Emergency Response Operations

13. Emergency Response Operations Notes

- The indicator refers to public health emergency operations for the country.
- The EOC should include:
 - information systems to connect public health decision makers to appropriate data sources;
 - communications equipment;
 - staff that are trained and capable of coordinating an emergency response.
- Emergency operations plans should be developed that can be scalable and flexible to address emerging disease threats.
- Exercises should test the capacity of the emergency operations systems and staff to coordinate a large response affecting multiple communities, and involving multi-sectoral coordination.
- Functional exercises should be held on an annual basis; additional drills, table-top exercise and simulations can supplement the functional exercises.

Questions	Current Status	Documents Required
Contextual Questions:		
1. Please describe the physical structure of the current public health emergency operations center (EOC) at the national level, if applicable.	National Disaster Risk Management Plan 2015 has designated its mechanism and structure for emergency response management as follows; National Disaster Command Headquarters/Command Center (National EOC) has been tasked with commanding, directing, making decision in, Supporting and coordinating Interoperability for incident operations at all levels under the Disaster Management Act 2007, Article 4 for all types of disaster. The Central Disaster Management Center is also operated under the National EOC.	Disaster prevention and mitigation act 2017 http://www.disaster.go.th/en/download.php
a. If there is an EOC, please provide a floor plan and description of equipment.	The national EOC (under Department of Disaster Prevention and Mitigation, Ministry of Interior) is located at DDPM, Head Office. It has the floor plan and equipment which is	Floor Plan of National Disaster Command Headquarters/Command Center (National EOC)

Questions	Current Status	Documents Required
	operated and linked with relevant agencies.	
	Equipment: computer, monitor, phone, radio, conference room and teleconference facility	
	At Ministry of Public Health (MOPH), it has Bureau of Health Emergency Response as a public health emergency operations center of the MOPH. This Bureau was established On 2012, as an internal structure of the Permanent Secretary Office. It has recently approved as a formal organization on April 2017. So far, it does not yet has its own EOC room and needs to use a meeting room of the Permanent Secretary Building that have teleconference facility as an EOC when needed. The floor plan is already submit to the MOPH for future establishment.	http://110.164.192.180/pher/index2.php or http://pher.moph.go.th/wordpress/home/
	Equipment: similar to the national EOC	
	Under the MOPH, there is also another EOC at the Department of Disease Control (DDC), which is operated routinely to monitor health problems under mission of the DDC. This EOC runs by an EOC branch, under Bureau of Epidemiology (BOE), as an internal structure of the BOE. This EOC branch of the BOE was established in 2015. The DDC's EOC operation center is located on 3 rd floor of the DDC building and has a room for situation awareness team (SAT) next to it.	

Questions	Current Status	Documents Required
	Equipment: computer, monitor, phone, conference room	
	and teleconference facility	
b. What is the total staff capacity for the EOC? Is there a plan in place to	Central Disaster Management Center (national EOC) has been tasked with monitoring, assessing the situation, analyzing, reporting, providing warning and operating 24	
accommodate additional staff, if necessary?	hours. During normal situation, 80 officers are rotational operated. If the disaster is upgraded to large or extremely	
	large scale disaster (level 3 and level 4), they will increase their staffs up to 300 officers in the EOC depending on the complexity of situation.	
	MOPH's EOC: around 10 persons in normal situation and increase to 30-50 staff during EOC activation.	
	DDC's EOC: around 10 persons in normal situation and has 6 staff on-duty for SAT team on weekly basis, plus 2	
	investigation teams (5 per each team) on-duty in a weekly	
	basis as well. During EOC activation, the main EOC staff does	
	not increase but usually there would be a special SAT team	
	on that task such as SAT Zika, SAT cholera, SAT MERS, etc.	
	which recruited team from surge staff. A similar	
	management of the investigation team usually occurred but	
	for the investigation team, it can mix between the team that	
	investigation normal outbreak and task specific outbreak	
	such as during Zika epidemic, the number of investigation	
	team increased into 4 teams, which all of them were focused	
	on zika response but if there is any important outbreak apart	

Questions	Current Status	Documents Required
	from Zika, team 1 and 2 might response to these other-disease outbreak.	
c. Is there a reliable power source for the EOC?	For national EOC, it has reliable power source for normal and emergency situation. Additionally, the back-up system of power source is a 200 Kva. mobile unit.	
	The DDC' EOC also has back-up system for power source.	
d. Is there reliable communications structure for the EOC? Does this include internet, email, and phone capabilities?	There are many reliable communication channels; such as main, back up and emergency system. Besides, the EOC has its mobile phone, hot line system to communicate with National Disaster Warning Center and Thai Meteorological Department. It is also establishing its call center, web conference and video conference, e-mail, radio system for the public (Citizen band), using central frequency also VHF and UHF. In addition, the Application DPM Reporter and other Application with manuals are also communication channel with relevant agencies. National EOC is also set up and activated 18 Emergency Support Functions based on the complexity of the situation to operate and link with multinational partners; public, private and people sector.	
	MOPH's EOC: internet, email, phone and radio. Contact:	
	Call. 092-2511771 (24 hr.)	
	Fax. 02-590-1771	

Questions	Current Status	Documents Required
	Email: pher.moph@gmail.com LINE ID: moph1771 DDC' EOC: : internet, email, phone	
e. Is the organization able to convene participants from ministries and other national and multinational partners as appropriate?	According to Disaster Prevention and Mitigation Act 2007, Article 11, Department of Disaster Prevention and Mitigation is assigned as a central government agency for formulating and coordinating Disaster Management system and Emergency Response with relevant agencies concerned. Regarding the National Disaster Command Headquarters/Command Center (National EOC) is functioned during the emergency situation by coordinating and	
	operating with agencies concerned and it has established Emergency Support Function to support its operation. The MOPH EOC gathers teams from all relevant departments based on functions that activated in each time. However, the	
	participants from other ministries do not join except sometime when the issue highly related with other ministries such as avian influenza. Sometime, there are representative from WHO's country office and US. CDC (Thailand – US. Coordination: TUC) joined the big infectious event such as during MERS cases.	
	The DDC EOC has similar pattern with the MOPH EOC, which it has different Bureaus under the DDC to join the EOC but	

Questions	Current Status	Documents Required
	sometime has representative from other department such as	
	Department of Medical Science (for laboratory issue),	
	Department of Medical Service (for case management), etc.	
	Sometime representative from WHO Country Office and TUC	
	also join the EOC.	
2. During an emergency, is	The National Disaster Command Headquarters/Command	
there a process for sharing	Center (National EOC) has the Advisory Group/Technical	
scientific data and	Specialists to provide advice, recommendations, technical	
recommendations with policy	data to propose to decision makers via daily conference	
makers and national leaders?	according disaster category.	
	In MOPH, the EOC usually commands by deputy ministered	
	or his representative. A daily report produced by SAT team	
	has been sent to all policy makers in the MOPH and also	
	being sent to the national EOC. In case of important	
	information that need to inform policy maker urgently, the	
	incident commander or his team can call the Permanent	
	Secretary and the Minister. For the linkage with the national	
	EOC, apart from daily SAT report, the incident commander or	
	his representative has to join the national EOC meeting every	
	day, or when they have meetings.	
	For DDC' EOC, the incident commander is the Director	
	General (DG) or his deputies. The SAT reports also sent to the	
	Permanent Secretary and the Minister each day. Urgent	
	information can also be informed to them directly from the	
	DG or his deputies.	

Questions	Current Status	Documents Required
3. Is there a multisectoral commission or a multidisciplinary emergency response department for public health/animal health?	The Department of Disaster Prevention and Mitigation is assigned as a central government agency for formulating and coordinating Disaster Management system and Emergency Response with relevant agencies concerned, including public health and animal health.	National Disaster Risk Management Plan 2015 (http://www.disaster.go.th/upload/download /file_attach/584115d64fcee.pdf)
	In MOPH, the Bureau of Health Emergency Response is the center for multidisciplinary emergency response that links all departments together under the MOPH's EOC.	
	At the area level, when disaster occurs within their jurisdiction, the Provincial Command Center, District Command Center and Local Command Center are established and activated to monitor, direct, control and operate emergency response as well as prepared emergency operation plan. The Local Command Center is functioned as the Provincial Front Command Center, District Command Center, Local Emergency Response Center which has all relevant representatives for example at the Provincial EOC, the Provincial Public Health representative is participating and at the District EOC, the District Public Health representative is functioning.	
a. Does this combine security, public health, veterinary, wildlife, and other experts?	The role of Public Health or Civil Defence is functioning under multi-agency coordination system and the incident command system concepts as emergency support function 8th (ESF8).	

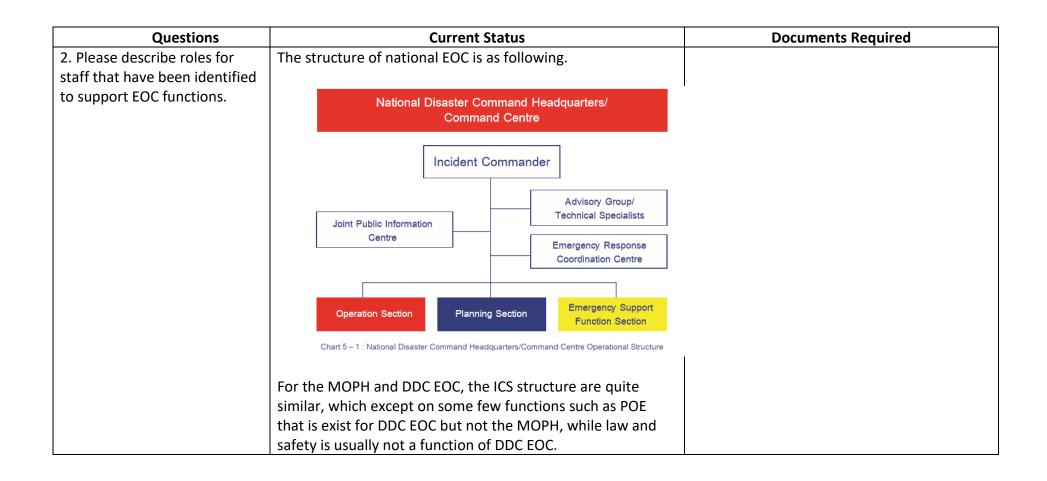
Questions	Current Status	Documents Required
	Although within ESF8, there are only public health and	
	medical team, other emergency support function (ESF)	
	composed of several groups such as military, polices,	
	chemical specialist, communication experts, etc.	
b. Has this team received	There are special teams responsible for public	
public communication	communication at the national, MOPH and DDC level. These	
training?	teams are already trained for public communications.	
c. How often do these groups	At national and MOPH EOC, there is no regular meeting	
meet to discuss cross cutting	when the EOC does not activate. However for DDC EOC, it	
issues?	has weekly meetings for a couple of years and special	
	meetings sometime are conducted for some specific topics.	
4. How do subnational	At the area level, when disaster occurs within their	
(intermediate and local)	jurisdiction, the Provincial Command Center, District	
entities manage emergency	Command Center and Local Command Center are	
response activities?	established and activate to monitor, direct, control and	
	operate emergency response as well as prepared emergency	
	operation plan. The Local Command Center is functioned as	
	the Provincial Front Command Center, District Command	
	Center, Local Emergency Response Center which has all	
	relevant representatives for example at the Provincial EOC,	
	the Provincial Public Health representative is participating	
	and at the District EOC, the District Public Health	
	representative is functioning.	
	For the events that are public health issue, sometime it does	

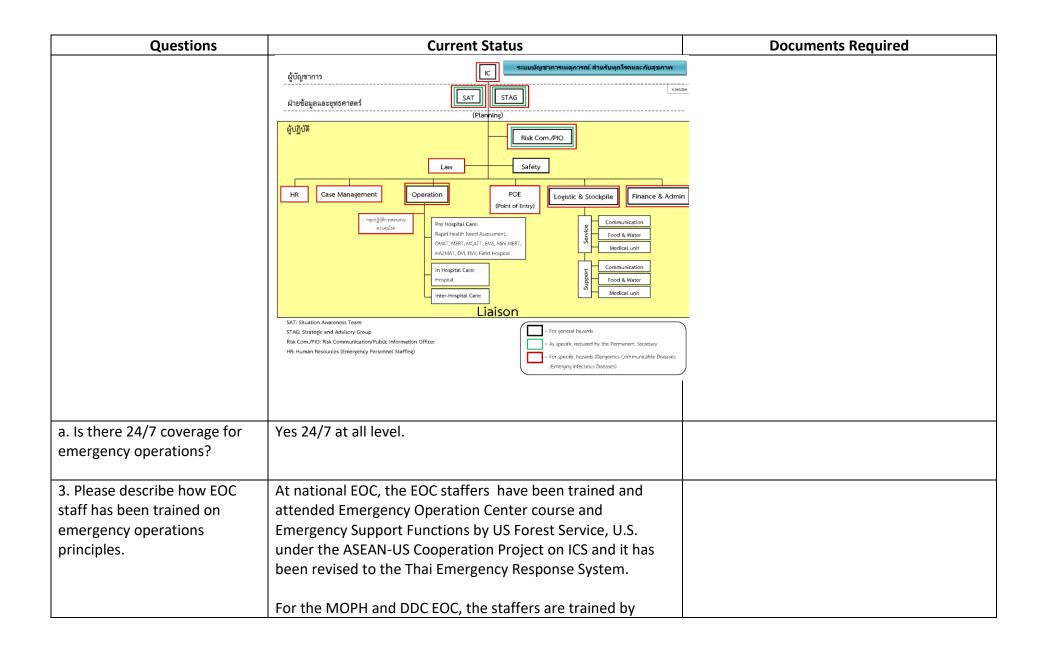
Questions	Current Status	Documents Required
	not need to activate the EOC under the Ministry of Interior at province, district or local that describes above. Instead, a public health EOC can activate at provincial health office for provincial level, district health office or district hospital for the events that needs public health EOC at district level. For a larger event that involved more than 1 province, an EOC would be activated at Office of Disease Prevention and Control (ODPC) as a regional EOC.	
a. Is there a role for public health, or is this a civil defence activity?	It can be both, public health or civil defence role, depend on the scale of the event. For natural disaster, the local EOC is always under the management under the Ministry of Interior, as Provincial Command Center, District Command Center and Local Command Center, with public health as a part of functioning under multi agency coordination system and the incident command system concepts. For infectious events that need to activate EOC, it is mainly operated within public health side but can be upgrade to the role of Ministry of Interior in case that has substantial impact to economic or tourism.	
5. How do localities manage emergency response activities?	At provincial level, the Provincial Command Center leads by the provincial governor or his deputies. In case of the public health provincial EOC, a chief of provincial health office is an incident commander. At the district, Incident command posts are set up for emergency response within their jurisdiction. District Public Health is responsible at district level whereas at local level,	

Questions	Current Status	Documents Required
	the Bureau/Division is in charge to cooperate with all	
	relevant agencies in term of disaster and public health. The	
	District Command Center leads by a sheriff while the public	
	health district EOC can lead by chief of district health office	
	or a director of district hospital, depend on appropriateness	
	of the situation.	
a. Is there a role for public	It can be both, public health or civil defence role, depending	
health, or is this a civil defence	on the scale of the event similar as above answer.	
activity?		
6. Is there a hotline	DDPM hotline is 1784 (24 hrs.)	
people/clinicians can call for	DDC Hotline is 1422 (24 hrs.)	
help on handling a disease of		
unknown origin?		
a. Is there a comparable	Department of Livestocks	
system for animal disease	Tel.No. 096 3011946 (Official hour)	
support?		
Technical Questions:		
R.2.1 Capacity to Activate Emer	gency Operations	
1. Describe scenarios or	The national EOC activation has 4 levels:	National Disaster Risk Management Plan
triggers for EOC activation.	1. Small scale disaster that can be manage within a district or	2015
Are there multiple levels of	sub-district	(http://www.disaster.go.th/upload/download
EOC activation?	2. Medium scale disaster, can be manage within a province	/file attach/584115d64fcee.pdf)
	3. Large scale disaster that has to manage at national level	
	but still under the responsibility of the National Disaster	Guideline for development of emergency

Questions	Current Status	Documents Required
Questions	Command Headquarters/Command Center 4. Catastrophic scale disaster that the prime minister has to be an incident commander MOPH EOC use the same system as the national EOC while DDC EOC has its own system. For DDC EOC, it also has 4 levels. Level 1: Closely monitoring the situation, develop incident action plan (IAP), prepare potential staff. Use normal teams of each Bureau and add subject matter experts (SME) to participate and monitor the situation Level 2: Activated EOC and appoint incident commander, work under structure of ICS for that event, follow the prepared IAP. Ask for gathering at least 10% of each bureau to work in the EOC. Level 3: work similar to level 2 but draw at least 25% of each bureau to join the EOC. Level 4: work similar to level 2 but ask all bureaus to stop their non-critical/ non-essential operations. The gathering of staff at each step and the decision of which tasks are "non-critical/ non-essential operations" has to base on the already prepared business continuity plan (BCP) of the organization.	operation center and incident command system, Department of Disease Control, B.E. 2559-2564 (2016-2021)
a. Who decides the change of level?	Elevate level of emergency and incident management: There are criteria for upgrading level of disaster according to	

Questions	Current Status	Documents Required
	the effects to area, population included with complexity	
	resource capacity and decision making consideration of	
	incident commander.	
	- District Incident Commander/ deputy of Bangkok	
	Metropolitan Incident Commander of small scale disaster	
	- Provincial Incident Commander/ Bangkok Metropolitan	
	Commander of medium scale disaster	
	- National Incident Commander of large scale disaster	
	- Prime Minister of Catastrophic disaster	
	For DDC EOC, a decision to change the level come from	
	discussion of the DG and his deputy, upon the information	
	provided by SAT or other related information.	





Questions	Current Status	Documents Required
	different groups. Previously, both teams have been trained with PHEMA model by lecturer from outside the ministry especially from a military medical school. After the commencement of Global Health Security Agenda (GHSA), DDC sent several executive level is learnt EOC concept from US. CDC (with financial support of the US. CDC) and change the focal point of public health emergency task from Bureau of General Communicable Disease to Bureau of Epidemiology (BOE), with a new EOC branch under BOE. Then, a group of EOC staff from US. CDC also visited Thailand to conduct a 2 weeks training workshop on EOC and ICS concept for the EOC and other key staff at BOE and DDC's regional centers (ODPC). After that, these trained BOE staff becomes trainers for the whole member of BOE and other agencies in DDC. Each ODPC also had to conduct training on EOC and ICS concept for 100% of their staff.	
a. How have response teams been trained?	The national EOC trained Incident Management Assistance Team (IMAT) and other related teams for the response function. In MOPH, there are several team such as Disaster Medical Assistant Team (DMAT), Medical Emergency Response Team (MERT), etc. At DDC, the main response team is the Surveillance and Rapid Response Team (SRRT). All of these teams are trained from their related agencies.	

Questions	Current Status	Documents Required
b. Is there a training program for EOC staff?	Yes, for all main EOCs.	
c. Is there an emergency operations training curriculum for staff who support EOC functions?	Yes. For national EOC, the use curriculum of Emergency Operation Center and Emergency Support Functions (ESF) from Federal Emergency Management Agency, by a support of US Forest Service under ASEAN-US Cooperation Project on ICS and adjusted to Thai context. In MOPH, the curriculum wes as described above.	
d. How are surge staffs identified? Is there training available to surge staff in advance of a response? Is there "just in time" training available?	There are trainings of surge staff in DDC EOC. These trainings are mainly focused on SAT and joint investigation function. The surge staffers come from other agencies in DDC apart from the BOE, among those personnel who are decided to work with "non-critical/ non-essential operations", based upon the BCP as previously mentioned. The training are performed in both didactic class and on-the-job training that these staff have to join the on-duty work of SAT and joint investigation team.	
R.2.2 Emergency Operations Ce	nter Operating Procedures and Plan	
1. Please describe procedures		
that are in place for		
emergency operations.		
a. How often are procedures	Since both MOPH and DDC EOC are still newly established,	
updated?	the procedures are still under development or already	
	finished for some function and most are not yet updated	

Questions	Current Status	Documents Required
	except for SAT team of the DDC that was updated for few times.	
b. Is there a procedure in place for decision making?	No.	
2. When there is a national public health emergency, who serves as the Incident Manager for the EOC?	It depends on the level of the situation as above describe. For DDC EOC, it is usually leaded by the DG or his deputies but sometime is leaded by subject matter expert such as director of relevant agency. For MOPH EOC, the incident manager was usually a deputy of the Permanent Secretary who responsible for emergency management task but sometime the Permanent Secretary himself was an incident manager.	
3. Describe the availability / dissemination for different target groups of the situational awareness and reports.	During normal situation, SAT report of the DDC and MOPH EOC are produced on weekly basis. The dissemination is mainly focused on executive level of the MOPH. In emergency situation, the frequency of SAT reports usually changed to daily basis and the report are combined together to send to the national EOC at Ministry of Interior.	
R.2.3 Emergency Operations Pro	ogram	
1. Please describe public health emergency operations exercises or activations that have been conducted within the past year.		

Questions	Current Status	Documents Required
a. Please describe functional exercises that have been completed within the last year.	No, but Bureau of Health Emergency Response had join other organizations in functional exercises. (DDPM, NIEM).	
b. Please describe table-top exercises that have been completed within the last year.	There were 2 table-top exercises at local level on avian influenza conducted by Bureau of Emerging Infectious Disease in 2016. The first one was at a Southern border area in Songkhla province in April. The second one was at a western border area in Tak province in June. Both exercises started with a table-top exercise on the first day and followed by a drill exercise on the second day.	
c. Please describe any emergency activation within the last year.	At MOPH level, it was EOC on Flood at southern region in January 2016. At DDC level, it had zika EOC for many months in 2016 and MERS EOC during January 2016 when the 3 rd MERS case was identified.	
d. Please provide summary of any improvement plans, after action reports, or lessons learned documents that were completed as a result of these exercises or activations.	AR flood at southern region and AAR zika. Assesment of Ebola response by SEARO. After the flood response, the AAR was carried out a couple of weeks after the task finished. Overall, the flood response this time was much better than the previous large flood (Great flood in 2011, affected area was nationwide) due to a new system that implemented at national level. However, the test after revision is not yet done.	- AAR for zika (2016) and flood (2017) response

Questions	Current Status	Documents Required
	For zika, an After Action Review (AAR) was carried out in the mid of the response (after the first 3 months of the response), then the surveillance and investigation/ control guideline was refined according to the result of the AAR. The key findings were: 1) it is necessary to mobilize public health personnel as the main manpower during larva control, rather than only gathering village health volunteers from all over the district to do this task, 2) ICS is a very useful tool to effectively respond to any kind of public health emergency and the main level of ICS function is at district level while provincial ICS can take supporting and supervision role, 3) the model on sending national SRRT team to supervise and on-the-job training of each new province that finds zika case is very useful but also needs to train each team from national level to clearly understand the protocol and concept. The later 5 months zika response that use the updated guideline that change according to the AAR shows higher feasibility and effectiveness of the work.	
	On 18 June 2015, Thailand declared officially the first case of MERCoV in the country. The MERCoV EOC was opened on the same day on full function scale. The operation ended up with success on capability to control the disease for 2 generations on 3 July 2015. An After Action Review on MERSCoV operation was conducted on 10 and 17 July 2015. Before MERCoV, in 2015 an AAR was conducted on Ebola	- Report on Lesson-learnt from preparedness to prevent and control MERCoV, August 2015 (in Thai)

Questions	Current Status	Documents Required
	operation by SEARO prior to establishment of the current EOC.	
e. How many times has the emergency operations center been operated in the past five	MOPH EOC: 3-4 times, mainly were flood events and had zika, MERS	
years?	DDC EOC: 9-10 times (Ebola, MERS 3 times for identified of each case in a separate occasion, zika, dengue hemorrhagic fever around twice in separate years, diphtheria, cholera and leptospirosis after flood)	
R.2.4 Case management proced	dures are implemented for IHR relevant hazards	
1. Availability of case management guidelines for priority diseases and IHR relevant hazards at all health system levels.	Mainly has case management guideline for priority diseases of infectious and zoonosis while chemical and radiological events mostly not available.	
2. Availability of SOPs (accordingly to national or international guidelines) for the management and transport of potentially infectious patients in the local level and points of entry.	MERS, Ebola, influenza, zika, dengue, MDR-TB, avian influenza, diphtheria, etc.	CPG zika (http://www.dms.moph.go.th/dmsweb/cpgc orner/CPGZika.pdf) CPG ebola (http://www.dms.moph.go.th/dmsweb/cpgc orner/EbolaCaseMgtlCedit2feb15.pdf) Management of MDR TB (http://www.dms.moph.go.th/dmsweb/cpgc

	orner/CPGTB.pdf)
	CPG MERS-CoV
	(http://www.dms.moph.go.th/dmsweb/cpgc
	orner/cpg012662557update.pdf)
	CPG dengue
	(http://www.dms.moph.go.th/dmsweb/cpgc
	orner/CPGDengue-56.pdf)
	Pitfall in management of dengue shock
	syndrome
	(http://www.dms.moph.go.th/dmsweb/cpgc
	orner/Pitfall in management of deengue.p
	<u>df</u>)
	CPG for H5N1
	(http://www.dms.moph.go.th/dmsweb/cpgc
	orner/CPGH5N1.pdf)
	CPG for diphtheria
	(http://www.dms.moph.go.th/dmsweb/cpgc
	orner/CPG Diphtheria 2.pdf)
	CPG for influenza
	(http://www.dms.moph.go.th/dmsweb/cpgc
	orner/CPGInfluenza27sep2011.pdf)
Every hospital has their own vehicles for nationt referral task	
• •	
nospital has this kind of ambalance.	
	Every hospital has their own vehicles for patient referral task with more than 1 ambulance/ car. However, it can be inadequate sometime. For highly dangerous disease such as ebola or MERS, only large hospital such as some provincial hospital has this kind of ambulance.

Questions	Current Status	Documents Required
4. Availability of appropriate staff trained in case management of IHR related emergencies.	Mainly available on infectious diseases but few on chemical, radiological events.	

Key Stakeholders (list them):

- Department of Disaster Prevention and Mitigation, Ministry of Interior
- Bureau of Health Emergency Response, Permanent Secretary Office, Ministry of Public Health
- Bureau of Epidemiology, Department of Disease Control, Ministry of Public Health
- Bureau of Emerging Infectious Disease, Department of Disease Control, Ministry of Public Health
- Bureau of Environmental and Occupational Health, Department of Disease Control, Ministry of Public Health
- Food and Drug Administration, Ministry of Public Health
- Department of Medical Science, Ministry of Public Health
- Department of Medical Service, Ministry of Public Health
- Department of Health, Ministry of Public Health
- Department of Mental Health
- National Institute of Emergency Medicine
- Governmental Pharmaceutical Organization
- Department of Livestock Development, Ministry of Agriculture
- Ministry of Industry
- Office of Atoms for Peace, Ministry of Science and Technology
- Medical schools, Ministry of Education