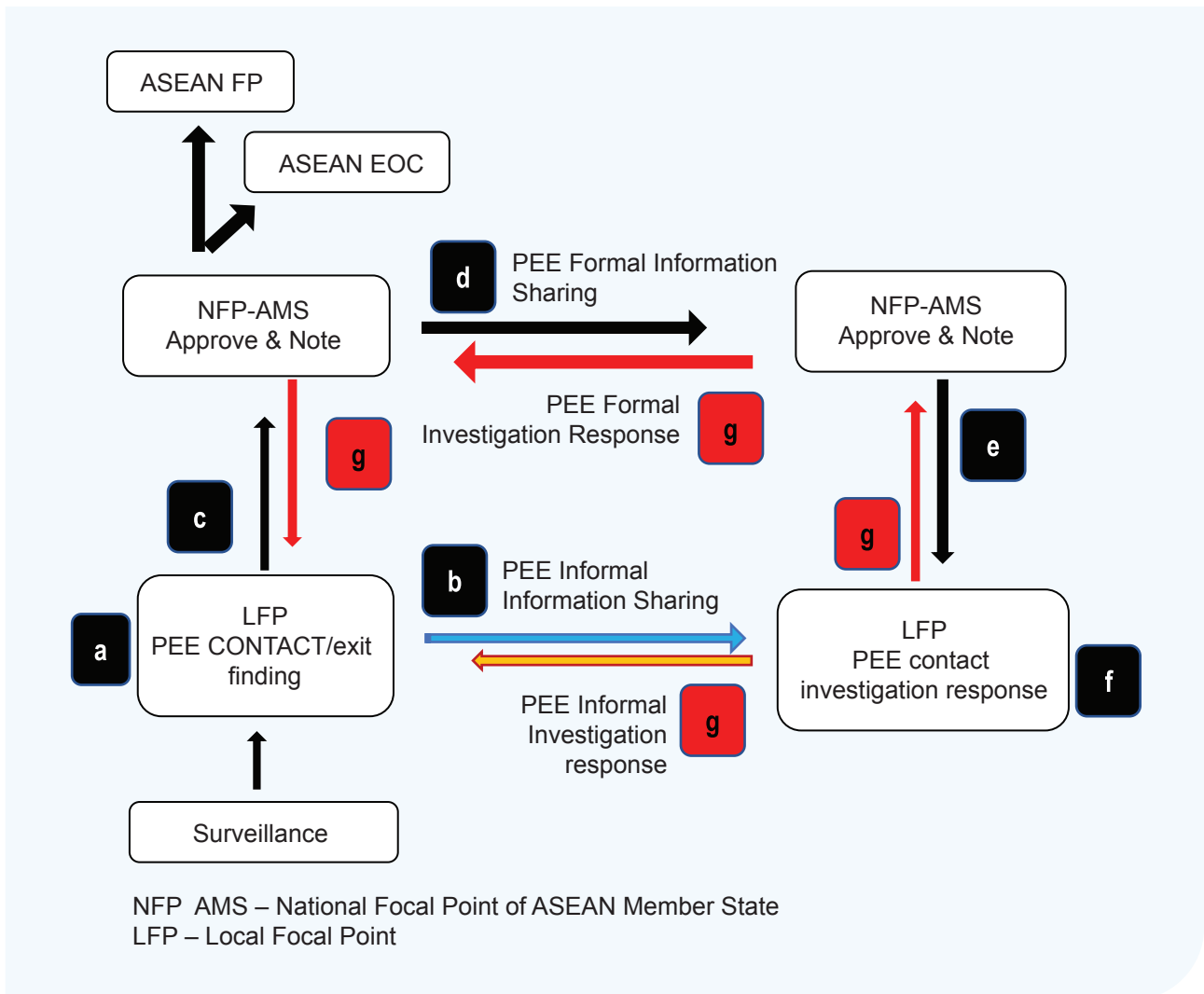
#### C.4.2.2. Cross-border Information Sharing of PEE Contact/Exit (Contact with PEE that Traveled to other AMS)

The steps of cross-border information sharing of PEE contact/exit are basically the same as cross-border information sharing of PEE case, but the

data is informed through cross-border information sharing as well as data from special investigation for PEE contact/exit. Schematically, the flow of cross-border information sharing of PEE contact/exit is as follows:



**Figure 7** Crossborder Information Sharing of PEE Contact/exit



**The steps of cross-border information sharing of PEE contact/exit.**

**1. PEE Contact/Exit Finding and Reporting (PEE Contact/Exit)**

The LFP team (country of origin) receives information on the incident of PEE contact/exit. The contacts on PEE who traveled to other AMS (PEE contact/exit) are found when contact tracing is carried out in potential emergencies by local investigation and management. This PEE contact/exit, investigation and management are carried out by the local PEE management team, especially the possibility of transmission towards the contacts in the local area of origin, before PEE contact/exit departs for other relevant AMS.

The LFP confirms the incident of PEE contact/exit and complete the required PEE contact/exit documents (**Form 2**).

**2. Informal Cross-border Information Sharing of PEE Contact/Exit**

By this PEE contact/exit, the LFP country of origin sends initial (informal) information on the incident of PEE contact/exit to the relevant AMS LFP (country of destination) according to the specified form (Form 2). It is expected that cross-border information sharing can be carried out immediately (within 24 hours from the report PEE case received).

### 3. PEE contact/exit report to National Focal Point

Besides providing informal information on the incident of PEE contact/exit to the LFP of the relevant AMS (country of destination), the LFP (country of origin) also reports the incident of a PEE contact/exit to the National Focal Point (country of Origin) by attaching the same reporting form (Form 2). This reporting procedure is regulated by each AMS.

### 4. Formal Cross-border Information Sharing of PEE Contact/Exit

The NFP (country of Origin) examines and gives approval as well as conveys information on the incident of a PEE contact/exit to the NFP of relevant AMS (country of destination), therefore an investigation and management can be carried out immediately. PEE contact/exit data and information are in accordance with the specified PEE case form (Form 2) by adding notes if needed.

### 5. Coordination on Investigation and containment of PEE Contact/Exit by NFP of relevant AMS

With the information about PEE contact/exit, the NFP of relevant ASEAN countries will immediately conduct the coordination of PEE contact/exit investigation and management in their regions/areas.

### 6. The Response of PEE Contact/Exit Investigation and Management in the relevant ASEAN Regions

After the LFP teams of relevant AMS (Country of destination) received informal information in the incident of PEE contact/exit, the team will immediately investigate and manage it.

The targets of investigation and management are as follows:

- a. To find PEE contact/exit and record their health status. PEE contact/exit health status, diagnostic examination, if sick, medical and epidemiological status data need to be added.
- b. Take the necessary management according to the types of PEE.

### 7. Feedback the Information to the Sender Country that Reported the PEE Contact/Exit

The results of PEE contact/exit investigation are feed it back to the AMS that reported PEE case.

The information of the investigation consists of:

- a. PEE contact/exit has been found or not
- b. Health status of PEE contact/exit
- c. The result of supporting diagnosis investigation
- d. Transmission and spread of PEE contact/exit (if it occurs).

Information from this investigation is needed by the PEE contact containment team to determine magnitude of the problem with PEE in their areas, the clinical and epidemiological pictures, and determine how to manage it.

## Form 2

### PEE Contact/Exit Data to be Sent by the LFP AMS (country of Origin) to the relevant LFP of AMS (country of destination)

1. Identity of reporter
  - a. Country of Origin of reporting (list of countries is required)
  - b. Reference number (according to the conditions of each institution)
  - c. Name of LFP reporter and phone number/email address (list of member/contact of LMS team)
  - d. Region of LFP reporter (list of regions/ areas)
2. Identity of destination country
  - a. Name of relevant AMS (list of countries)
  - b. Name of relevant region (list of regions/ areas)
3. Letter date (the date the letter is issued)
4. Personal information of PEE case/exit-entry
  - a. Case ID (Case ID standardization)
  - b. Name
  - c. Age
  - d. Personal identity (choose)
    - 1) ID number
    - 2) Passport
    - 3) Other.....(e.g. license)
  - e. Address (ID card/domicile)
    - 1) Country
    - 2) Province and district (LFP)
    - 3) Complete address
  - f. Mobile/phone number
  - g. Email address
  - h. Transportation
    - 1) Date of departure/arrival at other AMS country
    - 2) Vehicle type/police number
    - 3) Departure date
    - 4) Vehicle type/police number
  - i. PEE Contact/Exit
    - 1) Health status of PEE related to PEE contact/exit
      - a) Date of investigation/ examination
      - b) Diagnosis of PEE related to PEE contact/exit (list of PEE is required)
      - c) Sign/symptom (list of signs/ symptoms is required)
      - d) The result of supporting diagnostic examination of PEE
      - e) The number of PEE cases and deaths
      - f) Action: the distribution of HAC (Health Alert Card)
    - 2) Contact Tracing
      - a) Date and method of PEE contact/exit contact with PEE (first contact and last contact)
      - b) The number of contacts
      - c) The number of contacts that become PEE case

#### C.4.2.3. Cross-border Information Sharing of PEE Contact/Entry (Contact with PEE Coming from other ASEAN Countries)

The steps of cross-border information sharing of PEE contact/entry are basically the same as cross-border information sharing of PEE case, the

difference is in the type of cross-border information sharing data which reported as well as the response of investigation/control.

## The steps of cross-border information sharing of PEE contact/entry

### 1. PEE Contact Entry Finding and Reporting upon the Arrival from other ASEAN Countries

The LFP team receives information on the incident of PEE contact/entry. PEE contact/entry can be found in hospital, health center, health facility, and health port office as well as community report because of the admission from PEE contact/entry. This PEE contact/entry is investigated and managed according to the types of PEE and will be reported to the LFP.

The LFP confirms the incident of PEE contact/entry and complete the required PEE contact/entry documents **(Form 3)**.

### 2. Informal Cross-border Information Sharing of PEE Contact/Entry

By this PEE contact/entry, the LFP sends initial (informal) information on the incident of PEE contact/entry to the relevant ASEAN LFP according to the specified form (Form 3). It is expected that cross-border information sharing can be carried out immediately (within 24 hours from the report PEE case received).

### 3. PEE Contact/Entry Report to National Focal Point

Besides providing informal information on the incident of PEE contact/entry to the LFP of the relevant ASEAN countries, the LFP also reports the incident of a PEE contact/entry to the National Focal Point by attaching the same reporting form (Form 3). This reporting procedure is regulated by each ASEAN country.

### 4. Formal Cross-border Information Sharing of PEE Contact/Entry

The NFP examines and gives approval as well as conveys information on the incident of a PEE contact/entry to the NFP of relevant ASEAN countries, therefore an investigation and management can be carried out immediately.

PEE contact/entry data and information are in accordance with the specified PEE contact entry form (Form 3) by adding notes if needed.

### 5. Coordination of PEE Contact/Entry Investigation and Management by NFP of relevant ASEAN Countries

With the information about PEE contact/entry from ASEAN countries, the NFP of relevant ASEAN countries will immediately conduct the coordination of PEE contact/entry investigation and management in their regions.

### 6. The Response of PEE Contact/Entry Investigation and Containment in the relevant ASEAN Regions

After the LFP team of relevant ASEAN received informal information on the incident of PEE contact/entry, the team immediately conducts the necessary investigation and containment.

The targets of investigation and containment are as follows:

- a. To find PEE case as the source of transmission of PEE contact/entry
- b. To find cases in cluster unit with PEE case that becomes the source of transmission of PEE contact/entry
- c. To find people who have contacted with PEE contact/entry during the infected period
- d. To implement the containment in accordance with the pattern of transmission of PEE case
- e. To build alertness of the possibility of wider transmission of PEE case.

### 7. Feedback the Information to the Countries that Reported PEE Contact/Entry.

The result of PEE contact/entry investigation are feed it back to the ASEAN countries that have reported PEE contact/entry.

The information of PEE contact/entry investigation consists of:

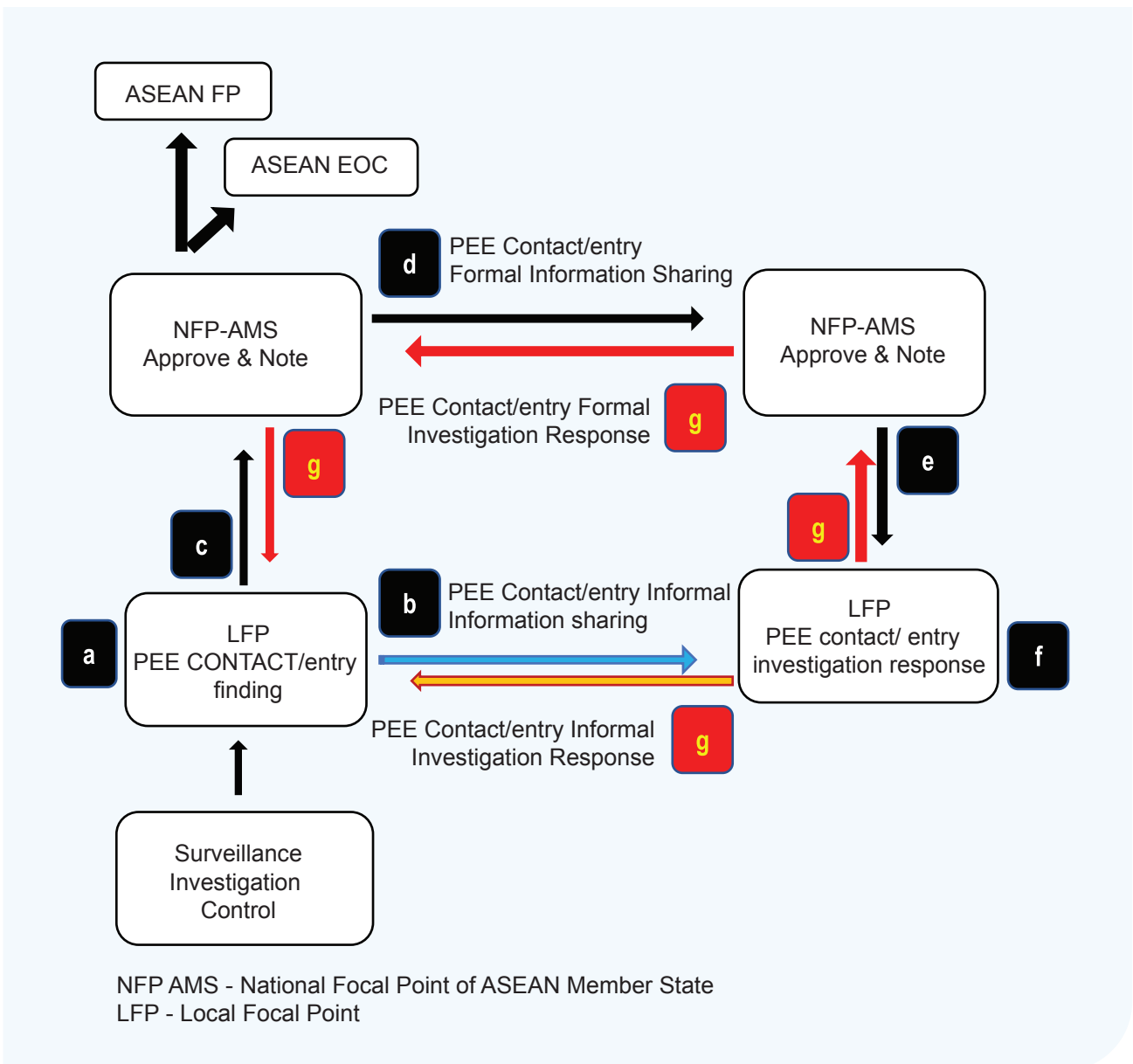
- a. PEE as the source of PEE contact/entry transmission whether it has been found or not. (PEE case, hospital that treats PEE case, PEE cluster, other locations/areas of transmission);
- b. Clinical sign of PEE contact/entry or PEE cases that found as the source of PEE contact/entry transmission
- c. The result of supporting diagnosis examination
- d. The result of incubation period study

- e. The number of PEE cluster (the number of cases, deaths, and so forth.)

Information on the result of this investigation is expected by PEE contact/entry management team to determine the number of problems with PEE contact/entry, clinical and epidemiological pictures, and determine how to diagnose and manage it.

Schematically, the flow of cross-border information sharing of PEE contact/entry is as follows:

**Figure 8** Crossborder Information Sharing of PEE Contact/entry



## Form 3

### PEE Contact/Entry Data

#### To be Sent by the ASEAN LFP to the relevant ASEAN LFP

1. Identity of reporter
  - a. Country of Origin of reporting (list of countries is required)
  - b. Reference number (according to the conditions of each institution)
  - c. Name of LFP reporter and phone number/ email address (list of member/contact of LMS team is required)
  - d. Region of LFP reporter (list of regions from each ASEAN country is required)
2. Identity of destination country of reporting
  - a. Name of relevant ASEAN country (list of countries)
  - b. Name of relevant region/areas (list of regions/areas)
3. Letter date (the date the letter is issued)
4. Personal information of PEE case/exit-entry
  - a. Case ID (case ID standardization)
  - b. Name
  - c. Age
  - d. Personal identity (choose)
    - 1) ID number
    - 2) Passport
    - 3) Other..... (e.g. license)
  - e. Address (ID card/domicile)
    - 1) Country
    - 2) Province and district (LFP)
    - 3) Complete address
  - f. Mobile/phone number
  - g. Email address
  - h. Transportation
    - 1) Date of arrival from other ASEAN countries
    - 2) Vehicle type/police number from other ASEAN countries
    - 3) Date of departure from origin ASEAN country (reporter's country)
    - 4) Vehicle type/police number when departs from the origin ASEAN country (reporter's country)
- i. PEE Contact/Entry
  - 1) Health Status of PEE Contact/Entry
    - a) Date of investigation/examination
    - b) Diagnosis of PEE related to PEE contact/entry (list of PEE is required)
    - c) Sign/symptom (list of signs/ symptoms is required)
    - d) The result of diagnosis supporting examination
    - e) Actions: quarantine, no quarantine, the distribution of HAC (Health Alert Card)
  - 2) Risk of Transmission (according to PEE contact/entry opinion)
    - a) After arriving from other ASEAN countries
      - The source of transmission (PEE cases, hospitals/health facilities that treat PEE, PEE clusters, locations or areas of PEE transmission)
      - Traveling (places visited after arriving)
      - Number of other contacts with the same source of transmission, both contact in the reporting ASEAN countries, and among people who coming from the relevant ASEAN countries.
    - b) While in the relevant ASEAN countries (in the opinion of PEE contact/entry)
      - The source of transmission (PEE cases, hospital/health facility that treats PEE, PEE clusters, locations or areas of PEE transmission)
      - Traveling (visited places)

#### C.4.2.4. Cross-border Information Sharing of PEE Case/Exit-Entry (PEE Case with Round Trip History)

As it has been discussed earlier, PEE case/exit-entry is a person who travels a short trip to other ASEAN countries where after returning to origin country suffering from PEE. According to the incubation period, there are 3 possible sources of PEE case/exit-entry transmission:

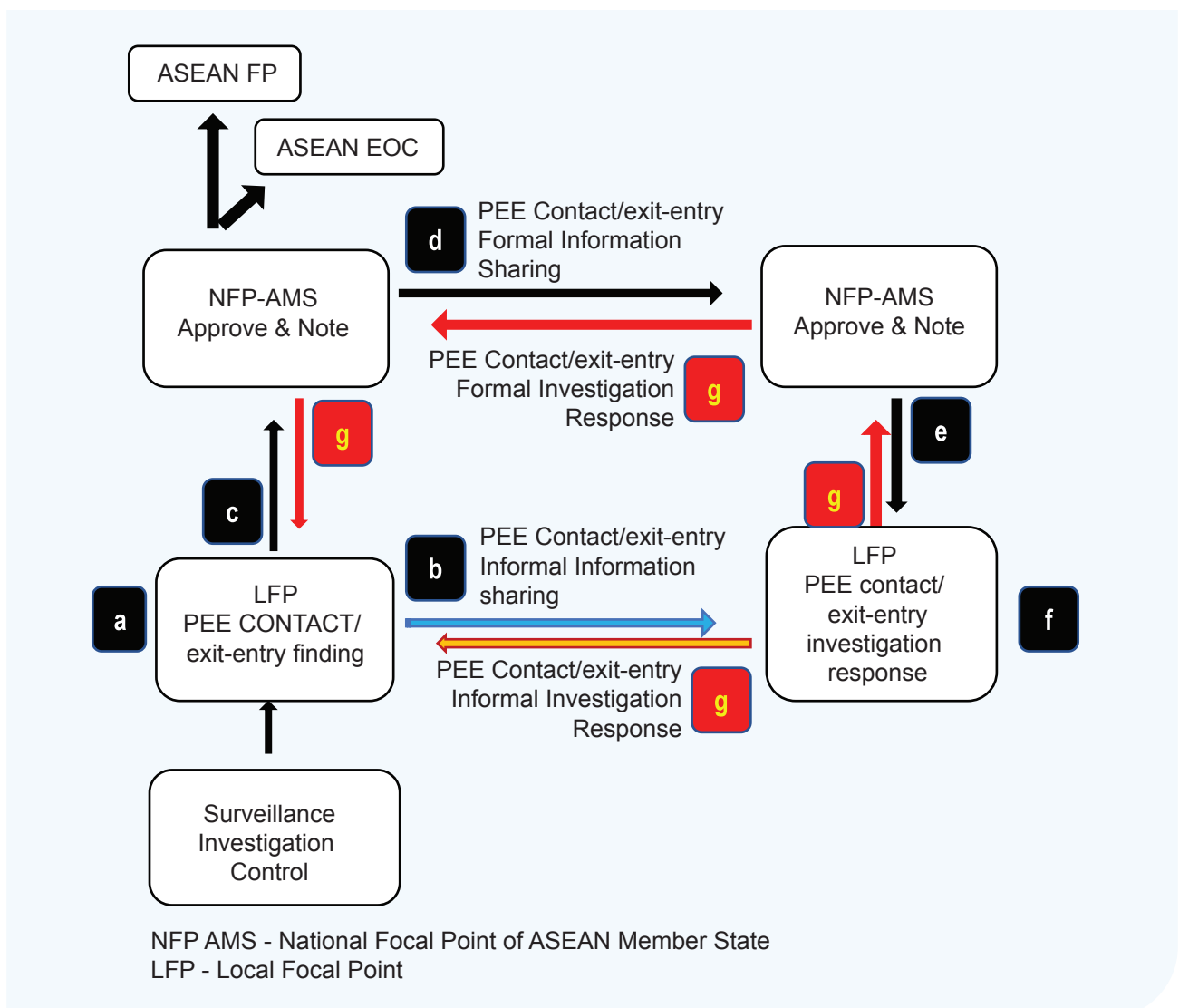
1. In the ASEAN countries where the case resides after returning from a trip to other ASEAN countries
2. In the visited ASEAN countries

3. In the ASEAN countries where the case resides before leaving for other ASEAN countries.

People who are in contacted with the PEE case/exit-entry are also in the 3 possible locations mentioned above.

Observing the incident, investigation and containment must be carried out in various locations related to the PEE case/exit-entry. Therefore, the incident of PEE case/exit-entry must be informed to the relevant ASEAN countries, so that the investigation and management can be carried out as well.

**Figure 9** Crossborder Information Sharing of PEE Contact/exit-entry





## The steps of cross-border information sharing of PEE case/exit-entry.

### 1. The LFP confirms the incident of PEE case/exit-entry and complete the required PEE contact/entry documents (Form 4). PEE Case/Exit-Entry Finding and Reporting

PEE case/exit-entry can be found in hospital, health center, health service facility, and health port office as well as community report. PEE case/exit-entry is recorded with data variables according to **Form 4** (almost similar to Form 1) and reported according to the surveillance system in each ASEAN country, including to the LFP team.

### 2. Informal Cross-border Information Sharing of PEE Case/Exit-Entry

By this PEE case/exit-entry, the LFP sends initial (informal) information on the incident of PEE case/exit-entry to the relevant AMS LFP according to the specified form (Form 4). It is expected that cross-border information sharing can be carried out immediately (within 24 hours from the report PEE case/exit-entry received).

### 3. PEE Case/Exit-Entry Report to National Focal Point

Besides providing informal information on the incident of a PEE case/exit-entry to the LFP of the relevant AMS, the LFP also reports the incident of a PEE case/exit-entry to the National Focal Point by attaching the same reporting form (Form 4). This reporting procedure is regulated by each AMS.

### 4. Formal Cross-border Information Sharing of PEE Case/Exit-Entry

The NFP examines and gives approval as well as conveys information on the incident of a PEE case/exit-entry to the NFP of relevant AMS, therefore an investigation and containment can be carried out immediately. PEE case/exit-entry data and information are in accordance with

the specified PEE contact entry form (Form 4) by adding notes if needed.

### 5. Coordination of PEE Case/Exit-Entry Investigation and Management by NFP of relevant ASEAN Countries

With the information about PEE case/exit-entry from one AMS, the NFP of relevant AMS will immediately conduct the coordination of PEE case/exit-entry investigation and containment in their regions.

### 6. The Response of PEE Case/Exit-Entry Investigation and Management in the relevant ASEAN Regions

After the LFP team of relevant AMS received informal information about the incident of PEE case/exit-entry, the team will immediately conduct the necessary investigation and containment.

The targets of investigation and management are as follows:

- a. To find the source of transmissions of PEE case/exit-entry
- b. To conduct a wider investigation of other PEE cases and identify clusters
- c. To conduct the management on the source of transmission and/or clusters (PEE cases, hospitals/health facilities that treat PEE, locations/areas of transmission)
- d. To strengthen the alertness and preparedness to overcome the possible expansion case/exit-entry

The investigation and containment for the case of PEE case/exit-entry of COVID-19 are as follows:

- a. To find the source of transmission of COVID-19 cases, treatment, and isolation
- b. To find contact of COVID-19 cases



- c. To manage COVID-19 cluster in order to prevent the continuous transmission
- d. To strengthen alertness and preparedness to overcome the possible expansion of COVID-19 cases.

**7. Responding the Information to the Countries that Reported PEE Case/Exit-Entry**

The results of PEE case/exit-entry investigation are informed back to the ASEAN countries that have reported PEE contact/entry.

The information of PEE case/exit-entry investigation consists of:

- a. PEE case as the source of PEE case/exit-entry transmission; whether it has been found or not (PEE case, hospital, other location and area of transmission).
- b. Clinical sign of PEE case that found as the source of PEE case/exit-entry transmission.
- c. The result of supporting diagnosis examination.
- d. When do PEE cases/exit-entry contact to PEE case as source of transmission (in order to determine the incubation period);
- e. The size of PEE cluster (the number of cases, deaths, and so forth.).

Information of the result of this investigation is expected by PEE case/exit-entry management team to determine the number of problems with PEE case/exit-entry, clinical and epidemiological pictures, and determine how to diagnose and manage it.

**8. Containment Collaboration between 2 ASEAN Countries regarding the Occurrence of PEE Case/Exit-Entry**

PEE case/exit-entry is always followed by investigation and containment to overcome PEE in the incident areas. To increase the achievement of PEE investigation and containment, after sharing the information on the incident of PEE case/exit-entry, it is necessary to follow-up with communication and collaboration in investigation and containment to overcome two related regions in ASEAN countries regarding the incident of PEE case/exit-entry.

## Form 4

### PEE Case/Exit-Entry Data

#### To be Sent by the ASEAN LFP to the relevant ASEAN LFP

1. Identity of reporter
  - a. Country of Origin of reporting (list of countries is required)
  - b. Reference number (according to the conditions of each institution)
  - c. Name of LFP reporter and phone number/ email address (list of member/contact of LMS team is required)
  - d. Region of LFP reporter (list of regions from each ASEAN country is required)
2. Identity of destination country of reporting
  - a. Name of relevant ASEAN country (list of countries)
  - b. Name of relevant region (list of regions)
3. Letter date (the letter the date is issued)
4. Personal information of PEE case/exit-entry
  - a. Case ID (case ID standardization)
  - b. Name
  - c. Age
  - d. Personal Identity (choose)
    - 1) ID number
    - 2) Passport
    - 3) Other..... (e.g. license)
  - e. Address (ID card/domicile)
    - 1) Country
    - 2) Province and district (LFP)
    - 3) Complete address
  - f. Mobile/phone number
  - g. Email address
  - h. Transportation
    - 1) Date of arrival from other ASEAN countries
- 2) Vehicle type/police number from other ASEAN countries
- 3) Date of departure from origin ASEAN country (reporter's country)
- 4) Vehicle type/police number when departs from the origin ASEAN country (reporter's country)
- i. PEE case/exit-entry
  - 1) Health status of PEE contact/entry
    - a) Date of investigation/examination
    - b) Diagnosis of PEE case/exit-entry (list of PEE is required)
    - c) Sign/Symptom (list of Signs/ Symptoms is required)
    - d) Laboratory result
    - e) Actions: inpatient, outpatient, isolation (checklist)
  - 2) Risk of transmission while in the reporting ASEAN regions
    - a) After arriving from other ASEAN countries
      - The source of transmission
      - The number of contacts
      - The number of cases in one cluster of PEE case/exit-entry
    - b) Before departing to other ASEAN countries
      - The source of transmission
      - The number of contacts
      - The number of cases in one cluster of PEE case/exit-entry

# ● D. RAPID OUTBREAK INVESTIGATION AND MANAGEMENT

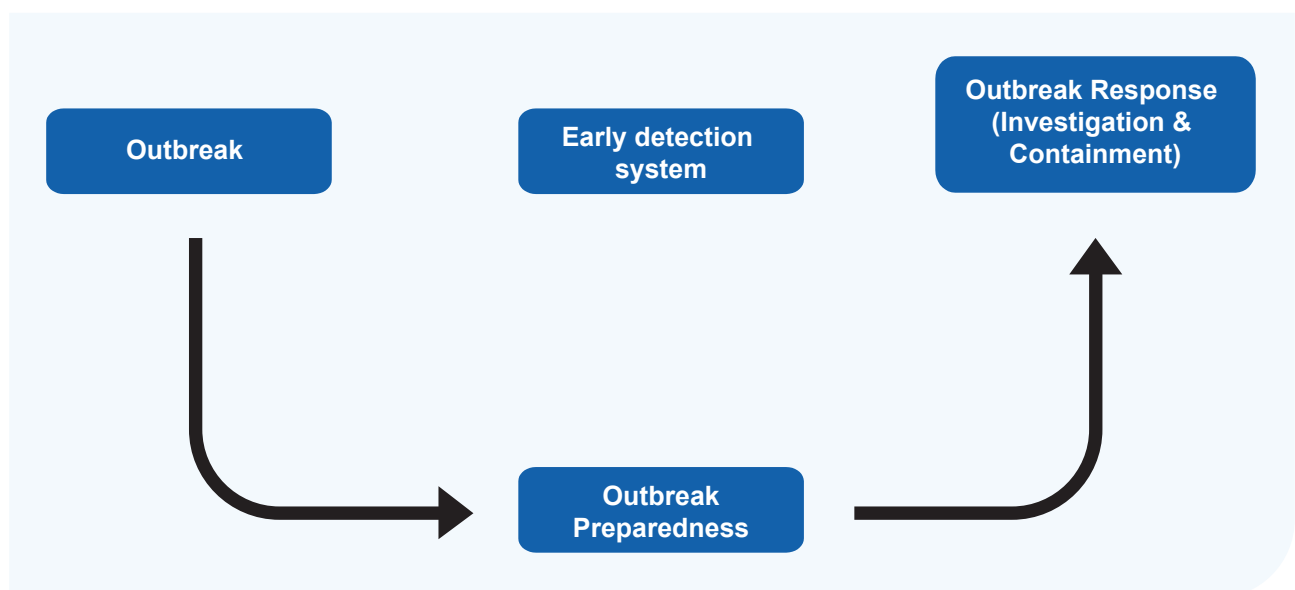
The COVID-19 pandemic has not been over yet, especially with the emergence of new variant which is more infectious and has a higher risk of illness. Nevertheless, COVID-19 pandemic has made us all aware to strengthen the capacity for early detection and response to outbreaks of infectious diseases and traditional poisonings, such as Dengue Fever, Malaria, Cholera, and so on; as well as new emerging and reemerging diseases, such as Ebola, AH5N1 Avian Influenza, and so forth.

The high and massive mass transportations, migrations, technological developments, and demographic changes to the pattern of diseases

spread are several factors that trigger the increasing of transmission risk and diseases spread, poisoning and radiation materials also become more rapid massive, and high risk.

Based on the issues that have been mentioned earlier, this situation needs to be strengthened by an early detection system and adequate response capacity which must be alert, rapid, and massive in all areas—regions, and cooperation between countries.

Figure 10 Rapid Outbreak Investigation



## D.1. Purpose

The purposes of this guideline are as follows:

1. To develop a standard protocol of outbreaks response.
2. The units which are involved to the investigation and management can cooperate more effective and efficient.
3. Assuring of the person in charge (PIC) and the working mechanism of the investigation and management.
4. Communication and information among the members of outbreaks investigation and management team.
3. The report of an increase in the incidence of illness and/or death by health care facility;
4. The report of an increase in the incidents or outbreaks from the office of public health program management;
5. The report of an increase in the incidence of illness or outbreaks from school, dormitory, company, or person in charge of other community activities;
6. The report of outbreak indications from the animal care centre regarding the incidence of many sick people/animals;
7. The report of new germ subtype from genome surveillance system;
8. Other source of information.

## D.2. Early Detection of Outbreaks

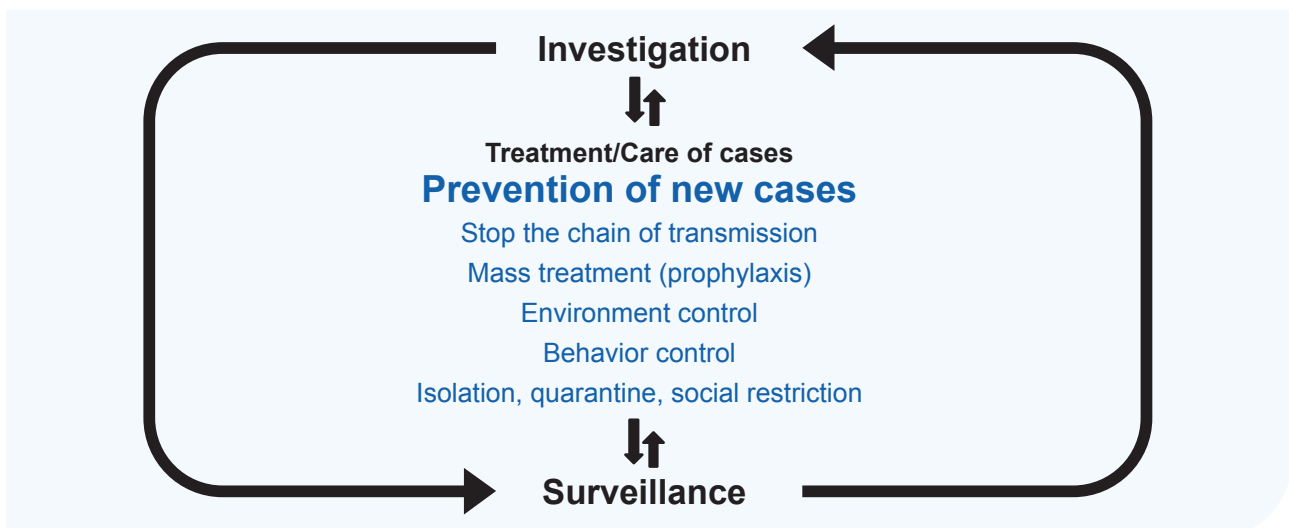
An outbreak can occur at any time and in all areas. The identification of an outbreak can be obtained in the following ways:

1. Report of an outbreaks from individual or institution/organization;
2. Report of a pathogenic bacteria detections which indicate an outbreak according to laboratory- based surveillance;

Every time there is information on the increasing in the incidence of illness and mortality, it is necessary to clarify and analyze the possibility of an outbreak followed by further investigation and management. In order to the early detection system and investigation and management to be implemented, it is necessary to establish an organization which is responsible for the investigation and management of outbreaks.

## D.3. Organization of the Outbreak Investigation and Containment

**FIGURE 11** Outbreak Containment Prevention of New Cases Activities



Investigation and management should be immediately carried out every time there is an increasing in the incidence of disease or outbreak of disease. The investigation and management are conducted by the investigation and management team who is responsible for certain areas under the supervision of the central (national) outbreak investigation and management team.

- At the central level, the outbreak investigation and containment team are in a specific unit which is responsible to implement an outbreak early detection system and respond to an outbreak investigation and containment, according to the regulations in each country.
- If an outbreak occurs, the investigation and containment team at the center will immediately coordinate with related units at the central levels, including the unit that is in charge of the program for health service facility, laboratory the environment and other related units.
- It is possible that the central outbreak investigation and containment team technically carried out by a specific unit (agency) which is in charge of implementing an outbreak early detection system and outbreak investigation and management (epidemiology, laboratory, environment).
- In the subnational level, there is also an outbreak investigation and containment team that is responsible to coordinate with the epidemiology team, laboratory, health service facility, the environment and other relevant team members.
- In mobilizing the outbreak investigation and containment team, it is necessary to have a standard operating procedure (SOP) for the work mechanism of the outbreak investigation and containment among members of the investigation and management team.

Every time an outbreak occurs, it is necessary to coordinate with:

1. The investigation and containment team.
2. The health service facility team.
3. The environment and entomology team.
4. The person in charge (PIC) in the area.
5. Others.

When an outbreak occurs, the activities that need to be coordinated are as follows:

- Sharing information related to the current and updated situation of outbreaks.
- Action plan of investigation and containment.
- Monitoring and evaluation of the implementation on investigation and management.
- Defining the roles and responsibilities.
- Communication mechanism among the members of team (this is important to create)
- The mechanism of delivering information on the development of the outbreak to the public (public communication).

#### **D.4. Initial Investigation**

When an outbreak occurs, clarification should be immediately carried out and followed by an investigation.

##### **The Purpose of Outbreak Investigation**

The purpose of the investigation is based on the requirement to identify the problem of an outbreak, however at least, it is necessary to immediately identify:

1. Identifying the etiology of the outbreak or the cause of the outbreak (Etiology);

2. Descriptive epidemiological figures (according to time, place, and person characteristic) and clarity of development of cases and deaths, high risk of transmission and spread of cases.
3. Sources and mode of outbreak transmission.
4. Effective and efficient ways of outbreak containment.

## Protocols

### 1. Coordination among the members of investigation team

When an outbreak is detected, the sub-national investigation and containment team (outbreak response team) immediately coordinates with all members of the investigation and containment team. The scope of coordination includes:

- Reporter's unit and address.
- Date and time of the incident.
- The number of detected cases.
- Type of diagnosis and classification of diagnosis.
- How is the outbreak detected?
- Develop the plan on investigation and containment

Submitting information on the incident of outbreak to other relevant units and the national outbreak investigation and containment unit/team (central)

### 2. Laboratory coordination

The scopes of laboratory coordination for specimen examination are as follows:

- a. Identifying the type of laboratory test needed.
- b. Provision of supporting tools for laboratory examination.
- c. Disseminating the results of laboratory tests to all related containment units.

### 3. Epidemiological investigation

#### a. Coordination

After the initial investigation, the investigation and containment team will immediately re-coordinate as a preparation for carrying out the investigation and management. Management protocol will be discussed in the management chapter.

The scopes of coordination are as follow:

- 1) Ensuring the investigation and management team established;
- 2) Preparing an investigation and management action plan based on the initial investigation, including the determination of case definition and the required interview forms according to the type of disease and the purpose of the investigation;
- 3) Ensuring that the recording and reporting system can be used, and it can also assist the investigation and management operations;
- 4) Coordinating with related people and units in the area of investigation and management.

#### b. Conducting field investigation

- 1) Conducting interviews on cases and/or other required data sources by using the forms that have been prepared;
- 2) Taking specimens according to the investigation plan;
- 3) Analyzing to determine the Etiology of the outbreak (the germ/toxin that causes the outbreak);
- 4) Carrying out a descriptive epidemiological analysis (number of cases and deaths, attack rate, severity of illness, case development, transmission based on region and group of case/age/gender/and so forth);
- 5) Analyzing the source of transmission, poisoning, or other causes;

- 6) Carrying out other analysis according to the purpose of the investigation;
  - 7) Formulating the methodology of management;
  - 8) Ensuring the recording and reporting of case data and other required data;
  - 9) Preparing investigation reports and other reports.
3. Ensuring the function of a case referral system from the community to health care facilities;
  4. Ensuring the proper use of the medical data register and surveillance data that have been prepared before;
  5. Recording and reporting;
  6. Monitoring the coverage of treatment and its effectiveness.

## **D.5. Management**

During the occurrence of an outbreak, containment must be carried out as soon as possible. The initial response methods are based on the results of the initial investigation, then it will be adapted to the findings and the recommendation of epidemiological investigation, the development of outbreak (surveillance) and the availability of resources that can be utilized.

Generally, an outbreak containment includes cases relief efforts, prevention of continuous transmission, follow-up investigations, and surveillance during the outbreak period, promotion/community empowerment, monitoring and evaluation, coordination, recording and reporting as well as public communication.

### **D.5.1. Cases Management**

#### **Protocols**

Ensuring that all cases are found, and they receive treatment according to the diagnosis (clinical/etiology) and severity of illness.

1. Conducting a campaign and encouraging cases to seek for treatment;
2. Bringing service facilities (personnel, medicine, other service support facilities) closer to the area where the outbreak occurs;

### **D.5.2. Prevention of Transmission and Continuous Spread**

Breaking the chain of transmission is an effort that can be done to prevent the incident of new outbreak cases of infectious diseases. The method of breaking the chain of transmission in each disease and in each outbreak situation has a specific preventing transmission method. In general, the efforts to prevent continuous transmission are implementing mass treatment for prevention, mass immunization, environmental manipulation, disease prevention behaviors, isolation and quarantine, and prevention of infection risk.

The prevention efforts can be applied, even though the etiology of the outbreak is unknown, however the incubation period of the disease and/or the source of transmission has been known.

#### **D.5.2.1. Preventive Treatment**

Some types of disease have a source of transmission that comes from people (patients and carriers) who are infected by germs, which can be cured (it is not a source of infection), such as diphtheria, yaws with appropriate antibiotics and the right dose.

Therefore, breaking the chain of transmission can be done by simultaneously treating all cases and infected people with disease that can cause outbreaks.



## Protocols

1. In an outbreak investigation, it is necessary to ensure that the patient/carrier is the source of continuous transmission from person to person, and the treatment should also be ensured that it can cure the patient and prevent transmit the disease. The characteristics of people who become the source of outbreak transmission need to be determined, including a clear description of the number of the transmission risk, the period of infection (infected), the ways of transmission, and how mass drug administration will be given.
2. The administration of drugs to patients/carriers and people who have been infected (according to the result of the investigation) is carried out in mass (mass drug administration) and at the same period, therefore no one becomes a source of transmission in the area. Mass drug administration can be selected only for cases and contacts, or to all population in a quite large area, or to all population of a certain age in a quite large area according to the recommendations of the investigation.
3. The appropriate choice of drugs for the mass drug administration purpose should be in accordance with the recommendations of the investigation, recommendations of medical expert groups and in accordance with the regulations and/or policies of each country.
4. The implementation of mass drug administration goes together with the implementation of a service system to anticipate the possibility of adverse events following drug administration.
5. Recording and reporting.
6. Monitoring and evaluation of mass drug administration and assessing the impact of case development by implementing surveillance during outbreak period.
7. In areas or groups of population where the target of mass drug administration has not been achieved, and/or has not given a significant impact, it is necessary to repeat the mass drug administration after evaluation.

### D.5.2.2. Mass Immunization

Some types of disease are available with vaccines that can prevent a person from being infected with germs which cause outbreaks, or it can reduce the risk of serious illness and the risk of death; such as, Measles, Diphtheria, and so forth. Immunization will build up antibodies with sufficient concentrations in the body within a few days after immunization (approximately 14-30 days), and some types of vaccination require 2-3 times of vaccine administration at certain time intervals in order to get sufficient antibody levels.

## Protocols

1. Vaccination (immunization) is given in mass (mass immunization). Mass immunization can be given to all population in a quite large area, or to all population of a certain age in a quite large area according to the recommendations of the investigation.
2. The appropriate choice of vaccine for the mass vaccination purpose should be in accordance with the high efficiency of the vaccine; therefore, the condition of herd immunity can be obtained. Moreover, the choice of vaccine should also be in accordance with the recommendations of the investigation, the recommendations of the medical expert group, and the regulation and/or policies of each country.
3. The implementation of mass immunization administration goes together with the implementation of a service system to anticipate the possibility of adverse events following immunization administration.



4. Natural immunity is when a person who is infected will build up immunity. It may be an option for increasing mass community; however, it should only be applied to outbreaks with a risk of serious illness and low death. Nevertheless, it must be maintained so that the transmission is not too high, and the number of cases can still be controlled by the health care system.
5. Recording and Reporting.
6. Monitoring and evaluation the implementation of mass immunization and assessing the impact of case development by implementing surveillance during the outbreak period.
7. In areas or groups of population where the target for mass immunization has not been achieved, and/or has not given a significant impact, it is necessary to repeat or complete mass immunization after evaluation.

#### D.5.2.3. Behavior

Almost all diseases can be prevented through the behavior adjustment, therefore in every outbreak it is necessary to intervene behavior.

In a disease transmitted through the respiratory tract, influenza, COVID-19, can be prevented through the implementation of behavior interventions: wearing mask, avoid contact with suspected infected person and crowd, keep hands sanitized (frequent hand wash).

#### Protocols

1. Outbreak investigation need to identify mode of transmissions.
2. When the mode of transmission has been identified, then transmission prevention can be determined with the appropriate behavior adjustment. There is possibility in particular of new emerging diseases, the only way of prevention is behavior adjustment.
3. Behavior adjustment campaign in outbreak area systematically implemented, well organized, to stimulate awareness and public support.
4. Conduct monitoring on progress of behavior adjustment by community and assess impact on case declining through case surveillance.
5. Area with remain of transmission, require improvement of community participation.

#### D.5.2.4. Isolation, Quarantine and Social Restrictions

One of easiest ways to prevent continuous transmission in an outbreak situation of infectious disease from person to person is to separate healthy people from sick people (infected and/or isolated) as well as all suspected close contacts of being infected (quarantine). Isolation is undertaking as long as the case still shows a risk of infecting other people. Meanwhile, quarantine is applied during the incubation period of the disease since the last contact with the case, the last time being at the location where the transmission is happening, the last visit to the hospital that treats patients suffering from outbreak disease.

#### Isolation Protocols

1. In implementing the isolation as an effort to prevent continuous transmission, it is necessary to ensure operational definition of suspected cases and confirmed cases; therefore, there is certainty in the determination of someone who will be isolated.
2. The isolation guideline must be made and stipulated in an official decision, and each isolation place has to make a standard operating procedure (SOP), as well as organize an isolation implementation team that will ensure appropriate isolation measures so that there will be no transmission of cases to officers/other people or the other way around.

3. When a person is suspected of being infected (suspected), it is better to take an action of isolation and treatment as an outbreak case until it is confirmed that the person is no longer suspected of being infected (no longer an outbreak case).
4. Case that is undertaking the isolation will receive adequate explanations and is keen to cooperate as an effort to prevent transmission to others.
5. Isolation room is a room or house or patient care room that is supported by sufficient health care facilities and can be sure that there is no transmission to other people.
6. Isolation is implemented as long as the case is indicated to be contagious, which is determined by the medical team who treats the case and according to the policies of each country.
7. For those who have finished undertaking isolation, it is necessary to obtain a certificate stating that the isolation period has been completed and there are no indications of transmission. This certificate will provide certainty for a person to live his social life again without any stigma.
3. Every case of an outbreak where the source of transmission is person-to-person and it requires isolation and quarantine, it must be ensured that all close contacts are found and quarantine measures are taken, so that continuous transmission will not occur.
4. When a person who is undertaking the quarantine is indicated to be infected or the person becomes a case; therefore, quarantine and treatment measures as an outbreak case must be implemented immediately.
5. that is undertaking the quarantine will receive adequate explanations and is keen to cooperate as an effort to prevent transmission to others.
6. Case that is undertaking the quarantine will receive adequate explanations and is keen to cooperate as an effort to prevent transmission to others.
7. Quarantine room is a room or house or patient care room that is supported by sufficient health care facilities, and can be sure that there is no transmission to other people.
8. Quarantine is done, at least, during the incubation period of the disease or based on evidence of a high risk of transmission from the contact (study result).

### Quarantine Protocols

1. In implementing the quarantine as an effort to prevent continuous transmission, it is necessary to ensure the contact that will be quarantined; therefore, there is certainty in the determination of someone who will be quarantined.
2. The quarantine guideline must be made and stipulated in an official decision, and each quarantine place has to make a standard operating procedure (SOP), as well as organize a quarantine implementation team that will ensure appropriate quarantine measures so that there will be no transmission of cases to officers/other people or the other way around.
9. For those who have finished undertaking quarantine, it is necessary to obtain a certificate stating that the quarantine period has been completed and there are no indications of transmission. This certificate will provide certainty for a person to live his social life again without any stigma.

#### D.5.2.5. Infection Prevention and Control (Nosocomial Infection)

Everyone who treats patients, examines specimens and carries out investigation activities, is at risk of being infected with infectious diseases that cause outbreaks. Either the transmissions which occur from patients who are being treated, or infected through an environment which is contaminated

with germs that cause outbreaks and/or from insects or animals that transmit disease through bites towards cases and healthy people around them. To avoid the incident of disease transmission from patients, contaminated environments or insects, infection prevention and control measures are needed.

### Protocols

1. All the officers who are involved in physical contact and at risk of infection during investigation, treatment/isolation, quarantine, collection and examination of specimens, are ensured to have the skills and can apply infection prevention and control methods according to the conditions of each surveillance unit.
2. All the officers who are involved in physical contact and at risk of infection must be supervised, controlled, and their health must be monitored as well, at least during the incubation period since the last contacts have done the activities.
3. When the officers, during the incubation period, show symptoms of illness that are same as with the case, isolation measures are immediately undertaking according to the provisions in each country, and a diagnosis is immediately determined.
4. Local Public Health unit and the Ministry of Health have to conduct monitoring and supervision the implementation of preventing and controlling infection at health facilities, laboratory, and during the investigation and containment activities.

### D.5.3. Follow Up Investigation

1. The outbreak investigation has been carried out as soon as the outbreak identified from the initial investigation, and it can be followed by a series of investigation activities in accordance

with the development of the outbreak situation, new findings problems and the need containment.

2. In outbreak, particularly in outbreak of new diseases, the change in epidemiological characteristic of the disease often occur. Therefore, if surveillance has indicated problems or changes in epidemiological characteristic, it is necessary to carry out an investigation to update the description of symptom distribution, case operational definition and case finding procedure, diagnostic procedure, severity of disease in areas and community group, incubation period, case management, source and mode of transmission, and continuous improvement of management.

### D.5.4. Surveillance

1. In outbreak, it should immediately implement close surveillance, more sensitive and updated as well as more real time information.
2. Surveillance provides data and information periodically and whenever needed, which at least includes development of cases and condition that affect them in accordance with region and community groups (descriptive epidemiology). Furthermore, the data can be used to assess the impact of management and provide more effective management
3. Surveillance, especially in new emerging disease outbreaks, monitors and identifies the changes in symptom distribution, diseases severity in regions and community groups, incubation period, source and mode of transmission.
4. Surveillance provides information, and it is used in efforts to manage the outbreaks, both in terms of early case detection and response, analysis of outbreak developments (descriptive epidemiology), and recommendations for better management

5. Surveillance data is also submitted to the local public health units and health units/other related units as well as to the Ministry of Health in each country.
6. Surveillance data is also submitted to health units in border areas as well as in areas at risk of transmission (cross-notification) to increase alertness and response, and if necessary, health units in border areas of countries are also included

#### **D.5.5. Public Communication**

1. In outbreaks, the development of the outbreaks and what individuals and communities should do is need to be conveyed through the media
2. Dissemination of information to explain the development of outbreaks, increase awareness, attitudes, and actions to increase alertness, prevention and control of outbreaks, prevention of stigma by individual and community groups without causing panic and unproductive actions.

# ● E. OUTBREAK EARLY DETECTION SYSTEM

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Outbreak management will be effective if it is carried out at the beginning of the outbreak. Therefore, it is important to implement an early detection system for outbreak, both at the center and in each region/area.

1. The implementation of an early detection system for potential outbreaks of disease and early detection of outbreaks, especially by conducting indicator-based surveillance on various data and information sources, and event-based surveillance.
2. Mapping the risk of outbreaks in all areas and response capacity
3. Determination and warning on the threat of outbreaks periodically and/or at any time are informed to all parties related to the management of outbreaks.
4. Monitoring and delivering of information on the incident of outbreaks and its development to all involved parties to the outbreak control, including cross-notification between border areas of outbreaks and between border areas of countries.
5. As stated in document ASEAN Strategic Framework for Public Health Emergency 2020 under the Regional Coordination Mechanism for Joint Investigation, Response, and Recovery point B. Joint Outbreak Investigations: If deemed necessary, and after close consultation with the affected AMS, a response team from another AMS may assist another, in a mechanism consistent with the JMOIR. In the conduct of joint outbreak investigations, the assisting country will assist the affected AMS in conducting scientific investigation, and provide due recommendations and feedback (in collaboration with the national EOC) to the country receiving assistance. This may help identify additional technical assistance and supplies required for mobilization such as medical supplies, laboratory and logistical support, and others. The response team(s) from the assisting country may report to the coordinator from its own country on progress/update of the joint investigation (in consultation and upon agreement with the National Response Team). A debriefing report will be provided after the conduct of the investigation.

## F. OUTBREAK PREPAREDNESS

When an outbreak occurs, an investigation and management to an outbreak must be immediately carried out. The investigation and management have to be done by personnel with adequate competence, appropriate resource support and work mechanisms.

Preparedness needs to be set up to deal with the possibility of an outbreak:

1. Legal certainty
2. The improvement of sustainability guidelines
3. Maintaining the capacity of field implementers
4. Latest reference support
5. The group of experts
6. Containment network (among epidemiological units, service community empowerment, inter-regional)
7. Strengthening early detection and response system (Early Warning Alert and Response Systems/EWARS, rumors verification, etc.)

# G. CONCLUSION & RECOMMENDATION

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1. The protocol is developed based on ASEAN National Focal Points discussion, agreement and questionnaire. It could be useful for every single disease in public health emergency for international concern.
2. This protocol is in line with and details the implementation of IHR (2005) for the region, to complement and strengthen current processes of the existing national and ASEAN mechanisms and platforms, such as the ASEAN Emergency Operations Centre (EOC) Network and Joint Multisectoral Outbreak Investigation and Response (JMOIR). It also supports the operationalization of the ASEAN Strategic Framework for PHE. By implementing this Protocol, AMS will strengthen the national early warning system for public health emergencies.
3. The ASEAN National Focal Points and Local Focal Points are expected to share the information on cross border case/contact tracing and the results of rapid outbreak investigation in the real-time basis and the future operationalization of the Protocol is expected to be facilitated by ACPHEED once it is established.
4. The sharing information of cross-border contact tracing follows four scenarios of cross-bordering (Case Entry, Contact/Exit, Contact/Entry, and Case/Exit-Entry) and its respective proposed steps of cross-border information sharing.
5. The proposed informal information sharing aims to accelerate the process of information sharing while upholding respective ASEAN Member States national policies.
6. The ASEAN Cross-border Contact Tracing and Rapid Outbreak Investigation will be used to explore AMS common understanding and agreement on cross-border information sharing in the context of ASEAN region in accordance with IHR (2005).
7. In the context of ASEAN collaboration, it is important to develop inter-country collaboration on outbreak containment including early detection and joint outbreak investigation.

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▶ **Hariadi Wibisono**

Indonesia Epidemiological Association  
JI Percetakan Negara 29 Jakarta

▶ **Sholah Imari**

Indonesia Epidemiological Association  
JI Percetakan Negara 29 Jakarta

▶ **Masdalina Pane**

Badan Riset Inovasi Nasional (BRIN)  
JI. MH Thamrin No.8 Jakarta Pusat

▶ **Made Dharmajanti**

Secretariate Executive  
Indonesia Epidemiological Association  
JI Percetakan Negara 29 Jakarta

▶ **Endang Budi Hastuti**

Ministry of Health, Rep. of Indonesia  
JI.HR Rasuna Said Kav 4-9 Jakarta

▶ **Grace Lovita Tewu**

Ministry of Health, Rep. of Indonesia  
JI.HR Rasuna Said Kav 4-9 Jakarta

▶ **Rita Ratna Puri**

Ministry of Health, Rep. of Indonesia  
JI.HR Rasuna Said Kav 4-9 Jakarta

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