

添付資料 7 :

地域連携ドリル全回分シナリオ

スタートアップドリルシナリオ

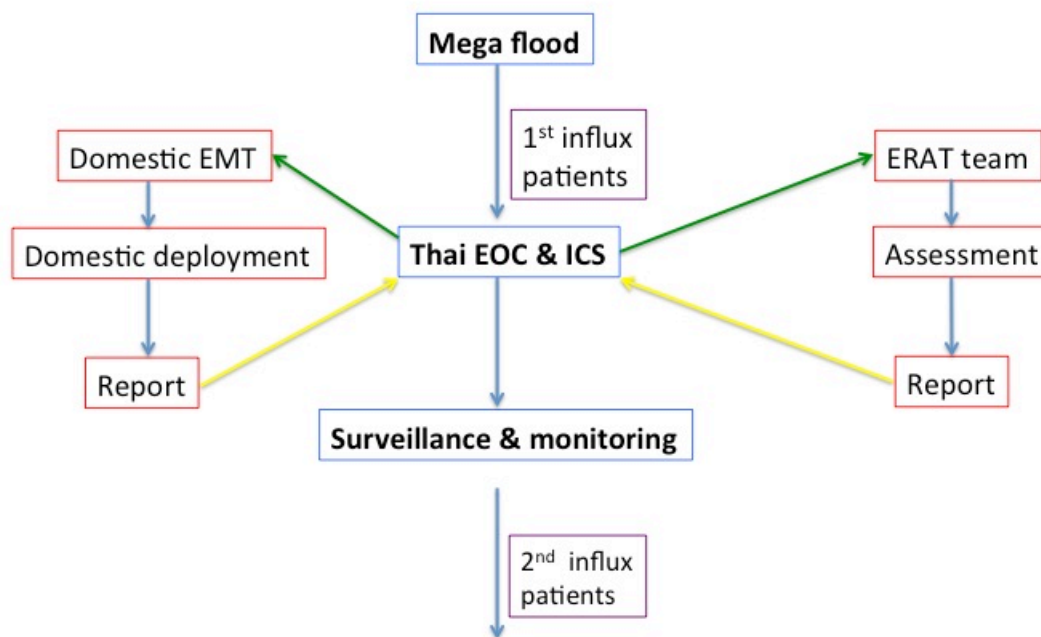
Baseline scenario for disaster drill 17 January 2017

Thailand mega-flood 2011

- March 2011 Depression affected southern of Thailand, flooding in 8 Provinces, dead 13, affected people 842, 324
- 15 April 2011 64 dead (26 in Nakhon Srithammarach)
- May to September** Flood effecting North, Northeast
Dead 366, drowning 86%, electrical injury 6%

Thailand set up emergency operation center according to incident command system of DDPM. Ministry of public health set up the public health emergency operation center (PHEOC). The PHEOC requested for domestic emergency medical team (EMT) deployment from non-affected area in the south, central, east and west. Later PHEOC requested domestic EMT deployment from the other parts of Thailand.

Domestic respond and deployment



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October 2011

Flooding in Northern part of Thailand down to Bangkok (most affected area) (over 65 provinces affected, 12 million population)

Dead 815, Homeless 5,388,204, Unemployed 650,000, Economic lost 1.425 trillion baht (4th world ranking)

Duration 25-27 days, height 87-88 cm.

Inpatient bed surge capacity 1,241, Out patient mobile clinic in 53 provinces (1.3 million population)

Flooding areas involved agriculture, business and industries, ecology, service, education, health.

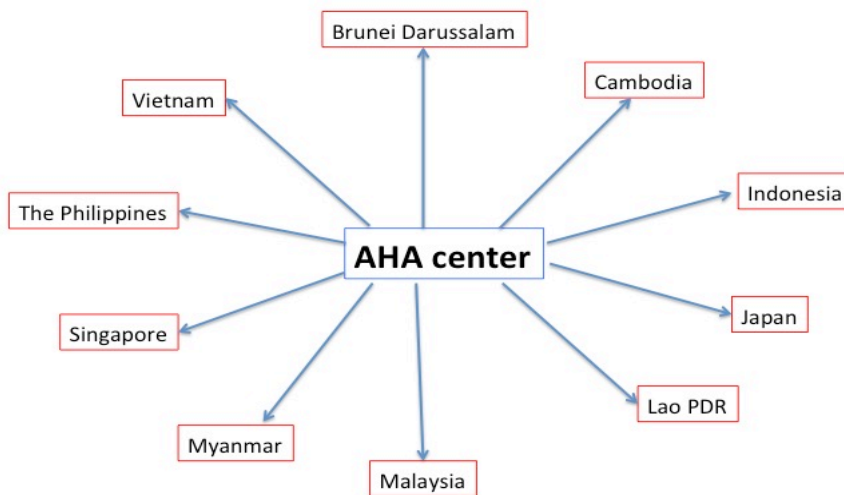
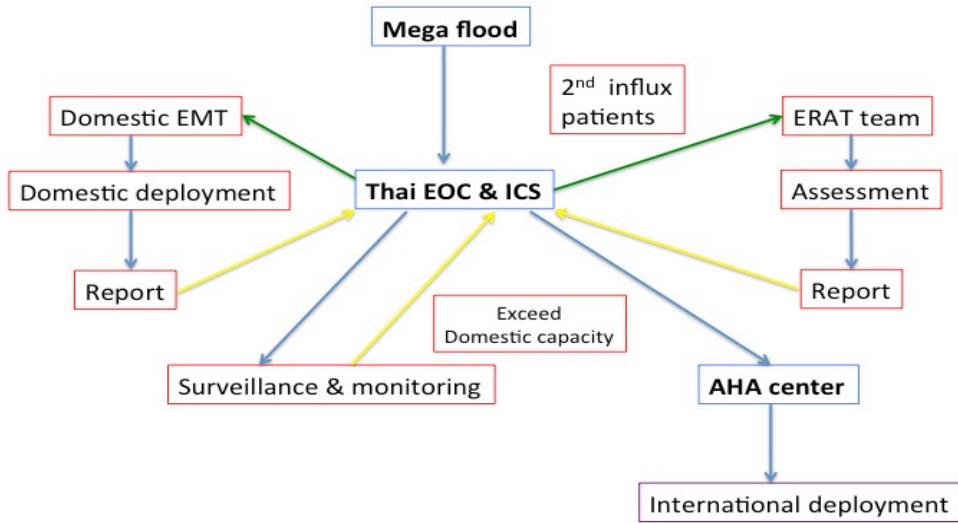






The Thai Department of Disaster Prevention and Mitigation (DDPM) announced level 4 disaster and exceeding domestic capacities.

Thai government by national focal point (NFP) requested international assistant to AHA center.



Some data of health problems during flooding period.

Table 1 Represent most common causes of drowning and dead (partially data)

Cause	Number
Drowning	1
Drunk	7
Boat accident	5
Swimming	5
Brian anomaly, seizure and drowning	4
Fall	3
Fishing	3
Walking through water	1
Landslide	7

Health effects from mega-flood 2011

Health divided into body, mind, social, and welfare

1. Body health
 - a. Trauma
 - i. Falling, drowning and near drowning
 - ii. Electrical injury
 - iii. Animal bite
 - b. Diseases (table 2) Statistic from 5-19 October 2011
 - i. Skin diseases
 - ii. Respiratory diseases
 - iii. Conjunctivitis
 - iv. Gastroenterologic diseases

Table 2 Represent common diseases during flood

Diseases	Number	Ratio per 1000,000 population
Conjunctivitis	517	4.21
Leptospirosis	6	0.16
DHF	91	0.64
Diarrhea	3,146	22.06
Hand foot mouth	96	0.85
Flu	144	1.18
Pneumonia	649	4.43

Not include skin diseases

2. Mental health: effected 125,762 people
 - i. Anxiety disorder
 - ii. Depressive disorder

iii. Suicidal attempt

Table 3 Represent mental health problems

Diagnosis	Number	Percentage
Anxiety	6,985	5.75
Depression	8,698	7.15
Suicide	1,533	1.26

* High risk in elderly and working age group

3. Social health

- a. Structural and infrastructural damages
- b. Asset security
- c. Changing in way of living
- d. Riot
- e. Unemployed
- f. Donation
- g. Government economic policies

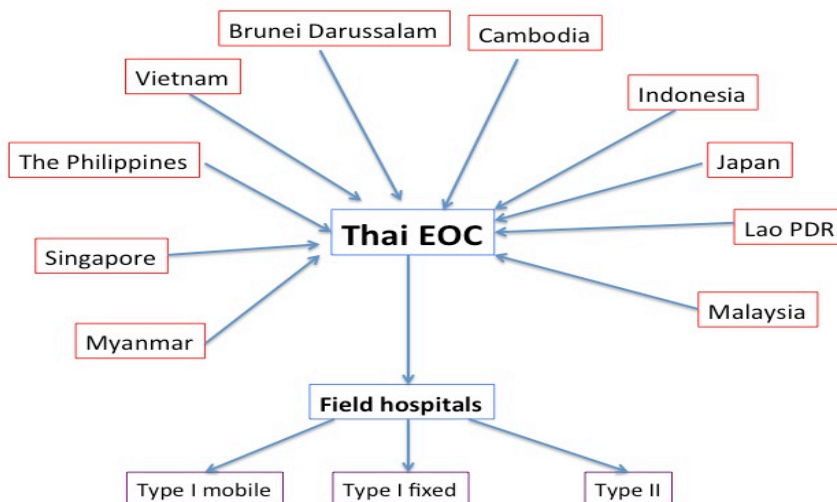
4. Welfare

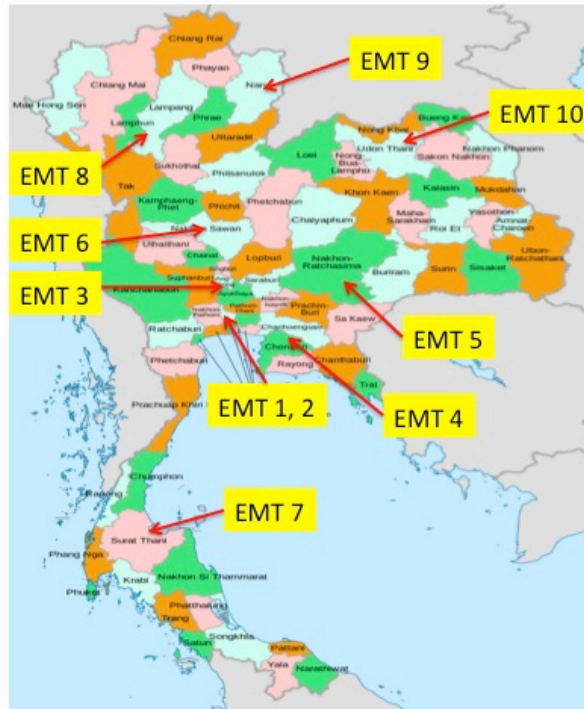
- a. Shelter: communicable diseases (>100,000), quarantine (tuberculosis, chicken pox), inadequate sanitation
- b. Homeless

Evacuation and transportation

- Air transport 73
- Boat and ground transport 2,046

The international EMT deployed into Thailand and made registration at the airport. Then EMT went to PHEOC at Ministry of Public Health for assignment as following;





EMT 1, 2: Bangkok

Pt	Sex	Age	U/D	CC	PE	Remark
1	M	46	DM, HT	Fever, cough 2 days	BT 38 P 100 RR 29 BP 110/70 Lung: crepitation at LLL	
2	F	14	-	Wound at foot	LW at Lt. foot 3 cm., contaminated	
3	F	6 m	-	Fever	BT 37.8 BP 70/40 P 122 RR 28 GA: active	
4	M	8	-	Rash at both legs	Erythematous rash both lower legs, itching, serum oozing	
5	M	31	-	Fever, Malaise, Muscle pain	BT 38.4 P 110 R 28 BP 100/70 Jaundice, Pain at both lower ext	
6	F	19	-	Diarrhea	BT 37.6 BP 110/70 P 90 RR 22 GA: active, dry lips Abd: mild tender no guarding	
7	M	36	Cushing	Diarrhea	BT 38.0 BP 90/60 P 90 RR 26 GA: active, dry lips Abd: mild tender no guarding	
8	M	5	-	Diarrhea	BT 37.5 BP 90/60 P 100 RR 24 GA: active, dry lips Abd: soft, not tender	
9	F	22	Epilepsy	Refill medicine	Normal	
10	M	28	None	Fall from height	Abrasion at Lt. forearm with deformity	
11	M	32	DM	Drowsiness for 1 day	B T 37.5 BP 120/70 RR 22 P 89 GA: drowsy, respond to voice	

12	F	38	Asthma	Dyspnea and tachypnea	BT 37.4 BP 110/60 RR 36 P 120 GA: tachypnea Lung: wheezing both lungs O2 sat (RA) 86%	
13	M	12	-	Homeless	Normal	
14	F	49	-	Homeless	Normal	
15	M	52	-	Homeless	Normal	

EMT 3: Pathum Thani province

Pt	Sex	Age	U/D	CC	PE	Remark
1	M	58	DM, HT	Chest pain	BT 38 P 88 RR 29 BP 110/70 Pain score 9/10, refer to Lt. shoulder	
2	F	8	-	Wound at foot	LW at Rt. foot 2 cm., contaminated	
3	F	1	-	Fever	BT 37.8 BP 80/40 RR 22 P 110 GA: active, rhinorrhea	
4	M	48	-	Fever, Malaise, Muscle pain	BT 38.4 P 110 R 28 BP 100/70 Jaundice, Pain at both lower ext	
5	F	24	-	Diarrhea	BT 37.6 BP 110/70 P 90 RR 22 GA: active, dry lips Abd: mild tender no guarding	
6	F	48	SLE	Diarrhea	BT 38.0 BP 90/60 P 90 RR 26 GA: active, dry lips Abd: mild tender no guarding	
7	F	22	Epilepsy	Seizure 2 min	BT 37.8 BP 110/70 P 110 RR 26 GA: good consciousness N/S: no neurological deficit	
8	M	35	None	Fall from height	Abrasion and contusion at Rt. chest	
9	F	65	COPD	Dyspnea and tachypnea	BT 37.4 BP 110/60 RR 36 P 120 GA: tachypnea Lung: wheezing both lungs O2 sat (RA) 86%	
10	M	72	-	Homeless	Normal	

EMT 4: Chonburi province

Pt	Sex	Age	U/D	CC	PE	Remark
1	M	62		Near-drowning	BT 36.7 P 90 RR 24 BP 100/70 GA: drowsy Lung fine crep both LL	
2	F	16	-	Electrical injury	BT 37.8 RR 24 P 100 BP 110/70 GA: active Rt. Hand: burn 2 nd degree 2%	
3	F	23	-	Fever	BT 37.8 BP 80/40 RR 22 P 110 GA: active, rhinorrhea HEENT: injected tonsils	
4	M	32	-	Fever, Malaise, Muscle pain	BT 38.4 P 110 R 28 BP 100/70 Jaundice, Pain at both lower ext	
5	F	54	-	Diarrhea	BT 38.2 BP 110/70 P 90 RR 22 GA: active, dry lips Abd: mild tender no guarding	
6	M	19	-	Diarrhea	BT 38.0 BP 90/60 P 90 RR 26	

					GA: active, dry lips Abd: mild tender no guarding	
7	M	22	Hemophilia A	Rt. Elbow swelling	BT 37.8 BP 110/70 P 110 RR 26 GA: good consciousness Rt. Elbow swelling Pain 8/10	
8	M	42	HT	Fall from height	Abrasion and contusion at forehead GA: good consciousness	
9	F	90	Stroke, bed ridden	Left in house	BT 37.6 BP 110/60 RR 24 P 80 GA: semi-consciousness, bed ridden Skin: Bed sore at both thigh	
10	M	8	-	Seeking for parent	Normal, crying	

EMT 5: Nakhon Ratchasima province

Pt	Sex	Age	U/D	CC	PE	Remark
1	M	54	COPD, DM, HT	Dyspnea	BT 38.5 P 100 RR 34 BP 100/70 GA: dyspnea Lung crep both LL	
2	F	12	-	Electrical injury	BT 37.8 RR 24 P 100 BP 110/70 GA: active Rt. Hand: burn 2 nd degree 2%	
3	F	26	-	Electrical injury	BT 37.8 BP 80/40 RR 22 P 110 GA: active Both hand: 2 nd degree burn 5%	
4	M	43	-	Fever, Malaise, Muscle pain	BT 38.4 P 110 R 28 BP 100/70 Jaundice, Pain at both lower ext	
5	F	17	-	Diarrhea	BT 38.2 BP 110/70 P 90 RR 22 GA: active, dry lips Abd: mild tender no guarding	
6	M	22	-	Diarrhea	BT 38.0 BP 90/60 P 90 RR 26 GA: active, dry lips Abd: mild tender no guarding	
7	M	15	-	Diarrhea	BT 37.8 BP 110/70 P 110 RR 26 GA: active, dry lips Abd: soft mild tender	
8	M	42	HT	Fall from height	Abrasion and contusion at Rt. knee GA: good consciousness Rt. Knee: swelling, tender	
9	F	38	-	Fall from height	BT 37.6 BP 110/60 RR 24 P 80 GA: active Back: tender at L2 spine	
10	M	35	-	Homeless	Normal	

EMT 6: Nakhon Sawan province

Pt	Sex	Age	U/D	CC	PE	Remark
1	F	14	-	Wound at foot	LW at Lt. foot 3 cm., contaminated	
2	M	31	-	Fever, Malaise, Muscle pain	BT 38.4 P 110 R 28 BP 100/70 Jaundice, Pain at both lower ext	
3	F	19	-	Diarrhea	BT 37.6 BP 110/70 P 90 RR 22	

					GA: active, dry lips Abd: mild tender no guarding	
4	M	36	Cushing	Diarrhea	BT 38.0 BP 90/60 P 90 RR 26 GA: active, dry lips Abd: mild tender no guarding	
5	F	22	Epilepsy	Refill medicine	Normal	
6	M	28	None	Fall from height	Abrasion at Lt. forearm with deformity	
7	M	32	DM	Drowsiness for 1 day	B T 37.5 BP 120/70 RR 22 P 89 GA: drowsy, respond to voice	
8	F	38	Asthma	Dyspnea and tachypnea	BT 37.4 BP 110/60 RR 36 P 120 GA: tachypnea Lung: wheezing both lungs O2 sat (RA) 86%	
9	M	12	-	Homeless	Normal	
10	F	49	-	Homeless	Normal	

EMT 7: Surat Thani province

Pt	Sex	Age	U/D	CC	PE	Remark
1	M	58	DM, HT	Chest pain	BT 38 P 88 RR 29 BP 110/70 Pain score 9/10, refer to Lt. shoulder	
2	F	8	-	Wound at foot	LW at Rt. foot 2 cm., contaminated	
3	F	1	-	Fever	BT 37.8 BP 80/40 RR 22 P 110 GA: active, rhinorrhea	
4	M	48	-	Fever, Malaise, Muscle pain	BT 38.4 P 110 R 28 BP 100/70 Jaundice, Pain at both lower ext	
5	F	24	-	Diarrhea	BT 37.6 BP 110/70 P 90 RR 22 GA: active, dry lips Abd: mild tender no guarding	
6	F	48	SLE	Diarrhea	BT 38.0 BP 90/60 P 90 RR 26 GA: active, dry lips Abd: mild tender no guarding	
7	F	22	Epilepsy	Seizure 2 min	BT 37.8 BP 110/70 P 110 RR 26 GA: good consciousness N/S: no neurological deficit	
8	M	35	None	Fall from height	Abrasion and contusion at Rt. chest	
9	F	65	COPD	Dyspnea and tachypnea	BT 37.4 BP 110/60 RR 36 P 120 GA: tachypnea Lung: wheezing both lungs O2 sat (RA) 86%	
10	M	72	-	Homeless	Normal	

EMT 8: Lampang province

Pt	Sex	Age	U/D	CC	PE	Remark
1	M	62		Near-drowning	BT 36.7 P 90 RR 24 BP 100/70 GA: drowsy Lung fine crep both LL	
2	F	16	-	Electrical injury	BT 37.8 RR 24 P 100 BP 110/70 GA: active Rt. Hand: burn 2 nd degree 2%	
3	F	23	-	Fever	BT 37.8 BP 80/40 RR 22 P 110	

					GA: active, rhinorrhea HEENT: injected tonsils	
4	M	32	-	Fever, Malaise, Muscle pain	BT 38.4 P 110 R 28 BP 100/70 Jaundice, Pain at both lower ext	
5	F	54	-	Diarrhea	BT 38.2 BP 110/70 P 90 RR 22 GA: active, dry lips Abd: mild tender no guarding	
6	M	19	-	Diarrhea	BT 38.0 BP 90/60 P 90 RR 26 GA: active, dry lips Abd: mild tender no guarding	
7	M	22	Hemophilia A	Rt. Elbow swelling	BT 37.8 BP 110/70 P 110 RR 26 GA: good consciousness Rt. Elbow swelling Pain 8/10	
8	M	42	HT	Fall from height	Abrasion and contusion at forehead GA: good consciousness	
9	F	90	Stroke, bed ridden	Left in house	BT 37.6 BP 110/60 RR 24 P 80 GA: semi-consciousness, bed ridden Skin: Bed sore at both thigh	
10	M	8	-	Seeking for parent	Normal, crying	

EMT 9: Nan province

Pt	Sex	Age	U/D	CC	PE	Remark
1	M	54	COPD, DM, HT	Dyspnea	BT 38.5 P 100 RR 34 BP 100/70 GA: dyspnea Lung crep both LL	
2	F	12	-	Electrical injury	BT 37.8 RR 24 P 100 BP 110/70 GA: active Rt. Hand: burn 2 nd degree 2%	
3	F	26	-	Electrical injury	BT 37.8 BP 80/40 RR 22 P 110 GA: active Both hand: 2 nd degree burn 5%	
4	M	43	-	Fever, Malaise, Muscle pain	BT 38.4 P 110 R 28 BP 100/70 Jaundice, Pain at both lower ext	
5	F	17	-	Diarrhea	BT 38.2 BP 110/70 P 90 RR 22 GA: active, dry lips Abd: mild tender no guarding	
6	M	22	-	Diarrhea	BT 38.0 BP 90/60 P 90 RR 26 GA: active, dry lips Abd: mild tender no guarding	
7	M	15	-	Diarrhea	BT 37.8 BP 110/70 P 110 RR 26 GA: active, dry lips Abd: soft mild tender	
8	M	42	HT	Fall from height	Abrasion and contusion at Rt. knee GA: good consciousness Rt. Knee: swelling, tender	
9	F	38	-	Fall from height	BT 37.6 BP 110/60 RR 24 P 80 GA: active Back: tender at L2 spine	
10	M	35	-	Homeless	Normal	

EMT 10: Udon Thani province

Pt	Sex	Age	U/D	CC	PE	Remark
1	M	58	DM, HT	Chest pain	BT 38 P 88 RR 29 BP 110/70 Pain score 9/10, refer to Lt. shoulder	
2	F	8	-	Wound at foot	LW at Rt. foot 2 cm., contaminated	
3	F	1	-	Fever	BT 37.8 BP 80/40 RR 22 P 110 GA: active, rhinorrhea	
4	M	48	-	Fever, Malaise, Muscle pain	BT 38.4 P 110 R 28 BP 100/70 Jaundice, Pain at both lower ext	
5	F	24	-	Diarrhea	BT 37.6 BP 110/70 P 90 RR 22 GA: active, dry lips Abd: mild tender no guarding	
6	F	48	SLE	Diarrhea	BT 38.0 BP 90/60 P 90 RR 26 GA: active, dry lips Abd: mild tender no guarding	
7	F	22	Epilepsy	Seizure 2 min	BT 37.8 BP 110/70 P 110 RR 26 GA: good consciousness N/S: no neurological deficit	
8	M	35	None	Fall from height	Abrasion and contusion at Rt. chest	
9	F	65	COPD	Dyspnea and tachypnea	BT 37.4 BP 110/60 RR 36 P 120 GA: tachypnea Lung: wheezing both lungs O2 sat (RA) 86%	
10	M	72	-	Homeless	Normal	

第1回地域連携ドリルシナリオ

Baseline scenario for 1st Regional Collaboration Drill (17 July 2017) (V.4)

2004 Tsunami in Thailand

26 December 2004 On the early morning of December 26, 2004 (07:58 local time), a 9.3 magnitude earthquake was recorded off northern Sumatra. According to reports, the epicenter of the earthquake was located approximately 250 kilometers south-southeast of Aceh Province, northern Sumatra of Indonesia¹, causing ruptures in the Andaman-Sunda trench. The ruptures initiated a complex series of waves across the entire Indian Ocean and resulting in a form of *tsunami*.



Map of Indian Ocean areas affected by tsunami in 2004
(Source: http://www.bbc.co.uk/schools/gcsebiteize/geography/natural_hazards/tsunamis_rev2.shtml)

Thailand is not located in the direct line of the seismic waves; still, tremors were felt in many areas of the country, including the capital-Bangkok. People in high-rise buildings could feel the shakes and some even had nausea². When the waves finally reached the country, six provinces on the south-western coast were hit, including the provinces of **Ranong, Phang Nga, Phuket, Krabi, Trang, and Satun**.



Map of the six provinces of Thailand affected by tsunami in 2004
(Source: <https://www.cdc.gov/mmwr/preview/mmwrhtml/mm5403a1.htm>)

¹ Ioualalen, M., J. Asavanant, N. Kaewbanjak, S. T. Grilli, J. T. Kirby, and P. Watts (2007), Modeling the 26 December 2004 Indian Ocean tsunami: Case study of impact in Thailand, *J. Geophys. Res.*, 112, C07024, doi:10.1029/2006JC003850.

² Department of Mineral Resources, เหตุการณ์เกิดคลื่นยักษ์ “สึนามิ” จากแผ่นดินไหว 9 ริกเตอร์ เมื่อวันที่ 26 ธันวาคม 2547, (Retrieved from www.dmr.go.th/download/tsunami_manual/005.pdf).

Situation report:

Phang Nga, especially in the Khao Lak area, suffered the most from the Tsunami in 2004. The second area reported of being most destroyed by the waves was **Krabi**. The island of Phi Phi of Krabi was reported as seriously destroyed. The third area most destroyed by the waves was **Phuket**. Kamala and Patong beaches were reported of being affected by the waves.

Initial health situation report:

In Phang Nga, local hospital has reported an intake of 986 patients³. Six Public Health Centres (PHCs) in Ranong and Phang Nga⁴ were reported of being seriously damaged, while three PHCs were heavily damaged in Phuket and Krabi⁵.

Pictures of the destruction caused by 2004 Tsunami



Destruction of tsunami wave in Phi Phi Village
(Source: <http://www.abc.net.au/news/2014-12-24/boxing-day-tsunami-then-now-photos/5875900>)

³ Carballo, M., Daita, S., and M. Hernandez, Impact of the Tsunami on healthcare systems, doi: 10.1258/jrsm.98.9.390.

⁴ *ibid.*

⁵ *ibid.*



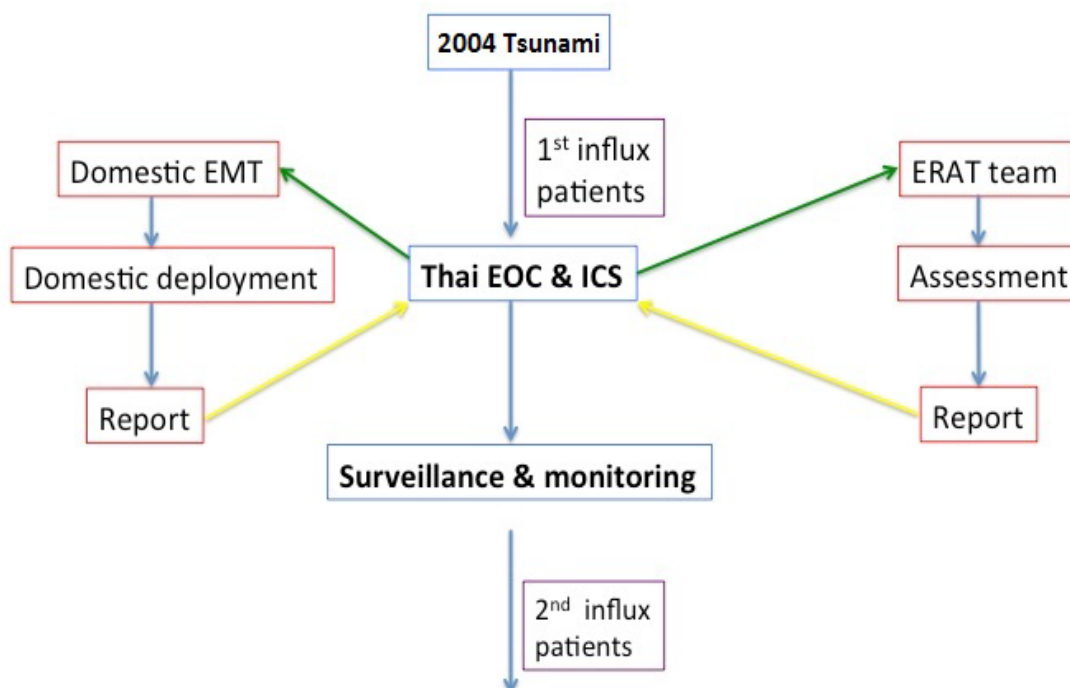
Destruction of tsunami waves in 2004
(Source: <http://www.bbc.com/news/uk-30537152>)



Destruction of tsunami waves in 2004
(Source: <http://www.indiatimes.com/news/400-bodies-in-thailand-still-remain-unidentified-12-years-after-2004-tsunami-268256.html>)

26 December 2004 **Thai Government's Responses:**

- Thai government set up the **Emergency Operation Center (EOC)** according to **the Incident Command System (ICS)** of DDPM.
- Ministry of Public Health (MOPH) set up the **National Public Health Emergency Operation Center (nPHEOC)** to do supporting functions in the EOC.
- The nPHEOC set up the **Regional Public Health Emergency Operation Center (rPHEOC)** and **Provincial Public Health Emergency Operation Center (pPHEOC)** to be command centers in each affected province.
- The nPHEOC requested for the deployment of domestic Emergency Medical Team (EMT) from non-affected area to the disaster site.
- **Emergency Medical Team Coordination Cell (EMTCC)** was set up to coordinate all deployed EMTs.
- Deployments of EMTs include:
 - 100 teams for emergency clinical care,
 - 12 teams for technical support and health education,
 - 5 teams for active surveillance and investigating outbreaks,
 - 6 teams providing mental health support⁶.
 - The first team from Bangkok arrived on December 26.



⁶ Centers for Disease Control and Prevention (CDC), Rapid Health Response, Assessment, and Surveillance After a Tsunami --- Thailand, 2004—2005, (Retrieved from <https://www.cdc.gov/mmwr/preview/mmwrhtml/mm5403a1.htm>).

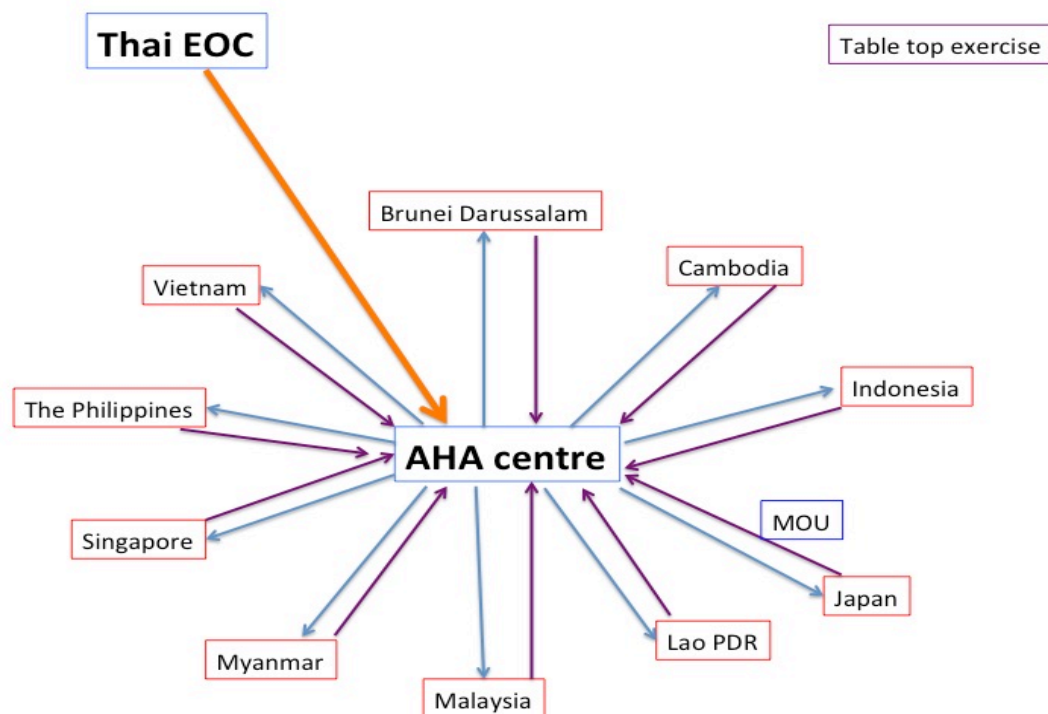
27-28 December
2004

Health situation Report:

- Main causes of death in Phang Nga:
 - Drowning due to currents of the waves
 - Multiple trauma from the impact of the waves
- District hospitals were overwhelmed.
- District hospitals had to do patient referrals to provincial hospitals.
- Some patients were transferred to Phuket since there were several private and government health care facilities that can accommodate a larger number of patients.
- Immediate medical services such as treatment for trauma and other life-saving activities had been performed.

Thai Government's Responses:

- Thailand's Department of Disaster Prevention and Mitigation (DDPM) announced level 4 disaster and announced that the situation is exceeding domestic capacities.
- **Thai government by national focal point (NFP) requested international assistant to AHA center.**



Data of health-related problems during 2004 Tsunami in Thailand

The Ministry of Interior reported that there were 5,395 deaths among the victims of the tsunami, 8,457 cases of injuries and 3,001 persons are reported missing from the 2004 Tsunami in Thailand.

Table 1 Numbers of deaths, injured and missing persons in Thailand during 2004 Tsunami as of (15 February 2005)

Nationality	Confirmed Dead	Injured	Reported Missing
Thai	1,897	8,457	2,039
Foreigner	1,953		962
Unidentified	1,545		-
Total	5,395		3,001

(Modified from: Thailand Post Rapid Assessment Report: December 26th, 2004 Tsunami (Asian Disaster-Preparedness Centre (ADPC))

Patient status

There had been 10,000 patients being recorded within the affected areas during the two-week period after the Tsunami. Of the ten thousand cases, 2,233 cases required hospital admission, while 1,254 cases needed major surgical procedures. Lastly, 398 cases had to be placed in intensive care.

Table 2 Numbers of overall recorded patients, patients needed admitted; to be in surgery and to be in intensive care

Category	Numbers of patients
Overall Recorded patients	10,000
Need hospital admission	2,233
Need surgery	1,254
Need to be in intensive care	398

(Modified from: Rapid Health Response, Assessment, and Surveillance After a Tsunami --Thailand, 2004—2005, (CDC))

Ailment status

Table 3 Common ailments found during the 2004 Tsunami in Thailand

Ailments	Reported cases	Number of deaths
Acute diarrhea	1,237	No Data
Wound Infections	356	No Data
Febrile illness	177	No Data
Respiratory illness	156 (six cases of pneumonia)	2 (pneumonia)

(Source: Ministry of Public Health; World Health Organization representative to Thailand; Thai Ministry of Health--US CDC Collaboration, Nonthaburi; Armed Forces Research Institute of Medical Sciences, Bangkok, Thailand.)

Mental Health Status

There had been numbers of victims who were suffering from mental illness after encountering the disaster and its consequences. Records shows that during the early week of the disaster, there are 18,402 cases of patients who needed psychological advices and therapies.

Table 4 Number of cases seeking psychological treatment

Province	Number of cases	Types of treatment		
		Therapy with medicine	Psychological advice	Health check
Phang Nga	9,336	2,931	9,354	2,821
Krabi	3664	839	3,799	1,114
Phuket	2600	634	2,669	883
Ranong	1,484	178	1,364	316
Satun	704	273	226	458
Trang	614	6	594	156
Total	18,402	4,861	18,006	5,698

(Modified from สีนามิ : การตายและบาดเจ็บจากพื้นที่ (พิมพ์พรรณ อิศรภักดี))

Common cases of mental illnesses in tsunami victims were **Post Traumatic Stress Disorder (PTSD)** and **depression**⁷.

Post Traumatic Stress Disorder (PTSD)

- ❖ Phang Nga:
 - 12 percent of the victims living in the shelter suffer from PTSD
 - 7 percent of the victims living in the community suffer from PTSD
- ❖ Krabi and Phuket:
 - 3 percent of the victims living in the community suffer from PTSD

Depression

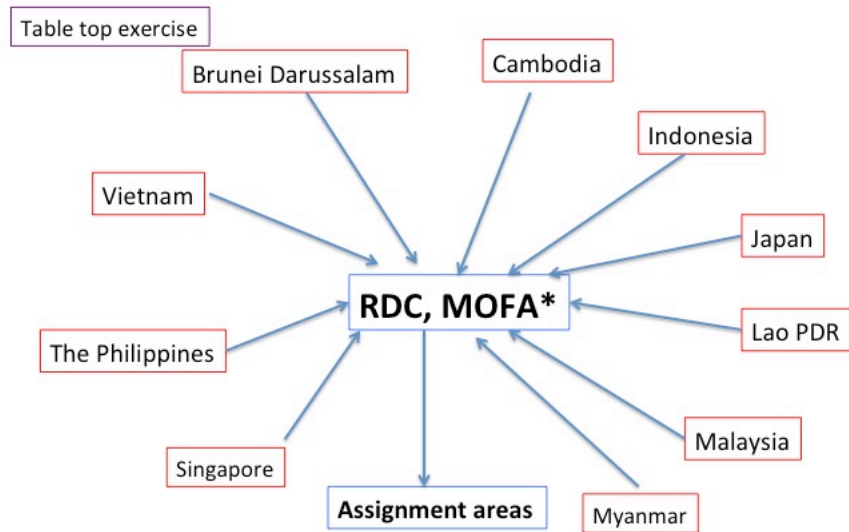
- ❖ Phang Nga:
 - 30 percent of the victims living in shelter suffer from depression
 - 20 percent of the victims live in the community suffer from depression
- ❖ Krabi and Phuket:
 - 10 percent of the victims living in the community suffer from depression

⁷ พิมพ์พรรณ อิศรภักดี, สีนามิ : การตายและบาดเจ็บจากพื้นที่,

(Retrieved from www.ipsr.mahidol.ac.th/IPSR/AnnualConference/ConferenceII/Article/Article06.htm)

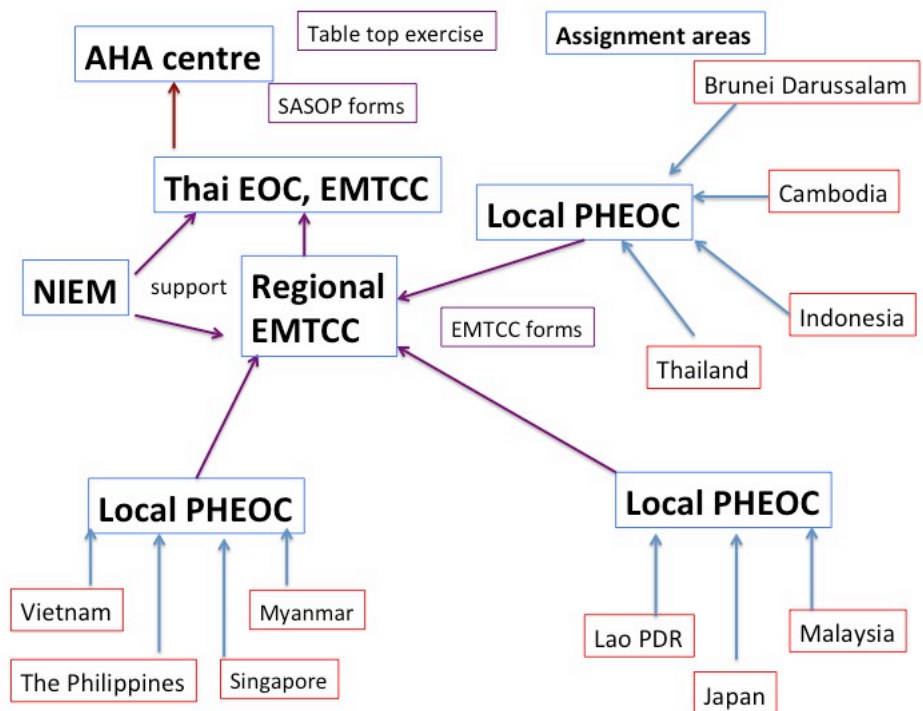
International Responses:

- The international EMTs have been deployed into Thailand and they have completed the registration process at the airport.
- RDC at the airport gave the international EMTs their assignment, then the EMTs went to pPHEOC located in the affected areas as the following;



*Immigration processes and assignment

RDC: Reception and Departure Center, MOFA: Ministry of Foreign Affair



International Responses (Continued):

- The international EMTs did the registration at the provincial PHEOC to receive their assignment in the affected areas.
- Each EMTs took care of the patients in each affected province through the coordination with pPHEOC.
- The pPHEOC coordinated with the rPHEOC and national EMTCC by completing forms (e.g. Daily Report, Health Need Assessment Report).
- Each EMT stationed for 1 week duration. The task for each EMT would depend on their capabilities. Some EMTs will work with others as one team, while some might be working as a coordinate team.
- Each EMTs will do Health Need Assessment at the villages, performing outpatient clinic, performing emergency care and operating procedures according to their type of capabilities and facilities.

Guidelines for International Deployment of EMTs in 2004 Tsunami

1. The International EMTs are required to submit the WHO registration form to Thai government before their deployment. Any EMT who do not submit those form in time may encounter the delay in their deployment.
2. The EMTs will submit the registration form to RDC (representative of Thai EOC) at the airport at the time of their arrival (if not submit it before their departure). Then, this registration form will be sent to any provincial PHEOC upon their assignment.
3. The EMTs will receive their tasks from provincial PHEOC.
4. The EMTs will be mixed as one team or coordinate with others according to their actual capabilities
5. The EMTs will attend daily meeting at pPHEOC and they will be required to send daily report upon schedule for each pPHEOC.
6. The EMTs will use EMTCC forms to coordinate with others and pPHEOC.
7. The EMTs will work for 1 week duration then they are needed to submit final report before leaving the affected province
8. The pPHEOC will coordinate with regional PHEOC and national EOC via EMTCC function in the national PHEOC.
9. National focal point in the national EOC will coordinate with AHA Centre by using SASOP forms.
10. Each EMT is required to submit exit form of SASOP after finishing their task and after leaving the affected country as soon as possible.

第2回地域連携ドリルシナリオ

MINISTRY OF HEALTH

**SCENARIO AND PLAN FOR
REGIONAL COLLABORATION DRILL
(Draft)**

Hanoi, January 2018

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PART I. SCENARIO AND RESPONSE MODEL

1.1. Hypothetical situation

On date N, a typhoon enters the South China Sea with winds of 200 km/h, directly striking provinces in the south central coast of Vietnam including Thua Thien Hue, Da Nang, Quang Nam and Quang Ngai, with serious damage caused to areas attacked by the epicenter of the typhoon - especially Da Nang and Quang Nam provinces.



Map 1. Movement of the typhoon and affected provinces

Beside the damage caused by strong winds such as fallen trees, destroyed houses and construction works, the typhoon also raises the sea level, breaks moles, causes floods and landslides, which isolate the affected residence areas.

1.2. Initial health situation report

In Da Nang city, according to a rapid report by the Department of Health (DOH), there are approximately 300 people dead and missing, 450 people injured, 6 residence areas isolated where the number of casualties and the needs for medical support are unknown. The most affected district is Son Tra with an estimate of 150 people dead and missing, 300 people injured and 3 residence areas isolated where damage and the needs for medical support are unknown. Commune health stations, the district hospital and district health center are also damaged seriously and nearly completely destroyed.



Photo 1. The district hospital is no longer operational after the typhoon

(Source: <https://baomoi.com/ha-tinh-10-benh-vien-bi-thiet-hai-nang-do-bao-so-10-gay-ra/c/23304044.epi>)

In Quang Nam province, according to a rapid report by the DOH, there are approximately 200 people dead and missing, 350 people injured, 3 residence areas isolated where the number of casualties is unknown. The most affected city is Hoi An with an estimate of 100 people dead and missing, 200 people injured and 3 residence areas isolated. All health facilities in Hoi An city are seriously damaged, most medical equipment is broken and no longer operational.



Photo 2. Hospital facilities are seriously damaged by the typhoon

(Source: <https://baomoi.com/ha-tinh-10-benh-vien-bi-thiet-hai-nang-do-bao-so-10-gay-ra/c/23304044.epi>)

- Thua Thien Hue and Quang Ngai provinces are less affected, with their health facilities being still operational.

1.3. Vietnamese Government's responses

- Mobilization of resources for responses before, during and after the typhoon
- The Central Steering Committee for Natural Disaster Prevention and Control, Vietnam National Search & Rescue Committee (VINASARCOM) direct relevant Provincial Steering

Committees for Search and Rescue to mobilize resources to prepare for the respond to and the overcoming of consequences of the typhoon.

- Establishment of a Regional Emergency Operation Center (EOC) in Da Nang city to coordinate military, public security, health, fire fighting, etc. forces in overcoming the consequences.
- Activation of local EOCs, which include Public Health Emergency Operation Centers (PHEOCs), in provinces affected by the typhoon (Thua Thien Hue, Da Nang, Quang Nam, Quang Ngai)
- The Ministry of Health (MOH) appoints its staff to join the Regional EOC and activates the National Public Health Emergency Operation Centers (nPHEOC) under the Ministry.

1.4. Health situation report on the second day of the typhoon

- Major causes of death: drowning, combined injuries
- High prevalence of psychological disorders in the community: panic, depression, etc.
- Health facilities at district/city level are overloaded, unable to deliver medical techniques due to inadequate equipment or serious infrastructure damage.
-

Table 1. Health needs of provinces

Provinces	# patients admitted to hospital	# patients in need of surgeries	# patients in need of emergency treatment	# patients in need of psychological support
Thua Thien Hue	1250	650	120	2200
Da Nang	5500	2100	950	8500
Quang Nam	2100	910	510	3200
Quang Ngai	1250	320	120	1250
Total	9100	3980	1600	15150

- The needs for healthcare is increased due to the big number of casualties and newly emerging diseases (e.g. diarrhea, epidemic fever, etc.). It is necessary to assess and meet the health needs of isolated residence areas, especially those in Da Nang city and Quang Nam province which are the most affected as they are struck by the epicenter of the typhoon.
- The MOH mobilizes the health workers of 10 central/regional hospitals, 15 provincial hospitals and 6 preventive medicine centers to support local ones to care for and treat victims with injuries and diseases, provide psychosocial support, health education and prevention of epidemics.
- Number of medical supporting teams: 50 outreach emergency teams, 6 preventive medicine teams and 10 psychological support and health education teams.

- The MOH assesses this typhoon as a Category-IV Disaster and requests the Government to call for international assistance to address its consequences in Da Nang and Quang Nam.

1.5. Vietnamese Government's direction and ASEAN's actions

- The Vietnamese Government calls for assistance from ASEAN countries: the Ministry of Foreign Affairs (MOFA) contacts the AHA Center.
- At the request of the MOH and MOFA, the Government has agreed to receive medicine and medical equipment brought by International Emergency Medical Teams (I-EMTs) in the form of temporary import for re-export.

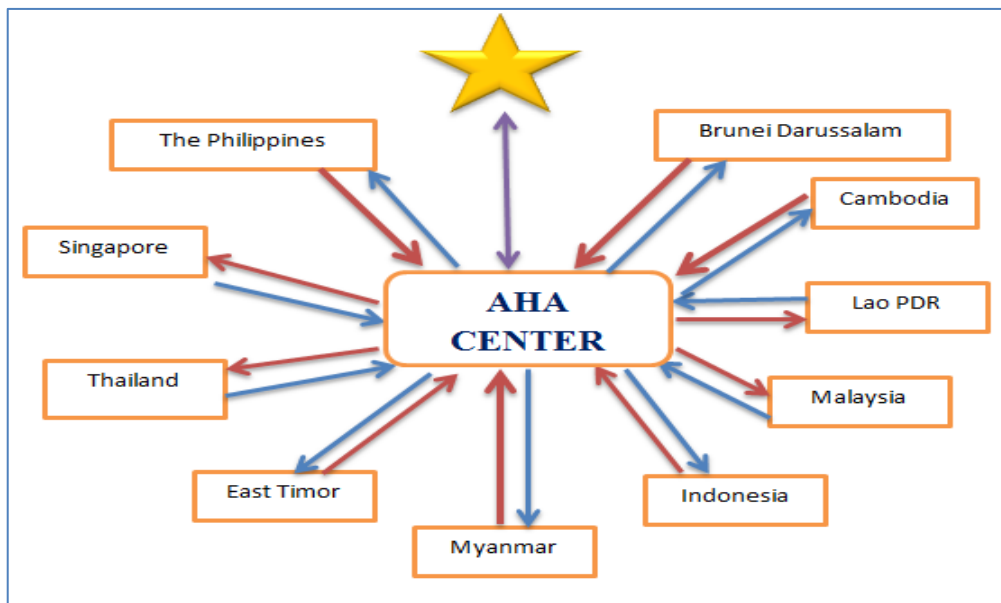


Figure 1. Coordination of the AHA Center

- Under the coordination of the AHA Center and upon the agreement on diplomatic, medical and logistic procedures with the Vietnamese Government, the AHA Center sends experts to help with the direction and requests ASEAN countries to send forces to support Vietnam.
- ASEAN countries send 10 I-EMTs by air to Vietnam.

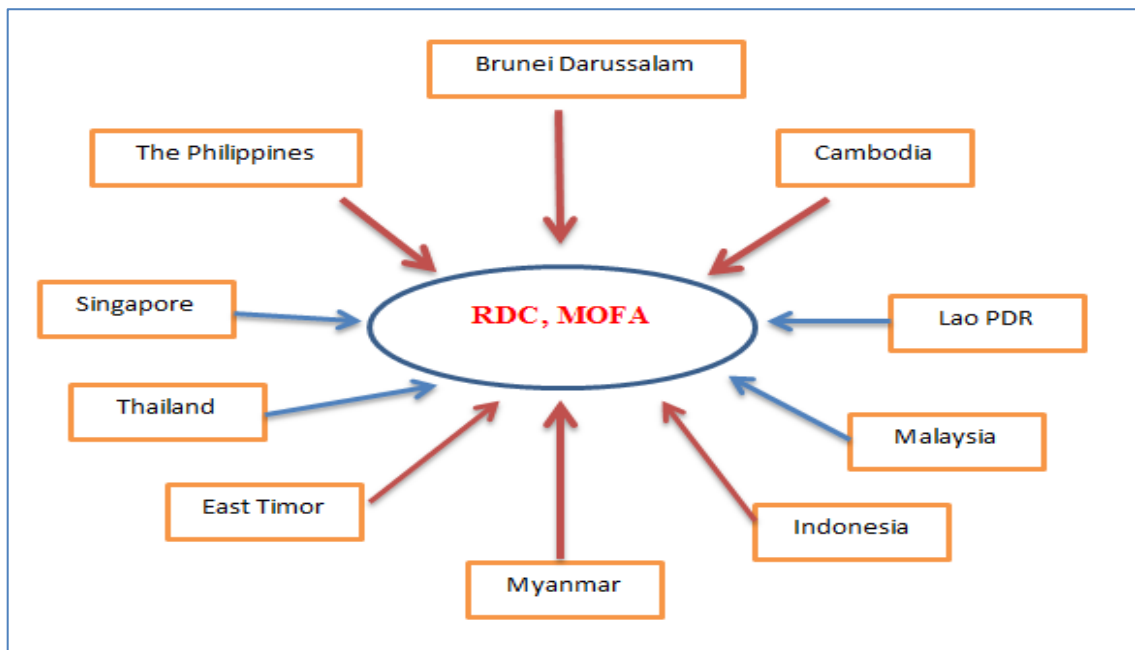


Figure 2. Customs procedures at airport

(*RDC: Reception and Departure Center)

- At Da Nang International Airport (substitute airports: Chu Lai Airport in Quang Nam, Phu Bai Airport in Hue city), Vietnam has arranged staff to assist with customs procedures, receive medical equipment and transport them to needy areas in Da Nang city and Quang Nam province.

1.6. Coordination of I-EMTs in Vietnam

- RDC:
 - + Based in Da Nang International Airport (substitute airports: Chu Lai and Phu Bai)
 - + Composition: DOH staff, Da Nang Airport security force, Da Nang customs office
- I-EMTs:
 - + 10 I-EMTs are sent to Quang Nam and Da Nang
 - + Each I-EMT is in charge of healthcare in one district
 - + I-EMTs are directly directed by PHEOC1 and PHEOC2 under the management of the Regional Public Health Emergency Operation Center (rPHEOC).
- rPHEOC:
 - + Based in Da Nang city and is a part of the Regional EOC
 - + Composition: MOH leaders, AHA Center expert; leaders of Quang Nam and Da Nang DOHs, local health experts.

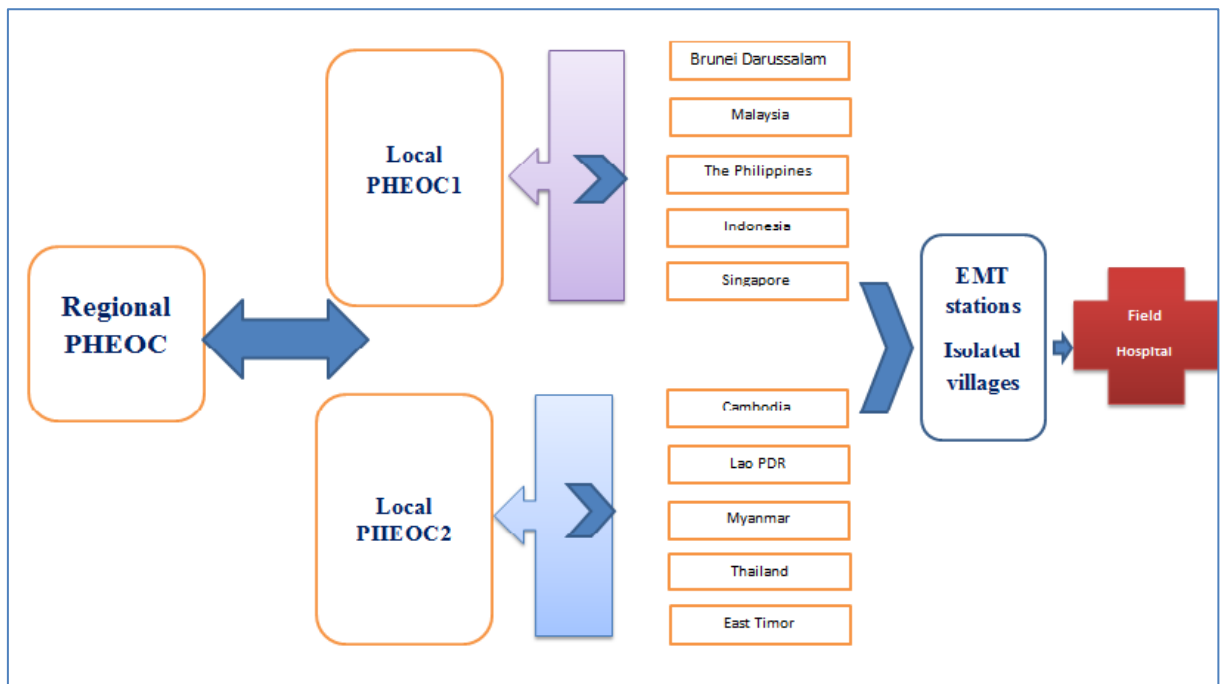


Figure 3. Operation of PHEOCs

- pPHEOCs:
 - + Based in Son Tra district, Da Nang city (PHEOC1) and Hoi An city, Quang Nam province (PHEOC2)
 - + Composition: AHA Center experts; staff of Da Nang or Quang Nam DOH, technical and support staff.

PART II. DRILL PLAN

2.1. Objectives of the drill

- **Overall objective:** to enhance the capacity of coordination and mobilization of resources in the region and in each ASEAN country for quick and effective medical response to disasters on the principle of "**ONE ASEAN ONE RESPONSE**"
- **Specific objectives**
 - To deploy the EOC
 - To check the relevance of healthcare forms and assess the health needs in disasters
 - For international teams to practice the plan on medical support and health needs assessment in Vietnam.

2.2. Scope of the drill: medical response on land, overcoming of the consequences of the typhoon in Da Nang and Quang Nam.

2.3. Contents of the drill

2.3.1. Tabletop exercise

- Activities of the RDC:
 - + Support for I - EMTs to enter Vietnam
 - + Support for I – EMTs to exit Vietnam
- Familiarization to and practice of filling in the forms (12 forms)

2.3.2. Field exercise

- Direction of rPHEOC and pPHEOCs: 1 rPHEOC, 2 pPHEOCs
- Practice of classification, emergency and referral of victims in health stations by I– EMTs: 12 health stations for 90 assumed victims
- Practice of health needs assessment in isolated residence areas: 2 villages

2.4. Participants in the drill

- From ASEAN countries: 9 I–EMTs, 3 AHA Center experts on EOC direction (from Thailand)
- From Japan: 1 I–EMT (to replace the one from Timor Leste)
- From Vietnam: 2 I–EMTs, 1 RDC, 3 PHEOCs (1 rPHEOC and 2 pPHEOCs)

2.5. Time and locations of the drill

2.5.1. Time

- 1 day for tabletop exercise
 - + RDC: 10.00 – 10.30, 26 March 2018
 - + Forms: 13.15 – 15.00, 26 March 2018
- 1 day for Field exercise: 8.30 – 16.30, 27 March 2018

2.5.2. Locations

- Location of the RDC: meeting room of Grand Tourane hotel, Son Tra district, Da Nang city
- Location for Field exercise: Hoa Xuan stadium, Da Nang

- + Address: Hoa Xuan ward, Cam Le district, Da Nang city
- + Area of the stadium: 66,530m²



Photo 3. Panorama of Hoa Xuan stadium

- Locations of rPHEOC and pPHEOCs: 3 meeting rooms on the first floor of the stadium, the rPHEOC is connected to the 2 pPHEOCs. Each of the pPHEOC is connected to 6 I-EMTs in the same province (Da Nang and Quang Nam)
- Area for gathering assumed victims: outside the stadium
- Areas for establishment of emergency station: 12 tents (Station 1-12) are to be set up and assumed as health stations of 12 I-EMTs (including 2 from Vietnam) in Da Nang (6 stations) and Quang Nam (6 stations) along the 3 sides of the stadium (except for the area along Stand A).

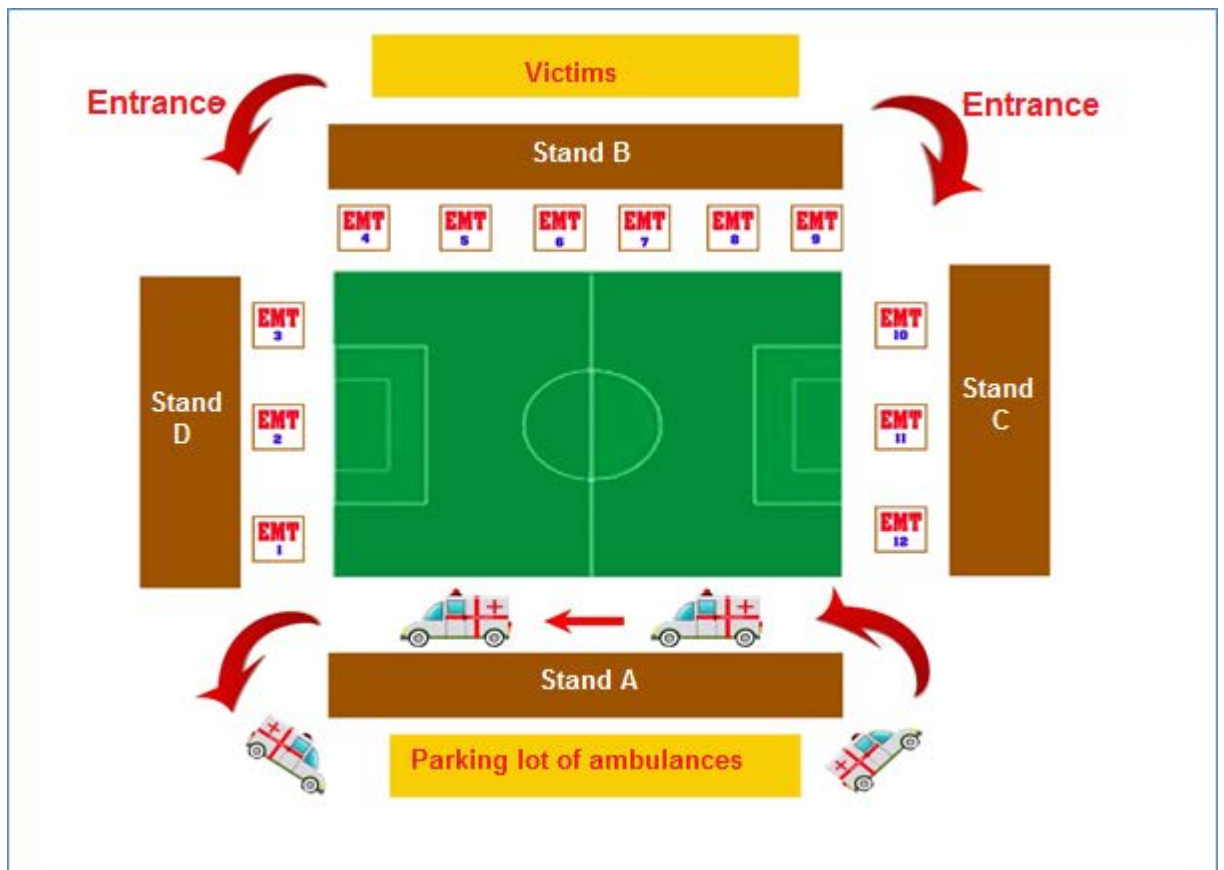


Figure 4. Arrangements for full scale drill

- Locations of isolated villages: outside, about 100m from the entrance, 2 villages are arranged in 2 different areas.
- Parking lot of ambulances: outside the stadium
- Entrance/exit of ambulances: one way, along Stand A
- Each I-EMT will set up an emergency station and assess health needs as required by pPHEOC.
- Time for operations of each I-EMT: tentatively 150 minutes for practice at the health station and 120 minutes for health needs assessment in isolated villages, including reporting to pPHEOC.

2.6. Organization of the drill at different locations

2.6.1. RDC operation drill

- Location: meeting room of the Grand Tourane hotel
- An RDC team of 4 persons: 1 team leader (security), 2 team members (customs + health), 1 interpreter
- Equipment: tables, chairs, pens, forms, guidelines (see annexes)
- RDC team leader: to check equipment, assign tasks to team members and synthesize the report
- Practice of the procedures for entering Vietnam
 - + I-EMTs enter through a separate (priority) door
 - + Once I-EMTs are present, each team leader briefs about the team

- + 1 RDC team member checks passports and the validity of forms and records previously registered.
- + 1 RDC team member provides necessary documents and information about Vietnam as well as regulations applied in the performance of the task.
- Practice of the procedures for exiting Vietnam
 - + I-EMT leaders report to RDC
 - + RDC team members guide the completion of customs procedures and check the list of re-exported equipment, etc.

2.6.2. PHEOC operation drill

2.6.2.1. Operation of rPHEOC

- Number of rPHEOC: 1
- Location: the first floor of Hoa Xuan Stadium
- rPHEOC team: 3 Vietnam persons (1 team leader and 2 team members) + 1 AHA Center expert
- Equipment: tables, chairs, walkie talkie, computer, reporting forms, camera, Wi-Fi, screen
- Assignment of tasks:
 - + Team leader: to give overall direction and report to the Regional EOC
 - + 1 team member: to receive information from pPHEOCs, analyze data and report to the team leader
 - + 1 team member: to coordinate facilities and materials for I-EMTs as required by pPHEOCs
- Steps to be taken:
 - + Taking the drill location, necessary facilities and materials
 - + rPHEOC team leader assign tasks to team members
 - + Testing the connection to the Regional EOC and pPHEOCs
 - + Convening and assigning tasks to pPHEOCs regarding the areas they are in charge of, I-EMTs under their management, isolated residence areas communication methods, reporting time, collaboration among PHEOCs when requested, etc.
 - + Monitoring the operations of pPHEOCs, coordinating and providing pPHEOCs with forces and facilities upon request.
 - + Informing and asking local EOCs to carry out arising tasks (tentatively 2 arising situations: collective food poisoning, mass accidents due to fire and explosion)
 - + Receiving routine and ad-hoc reports from pPHEOCs
 - + Analyzing data and reporting to the Regional EOC

2.6.2.2. Operation of pPHEOCs (PHEOC1 and PHEOC2)

- Number of pPHEOCs: 2, located in 2 rooms near the rPHEOC
- Each pPHEOC team: 3 Vietnamese persons (1 team leader and 2 team members) + 1 AHA Center expert
- Equipment: tables, chairs, walkie talkie, computer, reporting forms, camera, Wi-Fi, screen
- Assignment of tasks:
 - + Team leader: to give general direction and report to the rPHEOC

- + 1 team member: to receive information from I-EMTs, analyze data and report to the team leader
- + 1 team member: to coordinate the flow of victims, facilities and materials for I-EMTs
- Steps to be taken:
 - + Receiving task from the rPHEOC
 - + Receiving equipment and materials from the rPHEOC
 - + Arranging areas in the drill location
 - + The team leader assigns tasks to team members
 - + Testing the connection to I-EMT stations, villages, heads of victim transportation teams, ambulance teams and relevant I-EMTs.
 - + Convening and assigning specific tasks to I-EMTs regarding the areas they are in charge of, isolated residence areas, communication methods, reporting time and collaboration among I-EMTs when requested, etc.
 - + Convening and assigning tasks to heads of the victim transportation team and ambulance team.
 - + Organizing the coordination of the flow of victims, distributing victims to emergency stations, supplementing forces and facilities to I-EMTs upon request.
 - + Organize the coordination of ambulances when requested by I-EMTs
 - + Assigning arising tasks to I-EMTs at the request of the rPHEOC or the other pPHEOC.
 - + Assigning each I-EMT to assess the health needs in isolated residence areas.
 - + Reporting to and asking the rPHEOC for additional forces and facilities in case of need or in arising situations
 - + Analyzing data and reporting to the rPHEOC twice a day (10h and 18h) and upon the completion of the assigned tasks.

2.6.3. Coordination of assumed victims

- 2 canvas tents are to be set up (with sitting mats or chairs and drinking water) outside the stadium, behind Stand B.
- 90 assumed victims are disguised, trained to act as having certain diseases, numbered and having a tag specifying the type of their disease (disease tag) in 4 categories (A, B, C, D). It is planned that each I-EMT will handle 10-15 victims (rotation among I-EMTs)
- Transportation team: 41 persons (1 leader + 40 drivers) distributed to 12 I-EMTs (each I-EMT has a transportation crew of 3 members). The transportation team leader is equipped with a walkie talkie connected to pPHEOCs. Each transportation crew has a stretcher-trolley on wheels.



Photo 4. Area for gathering assumed victims (behind Stand B)

- Under the coordination of local EOCs, the head of the transportation team coordinates the transfer of assumed victims (transporting victims by stretchers, leading victims by hands, carrying victims on the back, etc.) to and from I-IMT stations.
- After being treated, assumed victims are taken out of the stations by road, then by ambulance (if referred to higher level) or guided to reach a safe area.
- Ambulances: to enter and exit along the area of Stand A in the stadium

2.6.4. Operation of I-EMT stations

- Facilities:
 - + Canvas tents
 - + Desk, chair, camera, walkie talkie, connection network, Wi-Fi
 - + Insulated wires
 - + Medicines and medical equipment (see annexes)
 - + Materials, forms, patient referral form, etc.
 - + Electric fans, drinking water
 - + (Simulated) generator
- Participants:
 - + 5 health workers (2 medical doctors, 3 nurses or paramedic staff)
 - + 3 transportation crew members
 - + 1 person to support with the scenario

- + 1 interpreter
- Tasks:
 - + Receive and classify victims, deliver emergency treatment, make transportation records, fill in forms.
 - + Report to the pPHEOC on the number of patients, situation of the treatment, needs for medical equipment, medicines, human resources.
 - + Arrange personnel to transport and deliver patients as well as their transportation records to the transportation team.
 - + Require the pPHEOC to provide means of and personnel for transportation, supplementary equipment and help solve problems beyond I-EMT capacity.
 - + Be willing to send staff to perform health needs assessment as required by the local EOC while maintaining the emergency service at the emergency station
 - + Collect data and report to the pPHEOC upon completion of the assigned tasks.
- Drill time: 150 minutes

2.6.5. Arrangement and organization of activities in isolated villages

- Number of isolated villages: 2, village A (in Hoa Khuong commune, Hoa Vang district, Da Nang city – a village near the beach) and village B (in Dai Hiep commune, Dai Loc district, Quang Nam province – a village far from the sea)
- Location: outside the stadium (about 100m away)
- Tentative area: approximately 200m²
- Number of people in the role-play: 15 (including 1 village head or health station head)
- The village/health station head is responsible for reporting the situation and asking for help when a rescue team arrives.
- Arrangement: 1 canvas tent with 15 people (10 victims, 5 local people in and out of the tent, some cards and drawings representing assumed victims, local people, animals, polluted water source, etc.), destroyed transportation system, inaccessible ambulances and means of transport (see annexes).
- As requested by local EOCs, I-EMTs alternately approach the 2 isolated villages by walking, conduct health needs assessment and preparing reports in the villages. Each I-EMT is divided into 2 groups: group 1 conducts the assessment and pays a visit to the victims in the tent while group 2 assesses and survey outdoor locations, collects information about victims (to make sure no victims are missed) as well as environmental conditions, meets and discusses with the village head about the damage, potential risks such as floods, landslides, coming tsunamis, risk of epidemics. During the survey and situational assessment, attention will be paid to security and safety
- Total drill time (including completion and submission of reports to the Regional EOC): 120 minutes

Annex 1. List of (12) forms

1. Emergency Medical Team Coordination Cell (EMTCC) forms (6 forms)

- EMT registration
- Daily report
- Situation report
- Exit report
- Patient referral form
- EMTCC coordination minute

2. SASOP forms (4 forms)

- Initial report/Situation update to AHA center
- Initial report/Situation update of AHA center to the national focal point (NFP)
- Request for assistance
- Final report from assisting entity to AHA center

3. Medical record form (1 form)

4. Health need assessment form (1 form)

Annex 2. List of equipment

1. List of medical equipment: 12 items
2. List of equipment for emergency stations: 12 items
3. List of equipment for isolated villages: 2 items
4. List of equipment for PHEOCs: 3 items
5. List of equipment for the RDC: 1 item
6. List of equipment for the victim gathering area: 1 item
7. List of equipment for the victim transportation team: 1 item
8. List of equipment for ambulances: 4 items

Annex 3. Information about isolated villages

1. Village A

1.1. General information

- Village A, 500m from the beach, 15km from the city center, with an area of 45ha, 530 households, 2700 residents including 1300 males (48.1%) and 1400 females (51.9%), 55 pregnant women, 220 children under 5 years old (8.1%) of whom 72 are under 1 year old, 400 people aged ≥ 60 (14.8%).
- Occupations: 80% of the population are fishermen, 10% are civil servants/public employees and 10% are self-employed workers.
- Health: 50% of the elderly have hypertension, 12% of children under 5 are malnourished.
- 1 primary and lower secondary school with 12 classrooms and 260 students.
- 1 health station of 150 m² with 6 rooms and 5 health workers (1 medical doctor and 4 nurses)
- Source of drinking water: 100% of the population use the city's tap water,
- Other water sources: a small lake and a small stream at the edge of the village.

1.2. Damage caused by the typhoon

- 70% of houses are completely destroyed; 20% are partially destroyed and can be repaired for temporary stay; 10% are mildly destroyed and can still be used.
- An estimation of 100 dead and missing victims, 70 injured people. Causes of death: 80% due to drowning when people are on fish raising cages, 20% due to fallen houses/trees. There is no death from epidemics/diseases.
- About 400 people are currently without housing or warm clothes.
- The school and health station are completely destroyed and unable to operate.
- One health worker dies, 3 health workers have houses destroyed and family members dead so they cannot deliver health care.
- Environment: the lake and stream are polluted by rubbish and dead animals.
- Water source: the source of clean water is destroyed causing a lack of water, so local people have to use water from the polluted small lake and stream in the village.
- Electricity and communication: outage, no power reserve, loss of telephone connection.
- Foods/foodstuff: a small amount reserved by households, which is enough for 2 days.
- Traffic: roads are destroyed, the village can only be accessed by walking. It takes 2 hours to walk from the city center to the village.
- Diseases and health: some people, mostly children under 5 years of age, have acute diarrhea. Some people have fever and panic.
- Security: generally there is nothing special. There is, however, a great risk of insecurity if the situation is not well managed, especially in the absence of clean water, foods and shelters.

1.3. Responses already taken

- There has been a military troop to provide dry foods and bottled water, however it only meets 30% of people's needs.
- The army has set up 10 canvas tents which can accommodate 200 people.

- The DOH has sent a team of health workers to the village to provide first aid/emergency care, guide local people to treat the environment and provide health education for epidemic prevention.

1.4. Intermediate needs

- Clean water, foods, warm clothes for about 700 people,
- Nutrition for children, pregnant and nursing mothers,
- Management of patients with chronic diseases (e.g. hypertension, COPD, diabetes)
- Shelters for about 200 people,
- Search and on-site first aid for patients,
- Means of transporting victims to health facilities,
- Search for and management of dead bodies,
- Environmental treatment and disease prevention,
- Psychosocial support for the community,
- Enhancement of security,
- Management of on-site support resources.
- Electricity (generator)

2. Village B

2.1. General information

- Village B, 20km from the sea, close to a mountain, 20km from the city center, with an area of 70 ha, 400 households, 2000 residents including 1000 males (51.1%), 1000 females (48.9%); 80 pregnant women; 190 children under 5 years old (9.5%) of whom 75 are under 1 year old; 230 people aged ≥ 60 (11.8%).
- Occupations: 60% of the population are involved in agriculture, 20% are involved in forestry, 10% are civil servants/public employees and 10% are self-employed workers. 25% of households are poor.
- Health: the rate of exclusive breastfeeding for the first 6 months is 30%, malnutrition rate of children under 5 years old is 22%. 70 elderly people (30.4%) have hypertension while 30 others have COPD. Full vaccination rate of infants is 95%. Apart from the high malnutrition rate of children under 5 (which is higher than the province's average rate of 15%), no other epidemics exist before the typhoon.
- 1 elementary and lower secondary school with 10 classrooms and 200 students.
- 1 health station of 250m² with 6 rooms and 4 health workers (1 medical doctor and 3 nurses).
- Source of drinking water: 100 drilled wells, 150 dug wells.
- Other water sources: 2 lakes, one of 500m² and the other of 700m², a small stream at the edge of the village.

2.2. Damage caused by the typhoon

- 50% of houses are completely destroyed; 30% are partially destroyed and can be repaired for temporary stay; 20% are mildly destroyed and can still be used.

- An estimation of 100 dead and missing victims, 150 injured people. Causes of death and missing: 50% due to landslides, 30% due to flash flood and 20% due to fallen houses. There is no death from epidemics/diseases.
- About 500 people are currently without housing or warm clothes.
- Regarding the school, 5/10 classrooms are completely destroyed, the other 5 are mildly destroyed and can be repaired for temporary stay
- The health station is destroyed and unable to operate.
- Among the 4 health workers, 2 have houses destroyed and family members dead so they cannot deliver health care, the other 2 can still continue their work.
- Environment: the lakes and stream are polluted by rubbish and dead animals. The stream is eroded causing a reverse flow thus the water cannot be used.
- Water source: 50% of the drilled wells are operational and the water can be used if being disinfected, the other 50% are destroyed. 100% of the dug wells are polluted thus the water cannot be used.
- Electricity and communication: outage, no power reserve, loss of telephone connection.
- Foods/foodstuff: 500 people lack food.
- Traffic: the roads are destroyed, the village can only be accessed by walking. It takes 4 hours to walk from the city center to the village.
- Diseases and health: some people, mostly children under 5 years of age, have acute diarrhea. Some people have fever and panic.
- Security: generally there is nothing special. There is, however, a great risk of insecurity if the situation is not well managed, especially in the absence of clean water, foods and shelters.

2.3. Responses already taken

- There has been a military troop to provide dry foods and bottled water (1 day after the typhoon), however it only meets 30% of people's needs.
- The army has set up 15 canvas tents which can accommodate 300 people.
- The Provincial People's Committee has directed relevant sectors and agencies to provide foods, clean water, shelters, etc. to local people. These types of aid will come today (2 days after the typhoon) and will meet 80% of people's needs.
- The DOH has sent a team of health workers to the village to provide first aid/emergency care, guide local people to treat the environment and provide health education for epidemic prevention.

2.4. Intermediate needs

- Clean water, foods, warm clothes for about 100 people,
- Prevention of malnutrition for children under 5 and pregnant women,
- Shelters for about 200 people,
- Clothes for about 100 people
- Search and on-site first aid for patients,
- Means of transporting victims to health facilities,
- Search for and management of dead bodies,
- Environmental treatment and disease prevention,

- Psychosocial support for the community,
- Management of hypertension patients
- Management of COPD patients
- Communications and education on health, food safety, epidemic prevention
- Electricity (generator)

Annex 4. Lists of items needed for the 2 isolated villages

1. List for village A

1.1. A tent of 20m² with clear surrounding area, including:

- the floor covered by a sitting mat
- 1 table and 3 chairs (old, can be broken)
- 1 cardboard (simulated) TV
- 8 victims in the tent (categorized by type of victim)
- 2 local people in the tent (to care for the victims)
- 1 water jar and glasses
- 1 electric fan
- 2 (simulated) sets of pots + kettles
- 1 (simulated) generator
- 3 empty carton boxes of instant noodles (enough for 3 days)
- 2 first aid kits with some medicines + dressing
- 2 sets of old blankets + mosquito nets + mats

1.2. Outside the tent:

- A map of the lake and the stream at the edge of the village.
- 2 victims (role play)
- 2 signs of dead people
- 3 local people outside the tent (including the village head)
- 5 signs of dead animals (buffalo, cow, chicken, pig, etc.) placed near the lake and stream.
- 4 signs of fallen trees (some real branches can be placed outside the tent) and fallen power poles.
- 2 pictures or drawings of 3 snakes on the ground.
- 2 signs of collapsed houses
- 4 signs of vehicles (cars, motorcycles) placed scatteredly in the village
- 1 signboard which states “Flooded and muddy roads. No motorized vehicles allowed”
- 1 signboard which states “Eroded beach. No entry”

2. List for village B

2.1. A tent of 20m² with clear surrounding area, including:

- the floor covered by a sitting mat
- 1 table and 3 chairs (old, can be broken)
- 1 cardboard (simulated) TV
- 8 victims in the tent (categorized by type of victim)
- 2 local people in the tent (to care for the victims)
- 1 water jar and glasses
- 1 electric fan
- 2 (simulated) sets of pots + kettles
- 1 (simulated) generator

- 3 empty carton boxes of instant noodles (enough for 3 days)
- 2 first aid kits with some medicines + dressing
- 2 sets of old blankets + mosquito nets + mats

2.2. Outside the tent:

- A map of the 2 lakes and the stream at the edge of the village. The lakes are polluted by rubbish and dead animals. The stream is eroded causing reverse flow, full of sand and rubbish
- 2 victims (role play)
- 6 signs of dead and missing people, placed scatteredly in the village and near the lakes/stream/mountain
- 3 local people outside the tent (including the village head)
- 5 signs of dead animals (buffalo, cow, chicken, pig, etc.) placed scatteredly in the village
- 5 signs of fallen trees (some real branches can be placed outside the tent) and fallen power poles.
- 4 signs of collapsed houses
- 1 sign of motorcycles placed scatteredly in the village
- 1 drawing of mountains including a signboard which states "Eroded and dangerous roads. No motorized vehicles allowed"

Annex 5. Summary of participants in the drill

Participants	Organization	Quantity
International participants		83
	12 I-EMTs from ASEAN countries, Japan and Vietnam	60
	JICA experts, ARCH project staff	20
	AHA Center experts	03
Local participants		201
	Participants to role-play in RDC	03
	Participants to role-play in EOCs	09
	Personnel of Service 115 in Da Nang city (area 1) and Da Nang C hospital (area 2) to engage in transportation of victims (including drivers)	41
	Interpreters to help in tents and villages (Da Nang University of Medical Technology and Pharmacy)	23
	Participants to role-play victims and village people (students of Da Nang University of Medical Technology and Pharmacy)	120
	Security force in the drill area (to be in charge of by Da Nang city)	05
Organizers		23
Drill Steering Committee	MOH, Da Nang City People's Committee	5
Planning, Logistics, Communications units	MOH Departments Local departments of Da Nang city	15
Health care during the drill	Da Nang C hospital	03
Total		307

第3回地域連携ドリルシナリオ

MASTER SCENARIO

ARCH Regional Collaboration Drill

December 2018 - Philippines

Department of Health - Philippines
Health Emergency Management Bureau



Introduction

The Association of Southeast Asian Nations (ASEAN) identified disaster health management as one of the priority issues of the health sector in the ASEAN Post-2015 Health Agenda. Based on the results of the survey in 2014-2015 on the situation of disaster emergency medicine system in the ASEAN region, all the ASEAN Member States (AMS) reached a common understanding on the importance of regional collaboration mechanism in disaster health management and necessary actions in support of the One ASEAN, One Response. Thus, the ASEAN Regional Capacity on Disaster Health Management (ARCH) Project was formulated.

ARCH Project, which started in 2016, has three (3) mechanisms of implementation namely 1) Project Working Group (PWG) 1 for the development of standard operating procedures and tools, 2) PWG 2 for the capacity building, and 3) Regional Collaboration Drill (RCD) where the standards and tools developed will be tested, in the form of tabletop and field exercise. Under the project, there are three (3) RCDs that will be conducted. The first RCD was held in Phuket, Thailand in July 2017 while the second RCD was held in Da Nang, Vietnam. The third RCD will be held in Manila, Philippines on December 3-5, 2018.

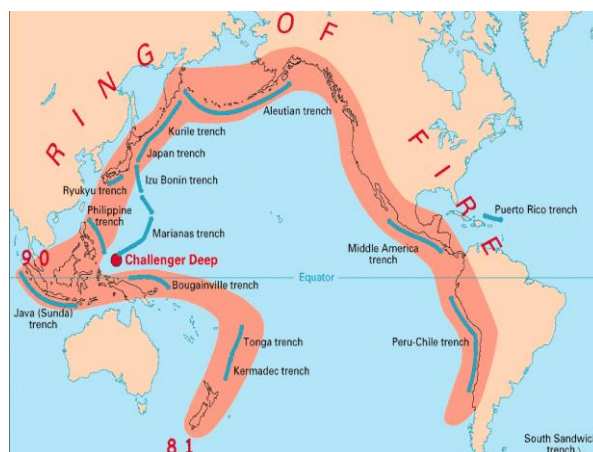
Emergency exercises such as tabletop and field exercises are activities to practice, develop, test and improve the plans and procedures on how to respond to emergencies and disasters¹. Important in the conduct of emergency exercises is a well thought exercise scenario.

This document highlights the scenario that will be used in the third RCD. Note that other information cited in this document is not true and are made only for the purpose of the exercise. Note further that the scenario is fictitious by nature but are based on several researches/studies and existing reference materials. Also, the scenario was written to meet the objectives of the drill, particularly on the elements of response operations that will be tested. In addition, please note that some parts of this document were adapted/lifted from the master scenario of the INSARAG exercise in the Philippines in June 2018.

Background of the scenario and area affected

Profile of the Philippines

The Philippines is an archipelagic nation located in the Southeast Asia comprising about 7,641 islands (National Mapping and Resource Information Authority). It is situated in the western Pacific Ocean and is categorized broadly under three main geographical divisions from north to south namely Luzon, Visayas, and Mindanao. It is comprised of 17 regions.



¹ Hospital and Health Facility Emergency Exercises, Guidance Materials, 2010

The Philippines has a total land area of 343,448 square kilometers, and 36,000 kilometers of coastlines. It is bounded by large bodies of water namely 1) West Philippine Sea on the west and north, 2) Pacific Ocean on the east, and 3) Celebes and Sulu Sea on the south. As of 2016, the Philippines has an estimated population of 103,711,044. As of January 2018, it was the 7th most populated country in Asia and the 13th most populated country in the world. Multiple ethnicities and culture are found throughout the islands.

The Philippines is located at the Pacific Ring of Fire and situated along the two major plates, the Eurasian and Pacific Plates, close to the equator. As such, the country frequently experiences natural hazards such as typhoons, earthquakes, and volcanic eruptions.

There are about 300 volcanoes in the Philippines, of which 22 are classified as active. There is an average of 20 quakes in a day in the Philippines. Likewise, the country experiences an average of 20 typhoons a year, of which five (5) are destructive. Having about 36,000 kilometers of coastline makes the country vulnerable to tsunami and storm surges.

Profile of Metro Manila

Metro Manila is the seat of Philippine government and one of the three defined metropolitan areas of the country. All the main offices of the executive departments of the country including the Malacañan Palace (official residence and office of the President of the Philippines) are located in Metro Manila.

It is officially known as the National Capital Region but is commonly known as Metro Manila. The capital city of the Philippines is Manila which is located in Metro Manila. Likewise, it is the main business hub of the country.

Geography

Metro Manila is the only region in the country without any province. It is subdivided into 17 local government units (LGUs) comprising of 16 cities (Caloocan, Malabon, Navotas, Valenzuela, Quezon, Marikina, Pasig, Taguig, Makati, Manila, Mandaluyong, San Juan, Pasay, Parañaque, Las Piñas, and Muntinlupa) and 1 municipality (Pateros).

Each of the cities and municipality is governed by a Mayor. It is bounded by the provinces of Bulacan from the north, Rizal at the east, Cavite at the south-west and Laguna at the south. Manila Bay lies to the west and Laguna de Bay to the southeast. It has a total land area of 619.57 km².



Map of the National Capital Region
Source: <http://www.nnc.gov.ph>

Population

As of 2016, the estimated total population of Metro Manila is 13,205,216 (Philippine Statistics Authority, Population census).

Table 1. Estimated population of Metro Manila

City/Municipality	Estimated population	Number of households ^{1/}	Average Household Size ^{1/}
Caloocan	1,722,366	345,000	4.3
Las Piñas	608,833	128,000	4.3
Makati	566,015	126,000	4.2
Malabon	362,836	83,000	4.3
Mandaluyong	355,590	80,000	4.0
Manila	1,686,621	387,000	4.2
Marikina	447,099	91,000	4.6
Muntinlupa	481,468	104,000	4.2
Navotas	261,648	59,000	4.2
Parañaque	692,381	137,000	4.3
Pasay	417,005	98,000	4.0
Pasig	797,054	155,000	4.3
Pateros	68,663	15,000	4.4
Quezon	3,190,989	634,000	4.3
San Juan	123,266	29,000	4.3
Taguig	783,592	150,000	4.3
Valenzuela	639,790	138,000	4.2
Total	13,205,216	2,759,000	

^{1/} Based on 2010 Census of Population and Housing by the Philippine Statistics Office

The region's population is 13% of the entire country's population making it the most populous and most densely populated region of the entire country. According to the 2017 edition of the Demographia's World Urban Areas Index, Metro Manila is the 4th largest urban areas in the world by population.

The seven most populated barangays in the region are mostly in Quezon City. Residents in Metro Manila are relatively young who belongs to the working group. While there are millions of slum dwellers living in Metro Manila, there are also those living in the exclusive subdivisions and high rise condominiums.

Transportation

The metropolis has an extensive system of highways connecting the various cities and municipalities, one of which is the popular Epifanio de los Santos Avenue (EDSA).

There are two different transit system in Metro Manila namely Manila Light Rail Transit System or the LRT, and the Metro Manila Rail Transit System or the MRT. The Yellow Line (LRT-1) and the Purple Line (LRT-2) form the LRT network, while the Blue Line (MRT-3) forms the MRT network.

Ninoy Aquino International Airport (NAIA), which straddles the boundary between Parañaque City and Pasay City, is the country's busiest airport. It consists of domestic and international terminals. There are two main runways and the hangar of the Philippine

Airlines is located near the Villamor Air Base. The other airport that serves Metro Manila is the Clark International Airport in Pampanga which is located 80 kilometers away.

Electricity and Water

Meralco is the sole electric distributor of Metro Manila. It generates its power from the National Grid Corporation of the Philippines and other independent power producers in Luzon. The Metropolitan Waterworks and Sewerage Systems was responsible for the supply and delivery of potable water and the sewerage system in Metro Manila. At the west zone, Maynilad Water Services is in-charge with Manila (excluding the southeastern part of the city), Caloocan, Las Piñas, Malabon, Muntinlupa, Navotas, Parañaque, Pasay, and Valenzuela. It also operates in some parts of Makati and Quezon City.

On the other hand, Manila Water operates on the east zone, comprising the cities of Mandaluyong, Marikina, Pasig, Pateros, San Juan, and Taguig. It also operates in large areas of Makati and Quezon City and the southeastern part of Manila, which was excluded from the west zone.

Communication

All the possible lines of communication are available in Metro Manila from landlines to mobile phones. The major provider of telecommunication service is Globe and Smart. Most of the areas have access to internet.

Economy

Metro Manila exerts a significant impact on commerce, finance, media, art, fashion, research, technology, education and entertainment, both locally and internationally. It is the home to all the consulates and embassies in the Philippines, thereby making it an important center for international diplomacy in the country. Its economic power makes the region the country's premier center for finance and commerce, and accounts for about 1/3 of the gross domestic product of the Philippines. It is the home to the tallest skyscrapers in the region as well as in the country.

Makati City is the largest financial and economic hub of the metropolitan area and the country. It is regarded as the metropolis' central business district as it is the base of many Philippines' largest corporations and the nation's major banks. It is the home of the nation's stock exchange.

New developments seeking to become vibrant centers of their own are Bonifacio Global City in Taguig; Eastwood City and Triangle Park in Quezon City; the Manila Bay City Reclamation Area in the cities of Pasay, Parañaque and Las Piñas; and Alabang Estates and Filinvest Corporate City in Muntinlupa. Situated in Mandaluyong and Pasig, it is home to the headquarters of several major Philippine companies such as San Miguel Corporation and Meralco, and hosts of many shopping malls and hotels. The Asian Development Bank also has its headquarters in here. On the other hand, the traditional business center is in Binondo District in the City of Manila.

Health

Health Human Resource

The health human resource are the main drivers of the health care system and are essential for the efficient management and operation of the public health system. Currently, government health workers in Metro Manila comprises 590 doctors, 498 dentists, 4,576 nurses and 17,437 midwives.

Health Facilities

Health facilities in Metro Manila include government hospitals, private hospitals and primary health care facilities. Hospitals are classified based on ownership as public and private hospitals. Both public and private hospitals can also be classified by the service capability. Levels 1 and 2 hospitals are relatively well-distributed across the country, hospitals with higher service capabilities are highly concentrated in Metro Manila.

Most of the Metro Manila Hospitals are privately owned. There are 16 hospitals in Metro Manila that are directly under the supervision of DOH Central Office, and 4 hospitals that are under the DOH Regional Office.

The following are the health facilities in Metro Manila.

City/Municipality	DOH hospitals	Other government hospital	Private hospital	City/Municipal Health offices	Barangay Health Stations
Valenzuela	1	1	6	1	33
Caloocan	2	0	12	1	188
San Juan	0	1	2	1	21
Mandaluyong	1	1	2	1	27
Quezon City	8	7	38	1	142
Pasig	1	1	12	1	30
Marikina	1	0	11	1	16
Manila	4	7	17	1	897
Malabon	0	2	0	1	21
Navotas	0	0	0	1	14
Makati	0	1	3	1	33
Pateros	0	0	0	1	10
Taguig	0	3	4	1	28
Parañaque	0	1	7	1	16
Las Piñas	1	0	11	1	20
Muntinlupa	1	3	8	1	9
Pasay	0	2	2	1	201
Total	20	30	135	17	1,706

The headquarters of the World Health Organization Regional Office for the Western Pacific Region, and the World Health Organization Country Office for the Philippines are in Metro Manila. The main office of the Department of Health (DOH), the national health department, is also in the region.

Quezon City is the location of prominent national health centers namely Lung Center of the Philippines, National Kidney and Transplant Institute, and the Philippine Heart Center. Other national special hospitals in Metro Manila includes the Philippine Orthopedic Center in Quezon City and the National Center for Mental Health in Mandaluyong City. The Philippine General Hospital, the country's premier state-owned tertiary hospital, is located at the City of Manila. The St. Luke's Medical Center which operates in Quezon City and Taguig City, is a private tertiary referral hospital cited as one of the best hospitals in the world.

Health and Nutrition Status

The recorded maternal mortality rate in 2016 was 45 per 100,000 livebirths and the infant mortality rate is 14 infant deaths per 1,000 livebirths. The leading causes of infant deaths are both communicable such as pneumonia and diarrhea as well as maternal and prenatal related conditions as in prematurity, sepsis neonatorum, asphyxia and even tetanus neonatorum. The overall leading cause of death is a mixture of communicable diseases such as pneumonia, tuberculosis, and gastroenteritis while the topmost are non-communicable such as cardiovascular, cancer and renal diseases. The leading causes of morbidity are mostly communicable such as pneumonia, TB, diarrhea. Measles increased significantly compared to the five-year average.

Metro Manila, in spite of its urbanized state, experiences the effects of malnutrition. In fact, the region has a double burden of malnutrition in the form of undernutrition and over nutrition affecting vulnerable population groups such as children and women.

Stunting and wasting among under five children are significant public health problems while overweight and obesity rates among children and adults are higher than the national levels.

Based on the 2015 Updating of the Nutritional Status of Filipino Children conducted by the Food and Nutrition Institute of the Department of Science and Technology, among children less than 5 years old, one in every 4 children are stunted (24.9%). This is lower by 8.5% percentage points than the national prevalence of 33.4%. About 6 out of 100 or 6.4% children 0-5 years old are wasted or thin. Although this rate is lower than the national prevalence rate of 7.1%, it is considered to be a public health problem.

On the other hand, six out of 100 under-five children or 6.0% are overweight for their height. This rate is higher by 2.1 percentage points than the national prevalence of 3.9%.

Natural hazards

Metro Manila is exposed to multiple natural hazards such as earthquakes, floods, and typhoons. It is surrounded by active faults. Flooding is recurrent every year especially in low-lying areas. Around five to seven typhoons hit Manila yearly. According to a poll by Swiss Re in 2014, an international reinsurance company, Metro Manila is the world's second riskiest city in terms of natural disasters.

Metro Manila is transacted by two faults, the East and West Valley Faults or the Valley Fault System. The West Valley Fault, based on historical data and studies of the Philippine Volcanology and Seismology (PHIVOLCS) may produce a 7.2 magnitude earthquake with intensity VIII ground shaking, and is called "The Big One". An intensity VIII ground

shaking based on the Philippine Earthquake Intensity Scale is very destructive. The description of intensity VIII are as follows:

People panicky. People find it difficult to stand even outdoors. Many well-built buildings are considerably damaged. Concrete dikes and foundation of bridges are destroyed by ground settling or toppling. Railway tracks are bent or broken. Tombstones may be displaced, twisted or overturned. Utility posts, towers and monuments may tilt or topple. Water and sewer pipes may be bent, twisted or broken. Liquefaction and lateral spreading cause man-made structure to sink, tilt or topple. Numerous landslides and rock falls occur in mountainous and hilly areas. Boulders are thrown out from their positions particularly near the epicenter. Fissures and faults rupture may be observed. Trees are violently shaken. Water splash or stop over dikes or banks of rivers.

Two (2) studies have been made to determine the possible impact of such earthquake in Metro Manila namely 1) the Metro Manila Earthquake Impact Reduction Study (MMEIRS) in 2004 with the Metro Manila Development Authority, Japan International Cooperation Agency (JICA), and the PHIVOLCS; and 2) in 2013, updated risk calculations and maps were produced under the *Project on Enhancing Risk Analysis Capacities for Flood, Tropical Cyclone, Severe Wind and Earthquake for the Greater Metro Manila Area* with the National Disaster Risk Reduction and Management Council-Office of Civil Defense, Geoscience Australia, and also PHIVOLCS.

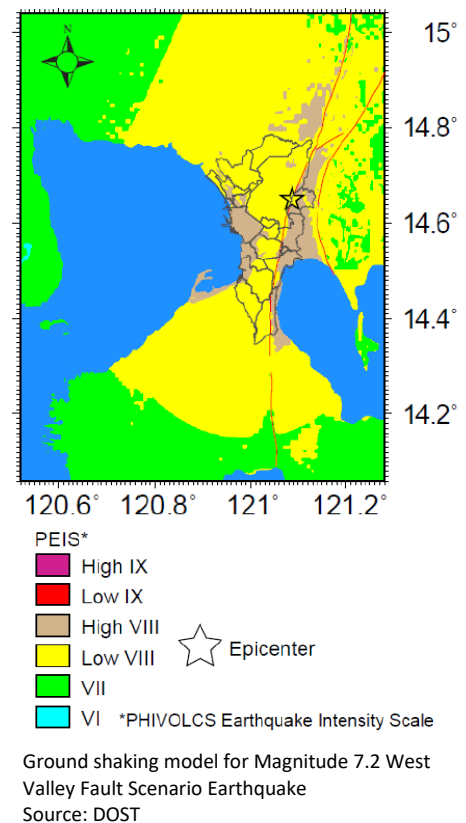
The Scenario – Event (November 28, 2018 - Wednesday)

At 1043H local time, November 28, 2018 (Wednesday), an earthquake rocked Metro Manila and nearby areas in Regions III and IVA. The magnitude of the earthquake was recorded at 7.2, with epicenter of 15 kilometers, east of the City of Manila and depth of focus was 7 kilometers. It affected all the cities and municipality of Metro Manila. The quake was also felt in the nearby cities and municipalities of Regions III and IVA.

The duration was recorded at approximately 63 seconds. Aftershocks continue to rattle the entire region.

It was the deadliest earthquake in the Philippines in 28 years since the 1990 Luzon earthquake. PHIVOLCS estimated that the energy released by the earthquake was equivalent to 32 Hiroshima bombs.

The Pacific Tsunami Warning Center did not issue a Pacific-wide tsunami threat. The United States Geological survey issues a yellow warning, saying



“some casualties and damage are possible and the impact should be relatively localized”.

The temperature on this day was on average of 31 degrees centigrade and winds were calm at 8-16 miles per hour from the southeast. The estimated weather forecast for the succeeding days are as follows:

THU 11/29	FRI 11/30	SAT 12/1	SUN 12/2	MON 12/3	TUE 12/4	WED 12/5
Hist. Avg. 31°/22°	Hist. Avg. 31°/22°	Hist. Avg. 30°/21°	Hist. Avg. 32°/22°	Hist. Avg. 30°/21°	Hist. Avg. 30°/21°	Hist. Avg. 30°/21°
Some sun with a few showers	Some sun with a few showers	A couple of showers	Spotty showers in the morning	A couple of showers	A couple of showers	A couple of showers

The Scenario – Initial Impact (November 28, 2018 - Wednesday)

Transportation

The earthquake caused several collapsed structures and damaged majority of the roads in most of the parts of Metro Manila resulting to its inaccessibility. Several bridges, including many along the national roads, were damaged and impassable due to debris from collapsed roads, hampering aid efforts. Almost all stations of Manila Metro Rail Transit (MRT) and Light Rail Transit (LRT) incurred great damage and were shut down.



Photo credit: s1.ibtimes.com

All the four (4) terminals of Ninoy Aquino International Airport suffered mild to moderate damages in the runway, and loss electrical power. As such, all the terminals of Ninoy Aquino International Airports were declared non-functional/operational and all flights, both local and international, are directed mostly to Clark International Airport in Pampanga (Region III); or some to Mactan International Airport in the Province of Cebu (Region IV) or Laguindingan International Airport in Cagayan de Oro City (Region X).

In addition, the North and South Harbor in Manila also incurred few damages, including the various machines and equipment used in the ports.

Power, communication and water supply

Lifelines, which includes electricity and communication systems, were severely affected. The earthquake caused damages to most of the water pipelines of Maynilad Water Services and Manila Waters resulting to failure of water supply.

Cellular (mobile) phone and internet signals are not working due to damages sustained by cellular and internet sites. Landlines were also non-functional. Most of the Meralco electric lines suffered damages in its electric transmission facilities. As such, for the safety of the residents of Metro Manila, energy services were cut-off.

Approximately 500 incidents of widespread fire outbreaks were reported in several factories, hospitals, restaurants, residential kitchens, and malls because of electricity short circuits. The biggest of which is at the Pandacan Oil Depot in the City of Manila. There were also reports of leakages of petroleum and liquefied petroleum gas from underground storage tanks of several gasoline stations in Metro Manila.



Photo credit: pragativadi.com

Infrastructures

Thirty (30%) of all hospitals and other health facilities, schools, government buildings have been destroyed or damaged. Several government buildings and numerous schools in the province were also partially or totally damaged, including the municipal and city halls of the sixteen (16) cities and one (1) municipality.

Nearly 25% residential houses were damaged (out of which half were totally destroyed), with the cities of Manila and Quezon among the worst affected.

A rough estimate of the damage/loss is expected to be at least Php 2.3 trillion.

Affected population

Based on population figures of the most affected areas, as many as 10 million people could be affected. The cities of Manila, Taguig, Marikina, and Quezon had the largest number of fatalities. Thousands are reported dead, missing and injured, and many are believed to be trapped under collapsed structures.

Most of the residents are still in shocked because of the continuous aftershocks being experienced. People near Manila Bay are in panic because of the rumors of a possible tsunami spread within the area.

Health, Food, and Nutrition

Many residents were left in the street without adequate safe drinking water and sanitary facilities after the quake. Food supply was also disrupted with many markets unable to operate causing reports of looting in several stores and supermarkets.

Health centers and hospital buildings were rendered non-operational, resulting in the use of makeshift wards outside the affected building handling a lot of trauma cases.

Furthermore, prolonged periods of aftershocks forced the population to take residence in makeshift shelters, afraid to go inside weakened buildings, thus causing psychological trauma.

The Response – Initial Impact (0 hour to 12 hours)

(November 28, 2018 – Wednesday – 10:43H to 22:43H)

Adapted/Lifted from the INSARAG 2018 Scenario, NDRRMC and OCHA

After the earthquake, the region still experiences a lot of aftershocks. There were a total of 45 aftershocks recorded, with intensities ranging from III to V. These aftershocks hampered the local government authorities from conducting initial assessments.

At around 1300H, as stipulated in the National Disaster Risk Reduction and Management Council Harmonized Contingency Plan for 7.2 Magnitude Earthquake, the Regional Disaster Risk Reduction and Management Council VII started mobilizing personnel and equipment for deployment to Clark Special Economic Zone in Pampanga, Region III to establish the back-up National Disaster Risk Reduction and Management Council (National) Emergency Operations Center. At the same time, the Department of Health Region VII is doing the same to establish the National Health Emergency Operation Center.

Metro Manila Disaster Risk Reduction and Management Council, on the other hand, has established its Regional Emergency Operations Center at the Joint Task Force National Capital Region Compound in Camp General Emilio Aguinaldo, Quezon City. Metro Manila Disaster Risk Reduction and Management Council also established Emergency Operations Centers in the pre-designated areas in the four quadrants of Metro Manila. An on-site National Emergency Operations Center at the Armed Forces of the Philippines General Headquarters Grandstand in Quezon City has been activated pending full activation of the National Emergency Operations Center in Clark Special Economic Zone. Likewise, an on-site Health Emergency Operation Center is established at the East Avenue Medical Center as temporary Health Emergency Operation Center.

Pre-identified assisting regions have mobilized resources for deployment such as: Incident Management Teams (IMT), Search, Rescue and Retrieval (SRR) Teams, Emergency Medical Teams (EMTs), RDANA Teams, Rapid Emergency Telecommunications Team (RETT), Law and Order Teams, Camp Management Teams, etc. in their respective areas of assignment, bringing with them needed emergency relief and shelter, supplies and equipment.

At around 1400H, Local Government Units officials who survived the earthquake have started to undertake rapid damage assessments of accessible areas. Search and rescue operations have started. Some Local Government Units have started to establish their respective Incident Command Posts. Based on the initial damage assessment of the Local Government Units, power and telecommunications networks are non-operational.

Initial estimates identified about more than a million people are currently displaced, about tens of thousands are feared dead, injured, missing and are trapped from collapsed buildings. Reports of cases of life-threatening injuries numbering thousands. Substantial number of residential and commercial buildings have either collapsed or sustained heavy and moderate damages.

Most people who escaped from collapsing buildings are staying in the streets or have occupied open areas as aftershocks fuel fears of further collapses. The Government has started to establish temporary evacuation centers as well as arranging evacuations to move people out of the most affected areas. The National Emergency Operation Center is currently trying to get information from the surrounding areas but communication is proving difficult. Some health care facilities have partial services available, however initial reports indicate that many more are completely non-functional.

At around 1430H, Armed Forces of the Philippines Joint Operations Center directed the Philippine Navy and the Philippine Air Force to conduct rapid aerial assessments of all quadrants using available helicopters and personnel. The AFP Chief of Staff wanted to make full use of the remaining daylight to have as much information as possible on the conditions of airports and seaports, main supply routes, main road networks, bridges along the Pasig river and its tributaries, and other key infrastructure.

Likewise, two (2) Rapid Damage Assessment and Needs Analysis Team were deployed to assess the extent of damage caused by any disaster, determine the needs, and evaluate the severity of the damage to structures.

At around 1430H, Director Balboa of the Health Emergency Management Bureau is closely coordinating with DOH Secretary Francisco Duque III on the incident. One (1) team of Health Emergency Management Bureau Disaster Risk Emergency Assessment and Management (DREAM) Team was deployed. The aim of the team is to gather information and provide recommendations for decision makers at the strategic level on what, when and how response interventions will be employed

See Annex 1 for the accomplished Rapid Health Assessment Form of the Department of Health prepared by the DREAM Team and submitted to the Department of Health Emergency Operation Center at around 1700H of November 28, 2018.

At around 1500H, a total of four (4) Philippine Disaster Relief Team (PDRT), the National Urban Search and Rescue Team, and the four (4) Philippine National Emergency Medical Teams have been deployed to support response operations. The Department of Health is coordinating large numbers of medical personnel both from within the affected area as well as mobilizing additional staff from other regions. The Emergency Medical Team Coordination Cell within the Health Emergency Operation Center has been activated and planning for the National Emergency Medical Team tasking is ongoing.

At around 1700H, countries have sent inquiries on humanitarian assistance required by the Government of the Philippines. International USAR, EMT and humanitarian response teams are on standby and have expressed readiness to deploy as reported/indicated in the Virtual On-Site Operations Coordination Centre (V-OSOCC) and ASEAN Emergency Operation Center. In-kind assistance/relief goods are being mobilized by Filipino diaspora communities around the world.

As per the ASEAN Contingency Plan, the ASEAN Coordinating Centre for Humanitarian Assistance on Disaster Management (AHA Centre) has elevated its Emergency Operation Center status to "Red" level and deployed two staff to further coordinate with National Disaster Risk Reduction and Management Council for potential ASEAN response.

The Response (+12 hours to 24 hours)

(November 28, 2018 – Wednesday - 22:43H to November 29, 2018 – Thursday – 10:43H)

Adapted/Lifted from the INSARAG 2018 Scenario, NDRRMC and OCHA

At around 0600H of November 29, 2018 (Thursday), Regional Disaster Risk Reduction and Management Council VII has now activated the National Emergency Operations Center in Clark Special Economic Zone, Pampanga to coordinate response operations on behalf of the National Disaster Risk Reduction and Management Council. Likewise, the Health Emergency Operation Center at Clark, Pampanga has been activated.

At around 0700H of November 29, 2018 (Thursday), The Armed Forces of the Philippines-Joint Operations Center has mobilized four (4) helicopters to transport key officials and staff of National Disaster Risk Reduction and Management Council member agencies from temporary National Emergency Operation Center that was earlier established at the Armed Forces of the Philippines General Headquarters to the National Emergency Operation Center at Clark Special Economic Zone, Pampanga. This includes among others President Rodrigo Roa Duterte, Secretary Delfin Lorenzana of the Department of National Defense, Secretary Virginia Orogio of the Department of Social Welfare and Development, and Secretary of Health Francisco T. Duque III. It is expected to be completed during the day. Subsequently, the National Disaster Response Cluster and National Incident Management Team have been activated.

At around 1000H of November 29, 2018 (Thursday), the reports from the Local Government Units through the Incident Management Team Quadrant Emergency Operations Centers were now submitted to the National Emergency Operation Center and it has become clear to the National Disaster Risk Reduction and Management Council that the extent of the devastation is much greater than initially estimated. Local responders are not able to cope and the number of deaths, injuries, missing and displaced continue to rise. Congestion on major road networks in Metro Manila due to debris is constraining access by road to affected areas in the four quadrants, seriously hampering response operations.

Initial estimates indicate more than a million people are currently displaced, tens of thousands are either dead, injured, missing or are trapped under the rubble of collapsed buildings. Reports of cases of life-threatening injuries number to thousands. Substantial number of residential and commercial buildings have either collapsed or sustained heavy or moderate damages.

Some commercial radio networks have started to broadcast situation reports on the ground based on interviews with first responders and affected population.

All bridges along the Pasig and Marikina rivers have sustained damages and declared as impassable pending structural assessment.

The Response (+24 hours to +48 hours)

(November 29, 2018 – Thursday – 10:43H to November 30, 2018 – Friday - 10:43H)

Adapted/Lifted from the INSARAG 2018 Scenario, NDRRMC and OCHA

At around 1100H of November 29, 2018 (Thursday), the scale and magnitude of the impact of the earthquake led the National Disaster Risk Reduction and Management Council Chairman Secretary Lorenzana to recommend to President Duterte the declaration of a State of National Calamity and to request for international assistance.

Meanwhile, across the globe, Emergency Medical Teams and other response teams have mobilized and are on standby for deployment to assist the Philippines. The AHA Centre has likewise alerted Emergency Response and Assessment Team, and Emergency Medical Teams and placed them on standby for potential deployment.

At around 1130H of November 29, 2018 (Thursday), AFP helicopters did sorties to further assess the affected areas within Metro Manila. Heavy impact on infrastructure was reported especially within the western and eastern portions. Numerous bridges were damaged in the northern and southern areas of Metro Manila. Significant damage to low and medium rise houses and apartment buildings were also reported. Many people have been seen staying outside houses and residential buildings.

At around 1200H of November 29, 2018 (Thursday), the National Disaster Risk Reduction and Management Council releases initial information regarding the number of people affected and the extent of the damage. Initial report indicates the following casualties:

Location	Fatalities	Injuries	Missing	Displaced
North Quadrant	2,123	3,756	17,125	354,789
East Quadrant	916	6,148	9,489	300,476
West Quadrant	1,698	7,723	10,476	510,478
South Quadrant	4,417	8,456	22,479	354,473
Total	9,154	26,083	59,569	1,520,216

At around 1300H of November 29, 2018 (Thursday), President Duterte declared a State of National Calamity and has issued a call for International Assistance. See Annex 2 for the copy of the declaration, Annex 3 for the SASOP Form on the request of assistance, and Annex 4 for the cover letter of the request for assistance.

At around 1400H of November 29, 2018 (Thursday), the Health Emergency Management Bureau released the first Health Emergency Alerting and Reporting System Report.

At around 0900H of November 30, 2018 (Friday) the Philippine International Humanitarian Assistance Reception Center (PIHARC) headed by the Department of Foreign Affairs has been established in Clark Special Economic Zone in Pampanga to process incoming international humanitarian teams.

At around 1000H of November 30, 2018 (Friday), ASEAN Member States offered assistance to the Government of the Philippines through the AHA Centre as well as bilaterally. Subsequently, the ASEAN EOC started submission of the offer of assistance from the

ASEAN Members States to the Philippines. On the other hand, the Department of Health started sending acceptance of the offer. See Annex 5 for the acceptance form.

The Response (+48 to +96 hours)

(November 30, 2018 – Friday - 10:43 H to December 2, 2018 – Sunday – 10:43H)

Adapted/Lifted from the INSARAG 2018 Scenario, NDRRMC and OCHA

At around 0900H of December 2, 2018 (Sunday), AHA Centre has released goods from its depot in Subang, Malaysia. The goods were unloaded and handed over to the Chair of the National Response Cluster. The Secretary General of ASEAN is activated as the ASEAN Humanitarian Assistance Coordinator.

At around 0800H of December 1, 2018 (Saturday), the countries who already received acceptance from the Philippines started preparing for deployment.

At around 1200H of December 1, 2018 (Saturday), the National Disaster Risk Reduction and Management Council releases additional information on the initial number of people affected and the extent of the damage.

Location	Fatalities	Injuries	Missing	Displaced
North Quadrant	2,725	12,442	21,878	812,874
East Quadrant	3,816	9,137	17,241	476,321
West Quadrant	3,947	14,789	28,478	1,127,256
South Quadrant	6,135	15,366	25,696	890,784
Total	15,500	46,500	93,000	3,120,000

Damage was also reported in government buildings, and schools, as well as commercial and private residential buildings. All public and private schools in Metro Manila have been closed pending a structural inspection. Disruption in education is expected for many weeks.

Infrastructure damage was widespread. An estimated 170,000 residential houses were heavily damaged; 340,000 residential houses are moderately damaged; and 10,000 residential units situated near the Manila Bay area were affected by liquefaction. Below is the table on the number of damaged residences:

Municipality	Heavily damaged residences	Partially damaged residences
Northern quadrant		
Caloocan	6,893	13,740
Mandaluyong	4,216	8,403
Quezon City	25,744	51,315
San Juan	1,149	2,290
Valenzuela	2,298	4,580
Eastern quadrant		
Marikina	14,645	29,193
Pasig	22,014	43,879

Municipality	Heavily damaged residences	Partially damaged residences
Southern quadrant		
Las Piñas	6,126	12,211
Makati	8,807	17,544
Muntinlupa	12,923	25,759
Parañaque	8,807	17,554
Pasay	6,703	13,362
Pateros	1,628	3,246
Taguig	11,109	22,143
Western quadrant		
Malabon	4,496	8,961
Manila	25,075	49,981
Navotas	5,455	10,873
Total	168,088	335,034

Approximately 100,000 residential buildings have been destroyed by fire, some of which were already damaged by the earthquake. A total of 700 fire incidents has reportedly occurred in factories, hospitals and residential kitchens due to electrical short circuits. Moreover, more fire incidents are happening due to explosions of LPG and petroleum tanks in industrial areas.

Immediate needs identified at this stage are collapsed structure, search and rescue and medical trauma care, as well as debris clearing of major road networks. While information on the full impact is still unclear, it is expected that there are significant needs in food and non-food items, water and sanitation, emergency shelter and assistance for locating the missing. In some areas, very limited food and water is available. Many shops in Metro Manila have been damaged and/or remain closed. There are rumors of looting in some part of the metropolis.

Ninoy Aquino International Airport is still not operational, and all incoming flights are diverted to the Clark International Airport in Pampanga.

Initial report on the damages in the health facilities were reported as follows:

City/ Municipality	DOH Hospitals			Other government hospital			Private hospital			City/Municipal Health Offices			Barangay Health Stations		
	Total number	Totally damaged ^{1/}	Slightly damaged ^{2/}	Total number	Totally damaged ^{1/}	Slightly damaged ^{2/}	Total number	Totally damaged ^{1/}	Slightly damaged ^{2/}	Total number	Totally damaged ^{1/}	Slightly damaged ^{2/}	Total number	Totally damaged ^{1/}	Slightly damaged ^{2/}
Valenzuela	1	0	1	1	0	1	6	2	4	1	1	0	33	10	23
Caloocan	2	1	1	0	0	0	12	4	8	1	1	0	188	56	132
San Juan	0	0	0	1	0	1	2	1	1	1	1	0	21	6	15
Mandaluyong	1	0	1	1	0	1	2	1	1	1	1	0	27	8	19
Quezon City	8	3	5	7	2	5	38	11	27	1	1	0	142	43	99
Pasig	1	0	1	1	0	1	12	4	8	1	1	0	30	9	21
Marikina	1	0	1	0	0	0	11	3	8	1	1	0	16	5	11
Manila	4	1	3	7	2	5	17	5	12	1	1	0	897	269	628
Malabon	0	0	0	2	1	1	0	0	0	1	1	0	21	6	15
Navotas	0	0	0	0	0	0	0	0	0	1	1	0	14	4	10
Makati	0	0	0	1	0	1	3	1	2	1	1	0	33	10	23
Pateros	0	0	0	0	0	0	0	0	0	1	1	0	10	3	7
Taguig	0	0	0	3	1	2	4	1	3	1	1	0	28	8	20
Parañaque	0	0	0	1	0	1	7	2	5	1	1	0	16	5	11
Las Piñas	1	0	1	0	0	0	11	3	8	1	1	0	20	6	14
Muntinlupa	1	0	1	3	1	2	8	2	6	1	1	0	9	3	6
Pasay	0	0	0	0	0	0	2	1	1	1	1	0	201	60	141
Total	20	5	15	30	7	21	135	41	94	17	17	0	1,706	511	1,195

^{1/} Non-operational

^{2/} Operational

The Response (+96 hours to 144 hours)

(December 2, 2018 – Sunday – 10:43H to December 4, 2018 – Tuesday – 1700H)

Adapted/Lifted from the INSARAG 2018 Scenario, NDRRMC and OCHA

At around 1100H of December 2, 2018 (Sunday), the NDRRMC Chairman Secretary Lorenzana and OCHA Resident Coordinator discussed and agreed to launch an international Flash Appeal to mobilize emergency funding for the response.

Neighboring countries, international donors and foreign embassies are coordinating with the NDRRMC and the PIHA Cluster, seeking information on priority needs. There is increasing pressure from the international public to help the Philippines in responding to this catastrophe.

At around 1500H of December 3, 2018 (Monday), following the declaration of a state of national calamity and acceptance of international assistance, international teams including ASEAN-ERAT, UNDAC and USAR Teams and Emergency Medical Teams (EMT) have started arriving at Clark International Airport. Upon arrival, following the customs, immigration and quarantine process, they have checked-in at the Philippine International Humanitarian Assistance Cluster Reception Center (PIHARC). They were briefed on the current situation, including casualty figures.

On the other hand, all arriving EMTs were briefed at the National Emergency Medical Team Coordinating Cell (NEMTCC) on the health situation, reporting mechanism, area of assignment and others. Subsequently, all international teams move to their identified areas of assigned tasking.

The National Emergency Medical Team Coordinating Cell is trying to figure out how to transport the EMTs to Metro Manila. The best option is through helicopters but its availability is a problem. Road transport is another option and was the one explored by the NEMTCC. International EMTs will be transported directly to their tasking location.

At around 0800H of December 4, 2018 (Tuesday), all the EMTs from ASEAN Member States arrived at their assigned quadrants through land travel. They were briefed at their assigned Sub-Emergency Medical Team Coordinating Cell on the current situation of the quadrant, and were given assignments. They were also informed on the current health situation in the area, particularly on the increasing number of trauma cases.

The leading causes of mortality includes limb fractures, wound lacerations, head injury, blunt chest and abdominal trauma, soft tissue injury, penetrating injuries, loss of consciousness, anxiety, hysteria, and hypertension.

On the other hand, the causes of deaths include hypovolemia, crushing injury, cerebrovascular accidents, acute coronary events, respiratory failure, and severe burn.

The Response (10th day to 15th day)

(December 8, 2018 – Saturday to December 13, 2018 - Thursday)

Adapted/Lifted from the INSARAG 2018 Scenario, NDRRMC and OCHA

The Philippine Institute of Volcanology and Seismology (PHIVOLCS), indicated that more than 100 aftershocks of magnitudes ranging from 4 to 6 have been recorded since the main earthquake. More international response teams, including foreign militaries, are arriving to assist in the disaster response operations.

At around 1200H of December 8, 2018, NDRRMC releases additional information regarding the estimated number of people affected and the extent of the damage.

Location	Fatalities	Injuries	Missing	Displaced
North Quadrant	4,560	13,680	18,240	900,000
East Quadrant	3,240	9,720	12,960	450,000
South Quadrant	6,120	18,360	24,480	900,000
West Quadrant	4,680	14,040	18,720	1,260,000
Total	18,600	55,800	74,400	3,510,000

The Government is activating its contingency plan for 11 temporary evacuation camps collectively capable of hosting 1.1 million people. See inset map for individual locations and capacities.

The affected population has limited access to basic health services, food and drinking water. In addition to those people in evacuation centers, many thousands are staying with host families or in tents near their houses. Some have moved outside of the affected areas, fearful of continued aftershocks.

A significant number of children and internally displaced people are showing signs of psychosocial trauma. There were also a lot of public health cases (infectious diseases such as measles, leptospirosis, acute gastro enteritis, abscess, acute respiratory infection, sore eyes (conjunctivitis).

Temporary Evacuation Camps And Capacity



There is extensive damage to sewerage and water pipes. As a result, water sources have been contaminated. As such, there are also reports of increasing number of people, especially infants needing medical attention due to contamination of water sources and the unsanitary living conditions in camps.

Reports indicate the need to provide psychosocial support to affected people. Children have become orphaned or separated from their families. There are increasing reports of children, women, persons with disabilities and the elderly who are seeking assistance.

There is also a huge and immediate need for tents, tarpaulins and temporary shelter to house the displaced population. Access to basic medical services is a problem and disease surveillance need to be strengthened.

School buildings, equipment as well as learning and teaching materials need to be rebuilt or replaced. Many schools that could re-open lack access to clean water and sanitation. Many other schools remain closed and are too damaged to re-open.

NAIA runway has been repaired, and has been opened for rotary wing aircraft. Logistics hubs were established in Cebu and Subic to receive incoming international humanitarian assistance. Manila North and South Harbor piers are still inoperable.

On-going restoration of electricity and communications lines are being hampered by numerous aftershocks.

Initial reports from the media and social media indicate that many areas affected have not yet received any assistance from government, and have aired appeals from people asking for help.

The Response (16th day to 21st day)

(December 14, 2018 – Friday to December 19, 2018 – Wednesday)

Adapted/Lifted from the INSARAG 2018 Scenario, NDRRMC and OCHA

At around 1200H of December 14, 2018, NDRRMC has released an updated information regarding the estimated number of people affected and the extent of the damage.

Location	Fatalities	Injuries	Missing	Displaced
North Quadrant	9,400	32,900	5,472	991,196
East Quadrant	6,000	20,700	3,888	792,956
South Quadrant	11,400	38,800	7,344	1,110,139
West Quadrant	8,000	27,500	5,616	1,070,491
Total	34,800	119,900	22,320	3,964,782

Of the 17.7 million people that have been affected, 5.5 million are in need of immediate assistance. Of this 25% are staying in evacuation camps (around 1.1 million people), while another 35% have opted to leave Metro Manila to stay with their relatives in nearby provinces. Many of them are requesting for transportation assistance from government.

A significant number of children and internally displaced people (IDP) are showing signs of psychosocial problems. The IDP Protection Cluster have raised the issue of heightened risks of sexual and domestic violence in evacuation camps.

There is urgent need for food and water in evacuation camps. Health Cluster is also monitoring and addressing reported increasing medical and hygiene concerns in some evacuation camps.

More dead bodies are being dug out of collapsed buildings. Severely injured persons have died due to limitations in medicines and medical supplies. The local government units are having a problem in looking for appropriate burial sites for the dead. Local Government Units have sought the assistance of the Cluster on the Management of the Dead and Missing.

The last live rescue activity by international USAR team was conducted on December 18, 2018. Considering that there the probability of further live rescue is very low and that local SRR Teams have sufficient presence in Metro Manila, the Philippine government decided to declare the end of international SAR and have asked the OCHA to start the demobilization of international USAR Teams.

Foreign Military Forces have started transition planning with government counterparts for eventual drawdown. The MNCC is facilitating discussions, in coordination with the National Emergency Operation Center and the National Response Cluster, for the deployment of foreign military engineering battalions to support the debris removal and emergency repair/rehabilitation of bridges, schools and other government facilities.

The EMTs of the ASEAN Members States and Japan were instructed to conduct Health Needs Assessment in their assigned quadrants.

Additional Health Emergency Response Teams from the Assisting Regions have already arrived and are preparing to deploy in the four quadrants of Metro Manila.

At around 1200H of December 17, 2018, additional Emergency Medical Teams from other countries are starting to arrive to replace the Emergency Medical Teams from the ASEAN Member States who were the first to arrive in the Philippines.

At around 0800H of December 19, 2018, the Emergency Medical Teams from the ASEAN Members States are preparing their exit reports to be handled to the Department of Health.

Emergency Medical Teams reported to the National EMTCC and PIHARC. They also underwent the usual customs, immigration, and quarantine process before leaving the country

References:

1. INSARAG Asia-Pacific Regional Earthquake Response Exercise 2018 Scenario Plan
2. Metro Manila Earthquake Impact Reduction Study

Prepared by:

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Nutritionist-Dietitian V
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Noted by:

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Approved by:

GLORIA J. BALBOA, MD, MPH, MHA, CEO VI, CESO III
Director IV
DOH-HEMB

FOR ARCH RCD PURPOSES ONLY

Annex 1

Rapid Health Assessment Accomplished Form

CHD REPORTING FORM 2



Republic of the Philippines
Department of Health
HEALTH EMERGENCY MANAGEMENT STAFF
REPORTING UNIT: HEMB DREAM TEAM



RAPID HEALTH ASSESSMENT

Date Prepared: November 29, 2018

Event: 7.2 Magnitude Earthquake in Metro Manila



Purpose: To determine the magnitude of an emergency and the health needs and capacity of the affected area/s to cope.

Instructions: This form shall be submitted **within 24 hours** upon occurrence of major emergency or disaster. **Complete all the necessary fields.** Please attach photos if available.

A. EVENT INFORMATION					
Type of Hazard					
NATURAL	BIOLOGICAL	TECHNOLOGICAL		SOCIAL	
<input type="checkbox"/> Monsoon Rains <input type="checkbox"/> LPA/ALPA <input type="checkbox"/> Typhoon <input type="checkbox"/> Storm Surge <input type="checkbox"/> Flooding Incident <input checked="" type="checkbox"/> Earthquake <input type="checkbox"/> Others, specify _____	<input type="checkbox"/> Lightning <input type="checkbox"/> Volcanic Eruption <input type="checkbox"/> Lahar <input type="checkbox"/> Tsunami <input type="checkbox"/> Landslide	<input type="checkbox"/> Poisoning <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Others, specify _____	<input type="checkbox"/> Fire <input type="checkbox"/> Chemical Spills <input type="checkbox"/> Toxic Waste <input type="checkbox"/> Nuclear <input type="checkbox"/> Damaged Infrastructure <input type="checkbox"/> Trash slide <input type="checkbox"/> Explosion (Unintentional) <input type="checkbox"/> Others, specify _____	<input type="checkbox"/> Maritime Accident <input type="checkbox"/> Air Accident <input type="checkbox"/> Land Transportation Accident	<input type="checkbox"/> Bombing <input type="checkbox"/> Armed Conflict <input type="checkbox"/> War <input type="checkbox"/> Mass Gathering <input type="checkbox"/> Ambush Incident <input type="checkbox"/> Terrorist Activities <input type="checkbox"/> Hostage Taking <input type="checkbox"/> Coup d'état <input type="checkbox"/> Repatriation <input type="checkbox"/> Civil Unrest <input type="checkbox"/> Specify _____
Date of Occurrence	28 November 2018 (Thursday)		Time of Occurrence		<input type="checkbox"/> AM <input checked="" type="checkbox"/> PM 10:43 AM
Place of Occurrence	Barangay/Landmark All the barangays in Metro Manila	Municipality/City: All the cities and municipality of Metro Manila	Province: Not applicable	Region: Metro Manila/ National Capital Region	
Brief Description At 1043H local time, November 28, 2018 (Wednesday), an earthquake rocked Metro Manila and nearby areas in Regions III and IVA. The magnitude of the earthquake was recorded at 7.2, with epicenter of 15 kilometers, east of the City of Manila and depth of focus was 7 kilometers. It affected all the cities and municipality of Metro Manila. The quake was also felt in the nearby cities and municipalities of Regions III and IVA. The duration was recorded at approximately 63 seconds. Aftershocks continue to rattle the entire region. It was the deadliest earthquake in the Philippines in 28 years since the 1990 Luzon earthquake. PHIVOLCS estimated that the energy released by the earthquake was equivalent to 32 Hiroshima bombs.					

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The Pacific Tsunami Warning Center did not issue a Pacific-wide tsunami threat. The United States Geological survey issues a yellow warning, saying “some casualties and damage are possible and the impact should be relatively localized.

B. LIFELINES IN THE AFFECTED AREAS

Lifelines		Status	Remarks
Communication Services	Landline	<input type="checkbox"/> Available <input checked="" type="checkbox"/> Not available	Due to damages in the sites
	Cellphone	<input type="checkbox"/> Available <input checked="" type="checkbox"/> Not available	Due to damages in the cellular sites
	Internet	<input type="checkbox"/> Available <input checked="" type="checkbox"/> Not available	Due to damages in the internet sites
Electricity Services		<input type="checkbox"/> Available <input type="checkbox"/> Not available <input checked="" type="checkbox"/> Total black out	Power outages were reported due to damages sustained by electric transmission facilities
Water Services		<input type="checkbox"/> Available <input checked="" type="checkbox"/> Not available	Failure of water supply caused by the damage of water supply pipes
Main Roads/Bridges		<input checked="" type="checkbox"/> Passable <input type="checkbox"/> Not passable	The earthquake caused the inaccessibility of areas within Metro Manila, destroyed road networks, and collapsed structures.
Airports and Seaports		<input type="checkbox"/> Functional <input checked="" type="checkbox"/> Not Functional	<p>The Ninoy Aquino International Airport aircraft approach systems were rendered inoperable by the loss of electrical power. The runway and the terminals incurred damages and are closed to all air traffic. As such, The Ninoy Aquino International Airports is declared not functional and all flights, both local and international, are directed to Clark International Airport in Pampanga, or Cebu International Airport in Cebu City, or Laguindingan International Airport in Cagayan de Oro City.</p> <p>The North and South Harbor in Manila were damaged and have tilted due to liquefaction. The cargo handling machines in both ports were damaged, rendering them</p>

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		indefinitely non-operational.
Source: Department of Public Works and Highways, Department of Information and Communications Technology, and Metro Manila Development Authority		

C. IMPACT OF THE EVENT IN THE COMMUNITY
 Please attach updated List of Casualties in the prescribed format. (Add more rows if necessary)

Province	City/ Municipality	Number Affected		Evacuation Center			Casualties		
		Families	Individuals	No. of EC	No. of Families	No. of Individuals	No. of Deaths	No. of Injured	No. of victims in the hospital
<i>Cannot be determined at the moment</i>									
Total:									

D. IMPACT OF THE EVENT ON HEALTH FACILITIES
 (Add more rows if necessary)

Province	City/Municipality	No. of Existing Facilities	No. of Damaged facilities	No. of functional facilities	Remarks
<i>Cannot be determined at the moment</i>		DOH _____ LGU _____ Private _____ Others: _____	DOH _____ LGU _____ Private _____ Others: _____	DOH _____ LGU _____ Private _____ Others: _____	

E. HEALTH PERSONNEL
 (Add more rows if necessary)

Province City/ Municipality Hospital	Percent of personnel reporting for work	Command system in place?
Since the earthquake just happened, most of the personnel are still checking on their family. As such, the personnel in the hospital are those that are on duty on November 28, 2018.	<input checked="" type="checkbox"/> less than 50 percent <input type="checkbox"/> more than 50 percent	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

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F. LOGISTICS

Office	Essential Drugs and Medicines	
	Status	For how many days will it last?
CHD	<input type="checkbox"/> Adequate <input checked="" type="checkbox"/> Inadequate	Some of the logistics prepositioned were destroyed
LGU	<input type="checkbox"/> Adequate <input checked="" type="checkbox"/> Inadequate	Some of the logistics prepositioned were destroyed
Hospitals	<input type="checkbox"/> Adequate <input checked="" type="checkbox"/> Inadequate	Some of the logistics prepositioned were destroyed

G. Actions Taken

1.	Provision of drugs and medicines to the affected areas.
2.	Conducted Rapid Water, Sanitation and Hygiene; and Nutrition Assessment.

H. Recommendations

1.	Immediate mobilization of Health Emergency Response Teams to all the quadrants to respond to the medical and public health needs of the survivors.
2.	Immediate provision of logistical requirements needed to ensure provision of medical and public health services to the survivors.
3.	Coordination with the regional office assigned for the first wave to immediately deploy to the assigned quadrants.
4.	Immediate distribution of potable water supply.
5.	Management of the dead and the missing.
6.	Activation of the Health Clusters composed of Medical and Public Health; Water, Sanitation and Hygiene; Mental Health and Psychosocial Support Services; and Nutrition.

Prepared and Submitted by:			
Date Prepared:	November 29, 2018 (Thursday)	Mobile No.:	+632 9283946756
Printed Name:	Dr. Arnel Rivera	Landline:	+632 7430538
Designation/Office:	Medical Officer IV	Fax No.:	+632 7430538
Signature	Signed	Email:	armyra2001@yahoo.com

**MALACAÑAN PALACE
MANILA**

BY THE PRESIDENT OF THE PHILIPPINES

PROCLAMATION NO. 143

DECLARING A STATE OF NATIONAL CALAMITY

WHEREAS, the devastating effects caused by 7.2 magnitude earthquake in Metro Manila have brought death, destruction, and in calculable damage to the lives and properties of Filipinos;

WHEREAS, due to the severe gravity of the damage, particularly in Metro Manila, Region III and Region IVA, the government is spearheading the entire nation's efforts to undertake immediate rescue, recovery, relief and rehabilitation;

WHEREAS, a declaration of a State of National Calamity will hasten the rescue, relief and rehabilitation efforts of the government and the private sector, including any international humanitarian assistance, and will effectively control the prices of basic goods and commodities for the affected areas;

WHEREAS, this declaration also necessitates that the mechanisms for international humanitarian assistance are implemented pursuant to Republic Act No. 10121, otherwise known as the "Philippine Disaster Risk Reduction and Management Act of 2010" and the guidelines of the Philippine International Humanitarian Assistance;

WHEREAS, such declaration will further afford the local government units ample latitude to utilize their respective calamity funds for the rescue, relief and rehabilitation of their constituents.

NOW, THEREFORE, I, RODRIGO ROA DUTERTE, President of the Philippines, by virtue of the powers vested in me by law, hereby declare a **State of National Calamity**.

All departments and other concerned government agencies are hereby directed to implement and execute medical assistance, relief and rehabilitation work in accordance with existing operational plans and directives and orders issued in connection with the occurrence of calamities.

IN WITNESS WHEREOF, I have hereunto set my hand and caused the seal of the Republic of the Philippines to be affixed.

DONE, in the City of Manila, this 29th day of November in the year of Our Lord, Two Thousand and Eighteen.

(Sgd.) RODRIGO ROA DUTERTE

By the President:

(SGD.) SALVADOR C. MEDIALDEA

Executive Secretary

Lifted from a sample proclamation on the State of National Calamity

ANNEX I
FORM 3

REQUEST FOR ASSISTANCE

1. General Information

Office Reference Number:

From: Republic of the Philippines

To: AHA Center/ASEAN Member States/Japan

Day/Date/Time: Thursday/November 29, 2018/1300H

Disaster Event Name/Location(s): Metro Manila, Philippines

2. Requesting party

National Focal Point

Name: Undersecretary Ricardo Jalad

Designation: Executive Director

Institution: National Disaster Risk Reduction and Management Council

Address: Camp Aguinaldo, Quezon City

Phone/Fax: +632 912-2424, +632 912-6675

Email: ocda@ocd.gov.ph or ocda.ocd@gmail.com

3. General Description of Disaster Event (Please state briefly the type (s) of hazard, the specific location(s), date, time, and duration of impact, and the factors or circumstances that triggered or brought about the disaster event.)

At 1043H local time, November 28, 2018 (Wednesday), an earthquake rocked Metro Manila and nearby areas in Regions III and IVA. The magnitude of the earthquake was recorded at 7.2, with epicenter of 15 kilometers, east of the City of Manila and depth of focus was 7 kilometers. It affected all the cities and municipality of Metro Manila. The quake was also felt in the nearby cities and municipalities of Regions III and IVA. The duration was recorded at approximately 63 seconds. Aftershocks continue to rattle the entire region.

It was the deadliest earthquake in the Philippines in 28 years since the 1990 Luzon earthquake. PHIVOLCS estimated that the energy released by the earthquake was equivalent to 32 Hiroshima bombs.

The Pacific Tsunami Warning Center did not issue a Pacific-wide tsunami threat. The United States Geological survey issues a yellow warning, saying “some casualties and damage are possible and the impact should be relatively localized.

4. Disaster Emergency Related Information

1. Disaster Event: Earthquake
2. Location(s): Metro Manila
3. Description: The magnitude of the earthquake was recorded at 7.2, with epicenter of 15 kilometers, east of the City of Manila and depth of focus was 7 kilometers.
4. Resources currently mobilized/actions taken:
 - a. Metro Manila Disaster Risk Reduction and Management Council established its Regional Emergency Operations Center at the Joint Task Force National Capital Region Compound in Camp General Emilio Aguinaldo, Quezon City.
 - b. Metro Manila Disaster Risk Reduction and Management Council also established Emergency Operations Centers in the pre-designated areas in the four quadrants of Metro Manila.
 - c. Pre-identified assisting regions have mobilized resources for deployment such as: Incident Management Teams (IMT), Search, Rescue and Retrieval (SRR) Teams, Emergency Medical Teams (EMTs), RDANA Teams, Rapid Emergency Telecommunications Team (RETT), Law and Order Teams, Camp Management Teams, etc. in their respective areas of assignment, bringing with them needed emergency relief and shelter, supplies and equipment.
 - d. Local Government Units officials who survived the earthquake have started to undertake rapid damage assessments of accessible areas. Search and rescue operations have started. Some Local Government Units have started to establish their respective Incident Command Posts.
 - e. Two (2) Rapid Damage Assessment and Needs Analysis Team were deployed to assess the extent of damage caused by any disaster, determine the needs, and evaluate the severity of the damage to structures.
 - f. One (1) team of Health Emergency Management Bureau Disaster Risk Emergency Assessment and Management (DREAM) Team was deployed. The aim of the team is to gather information and provide recommendations for decision makers at the strategic level on what, when and how response interventions will be employed
 - g. A total of four (4) Philippine Disaster Relief Team (PDRT), the National Urban Search and Rescue Team, and the four (4) Philippine National Emergency Medical Teams have been deployed to support response operations. The Department of Health is coordinating large numbers of medical personnel both from within the affected area as well as mobilizing additional staff from other regions. The Emergency Medical Team Coordination

FOR ARCH RCD PURPOSES ONLY

- Cell within the Health Emergency Operation Center has been activated and planning for the National Emergency Medical Team tasking is ongoing.
- h. Regional Disaster Risk Reduction and Management Council VII has now activated the National Emergency Operations Center in Clark Special Economic Zone, Pampanga to coordinate response operations on behalf of the National Disaster Risk Reduction and Management Council. Likewise, the Health Emergency Operation Center at Clark, Pampanga has been activated.
 - i. The Armed Forces of the Philippines-Joint Operations Center has mobilized four (4) helicopters to transport key officials and staff of National Disaster Risk Reduction and Management Council member agencies from temporary National Emergency Operation Center that was earlier established at the Armed Forces of the Philippines General Headquarters to the National Emergency Operation Center at Clark Special Economic Zone, Pampanga. This includes among others President Rodrigo Roa Duterte, Secretary Delfin Lorenzana of the Department of National Defense, Secretary Virginia Orogo of the Department of Social Welfare and Development, and Secretary of Health Francisco T. Duque III.
5. Additional resources needed or required (please list according to priority):
- a. Immediate mobilization of Health Emergency Response Teams, especially Emergency Medical Teams to all the quadrants to respond to the medical and public health needs of the survivors.
 - b. Immediate provision of logistical requirements needed to ensure provision of medical and public health services to the survivors.
 - c. Immediate distribution of potable water supply.
 - d. Management of the dead and the missing.

5. Requested Resources (Please give details of the requested resources and other relevant information)

a. Personal					
No	Skills (Please specify expected skills and qualifications: i. Basic; ii. Advanced; iii. Specialized Skills; iv. Command Skills)	Number of Personnel	Targeted Deployment Location(s) (Where the assisting personnel will proceed upon arrival)	Specific Tasks to be Assigned	Anticipated Duration of Assignment
1	2	3	4	5	6
	Emergency Medical Team Type 1 Fixed	5 members	Metro Manila	In all the quadrants (Note that Metro Manila will be subdivided into four quadrants)	2-3 weeks deployment

FOR ARCH RCD PURPOSES ONLY

				for ease in the response operations)	
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b. Equipment and Materials					
No	Type of equipment/materials	Number of equipment/materials	Targeted Deployment Location(s) (Where the assisting personnel will proceed upon arrival)	Purpose of Use	Anticipated Duration of Assignment
1	2	3	4	5	6
	Equipment and materials needed by the EMT Type 1 Fixed	Depends on the team	Metro Manila	For used in the treatment of patients	2-3 weeks

6. Administrative Arrangements (please indicate information on administrative arrangements)

a. Expected arrival of requested resources (Please indicate when resources are needed to be sent) As soon as possible, preferably on or before December 3, 2018
b. Contact person at disaster event location or deployment Name: Ms. Maria Lovella Rhodora Rago Designation: Supervising Health Program Officer/Coordinator of the National Emergency Medical Team Coordinating Cell Institution: Department of Health – Health Emergency Management Bureau Address: Department of Health – Health Emergency Management Bureau / National Emergency Medical Team Coordinating Cell at the Clark Special Economic Zone in Pampanga Phone/Mobile Phone/Fax: +632 711-1001, +632 915-772 5621
c. Funding Arrangements (Please indicate how the resources will be funded, whether the requesting Party will shoulder the cost (some/all) or whether the assisting Party is expected to shoulder the costs (some/all), etc.) All the Emergency Medical Team are expected to be self-sufficient. Being self-sufficient will mean that the team should be able to provide for support oneself and as such, the team should not require assistance from the affected area and from other teams including provision of food, accommodation, personal protective equipment, other logistics, cash advance, other life support mechanism, and all other expenses that may be incurred in response to events, emergencies, and disasters.

Signed by

Signature

Undersecretary Ricardo Jalad

National Focal Point, National Disaster Risk Reduction and Management Council
Philippines

November 29, 2018

National Focal Point
National Disaster Management Office
xx Country

Dear Sir/Madam:

Thank you for your interest in assisting the Philippines in responding to the impact of the 7.2 magnitude earthquake that hit Metro Manila last November 28, 2018. Attached is the copy of Proclamation 143 declaring the National State of Calamity.

In the interest of an effective response, the Government of the Philippines currently requires all international assistance to be coordinated through official government channels. International teams should not mobilize until their offer of assistance has been approved and accepted.

Emergency Medical Teams (EMTs) are invited to register their offer of assistance by returning the attached SASOP Form 4 on the offer of assistance, and EMT Registration Form to archproject.philippines@gmail.com. Approval to mobilize will be expedited for the teams that are already in the WHO Global EMT Registry. Regardless of registration status, all teams must comply with the EMT guiding principles and minimum standards as indicated in the attached copy of the Blue Book guidelines on EMTs.

Based on preliminary assessments, the priority needs in the health sector are the following:

1. Immediate mobilization of Health Emergency Response Teams, especially Emergency Medical Teams to all the quadrants to respond to the medical and public health needs of the survivors.
2. Immediate provision of logistical requirements needed to ensure provision of medical and public health services to the survivors.
3. Immediate distribution of potable water supply.

We thank you again for your offer of assistance, and hope you understand and respect our efforts to coordinate incoming assistance to ensure more effective response.

Yours sincerely,

Signed

Dr. Francisco T. Duque III
Secretary of Health, Department of Health
Republic of the Philippines

Signed

Undersecretary Ricard Jalad
National Focal Point, National Disaster Risk Reduction and Management Council
Republic of the Philippines

LETTER OF ACCEPTANCE

XX November 2018

National Focal Point
National Disaster Management Office
xx Country

Dear Sir/Madame:

Thank you for your offer of assistance to help the Philippines during the response operations relative to the 7.2 magnitude earthquake that hit the country last November 28, 2018.

This letter serves as the official acceptance of the Government of the Philippines on your offer. The country is following guidelines on the international humanitarian assistance, and as such you are expected to follow. Attached is a copy of National Disaster Risk Reduction and Management Council No. 158 on the Enhanced Philippine International Humanitarian Assistance for your information and reference.

On the other hand, please submit your Emergency Medical Team (EMT) Registration Form if you have not submitted one. We expect you to be in the Philippines soon. Please bring copy of this letter of acceptance and EMT Registration Form with the necessary attached documents to facilitate the approval of your entry in the Philippines, subject to the laws of the Philippine Government.

In addition, please do not forget to register at the Philippine International Humanitarian Assistance Reception Center in Clark Special Economic Zone in the province of Pampanga.

Thank you very much.

Signed

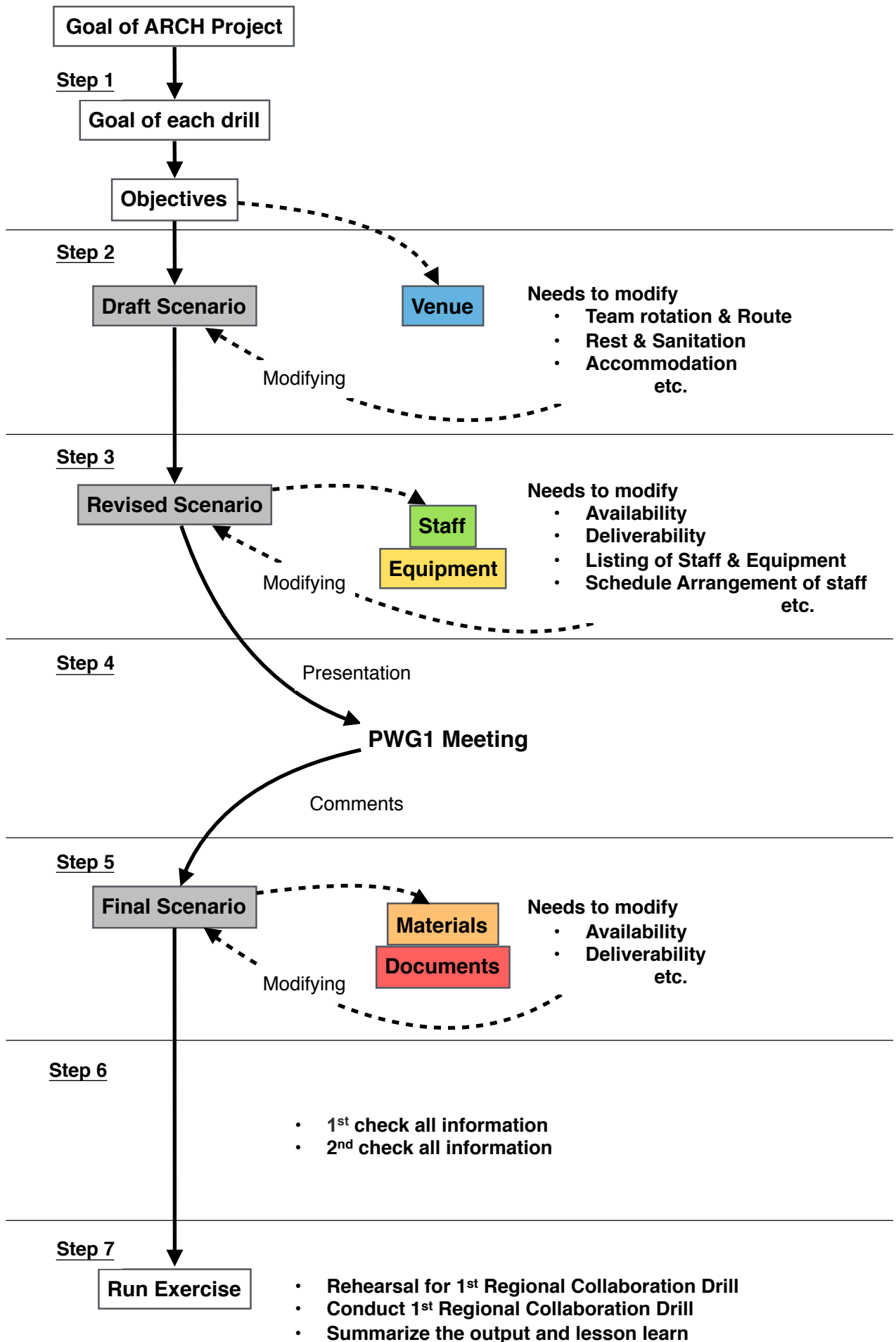
Dr. Francisco T. Duque III
Secretary of Health, Department of Health
Republic of the Philippines

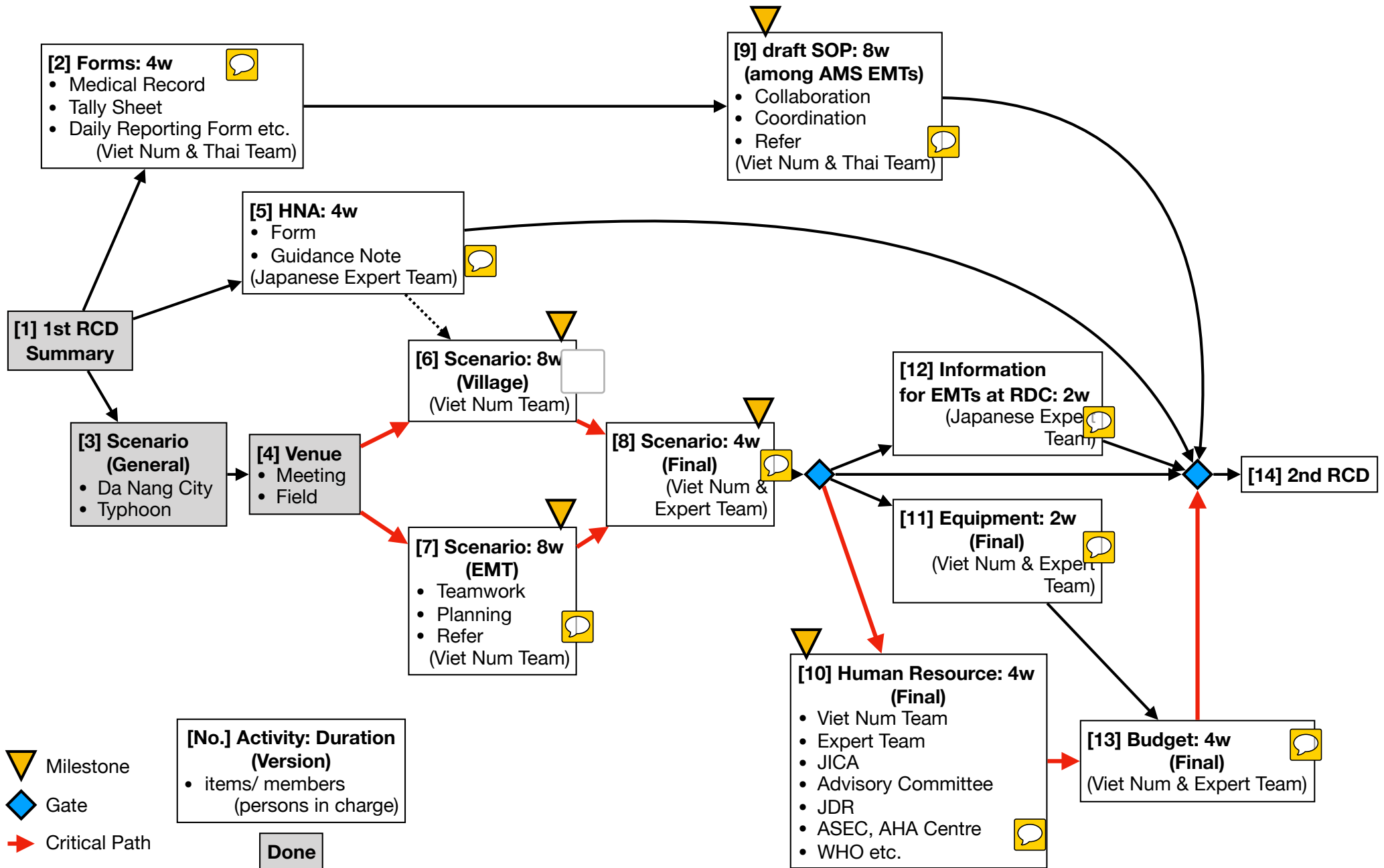
Signed

Undersecretary Ricard Jalad
National Focal Point, National Disaster Risk Reduction and Management Council
Republic of the Philippines

添付資料 8 :

地域連携ドリル準備工程表





Objectives of the Four Drills

Start-up Drill (SD)

To identify different gaps between medical procedures provided at a hospital and in the field.

To understand the regional coordination and collaboration tools in the health sector and to be in line with the existing mechanism / platform / tools such as the SASOP/ EAS toolkit/ WHO EMT guidelines.

Regional Collaboration Drill 1 (RCD1)

To report the activities of each team to the EMTCC using a common reporting form.

Regional Collaboration Drill 2 (RCD2)

To provide a referral between the teams using a common medical record form.

Regional Collaboration Drill 3 (RCD3)

To assess the situations of affected communities using the common assessment tools.

Tools Used in Each Drill

1. Start-up Drill (SD)

- Existing tools such as SASOP/ EAS toolkit/ WHO EMT guidelines

2. Regional Collaboration Drill 1 (RCD1)

- Common reporting form

3. Regional Collaboration Drill 2 (RCD2)

- Common medical record form

4. Regional Collaboration Drill 3 (RCD3)

- Common assessment tools

The conceptual scenario (as of Aug. 25)

Situation:

Da Nang is susceptible to damage from typhoons that cross into the South China Sea. In 2006, the landfall of Typhoon Xangsane near the city of Hue caused 26 deaths in Da Nang, damaging and destroying homes, downing trees and power lines and flooding major streets

Super Typhoon direct landfall in Danang City at night with winds of level 12, level 14 shock on 15.16. Storm progresses rapidly and occurred at night should have caused heavy losses of lives and property so dead and injured more than 1,000 people, the region most severely affected are the areas close to the sea.

Participants:

- I-EMTs from ASEAN member states: 50 people (10 teams)
- Local EMTs: 30 people (6 teams)
- Coordination Center at 03 stations (one station/district): 12 Coordinators - Volunteers: 50 pax (Red Cross, medical wards ...)
- Facilitators: 30 pax.
- Players as victims: 120 pax.
- Security: 30 pax (police)

I-EMTs and local EMTs could be work in group for coordination exercise.

Vehicle/equipment:

- 06 ambulances available and well provided with necessary medical equipment. - Radio and communication system: 20 pieces
 - Camera system maneuvers the entire scene
- (The country team should prepare themselves the Uniform and PPE.)

The conceptual scenario cont. (as of Aug. 25)

Schedule:

- Day 1: Table-top exercise focusing on teamwork in analyzing situation, planning, setting-up radio communication system etc.
- Day 2: Field exercise on coordination among I-EMTs, between I-EMTs and local EMTs and health forces, on communication and reporting etc.
- Day 3: Assessment the teamwork, lesson-learnt and feedback.

Next version will be presented at the next PWG1 meeting (Oct. 15)

Vietnamese Member (as of Oct. 28)

1. Dr Nguyen Nhu Lam, Deputy Director of Burns Institute, ARCH's PWG2 member
(Tel. 84 948316869, Email: lamnguyenau@yahoo.com)

2. Dr. Nguyen Duc Chinh, Head of Planning Dept., Viet - Duc Hospital, ARCH's PWG1 member
(Tel. 84 912396753, Email duc_chinh1960@yahoo.com)(Oct.28)

Objectives (as of Oct. 23)

Regarding your concerns on the coordination among EMTs during the drill, I would like to clarify this issue as follows:

- Drill objective: the proposed topic of this 2nd RCD is to improve coordination among teams at the field. We expect that team members will work effectively in group not only within their team but with others both I-EMTs and N-EMTs. From the 1st RCD experience in Phuket, it would be good if teams will have opportunity to exchange and share their experience. Feedback by experts for improvement of practice should also be provided to the teams.

- Team arrangement: we proposed the grouping of 2 EMTs to create 1 joined-EMT of 10 members. Local EMTs (from the hosting city of Da Nang) could be grouped with I-EMTs or they could be grouped themselves. So in total, we would have 5 joined-EMTs, 1 EOC, 1 or 2 local EMTs.

- Administration: a stadium will be a favorable location where all teams work together, outside areas will be used for triage, vehicle and referral hospitals etc.

Froms (as of Nov. 3)

Regarding the technical issue, the EMT should test again the forms which will be used during this event. We would be grateful if you could share with us all the forms due to we have to translate into Vietnamese !! (Oct.28)



I have talked to Thai project team, we agreed that we still need to summarize the relevant document before sending to you. This coming 5-9 November, we are going to discuss the issue internally; Thai-Japanese, then, with Dr.Lam. When we draw the conclusion, I shall send all relevant document to you as as possible. (Nov.3)

添付資料 9 :

SOP・ミニマムリクアイアメント

Standard Operating Procedure (SOP) for Coordination of Emergency Medical Teams (EMTs) in ASEAN (Working Title)

Version: 2
Date: 13 December 2018

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 - C. Emergency Medical Team (EMT) Capacity Building and Strengthening
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 - A. Request for Assistance/Offer of Assistance and Registration of EMTs
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 - I. Review of Operations, Experiences and Lessons Learnt (Post-deactivation Phase)
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List of Acronyms & Abbreviations

AADMER	ASEAN Agreement on Disaster Management and Emergency Response
ACDM	ASEAN Committee on Disaster Management
AHA Centre	ASEAN Coordinating Centre for Humanitarian Assistance on Disaster Management
AJDRP	ASEAN Joint Disaster Response Plan
AMS	ASEAN Member States
CIQ	Custom, Immigration and Quarantine
DOH	Department of Health
EMTs	Emergency Medical Teams
EMTCC	Emergency Medical Team Coordination Cell
ERAT	Emergency Response and Assessment Team
HNA	Health Needs Assessment
I-EMT	International Emergency Medical Team
MDS	Minimum Dataset
MOH	Ministry of Health

MOPH	Ministry of Public Health
N-EMT	National Emergency Medical Team
NDMO	National Disaster Management Organization
OSOCC	On-Site Operations Coordination Center
PHEOC	Public Health Emergency Operations Center
RDC	Reception and Departure Center
SASOP	Standard Operating Procedure for Regional Standby Arrangements and Coordination Of Joint Disaster Relief and Emergency Response Operation
VOSOCC	Virtual On-Site Operations Coordination Center

I. Introduction

1. ASEAN Member States have been committed to provide effective mechanisms to achieve substantial reduction of disaster losses, and to jointly respond to disaster emergencies through concerted national efforts and intensified regional and international cooperation as stipulated in the ASEAN Agreement on Disaster Management and Emergency Response (AADMER) under the vision of “One ASEAN, One Response” as adopted in the ASEAN Declaration on One ASEAN, One Response: ASEAN Responding to Disasters as One in The Region and Outside The Region on 6 September 2016.
2. Emergency medical responses provided by Emergency Medical Teams (EMTs) have a critical role to play in saving lives and reducing mortality and morbidity. To ensure that EMT operations are reliable and trustworthy and their operations meet the needs of the affected populations, concerted and explicit coordination and collaboration among both international and national EMTs directed by the Ministry of Health of the affected country is indispensable.
3. This Standard Operating Procedure (SOP) aims (i) to ensure the quality and consistency of EMT operations in the affected country in order to contribute to the vision “One ASEAN, One Response” and (ii) to complement the operating procedures and protocols developed by the international community and the ASEAN and East Asia regions.
4. As the health sector’s contribution to the vision ‘One ASEAN, One Response’, this SOP is a component of the ASEAN Standard Operating Procedure for Regional Standby Arrangements and Coordination of Joint Disaster Relief and Emergency Response Operations (SASOP). This SOP covers the area shown in the figure below.
5. This SOP applies specifically to civilian EMTs with no consideration whether civilian EMTs might utilize military assets and capacities to support team operations. The facilitation and utilization of military assets and capacities including military EMTs is set out in Chapter VI of SASOP.

II. Institutions

A. Ministry of Health/Ministry of Public Health/Department of Health

6. The terms Ministry of Health (MOH)/ Ministry of Public Health (MOPH) and Department of Health (DOH) in this SOP will collectively be referred as Ministry of Health (MOH). The MOH shall be the primary entity responsible for the overall coordination of National Emergency Medical Teams (N-EMTs) and International Emergency Medical Teams (I-EMTs) which are deployed to support N-EMTs.
-

B. Public Health Emergency Operations Center (PHEOC)

7. A public health emergency operations center (PHEOC) is a central location for coordinating operational information and resources for strategic management of public health emergencies and events. PHEOCs provide communication and information tools and services and a management system during a response to an emergency or event. PHEOCs also provide other essential functions to support decision-making and implementation, coordination, and collaboration¹. PHEOCs can be established and managed by both national and local authorities (which is referred to in this SOP as local PHEOC), depending on the administration of the MOH of the affected country.

C. Emergency Medical Team Coordination Cell (EMTCC)

8. The core purpose of the Emergency Medical Team Coordination Cell (EMTCC) is the overall coordination of the surge of responding EMTs (both National and International) to best meet the excess healthcare needs resulting from increased morbidity due to the emergency, or from damage to existing capacity. The EMTCC should be activated, managed and staffed by trained and experienced personnel.
9. Integration of the EMTCC within the existing national PHEOC is ideal for an effective integration of the I-EMTs with existing national health services. The EMTCC can be established and managed in the local level (which is referred to in this SOP as Sub-EMTCC) if the local PHEOC is activated.

D. Emergency Medical Team (EMT)

10. The Emergency Medical Team (EMT) refers to groups of health professionals and supporting staff aiming to provide direct clinical care to populations affected by disasters or outbreaks and emergencies as surge capacity to support the local health system². In this SOP, EMTs include government civilian and non-governmental EMTs and they can be subclassified as either National (N-EMT) or International (I-EMT) depending on area of response.

E. AHA Centre

11. The AHA Centre shall facilitate cooperation and coordination among the relevant entities including the affected and assisting countries, and with relevant United Nations and international organizations, in promoting regional collaboration.

III. Disaster Preparedness

A. National Focal Units for Emergency Medical Team (EMT) Coordination

12. The MOH shall identify the first contact point responsible for managing offers and requests for EMT deployments. The national focal units for EMT coordination in times of disaster should be officially designated in MOH/MOPH structure. The list of contact information is provided in **Annex 1**.

B. Inventory of Emergency Medical Team (EMT) Assets and Capacities

13. The inventory of EMT assets and capacities is managed by the AHA Centre as part of ASEAN Standby Arrangements. The AHA Centre requests the ASEAN Committee on Disaster Management (ACDM) Focal Units or Heads of National Disaster Management Office (NDMO) to list all resources for the ASEAN Standby Arrangements including EMT assets and capacities in the form of List of Modules of ASEAN Joint Disaster Response Plan (AJDRP).

¹ WHO, A Systematic Review of Public Health Emergency Operations Centre (EOC), 2013.

² Ibid.

14. The MOH shall identify EMT assets and capacities and submit relevant information and data on EMT assets and capacities to respective NDMO in a timely manner when required.

C. Emergency Medical Team (EMT) Capacity Building and Strengthening

15. The MOH shall ensure that the EMTs achieve and maintain the EMT minimum standards as set out in Classification and Minimum Standards for Foreign Medical Teams in Sudden Onset Disasters (WHO, 2013) and other relevant existing national and regional standards and requirements.
16. The MOH shall take necessary measures to enhance EMT assets and capacities and to facilitate the EMT organizations to register their EMTs within existing national coordinating structure or on the EMT Global Classification.

IV. Emergency Response

A. Request for Assistance/Offer of Assistance and Registration of EMTs

17. The MOH shall send the request for assistance or initiate the offer of assistance through the NDMO, following the procedures stipulated in the existing SASOP.
18. Information sharing and coordination with all assisting entities should be initiated as soon as possible.

B. Mobilisation of Emergency Medical Teams (EMTs)

19. When mobilising EMTs, the organizations which deploy EMTs shall ensure that the assets and capacities of EMTs provided to the affected country meet the standards set out in Classification and Minimum Standards for Foreign Medical Teams in Sudden Onset Disasters (WHO, 2013) and other relevant existing standards and requirements of the affected country. The organizations shall also ensure that EMTs are self-sufficient with their subsistence requirements so as not to further burden the affected country in the course of operating within its territory.
 20. The I-EMTs shall obtain essential information for mobilisation including registration requirements, visa and customs procedures and other information as provided in **Annex 2** via Virtual On-Site Operations Coordination Centre (VOSOCC) or AHA Centre's mechanisms such as ASEAN WebEOC or National Focal Units of the affected country.
 21. The I-EMTs shall submit EMT registration form to the affected country's MOH, NDMO and AHA Centre to complete the official registration. The registration and official clearance from the affected country shall be done prior to departure from origin country.
 22. To ensure the effective and timely response of assistance upon the confirmation of the request for assistance, the EMTs shall ensure coordinated efforts are made with the MOH for the immediate response.
 23. The I-EMTs arriving in the territory of the receiving country via air, land or sea entry checkpoints shall immediately proceed to the Customs, Immigration and Quarantine (CIQ) facility for necessary immigration procedures, customs clearance and quarantine checks. In this regard, the MOH shall coordinate with relevant entities to facilitate the CIQ processes and also ensure that the National focal units or their designated representatives are available on standby during the clearance process of the medical supplies and equipment brought to the territory of the requesting country.
 24. The MOH shall designate official(s) to provide an initial briefing to the I-EMTs at a staging point or Reception and Departure Center (RDC), where ASEAN-ERAT will support the process,
-

immediately after the completion of the CIQ processes, to ensure seamless on-site coordination. The incoming I-EMTs shall be registered at the staging point or RDC and shall obtain essential information including the EMTCC location and contact details, and coordination meeting locations and times.

25. The I-EMTs shall report to the EMTCC to complete EMT registration and submit required documents including **EMT Registration Form (Annex 3)**, copies of passport of each team member and other registration requirements as referred in Annex 2.
26. Regarding the authorization to practice for medical professionals, I-EMT registration needs an approval from relevant Health Professional Regulatory Authorities through National Focal Points facilitating mechanism. The I-EMTs shall follow the regulation of the receiving country. If the I-EMTs would like to receive the authorization prior to their deployment, the I-EMTs can request the receiving country, through National Focal Units, to facilitate the approval process.
27. The EMTCC shall liaise with the EMTs to match and task them to an identified area based on the EMT type and capabilities and the identified needs or gaps. The EMTCC shall also facilitate in-country movement of I-EMTs to disaster sites.
28. Full registration, authorization to practice for medical professionals, and tasking processes may be conducted at the RDC if the affected country has enough capabilities.

C. On-Site Operations of Emergency Medical Teams (EMTs)

29. The I-EMTs shall report to the local PHEOC, if existing and activated, to receive their assignment and essential information for on-site operations.
 30. The EMTCC or Sub-EMTCC, if established shall provide the I-EMTs essential information for on-site operations such as situation update to the extent known, secured access to operating grounds and others as provided in **Annex 4**.
 31. The EMTCC or Sub-EMTCC, if established, shall support the operations of the I-EMTs such as providing local medical coordinator, language interpreters and others as provided in **Annex 5**.
 32. The EMTCC or Sub-EMTCC, if established, shall organize EMT coordination meetings for information sharing and effective and efficient coordination among EMTs and relevant entities.
 33. If EMTCC is not established, the I-EMTs shall organize regular meetings with other EMTs to share information and resources and also to collectively plan EMT operations such as setting up Patient Referral System.
 34. All the EMTs operated in the affected area shall utilize standard triage system.
 35. The EMTs shall maintain adequate patient notes and discharge and referral documents after starting its operations. For the ease of compiling Emergency Medical Team - Minimum Dataset (MDS) Daily Reporting Form (Annex 10), the EMTs shall use the standardized **Medical Record Form (Annex 6)** and **EMT-MDS Tally Sheet (Annex 7)**. Also, in case of patient referral, the EMTs shall use **Patient Referral Form (Annex 8)**.
 36. The EMTs shall prepare and confirm its Operational Plan and Exit Strategy and inform the EMTCC or Sub-EMTCC of anticipated transition or departure date.
-

D. Health Needs Assessment

37. The I-EMTs shall provide additional Health Needs Assessment when requested by the EMTCC [Annex 9].

E. Direction and Coordination of Assistance

38. The MOH through the EMTCC or Sub-EMTCC shall conduct the overall direction, coordination and supervision of the EMTs operations within its territory.
39. The EMTCC or Sub-EMTCC shall map in real-time all EMT deployments and keep track of all anticipated EMT transition and departure; establish and maintain regular contacts with EMTs and local authorities; and conduct field quality assurance and support visits to EMTs.

F. Periodic Reporting/Daily Report

40. The EMTs shall submit **Minimum Dataset (MDS) Daily Report Form (Annex 10)** to the EMTCC or Sub-EMTCC to report their activities on daily basis.
41. The EMTCC or Sub-EMTCC shall submit **EMTCC Situation Report (Annex 11)** to the PHEOC of the MOH at the end of the first day and the third day. Thereafter, a reporting frequency shall be determined by context and need. Also, EMTCC shall send feedback form to I-EMTs in timely manner.

G. Demobilisation of Assistance

42. The EMTs shall inform the EMTCC or Sub-EMTCC the anticipated end-of-operation date as early as possible, or at least 1 to 2 weeks prior to that date if different from the one initially communicated at the time of the registration.
43. The EMTs shall implement an exit strategy including plans for handover of all medical documentation, donation of any medical equipment, transfer of care for any residual inpatient and others in accordance to the affected country by liaising with the EMTCC for the withdrawal of the team from the operations.

H. Reporting (Handover and Exit Phase)

44. The EMTs shall submit to the EMTCC or Sub-EMTCC with **Emergency Medical Team Exit Report (Annex 12)** which contains transferred patients at exit list, donated medication list and donated equipment or supply list to specify the details of the handover or re-tasking of duties and record of the operational tasks performed during the deployment before its final withdrawal from the site.
45. The I-EMTs shall also upon final withdrawal prepare their final report using **FORM 7 of SASOP (Annex 13)** as reference and furnish them to the AHA Centre via their MOH and the NDMO for consolidation within two weeks of departure from the affected country.

I. Review of Operations, Experiences and Lessons Learnt (Post-deactivation Phase)

46. I-EMTs shall conduct Operational reviews of EMT response and share the report to all AMS to support learning as well as revision.

V. Review

47. SOP for Coordination of Emergency Medical Teams (EMTs) in ASEAN member states shall be revised and updated concurrent with SASOP and/or as necessary.
-

VI. ANNEXES

		Note
Annex 1	List of National Focal Units for EMT Coordination and Information on PHEOC	Information will be collected by the Project to complete the list.
Annex 2	List of Essential Information for Mobilisation	
Annex 3	Emergency Medical Team Registration Form	WHO EMTCC Handbook
Annex 4	List of Essential Information for On-site Operation	
Annex 5	List of Supporting Functions of the EMTCC or Sub-EMTCC	
Annex 6	Medical Record Form	
Annex 7	Emergency Medical Team (EMT) - Minimum Dataset (MDS) Tally Sheet	WHO EMT MDS Working Group Report
Annex 8	Patient Referral Form	WHO EMTCC Handbook
Annex 9	Forms for (Rapid) Health Needs Assessment	
Annex 10	Emergency Medical Team - Minimum Dataset (MDS) Daily Reporting Form	WHO EMTCC Handbook
Annex 11	EMTCC Situation Report	WHO EMTCC Handbook
Annex 12	Emergency Medical Team Exit Report	WHO EMTCC Handbook
Annex 13	Form 7 of SASOP	-

Reference

- Standard Operating Procedure for Regional Standby Arrangements and Coordination of Joint Disaster Relief and Emergency Response Operations (SASOP) (ASEAN, 2010)
- Emergency Medical Team Coordination Cell (EMTCC) Coordination Handbook (Version 0.12) (WHO, June 2017)

List of Essential Information for Mobilisation

Topic

- 1.** Registration requirements
 - EMT Registration Form
 - Copies of passport of each team member
 - Authorization to practice for medical professionals
 - Malpractice insurance
 - etc.
 - 2.** Visa and customs procedures
 - 3.** Authorization to practice for medical professionals
 - 4.** Situation overview to the extent known
 - 5.** Identification of health services which assistances might need
 - 6.** General information of incident area including geography, weather, language, politics and government, religion, culture and prohibited activities
 - 7.** Essential information on the arrival and registration procedures at RDC
 - 8.** Airport/port procedures and services
 - 9.** EMTCC/OSOCC location
 - 10.** National Focal Units and Contact information
 - 11.** Primary and secondary risks associated with the event in each location
 - 12.** Available communication channels
-

List of Essential Information for On-site Operations

Topic

- 1.** Situation update to the extent known
 - 2.** Secured access to operating grounds
 - 3.** Status of health facilities in the affected area
 - 4.** Details on the coordination with local hospitals for patient referral
 - 5.** EMTs in operations
 - 6.** Meeting schedule and venue
 - 7.** Details on the coordination with EMTCC
 - 8.** Medical waste management
 - 9.** Management of dead bodies in disaster
 - 10.** Provincial medical incident command system and local authorities
 - 11.** Maps and information on incident sites, operation sites, law enforcement station, drug store, shops, patrol stations.
 - 12.** Contact person/focal units/liaison personnel/interpreter
 - 13.** Available channels of communication
 - 14.** Sanitation concern including epidemic disease, endemic disease, sporadic disease, tap water purification, excretion and toilet management
 - 15.** Security and mobile escort
-

List of Supporting Functions of the EMTCC or Sub-EMTCC (if existing and capable)

Topic

1. Provide language interpreters
 2. Oversee securities
 3. Set up communication channels
 4. Facilitate patient referral to local hospitals
 5. Provide local medical coordinator
-

Minimum Requirements and Qualifications for Members of Emergency Medical Team (EMT)

Version: 2
Date: 19 April 2018

I. Purpose

This document sets out the minimum requirements and qualifications for ASEAN Member States and relevant organizations for the selection and registration of health professionals as members of emergency medical team (EMT). These minimum requirements aim at providing guidance for ASEAN Member States to develop and strengthen their EMTs to be deployed to the affected foreign country in order to realize the vision “One ASEAN, One Response”.

The capacity of individual members is equally important as that of the team as a whole and is vital to ensure the quality of care provided by EMTs. These minimum requirements are developed to provide clear and appropriate minimum eligibility standards for EMT members with the aim of ensuring that EMT is composed of eligible members.

II. Scope

As is clear from its purpose, this document focuses on minimum requirements and qualifications for individual EMT members. The minimum requirements for EMT as a team are not covered in this document as they are defined in *the Classification and Minimum Standards for Foreign Medical Teams in Sudden Onset Disasters* (Blue Book) (WHO 2013). The Blue Book provides the standards for a team as a whole such as the team composition (e.g. at least three doctors trained in emergency and primary care for Type 1), but does not refer in detail to the capacity of individual team members.

In addition, given that government military and non-governmental (NGO) EMT organizations have their own criteria to recruit and register their members, these minimum requirements primarily targeted governmental civilian EMTs to be deployed both domestically and internationally.

III. Key Terms and Terminology

For the purpose of this document, the key terms are defined below.

Minimum Requirements

The lowest level of acceptable education, training and experience needed to be enrolled as a member of emergency medical team (EMT) which can be deployed domestically and internationally.

Emergency Medical Teams (EMT)

The term Emergency Medical Teams (EMTs) refers to groups of health professionals and supporting staff aiming to provide direct clinical care to populations affected by disasters or outbreaks and emergencies as surge capacity to support the local health system. They include governmental (both civilian and military) and non-governmental teams and can be subclassified as either National or International dependent on area of response¹.

EMT Members

In general, EMTs are composed of: 1) Medical Doctors/Physicians, 2) Nurses, 3) Allied Health

¹ WHO, Emergency Medical Team Coordination Cell (EMTCC) Coordination Handbook, Version 0.12, June 2017.

Personnel, 4) Logistics and Operational Support Staff, and 5) Administrative and Other Staff².

IV. Structure of the document

This document is organized based on the three tiers of the minimum requirements as clarified below and in figure 1;

Tier 1. Professional competence and basic knowledge of disaster medicine and EMT operations

Tier 1 has to be ensured by EMT organizations before anyone to be registered as a member.

Tier 2. Adaptation of technical and non-technical professional capacities into low-resource and emergency context

Tier 2 has to be ensured by EMT organizations before domestic deployment of members.

Tier 3. Preparation for an effective team performance in foreign countries

Tier 3 has to be ensured by EMT organizations before international deployment of members.

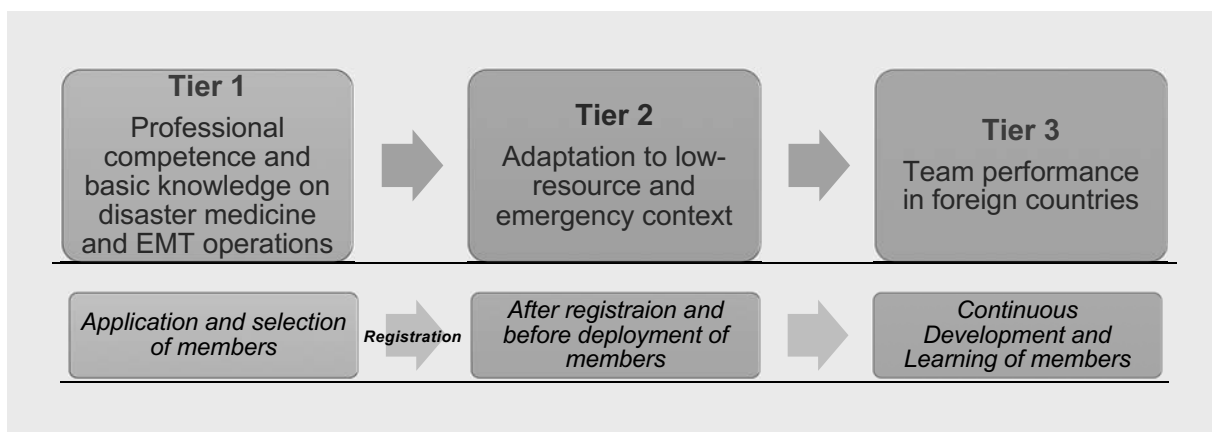


Figure 1. Tiers of Minimum Requirements

Tier 1 (can be registered as a member of EMT)

This section presents the minimum requirements and qualifications of Tier 1, which are relevant to the individuals at the stages of recruitment and selection before placing them on a roster of EMT organizations.

a. Age

Preference between 20 to 60 years old.

b. License

EMT organizations must ensure that all team members are registered and licensed to practice in their home country³.

²WHO, Emergency Medical Team Coordination Cell (EMTCC) Coordination Handbook, Draft Version 10, 2016.

³WHO, Classification and Minimum Standards for Foreign Medical Teams in Sudden Onset Disasters, 2013.

c. Specialty

EMT organizations must ensure that all team members are specialists in their field⁴.

The specialists required for EMT depend on its size, capability and capacity. The medical specialists include: medical doctors trained in emergency and primary care, general surgery, orthopedics, orthoplastic reconstruction, anesthetics, intensive care, obstetrics, pediatrics, and rehabilitation. In addition, nurses, paramedics, laboratory technicians, logistic staff and other support staff are included depending on the type of EMT. The specialty of EMT members must be registered in each country.

d. Practical Experience

EMT organizations must ensure that the majority of EMT members to be deployed internationally have experience in domestic or international deployment to disaster affected area. However, applicants who lack experience in actual disaster response may not necessarily be excluded from registration. By organizing a team of members with different professional backgrounds, skills, grades, qualifications, expertise and experience, or by skill mix, EMT organizations can accept inexperienced applicants with appropriate qualification.

e. Training (as part of requirements)

EMT members are required to successfully complete Basic Life Support (BLS) and Standard First Aid Training.

f. Training (as part of selection process)

EMT members are required to successfully complete an induction or pre-registration course such as Basic Disaster Management, etc. Applicants are required to undertake theoretical courses and/or workshops, provided by EMT organizations, to enhance their knowledge on disaster medicine and EMT operations. Each ASEAN Member State can set out their own curriculum as appropriate or collectively develop a standardized curriculum among ASEAN Member States.

g. Physical and Mental Fitness

Deployment to and delivering care in austere and resource-poor environments require physical and mental fitness. EMT organizations must ensure that team members are physically and mentally able to perform required tasks.

The status of physical and mental fitness is often self-declared at the stage of application and will be evaluated in the later stage during an induction course or by a pre-deployment health screening.

⁴ Ibid.

V. Tier 2 (ready to deploy domestically)

a. Pre- requisite

EMT members must pass the registration requirement as demonstrated in Tier 1.

b. Training course

EMT members that have successfully completed the registration must undertake field training courses and/or field training exercises such as Incident Command System (ICS), Self-sufficiency in Disaster, Working in Limited Resources, etc. to practice their skills and learn how to operate within low-resource and emergency context. Each ASEAN member state can set out their own curriculum as appropriate or collectively develop a standardized curriculum among ASEAN member states.

c. Teamwork

EMT members must be able to work well with others as a part of the team. Therefore, they should concentrate on building up teamwork and fostering team-to-team communication and collaboration.

VI. Tier 3 (ready to deploy to any members states)

a. Pre- requisite

EMT members must pass the registration requirement and qualification as demonstrated in Tier 1 and Tier 2.

b. Training course

I-EMT members must complete a standardized training curriculum which has been widely accepted by all ASEAN Member States.

As a consequence, the EMT members who have undertaken this curriculum would be qualified to operate in every ASEAN Member States. The content of this training curriculum may consist of relevant topics including Intercultural Management, Resource Management, Communication Skill, Health care System in ASEAN Member States, AADMER, SASOP, Standard Operating Procedure (SOP) for Coordination of Emergency Medical Teams (EMTs) in ASEAN and Team Coordination (e.g. SASOP and EMTCC), etc.

c. Teamwork

EMT members must be able to work well with others as a part of the team. Therefore, applicants should concentrate on building up teamwork and fostering good communication and collaboration with the EMTs of the affected countries and between International Emergency Medical Teams (I-EMTs).

d. Language Skills

For the purpose of international deployments, some EMT members are required to have language skills, especially English language skills. EMT members must have a TOEIC score of a minimum ??? (The issue will be discussed in the 6th Meeting of PWG1). In the case where the required language proficiency score cannot be met, EMT members can still be deployed internationally if there is a narrator in the team.

e. Vaccination

In the case where some vaccine-preventable communicable diseases are found to be endemic to the affected country, EMT members are required to either obtain or provide documented proof that they have received the following vaccinations.

添付資料 10 :

EMT データベース様式

Database of Emergency Medical Teams (EMTs) in ASEAN

Data Collection Sheet

Version: 1

Date: 11 January 2018

Respondent

Date (dd/mm/yy):	Country:
Name:	Title and Position:
Organisation:	Email address:

* If there are more than three (3) EMT organisations, please copy and paste the table below to add more organisations.

EMT Organisation #1		
1. Organisation and Contact Information		
1-1	Organisation Name	
1-2	Organisation Type <i>Tick only one box</i>	<input type="checkbox"/> Government Civilian <input type="checkbox"/> Government Military <input type="checkbox"/> National NGO <input type="checkbox"/> International NGO <input type="checkbox"/> Other (specify) _____
1-3	Team Name	
1-4	Organisation Headquarters Contact	Contact Name
		Contact Position
		Email
		Telephone
1-5	Organisation Operation Contact (if different from 1-4)	Contact Name
		Contact Position
		Email
		Telephone
1-6	Organisation Donor or Government Official Contact (if applicable)	Contact Name
		Contact Position
		Email
		Telephone
1-7	First point of contact for deployment requests <i>Tick only one box</i>	<input type="checkbox"/> Organisation Headquarters Contact (1-4) <input type="checkbox"/> Organisation Operation Contact (1-5) <input type="checkbox"/> Organisation Donor or Government Official Contact (1-6) <input type="checkbox"/> Other (specify) _____
2. EMT Information		
2-1	Available EMTs within the organisation	EMT Type¹
		Type 1 Mobile
		Type 1 Fixed
		Type 2 with Health Facility
		Type 3
		Specialised Cell
		Number of Available Teams

¹ See "Specification of EMT Type" in "Instructions for Data Collection".

2-2	Specialised cell details (if applicable)	
2-3	Maximum number of EMTs that the organisation can deploy simultaneously	() teams
3. Operational Capacity and Willingness		
3-1	Operational willingness to deploy; geographical region <i>Tick only one box</i>	<input type="checkbox"/> Globally <input type="checkbox"/> ASEAN Region only <input type="checkbox"/> Asia-Pacific Region only <input type="checkbox"/> Other (specify) _____
3-2	Emergency situation in which the team is currently capable to deploy <i>Tick all that apply</i>	<input type="checkbox"/> Sudden Onset Disaster (SOD) <input type="checkbox"/> Protracted crisis <input type="checkbox"/> Conflict/complex emergencies <input type="checkbox"/> Outbreak <input type="checkbox"/> Chemical, biological, radiological, or nuclear (CBRN) events <input type="checkbox"/> Other (specify) _____
3-3	Duration of operational capacity	() days
3-4	Organisation operational language(s)	
4. Deployment History		
4-1	International deployment experience <i>Tick only one box</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No <i>If Yes, please provide information below:</i>
4-2	International deployment experience <i>*If there were more than three events, please add more rows.</i>	Event
		Date (dd/mm/yy)
		Country of deployment
4-3	Domestic deployment experience <i>Tick only one box</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No <i>If Yes, please provide information below:</i>
4-4	Domestic deployment experience <i>*If there were more than three events, please add more rows.</i>	Event
		Date (dd/mm/yy)
5. Global Classification Status		
5-1	WHO EMT Global Classification Status <i>Tick only one box</i>	<input type="checkbox"/> Not Applicable (N/A) <input type="checkbox"/> Expression of Interest (EOI) submitted <input type="checkbox"/> Mentorship <input type="checkbox"/> Classified

EMT Organisation #2		
1. Organisation and Contact Information		
1-1	Organisation Name	
1-2	Organisation Type <i>Tick only one box</i>	<input type="checkbox"/> Government Civilian <input type="checkbox"/> Government Military <input type="checkbox"/> National NGO <input type="checkbox"/> International NGO <input type="checkbox"/> Other (specify) _____
1-3	Team Name	
1-4	Organisation Headquarters Contact	Contact Name
		Contact Position
		Email
		Telephone
1-5	Organisation Operation Contact (if different from 1-4)	Contact Name
		Contact Position
		Email
		Telephone
1-6	Organisation Donor or Government Official Contact (if applicable)	Contact Name
		Contact Position
		Email
		Telephone
1-7	First point of contact for deployment requests <i>Tick only one box</i>	<input type="checkbox"/> Organisation Headquarters Contact (1-4) <input type="checkbox"/> Organisation Operation Contact (1-5) <input type="checkbox"/> Organisation Donor or Government Official Contact (1-6) <input type="checkbox"/> Other (specify) _____
2. EMT Information		
2-1	Available EMTs within the organisation	EMT Type²
		Type 1 Mobile
		Type 1 Fixed
		Type 2 with Health Facility
		Type 3
		Specialised Cell
2-2	Specialised cell details (if applicable)	
2-3	Maximum number of EMTs that the organisation can deploy simultaneously	() teams
3. Operational Capacity and Willingness		
3-1	Operational willingness to deploy; geographical region <i>Tick only one box</i>	<input type="checkbox"/> Globally <input type="checkbox"/> ASEAN Region only <input type="checkbox"/> Asia-Pacific Region only <input type="checkbox"/> Other (specify) _____
3-2	Emergency situation in which the team is currently capable to deploy <i>Tick all that apply</i>	<input type="checkbox"/> Sudden Onset Disaster (SOD) <input type="checkbox"/> Protracted crisis <input type="checkbox"/> Conflict/complex emergencies <input type="checkbox"/> Outbreak <input type="checkbox"/> Chemical, biological, radiological, or nuclear (CBRN) events <input type="checkbox"/> Other (specify) _____
3-3	Duration of operational capacity	() days

² See "Specification of EMT Type" in "Instructions for Data Collection".

3-4	Organisation operational language(s)			
4. Deployment History				
4-1	International deployment experience <i>Tick only one box</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No <i>If Yes, please provide information below:</i>		
4-2	International deployment experience <i>*If there were more than three events, please add more rows.</i>	Event	Date (dd/mm/yy)	Country of deployment
4-3	Domestic deployment experience <i>Tick only one box</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No <i>If Yes, please provide information below:</i>		
4-4	Domestic deployment experience <i>*If there were more than three events, please add more rows.</i>	Event	Date (dd/mm/yy)	
5. Global Classification Status				
5-1	WHO EMT Global Classification Status <i>Tick only one box</i>	<input type="checkbox"/> Not Applicable (N/A) <input type="checkbox"/> Expression of Interest (EOI) submitted <input type="checkbox"/> Mentorship <input type="checkbox"/> Classified		

EMT Organisation #3		
1. Organisation and Contact Information		
1-1	Organisation Name	
1-2	Organisation Type <i>Tick only one box</i>	<input type="checkbox"/> Government Civilian <input type="checkbox"/> Government Military <input type="checkbox"/> National NGO <input type="checkbox"/> International NGO <input type="checkbox"/> Other (specify) _____
1-3	Team Name	
1-4	Organisation Headquarters Contact	Contact Name
		Contact Position
		Email
		Telephone
1-5	Organisation Operation Contact (if different from 1-4)	Contact Name
		Contact Position
		Email
		Telephone
1-6	Organisation Donor or Government Official Contact (if applicable)	Contact Name
		Contact Position
		Email
		Telephone
1-7	First point of contact for deployment requests <i>Tick only one box</i>	<input type="checkbox"/> Organisation Headquarters Contact (1-4) <input type="checkbox"/> Organisation Operation Contact (1-5) <input type="checkbox"/> Organisation Donor or Government Official Contact (1-6) <input type="checkbox"/> Other (specify) _____
2. EMT Information		
2-1	Available EMTs within the organisation	EMT Type ³
		Type 1 Mobile
		Type 1 Fixed
		Type 2 with Health Facility
		Type 3
		Specialised Cell
2-2	Specialised cell details (if applicable)	
2-3	Maximum number of EMTs that the organisation can deploy simultaneously	() teams
3. Operational Capacity and Willingness		
3-1	Operational willingness to deploy; geographical region <i>Tick only one box</i>	<input type="checkbox"/> Globally <input type="checkbox"/> ASEAN Region only <input type="checkbox"/> Asia-Pacific Region only <input type="checkbox"/> Other (specify) _____
3-2	Emergency situation in which the team is currently capable to deploy <i>Tick all that apply</i>	<input type="checkbox"/> Sudden Onset Disaster (SOD) <input type="checkbox"/> Protracted crisis <input type="checkbox"/> Conflict/complex emergencies <input type="checkbox"/> Outbreak <input type="checkbox"/> Chemical, biological, radiological, or nuclear (CBRN) events <input type="checkbox"/> Other (specify) _____
3-3	Duration of operational capacity	() days

³ See "Specification of EMT Type" in "Instructions for Data Collection".

3-4	Organisation operational language(s)			
4. Deployment History				
4-1	International deployment experience <i>Tick only one box</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No <i>If Yes, please provide information below:</i>		
4-2	International deployment experience <i>*If there were more than three events, please add more rows.</i>	Event	Date (dd/mm/yy)	Country of deployment
4-3	Domestic deployment experience <i>Tick only one box</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No <i>If Yes, please provide information below:</i>		
4-4	Domestic deployment experience <i>*If there were more than three events, please add more rows.</i>	Event	Date (dd/mm/yy)	
5. Global Classification Status				
5-1	WHO EMT Global Classification Status <i>Tick only one box</i>	<input type="checkbox"/> Not Applicable (N/A) <input type="checkbox"/> Expression of Interest (EOI) submitted <input type="checkbox"/> Mentorship <input type="checkbox"/> Classified		

15 September 2017

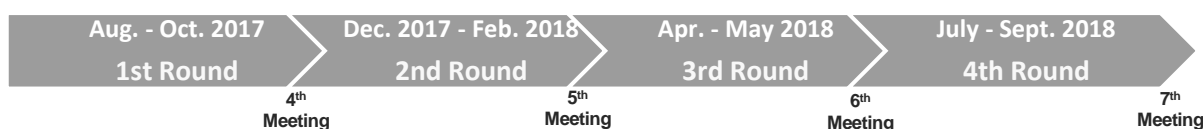
Database of Emergency Medical Teams (EMTs) in ASEAN Instructions for Data Collection (draft)

Introduction

The database of Emergency Medical Teams (EMTs) in ASEAN is among the four (4) regional collaboration tools which are being developed by the Project for Strengthening the ASEAN Regional Capacity on Disaster Health Management (ARCH Project). The database has the following objectives:

- To strengthen the regional disaster preparedness by facilitating 1) the identification of EMT assets and capacities for mobilization; and 2) the future decision making and action taking for enhancing EMT assets and capacities by stocktaking of the current status and update of the progress;
- To enhance the regional health response to disasters by providing the up-to-date information on EMTs in advance to the Ministry of Health (MOH) or equivalent of ASEAN Member States and other parties concerned;
- To inform the discussion for setting up the coordination platform on disaster health management¹;
- To complement the ASEAN Joint Disaster Response Plan (AJDRP) by possibly speeding up the process of identification of EMT assets and capacities potentially available for deployments to the affected foreign country; and
- Eventually to contribute to the operationalization of the Standard Operating Procedure for Regional Standby Arrangements and Coordination of Joint Disaster Relief and Emergency Response Operations (SASOP) and the implementation of AJDRP for the realization of “One ASEAN, One Response” in the spirit of the ASEAN Agreement on Disaster Management and Emergency Response (AADMER).

The database will be managed by the Project Team during the project period. The data collection and/or update will be conducted by the PWG 1 members before each meeting of PWG 1. There will be a total of four (4) rounds as shown below.



Instructions for completing the data collection sheet

The attached data collection sheet is designed primarily for use by the PWG 1 members in collaboration with stakeholders responsible for EMT organisation management. Completion of this sheet may require input from professionals and representatives from organisations other than the MOH or equivalent. Data collection should be conducted by the PWG 1 members in collaboration with these personnel.

The scope of database is not limited to government civilian EMT organisations but will include data on government military and non-governmental (NGO) EMT organisations. Inclusion of EMT organisations other than those of government civilian is at discretion of ASEAN Member States. However, the criteria for inclusion of government military and NGO EMT organisations are proposed as follows:

- The NGO EMT organisations should be registered under the Government of the country they operate in and be accountable to the MOH or equivalent;
- The NGO EMT organisations should have a mandate to deploy EMT(s) to provide direct clinical care to populations affected by disasters;
- The NGO or government military EMT organisations should have operational willingness to deploy internationally;
- The NGO or government military EMT organisations should have a liaison with the MOH or equivalent and provide necessary information on EMT management and operations; and
- The NGO or government military EMT organisations should comply with the EMT guiding principles and standards² and other relevant regional and national standards.

¹ Output 1 of ARCH Project

² http://www.who.int/hac/global_health_cluster/fmt_guidelines_september2013.pdf

Specification of EMT Type³

EMT Type 1 Mobile	Provide outpatient initial emergency care of injuries and other significant health care needs. Teams must be capable of treating at least 50 outpatients per day and function during the daytime. Key services include triage, first aid, stabilisation, referral of severe trauma, nontrauma emergencies, and care for minor trauma injuries. Type 1 mobile teams do not work out of a fixed structure and the team, including all equipment, can be easily moved throughout the mission deployment.
EMT Type 1 Fixed	Provide outpatient initial emergency care of injuries and other significant health care needs. Services include: triage, assessment, first aid, stabilisation + referral of severe trauma and nontrauma emergencies, definite care for minor trauma and nontrauma emergencies. Capacities include: 100 outpatients/day for 2 weeks. If facility provided: rapidly deployable temporary shelter care for outpatient capacity of that EMT, or mobile. Day time services. Main components include: At least 3 doctors trained in emergency and primary care, with the remainder nurses, paramedics and logistic staff. (Ideally doctor: nurse ratio = 1:3). Staff skilled in emergency and trauma care, maternal and child health, knowledge of endemic disease management.
EMT Type 2	Provide inpatient acute care, general and obstetric surgery for trauma and other major conditions. Services provided include: Surgical triage, assessment and advanced life support, definitive wound and basic fracture management, damage control surgery, emergency general and obstetric surgery, inpatient care for non-trauma emergencies basic anaesthesia, X-ray, blood transfusion, lab and rehab services acceptance and referral services. Capacities include: 1 operating theatre with 1 operating room: 20 inpatient beds; 7 major or 15 minor operations per day. If facility provided, at least 20 inpatient beds and 1 operating theatre and 1 table. Day and night services. Main components include: staffing comprises of: Personnel: Including doctors skilled in emergency and general medical care (including paediatrics and maternal health), surgical and anaesthetic staff for theatre, and medical, nursing and logistic staff to manage inpatients. Ratios must reach or exceed; anaesthetic technician/anaesthetist ratio 1:1 with surgeons, 5 operating room technical staff per operating theatre table. Nursing ratio of at least 1 nurse: 8 ward beds (24 hours).
EMT Type 3	Provide complex inpatient referral surgical care including intensive care capacity. In addition to type 2 services, a type 3 EMT provides: complex reconstructive wound and orthopaedic care, enhanced, X-ray, blood transfusion, lab and rehab services, high level paediatric and adult anaesthesia, intensive care beds with 24 h monitoring and ability to ventilate, acceptance and referral services. Capacities include: 1 operating theatre with at least 2 operating rooms: 40 inpatient beds; 15 major or 30 minor operations per day, 4–6 intensive care beds. If facility provided: wards, operating theatre (2+ tables), outpatient plus intensive care area, Day and night services. Main components include: Staffing comprises of: Personnel must comply with EMT Type 2 size and ratios plus; orthoplastic reconstruction surgeon(s). Nursing ratio 1:2 beds for Intensive care (24 hours). Logistics and allied health including rehabilitation to reflect the increased size and complexity.
Specialised Cell	Specialises in a specific medical area. These teams may be as small as two or three senior specialists that provide additional specialised care embedded within Type 2 or 3 EMTs or a national hospital. They must bring appropriate equipment, maintenance and supplies adequate to their specialty area. Specialised cell includes: Burn Care, Dialysis, Maternal & Child Health, Public Health Care, Psycho-social care, Reconstructive surgery, Rehabilitations and others.

³ Specifications of EMT Type 1 Fixed, Type 2 and Type 3 were adopted from the specification of List of Modules for Standby Arrangements. Specifications of EMT Type 1 Mobile and Specialised Cell were adopted from <https://extranet.who.int/emt/faq-page#n138>.

添付資料 11 :

ヘルスニーズアセスメント全様式

Date(DD/MM/YYYY)

Health Needs Assessment Form by EMT

- It is **NOT** mandatory to fill out all the questions; only relevant and available information in the site or shelter(s) can be collected.
- After the assessment, please fill out the **HNA Summary Report** and submit it to the concerned authorities, EMTCC/PHEOC/MOH, etc.

EMT Information			
Country / Organization			
Contact Persons (Names)			
Phone No.		e-mail	

* This HNA Form is for: Please check either "village/town etc." or "shelter" below.

<input type="checkbox"/> village/town etc.	→ Fill out <u>A: Site Information</u>	<input type="checkbox"/> shelter	Fill out <u>A: Site Information</u> <u>B: Shelter Information</u>
---	--	---	---

A. Site Information					
A	Province		D	Village	
B	District		E	City/Town	
C	Sub-district		F	Other	
Access and Security					
G	Road access	<input type="checkbox"/> Yes <input type="checkbox"/> No			
H	Special arrangement required	Transportation (e.g., 4WD, boat) <input type="checkbox"/> Yes			<input type="checkbox"/> No
		Communication tool (e.g., satellite phone) <input type="checkbox"/> Yes			<input type="checkbox"/> No
I	Any other security concerns	<input type="checkbox"/> Yes			<input type="checkbox"/> No
Remarks/ Notes:					

B: Shelter Information					
A	Shelter Name:	B	Location of Shelter: (GPS Coordinates)		
C	Type of Shelter	<input type="checkbox"/> Public <input type="checkbox"/> Pre-existing building <input type="checkbox"/> Temporary structure <input type="checkbox"/> Other (specify) _____			
D	Capacity	<input type="checkbox"/> Adequate (>3.5m ² /person)		<input type="checkbox"/> Not adequate	

Overall Situation of the Site or Shelter

1		Disaster Situation on Population and Health Needs
1-1	Estimated number of total population	_____ (#)
1-2	Estimated number of death	_____ (#)
1-3	Main causes of death by the disaster	· ·
1-4	Estimated number of injured/ill	<input type="checkbox"/> infant & children (Under 5 years) _____ (#) <input type="checkbox"/> children & adolescent (aged 6-19) _____ (#) <input type="checkbox"/> adult (older than 19 years of age) _____ (#)
1-5	Total number of pregnant women	_____ (#)
1-6	Number of patients suffering from chronic diseases	_____ (#)
1-7	Any unusual increased illness or rumors of outbreaks	<input type="checkbox"/> Yes (specify) _____ <input type="checkbox"/> No
1-8	Number of people with mental health and psychosocial problems	_____ (#)
1-9	Main health concerns	1. _____ 2. _____ 3. _____
Remarks/ Notes: Observation points/Significance/Possible action and follow-ups etc.		

2		Public Health
Water		
2-1	Main sources of water for drinking	<input type="checkbox"/> piped water <input type="checkbox"/> tube well <input type="checkbox"/> spring <input type="checkbox"/> bottled water <input type="checkbox"/> other _____
2-2	Main sources of water for basic hygiene practices (bathing etc.)	<input type="checkbox"/> piped water <input type="checkbox"/> tube well <input type="checkbox"/> spring <input type="checkbox"/> rainwater <input type="checkbox"/> other _____
2-3	Safe water for drinking	<input type="checkbox"/> Adequate (2.5-3ℓ/person/day) (last for _____ day/month) <input type="checkbox"/> Not Adequate
2-4	Safe water for basic hygiene practices	<input type="checkbox"/> Adequate (2-6ℓ/person/day) (last for _____ day/month) <input type="checkbox"/> Not Adequate
2-5	Potential risk of water contamination	<input type="checkbox"/> Yes (_____) <input type="checkbox"/> No
Remarks/ Notes: Observation points/Significance/Possible action and follow-ups etc.		

Sanitation and Hygiene			
2-6	Shortage of functional latrine or toilet (20 persons/toilet)	<input type="checkbox"/> Yes	<input type="checkbox"/> No
2-7	Problem with garbage/waste	<input type="checkbox"/> Yes	<input type="checkbox"/> No
2-8	Stagnate water in the area	<input type="checkbox"/> Yes	<input type="checkbox"/> No
2-9	Vector problem (e.g. mosquitoes, dogs, snakes)	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Remarks/ Notes: Observation points/Significance/Possible action and follow-ups etc.			
Food Security and Nutrition			
2-10	Number of population required food	_____ (#)	
2-11	Any food assistance since the event	<input type="checkbox"/> Yes (go to 2-12, 13)	<input type="checkbox"/> No (go to 2-13)
2-12	For how long provided food sufficient	<input type="checkbox"/> days_____	<input type="checkbox"/> weeks_____
2-13	What kinds of food available or provided	<input type="checkbox"/> Rice, Wheat, Noodle, etc. (Carbohydrate) <input type="checkbox"/> Chicken, Other Meat, Fish, Eggs, etc. (Protein) <input type="checkbox"/> Cooking oil, Other fats, etc. (Fats) <input type="checkbox"/> Fruits, Vegetables (Vitamin, Fiber) <input type="checkbox"/> Complementary food <input type="checkbox"/> Other _____ <input type="checkbox"/> No food stocks	
2-14	Food and Nutrition	<input type="checkbox"/> Adequate ➤ (e.g.) People eating 3 meals a day. Babies get enough milk.	
		<input type="checkbox"/> Not adequate ➤ (e.g.) People eating smaller meals since the event. People eating fewer meals a day. People eating limited varieties of foods.	
2-15	Obvious signs of undernutrition in children aged 6-59 months	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Remarks/ Notes: Observation points/Significance/Possible action and follow-ups etc.			

3		Health Facilities and Services		
Type of Facility *Pls. write the type of facility where necessary. (Name of Facility)		Hospital *	Primary Care Unit (e.g.) *	Other *
		()	()	()
3-1. Impact on Health Facilities		<input type="checkbox"/> Functioning <input type="checkbox"/> Partially functioning <input type="checkbox"/> Not functioning	<input type="checkbox"/> Functioning <input type="checkbox"/> Partially functioning <input type="checkbox"/> Not functioning	<input type="checkbox"/> Functioning <input type="checkbox"/> Partially functioning <input type="checkbox"/> Not functioning
3-2. Is the health facility accessible?		<input type="checkbox"/> Yes, by what means? () <input type="checkbox"/> No	<input type="checkbox"/> Yes, by what means? () <input type="checkbox"/> No	<input type="checkbox"/> Yes, by what means? () <input type="checkbox"/> No
3-3. Availability of	Electricity	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Water	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Medical Gas	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Communication	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Transportation	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
3-4. Availability of	Essential Drugs	<input type="checkbox"/> Yes <input type="checkbox"/> No ()	<input type="checkbox"/> Yes <input type="checkbox"/> No ()	<input type="checkbox"/> Yes <input type="checkbox"/> No ()
	Vaccines	<input type="checkbox"/> Yes <input type="checkbox"/> No ()	<input type="checkbox"/> Yes <input type="checkbox"/> No ()	<input type="checkbox"/> Yes <input type="checkbox"/> No ()
	Medical Equipment	<input type="checkbox"/> Yes <input type="checkbox"/> No ()	<input type="checkbox"/> Yes <input type="checkbox"/> No ()	<input type="checkbox"/> Yes <input type="checkbox"/> No ()
	Medical Supplies	<input type="checkbox"/> Yes <input type="checkbox"/> No ()	<input type="checkbox"/> Yes <input type="checkbox"/> No ()	<input type="checkbox"/> Yes <input type="checkbox"/> No ()
	Other ()	<input type="checkbox"/> Yes <input type="checkbox"/> No ()	<input type="checkbox"/> Yes <input type="checkbox"/> No ()	<input type="checkbox"/> Yes <input type="checkbox"/> No ()
3-5. Health Staff Working <i>Pls. Check either (#) or (%) /or both only if possible.</i>	Doctor	_____ persons (#)	_____ persons (#)	_____ persons (#)
		<input type="checkbox"/> < 50% <input type="checkbox"/> > 50%	<input type="checkbox"/> < 50% <input type="checkbox"/> > 50%	<input type="checkbox"/> < 50% <input type="checkbox"/> > 50%
	Nurse	_____ persons (#)	_____ persons (#)	_____ persons (#)
		<input type="checkbox"/> < 50% <input type="checkbox"/> > 50%	<input type="checkbox"/> < 50% <input type="checkbox"/> > 50%	<input type="checkbox"/> < 50% <input type="checkbox"/> > 50%
	Pharmacist	_____ persons (#)	_____ persons (#)	_____ persons (#)
		<input type="checkbox"/> < 50% <input type="checkbox"/> > 50%	<input type="checkbox"/> < 50% <input type="checkbox"/> > 50%	<input type="checkbox"/> < 50% <input type="checkbox"/> > 50%
	Lab technician	_____ persons (#)	_____ persons (#)	_____ persons (#)
		<input type="checkbox"/> < 50% <input type="checkbox"/> > 50%	<input type="checkbox"/> < 50% <input type="checkbox"/> > 50%	<input type="checkbox"/> < 50% <input type="checkbox"/> > 50%
	Midwife	_____ persons (#)	_____ persons (#)	_____ persons (#)
		<input type="checkbox"/> < 50% <input type="checkbox"/> > 50%	<input type="checkbox"/> < 50% <input type="checkbox"/> > 50%	<input type="checkbox"/> < 50% <input type="checkbox"/> > 50%
Community Health Worker	_____ persons (#)	_____ persons (#)	_____ persons (#)	
	<input type="checkbox"/> < 50% <input type="checkbox"/> > 50%	<input type="checkbox"/> < 50% <input type="checkbox"/> > 50%	<input type="checkbox"/> < 50% <input type="checkbox"/> > 50%	
Remarks/Notes				

Draft Health Needs Assessment (HNA) Summary Report

1. EMT Information

EMT Information	Country / Organization:	Contact Person:
	Contact No:	Email:

2. HNA Site/Shelter Information

Date of Assessment (dd/mm/yy)		Date of Submission (dd/mm/yy)	
This HNA was done in: Pls. check the Box below & write the location of the site or shelter.			
<input type="checkbox"/> Site <input type="checkbox"/> Shelter			
Security concerns or other information if any			

3. Critical Areas for Support

Action required by other clusters (if yes, please check √ the box (es) below.)													
<input type="checkbox"/>	Health	◇	Communicable Diseases	◇	Child Health	◇	Sexual& Reproductive Health	◇	MHPSS*	◇	Non-communicable Diseases	◇	Other health issue ()
<input type="checkbox"/>	WASH**	<input type="checkbox"/>	Food Security	<input type="checkbox"/>	Nutrition	<input type="checkbox"/>	Shelter	<input type="checkbox"/>	Other ()				

*MHPSS: Mental Health and Psychological Support, **WASH: Water, Sanitation and Hygiene

4. Situation of the Site / Shelter

Cluster	Critical Problem	Action Required by Local Authority

【Remarks if any】

Regional Collaboration Tool
Guidance Note for Health Needs Assessment

1. Framework of Health Needs Assessment by EMTs

Objective of Conducting Health Needs Assessment (HNA)

To collect primary data which will identify the vital needs of the affected population and define the needs based response.

The information from HNA can be useful to mitigate the crisis impacts and take precaution for potential health risks. The relevant information can be shared with the local authority and other clusters/sectors for coordinated action

Role in Standard Operating Procedure (SOP)

One of the on-site operations described in “Emergency Response” in the draft SOP.

Primary Users

Emergency Medical Teams (EMT)

Consensus among AMS on HNA by EMTs

Although HNA by EMTs can be useful in actual operation:

- The main role of EMTs is to provide medical services so that conducting HNA is not compulsory; HNA can be one of the options for EMTs; and
- EMTs shall conduct HNA only if/when they have capacity (time, personnel and skills) and depending on the needs and decision of the local authority or the receiving country.

Intended Timing of Conducting HNA

EMTs may conduct HNA at any critical time of the disaster as required and/or requested by a local authority (e.g. PHEOC). However, it is more likely that EMTs conduct HNA after the acute phase of the disaster, as the main task of EMTs is to provide medical service to save lives in disaster affected areas.

Methodology

Primary Data Collection: The field data collected through community-level assessment.

The specific data collection techniques for Primary Data Collection are as follows.¹

- a. Direct Observation (DO): Structured (looking for) and unstructured (looking at) observation of the impact and situation of the affected community and population.
- b. Key Informant Interview (KII) (and/or Community Interview): An individual with prior knowledge of the affected community is questioned to gather key information on the impact of the disaster and on priority community needs.

Please see Annex I and II for the brief descriptions of DO and KII.

Please see Annex III for the list of supplies and equipment for the field assessment.

Suggested Contents

The contents of HNA will include the following health and public health aspects (health related clusters²).

- Health Impact and Condition of the Affected Population
- Health Facilities and Services
- WASH (Water, Sanitation and Hygiene)
- Food Security
- Nutrition
- Shelter/Living Condition

Reporting Options

The results of HNA should be presented to the local authority and other concerned parties so as to take prompt and appropriate action. The information on other clusters should be later confirmed with public health teams or concerned cluster teams, and necessary operation/action should be left to them in case there is no public health personnel in the deployed EMTs.

The following are the suggested reporting options.

Option 1. Submit the filled HNA Form (This can be an attachment to the EMT-MDS Form)

Option 2. Incorporate the collected information into the EMT-MDS Daily Reporting Form, “Needs and Risks” Part as shown below

¹ Other technique will be Community Group Discussion, an interview of a group of individuals to obtain information through group interaction.

² Clusters are groups of humanitarian organizations, both UN and non-UN, in each of the main sectors of humanitarian action, e.g. water, sanitation, hygiene (WASH), health, food security, nutrition, shelter, logistics, protection, education etc. They are designated by the Inter-Agency Standing Committee (IASC) and have clear responsibilities for coordination.

Needs and Risks								
Immediate Report	51	<input type="checkbox"/>	Unexpected death	Risks	59	<input type="checkbox"/>	Shelter/Non food Item	
	52	<input type="checkbox"/>	National mandatory reporting diseases		60	<input type="checkbox"/>	Food security	
	53	<input type="checkbox"/>	Critical / security incident to community		Operational Constrain	61	<input type="checkbox"/>	Logistics /Operational support
	54	<input type="checkbox"/>	Critical incident to EMT			62	<input type="checkbox"/>	Supply
Risks	55	<input type="checkbox"/>	Any other issue	63		<input type="checkbox"/>	Human resources	
	56	<input type="checkbox"/>	WASH	64		<input type="checkbox"/>	Finance	
	57	<input type="checkbox"/>	Community/rumor based infectious diseases	65	<input type="checkbox"/>	Others		
	58	<input type="checkbox"/>	Environmental risk or exposure					
Detailed Comment for (No.)								
Detailed Comment for (No.)								
Detailed Comment for (No.)								

“EMT-MDS Daily Reporting Form (Ver0.94)”

Option 3. A revised draft HNA Summary Format will be tested in the 3rd Regional Collaboration Drill.

Option 4. If a local authority has an existing reporting format, EMTs may also utilize it.

Submission of HNA Summary Report

The EMT will submit a HNA Summary Report to EMTCC/PHEOC/MOH of the area of operation.

2. Interpretation of Some of the Terms

① A Draft HNA Form

Overall

-Additional information from each question can be reflected in the remarks/notes section under each set of questions.

-In the collection of data for specific questions, the interviewees (key informants) may be identified and noted down where required.

Page1

✓ **Site Information**

Since the administrative divisions vary country to country, replace the terms with ones most suitable in the local setting.

✓ **Access and Security**

“I” Any other security concerns

Examples can be the existence of hazardous objects and unexclusive ordinance, a tension among the population, environmental destruction (e.g., landslides) etc.

Page3

2. Public Health

✓ **Water**

2-1 Main sources of water for drinking

List of the sources for drinking water

- Piped water
- Public tap/standpipe
- Water well/ borehole (A borehole is a long, narrow well drilled to access underground water. The borehole is covered with a hand-pump to prevent contamination and to ease access.)
- Dug well (If a dug wells are open and unprotected, they can become very contaminated from spilt water, animal excreta and objects thrown into the well, posing a major risk to public health.)
- Spring
- Rainwater collection
- Bottled water
- Vendor-provided water
- Tanker truck water
- Surface water (river, stream, dam, lake, pond, canal, irrigation channel)

Sources: UNICEF, Projectacwa,

Basic Survival Water Use

Survival needs: Water intake (drinking and food)	2.5-3 litres per day	Depending on the climate and individual physiology
Basic hygiene practices	2-6 litres per day	Depending on social and cultural norms
Basic cooking needs	3-6 litres per day	Depending on food type and social and cultural norms
Total basic water needs	7.5-15 litres per day	

Source: The Sphere Project, p98

Page 4✓ **Sanitation and Hygiene****2-7 Problem with garbage/waste**

All waste generated by populations living in the settlements is removed from the immediate living environment on a daily basis. If waste is to be buried on-site, it should be covered daily with a thin layer of earth to prevent it attracting vectors such as flies and rodents.

2-8 Stagnant water in the area

Stagnant water provides a better incubator than running water for many kinds of bacteria and parasites and can become a breeding ground for the mosquitoes.

✓ **Food Security and Nutrition****2-13 What kinds of food available or provided**

The food items listed here can be replaced with ones most suitable to the local context.

2-14 Food and Nutrition

Assess the changes in frequency, quantity and quality of meals compared to the situation before disaster.

2-15 Obvious signs of undernutrition in children aged 6-59 months

The most widely accepted practice is to assess malnutrition levels in children aged 6-59 months as a proxy for the population as a whole.

Page 5**3. Health Facilities and Services**

For Type of Facility, please write appropriate name of the facility according to the country context.

3-5. Health Staff Working

Either the number or % of staff working can be filled out. Where possible, both the number and % can be filled out.

② A Draft Summary Report

Page2

3. Critical Areas for Support

On completion of the HNA, check the boxes of the Clusters in which action or furtherer assessment by concerned local authorities and/or agencies are required. For the Health Cluster, also check the sub-sectors as necessary. (i.e., Communicable Diseases; Child Health, Sexual & Reproductive Health, MHPSS-Mental Health and Psychological Support, Non-communicable Diseases and Other) .

Annexes

Annex I: Direct Observation Guidance Note

Annex II: Key Informant Interview Guidance Note

Annex III: Checklist of Supplies and Equipment for the Field Assessment

Guidance Note of Direct Observation

**This is a general description of the Direct Observation.*

1. Brief Description of Direct Observation

Direct observation (DO) is a process of observing objects, people, events and relationships. Observation provides immediate information on water points, health facilities and other infrastructure such as public services and sanitation systems. It can be an easy means of gathering data on people's physical condition, activities and economic circumstances, power relationships within the community as well as coping mechanisms and access to aid. Direct observation can be done individually or with community members.

DO is used throughout the assessment process. It includes "structured (looking for) and unstructured (looking at) observation (sounds, smells, visual impression, taste and touch)." It is the fastest way to gather data in the immediate aftermath of an emergency, although it must be complemented by and verified against secondary data and local knowledge. It can be carried out in three ways: on foot, in ground vehicles, or by aerial observation. If possible, pre-crisis baselines should be established in order to ensure that observational analysis does not confuse acute and chronic problems.

Observation is a continuous process. However, certain points should be recorded systematically. These observations should be used to validate information obtained from other sources, for instance finding that what people say may be different from what they do. DO should pay additional attention to risks to impact affected communities. Observation can also provide new areas of investigation and sources of information (e.g. help identify key informants and how they interact with the community).

2. Strengths and Limitations

As explained, direct observation is a quick and cost-effective data collection method in an emergency. It helps to frame future discussions and cross-check people's answers in case of inconsistency between what you see and what you are told during interviews. However, as a data collection technique, it only provides a snapshot of the situation and has therefore limited use when the crisis evolves rapidly. Similarly, it provides only partial information about community's capacities and priorities. Finally, while it does not require specific training, some preparation is necessary to ensure that the observers are aware that their own perceptions and expectations are subjective and have an impact upon how they report and interpret their observations.

3. Process and Basic Principles of Direct Observation

The following is the process and basic principles of conducting DO.

STEP1: Decide what areas you are going to focus your observations on

While the team should always be carrying out informal observation, make a list of things to look for specifically.

STEP 2: Assign tasks

Make sure that all members of the team are assigned to observe certain things, although all members should be observing all aspects as well. By assigning specific areas to different team members, the team will ensure that all aspects are covered.

STEP 3: Start observation

The observer explains why they want to observe people at the site, asks permission from the people living there, and explains how the information collected will be used. A respectful entry to the affected area will aid in securing access and cooperation. Invite people living at the site to join the observation. Ask them questions about what you observe on the way and why things are as they are.

It is important to observe and detect conditions and particular features of the affected area from a range of viewpoints and places in order to get a representative view of the site, including an overall impression of the urgency of the situation. Look at what is there, what is not there and what should be. Depending on the security situation, walking across the site along a transect that does not follow existing lines such as roads or paths will provide a cross section of points for observation and provide a balanced view of conditions. Household visits should also be included if necessary.

Observation can be done on the area, demography, infrastructure, health, sanitation, water and other essential services, daily activities, visible vulnerabilities and capacities of the affected population etc. (For EMTs, observation may be focused more on health related aspects.). Key sites for observation include water collection points, markets, food distribution queues, latrines, communal showers, storage facilities, grave sites, and drug stocks in health facilities. If feasible, compare the observation with the key informant interviews as much as possible.

STEP 4: Record the data and review the progress

The team should be constantly observing, whether in a structured way or informally, and always take notes as details as possible. This will help the team to remember the context and increase the validity of the observation.

The team should aim to meet up at least once during the fieldwork at each site, to review progress and decide which parts of the checklist or which sources of information still need attention before leaving the site, so as to avoid gaps in essential data or avoidable uncertainty about important points. The team will probably not be completely effective during the first site visit. There are likely to be a number of problems such as the time allocations at the site, roles and responsibilities within the team, assessment methods etc. that should be addressed before moving on to the next location. After every successive site visit, there should always be a rapid team meeting to review progress and ensure the most effective use of precious time in the field.

Step 5: Debrief and summarize the information

Finally, a debriefing with all team members should be organized to tally up observations and pull together the final conclusions, as a first level analysis. Areas where team observations and population responses do not match can be highlighted so that discrepancies can be analyzed and triangulation needs identified.

At the end of the day, all notes should be put in a clean and concise format. This should be done by each individual so that the entire group will be able to understand the observations made during the data systematization. Careful recording and systematization of the information will contribute significantly to proper verification of the information by the community.

4. Aspects and Points of Observation

The following checklist helps to pick up visual clues. This is an overall list of observation, not limiting to health and health related aspects.

■ General area observations

- Terrain (dessert, mountain, etc.)
- Ground cover (grassy, sandy, barren, etc.)
- Presence of surface water (lakes, rivers)
- Status of local crops and vegetation
- Green spaces and playgrounds
- Road types and conditions, road blocks, amount of traffic
- Signs of flooding, environmental degradation, etc.
- Signs of fighting, landmines

■ Affected area observations

- Layout and organization (esp. living areas)
- Size and possibility for expansion
- Density (crowding)
- Population movements
- Geographic location (on hill, in valley, etc.)
- Air condition (too cold/too hot)
- Markets
- Religion – churches, mosques, temples, etc.
- Location of health facilities
- Water sources and sanitation
- Condition of electricity supply
- Condition of roads both at present and in rain
- Overall cleanliness
- Signs of gardens (crops) and animals (in field or roaming loose)
- Level of relief agency activity (e.g., people working, presence of relief supplies, trucks, etc.)

■ Location observations

Visualize the information by a rough drawing of a map.

- Proximity to: any important site (e.g. border, main road, port, river)
- Towns/villages

- Roads/railways
- Surface water (lakes, rivers)
- Affected population observations
 - Overall condition (healthy, active, obviously malnourished, etc.)
 - Friendliness/hostility/fear/depression
 - Presence and appearance of children less than 5 years (skinny/oedema/normal)
 - Presence and appearance of pregnant and lactating women
 - Presence of elderly
 - Appearance of wounded / traumatized
- Detailed observations per sector
 - Shelter: type, materials, number of shelter and number of homeless or other affected population displacement patterns
 - Water: source, distance, quality and quantity, queuing, storage, spillage
 - Sanitation and Hygiene: number, type and usage of defecation facilities, cleanliness, drainage and stagnant water, refuse disposal, availability of running water, functionality and type, washing facilities, soap availability and usage, vectors (flies, mosquitoes and rodents)
 - Food and Food Security: presence of food stock at household level, malnourishment, markets, food distributions
 - Health Services: number and types of facilities and level of functioning, number of patients waiting, staff presence, drug stocks
 - Logistics and Security: condition of roads, transport, communication means, power supply, number, size and condition of warehouses, conditions of storage (pallets, temperature, etc.), supplies on hand, evidence of pests, security (guards, fences, lightening) and record keeping.

Guidance Note of Key Informant Interview

1. Brief Description of Key Informant Interview

In addition to direct observation, Key Informant interview (KII) is a commonly used data collection technique for rapid or initial assessments. A KII is one where an individual with prior knowledge of the affected community is questioned to gather key information on the impact of the disaster and on priority community needs. KIIs can provide information about a community in a fairly short period of time and without a large number of people needing to be interviewed. It is important to carefully select informants so as to minimize bias in the assessment results. When time allows, more individual interviews should be conducted to get a range of opinions. Furthermore, cross-checking is necessary and should include a few interviews with members of vulnerable groups, wherever possible.

2. Strengths and Limitations

KIIs can be organized quickly and carried out with few resources. They have particular value in gaining a perspective of the impact of the disaster on a community where access to affected populations has been compromised or is difficult. They also provide a holistic and qualitative overview of the impact of a disaster on community members. The greatest limitation of a KI interview is that it provides a subjective perspective on the impact of a disaster. As with all individual responses, information will have both an individual and a cultural bias which needs to be considered when analyzing KII responses.

3. Process and Basic Principles of Key Informant Interview

Step1: Before the assessment

Plan the field data collection carefully. It is important for the team to inform the authorities of the assessment itinerary and bring credential letters to the assessment locations which explain the assessment objectives. Team members should be briefed on and understand the objectives, methodology and principles of the rapid assessment and the possible interventions that could be implemented as a result of it. Upon arrival in a location, the team should meet with community leaders to explain the visit and assessment methodology and request the leaders' support. Where there are no such obvious starting points, contacts with people in the street or in/around the administrative place can help identify people knowledgeable on the community situation

Step2: During the assessment

Selection of Key Informants (KIs)

The number of key informants (KIs) selected per site will depend on the range of issues about which each one has expertise/perspective. KIs must be selected to cover population profiles and figures/trends, security/access, protection, as well as water, environment and sanitation, food security/nutrition, shelter and health. When identifying KIs, remember to arrange interviews with individuals of different genders, ages, and religious and/or ethnic minorities to ensure a full picture of the affected community. Traditionally, KIs are religious or community leaders, or representatives of community-based organizations. Other KIs at each site would normally include health workers, teachers, community development workers, relief workers, traders and NGO program managers. All are likely to be sources of important information. Regular citizens can also be valuable KIs because they can share their representative and personal experience. For example, a young female household head may be able to highlight priority needs from the perspective of a mother.

Key Informants Checklist

- government officials / authorities
- embassies / donors
- UN Agency like UNHCR, UNICEF
- director of health, representative of Ministry of Health, health workers
- WFP and/or food distributors / relief agency
- administrator / senior relief officer
- representative humanitarian agency
- police/army/fire service/rescue services
- representatives of community (formal and informal leaders/members)
- village elders
- religious leaders
- doctors/nurses
- traditional birth attendants (TBAs)
- evacuation center focal point
- teachers, etc.

Conducting Interviews

After selecting KIs, give them an introduction to make sure that they understand the objectives of the interview and get their informed consent. Arrange place and time convenient for KIs.

The introduction includes:

- The survey objectives
- The estimated duration of the interview (no longer than 50 min)

- What the respondent can expect from the interview (compensation etc.)
- Information on how the survey results will be used and how the respondent can access the findings
- Confidentiality of the interview
- Informed consent:
 - All respondents know how the information will be used, why it is being collected, and by whom.
 - All are guaranteed that their participation will not jeopardize their safety or security.

All team members should convey a sense of empathy and respect. Good eye contact, confidence, and an approachable demeanor are all ways to achieve a positive interview experience. Express interest in the respondent's answers and be an active listener while remaining patient if/when an interviewee is having a difficult time answering questions. Start the interview with general questions about the situation and allow the interviewee to raise issues of concern to them before guiding the conversation to the subjects of interest to the assessment team. Be flexible and allow a natural flow of the discussion. Pausing allows respondents to think more about the questions. Take notes throughout the interview.

Combine interviews with observation to verify information and correct inconsistencies. Consider the needs of different groups and individuals, seek out marginalized groups and ensure their interests are taken into account. However, do not ask questions that may stigmatize people or endanger them and be careful not to raise unrealistic expectations of aid. Do not interpret, correct, argue, discuss, or judge respondents. When an interview does not yield the overall perspective needed, politely bring the discussion to an end, thank the interviewees for their time, and seek other KIs to talk with. Do not limit information to one KI's response. Triangulate by asking other KIs until you are confident that there is consensus on this point. At the end, make sure you summarize and feedback the most important points. Do not prevent KIs from asking you questions at the end of the interview. Finish with an informal chat and thank your respondent.

STEP3: After the assessment

Record metadata (such as date, location of interview, social role of interviewee, group represented by the interviewee, etc.) for each KI, as this information will be used in the interpretation of the data. As with direct observation, a debriefing should be organized to give team members the opportunity to discuss the strengths and weaknesses of the interviews and the interview process and compare findings, views and impressions. The team leader should gather observational information, anecdotes, or concerns not captured in the data collection form. Consider the reliability of the key informants as well as the team bias. All of this information should be considered and included in the final report.

Annex III

(Suggested) Checklist of Supplies and Equipment for the Field Assessment

The field assessment teams (EMTs) require appropriate logistics, administrative planning and support to complete the job properly and safely. The following is a suggested checklist with supplies and equipment the team may need while carrying out primary data collection in the field.

	No	✓	Note
Team Supplies			
Name tag, badge, or an identification/authorization from the local or health department etc.			
Visibility material (t-shirts, flags, stickers)			
Backpack			
First aid kit, Hand sanitizer			
Radio and/or satellite phone			
Cell phones and chargers, SIM card, phone credits			
Flashlights (torches)			
Camera			
Compass/GPS unit/area maps (plastic, if available)			
Laptop computer (if security conditions permit and power is available)			
Spare batteries and chargers for all devices			
Fuel			
Water and food (snacks), if supplies may be difficult to obtain in the areas to be visited			
Mosquito nets and/or repellants, if needed			
Internet sticks, backup storage devices			
List of contacts			
Items for Each Team Member's Use for Data Entry			
Phone/smartphone+applications (if applicable)			
Clipboard			
Paper			
Notebooks/notepads			
Calculator			
Pens, pencils and pencil sharpeners			
Erasers			
Stapler and pins			
Ruler			
Items for Community level Interviews			
Sufficient copies of:			
Key informant interview guide and HNA form			
Observation (transect walk) guide and checklist			

Reference Materials

- The ASEAN - Emergency Response and Assessment Team (ERAT) Guideline
- Multi-Cluster/Sector Initial Rapid Assessment (MIRA) - the United Nations Disaster Assessment and Coordination (UNDAC)
- Initial Rapid Assessment (IRA) materials by Inter-Agency Standing Committee-IASC
- Initial rapid multi-sectoral assessment materials of International Federation of Red Cross and Red Crescent Societies
- Assessment materials by the Assessment Capacities Project (ACAPS), Medecins Sans Frontieres (MSF) and others
- Community Assessment for Public Health Emergency Response (CASPER) Toolkit –Second Edition (Centers for Disease Control and Prevention National Center for Environmental Health Environmental Hazards and Health Effects Health Studies Branch)
- Rapid Health Assessment Form (Indonesia)
- Regional Rapid Health Assessment (Health Emergency Management Bureau, Republic of the Philippines Department of Health)
- The Sphere Project, Humanitarian Charter Minimum Standards in Humanitarian Response (2011)

添付資料 12 :

モニタリング調査全回答

Summary of Project Review Survey Result for ARCH Project



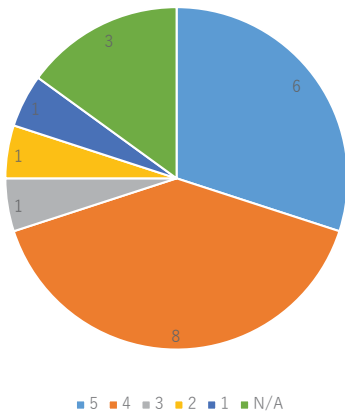
Outline of Survey

Tally: 14 answers from 10 countries

Components:

- ① Evaluation of progress & Activities
- ② Question about your country's situation
- ③ Request to the project

Assessment for achievement on project's goal "Regional coordination on disaster health management is strengthened in ASEAN."

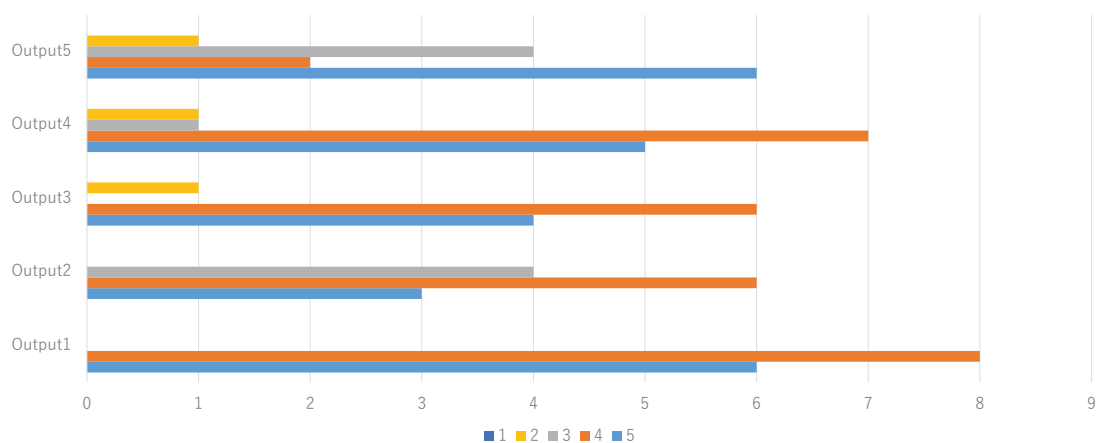


【Phillipines/4】 With the development of the standard operating procedures on disaster health management and the several trainings conducted under the ARCH Project, coordination among the ASEAN Member States (AMS) was improved with a guideline that will be followed by the AMS. The camaraderie among the key officials and representatives of the ASEAN Member States was strengthened through the several drills they participated. A lot became friends making coordination easy. Further improvement can be achieved through sustaining interventions such as the conduct of regular drills and the conduct of AMS training and other capability development activities on different technical and operational areas. There is also a need to ensure implementation of the agreed collaboration platforms.

【Vietnam/5】

1. Understand better the health sectors among ASEAM countries and could be able to help each other.
2. Develop the SOP for ASEAN countries which could be used for the situation.
3. Improve the quality of EMT to respond to disaster management locally and standard the I-EMT for ASEAN countries.
4. Improve the ability to offer the assistance to health disaster management.

Evaluation of Outputs



Comments:Output1: Coordination platform on disaster health management is set up.

- The organization of the Regional Coordination Committee became an instrumental platform among the AMS to discuss disaster health management. Most of the representatives of the AMS to the Regional Coordination Committee are permanent, and therefore there is continuity in the discussion. (Philippines/4)
- Need to be enhanced about coordination among EMT and other health sub cluster team i.e public health, nutritionist, mental health, reproductive health etc(Indonesia/4)
- Because the Regional coordination meetings are organized every year could share the progress and discuss the direction of the Project. It's a good chance to check over the problems and to revise the plans accordingly(Vietnam)
- The platform exists but when real emergency occurred for the past year, The affected countries still did not activate or request support through the platform.(Thai/4)

Comments: Output2: Framework of regional collaboration practices is developed.

- AMS never had chance to practice in actual disaster(Malaysia/3)
- Need a bit more work on the operational details(Singapore/4)
- Need more clarification about collaboration framework among AHA Centre, WHO SEARO, WHO WPRO(Indonesia/4)
- The three (3) sub-outputs were achieved as scheduled, except for Sub-Output No. 4 for a possible on-site practice where disaster occurs in ASEAN. The conduct of AMS Training provided opportunities for sharing of country lessons, experiences and practices. (Phillipines/4)
- Experience learning from each drill. Some limitations are still presents(Vietnam/3)
- Only regional Drills were conducted and framework is not established yet(Mynmar/3)

Comments:Output3 : Tools for effective regional collaboration on disaster health management are developed.

- The tools were developed by the Project Working Groups and tested in three drills (including the start-up drill. However, there is a need to continually review and update the tools developed, maintain and update the database, and standardize the other tools across AMS like the use of SASOP forms vis-a-vie EMT forms.(Philippines/4)
- Still have some limitation and not fully agreement aspects: health need assessment, data analyzing, …(Vietnam/2)
- For Asean level, should be officially endorsed by related organization.(Thai/4)

Comment:Output4 : Academic network on disaster health management in AMS is enhanced.

- The recommended training institute may be the platform for interaction(Singapore/3)
- academic networking should be maintained and conduct regular update(Indonesia/4)
- …There is a need to further study how the operationalization of an ASEAN Disaster Health Management Center can promote the established academic network. (Philippines/4)
- Because the present outcomes of the Project activities at academic conferences such as JADM, APCDM and WADEM were conducted successfully(Vietnam/5)
- Need to be more developed (Vietnam/4)
- Much stronger network both national and international(Thai5)

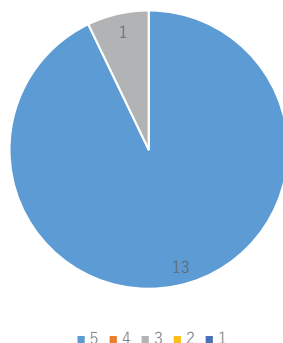
Comment:Output5:Capacity development activities for each AMS are implemented.

- Experience from each other in AMS(Cambodia/5)
- capacity development activity should meet each AMS need, which may be different between AMS(Indonesia/4)
- Aside from drills and training, other capacity development activities must be initiated like on the job exposure, exchange scholars, and webinars. (Philippines/4)
- Because we have conducted the following activities :
 - /Training plan, curriculum and materials on disaster health management and emergency medical system based on needs survey with the project working group
 - /Training on disaster health management and emergency medical service for AMS
 - / Monitoring survey and evaluating on capacity development on disaster health management in each AMS
 - /A study tour in Japan for AMS
 - /Training program in Japan for the Thai counterpart personnel(Vietnam/5)
- More academic activities and workshop using knowledge from ARCH project(Thai/5)

Evaluation of Activities:

Output1: Coordination platform on disaster health management is set up 1-1.Regional coordination meetings are organized every year to share the progress and discuss the direction of the Project.

RCC worked as Regional coordination platform.

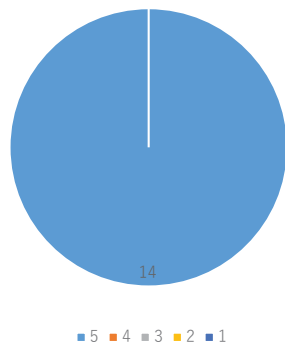


- To seek the solution(C/5)
- still need to be endorsed by SOMHD(I/3)
- The composition of the RCC, with senior officials and staff, served as a good platform to discuss concerns related to disaster health management. Also, the agenda and level of discussions set forth the coordination among AMS on key issues and concerns. (P/5)
- Because the RCC has the responsibility to inspect, evaluate, contact the among ASEAN countries together and planned activities, helping each other.(V/5)
- Regional coordination meetings are organized every year(My/5)
- we are develop but it not complete(L/5)

Evaluation of Activities:

Output1: Coordination platform on disaster health management is set up
1-1. Regional coordination meetings are organized every year to share the progress and discuss the direction of the Project.

Regional Coordination Meeting encouraged active discussion and helped to adjust AMS's opinion.

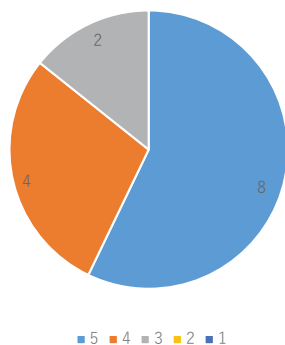


- To seek the solution(C/5)
- all the member states are attended and discuss their experiences.(My/5)
- The discussions during RCC meetings works under the spirit of camaraderie and solidarity, ensuring that all the opinions of the AMS are taken into consideration, and are given importance. Each representative of the AMS are open to the comments, insights and opinions of the other AMS. The agreements and higher level of consultations and decisions from PWGs meetings are attained through the RCC meetings. (P/5)
- Yes, from the open and active discussion, we understand each other better. Due to the countries have the differences of culture, policy, mechanism ...and health sector system, it helps us to work together and to share the opinion, then we could adjust the plan and activities of AMS accordingly.(V/5)

Evaluation of Activities:

Output2: Framework of regional collaboration practices is developed.
2-2 Conduct the regional collaboration drill every year in AMS

Your country's response capability on disaster has improved by participating Regional Coordination drill.



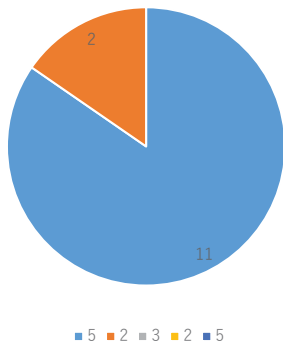
- Need to organize more(Ma/5)
- there is no involvement in real regional response on disaster during this project(I/3)
- The Philippines does not have experience on actual international response operations yet after the conduct of the Regional Collaboration Drills. However the learnings from the Regional Collaboration Drills contributes in the preparation of the Philippines in hosting the INSARAG Exercise last June 2018, and to the 3rd Regional Collaboration Drill in December 2018. The country's participation to the drill led to the identification of country's strengths and areas for improvement. (P/5)
- Yes, because from this activity we have learned from the experts of countries which have experienced on disaster management such as Japan, Indonesia ...Also it's really a good opportunity for us to share the situation on health disaster management in Vietnam, to know where we are, to learn the SOP of health disaster management, the forms ...and then we could be able to revise our plan on health disaster management in real situation as well. (V/5)
- my country's response capability on disaster has more improved after participation on Regional Coordination drill(My/4)
- We still need more engagement or more recognition from Sub national area.(T/4)
- yes we learn from practicing to develop our technique(L/5)

Evaluation of Activities:

Output2: Framework of regional collaboration practices is developed.

2-2 Conduct the regional collaboration drill every year in AMS

The drills helped to enrich understanding of SOP.



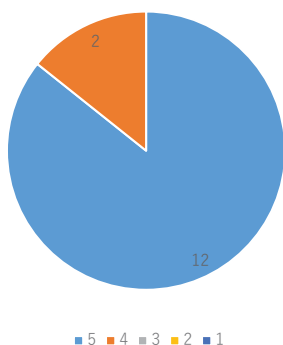
- In general, the conduct of the drill helped to better understand the SOP. However, there are components of the SOP that needs to be further tested like the acceptance, registration and demobilization of assistance. The customs, immigration and quarantine process needs to be tested too. It will help if the AMS will have a clear understanding of the different types of EMTs based on the WHO Blue Book, and the coordination mechanism through the EMTCC. (P4)
- Yes because the experiences we learned from drills, especially the SOP which could be implemented in real situation. We should try it and revise if necessary before implementing. SOP is really helpful and guides us to collaborate with other countries(V5)

Evaluation of Activities:

Output2: Framework of regional collaboration practices is developed.

2-2 Conduct the regional collaboration drill every year in AMS

Participating drill enabled to collaborate with AMS.

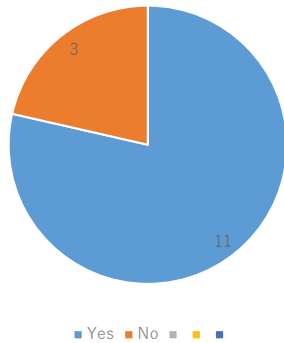


- need to tested in real disaster(I4)
- The collaboration is more on the assisting AMS with the affected AMS. The coordination among the assisting AMS is seen more during the coordination meetings. The drill tested AMS team's ability to collaborate given the scenario. (P5)
- Yes because this way to understand each other better and we could revise our mechanism/policy more suitable to the SOP of ASEAN countries(V5)
- Drills still needs to design scenario more specifically for coordination(T4)

Evaluation of Activities:
 Output3 : Tools for effective regional collaboration on disaster health management are developed.
 3-3 Prepare databases of emergency medical teams of AMS

Your country's data was submitted to project.

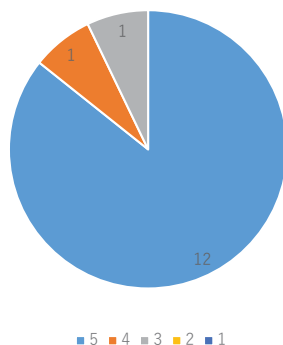
- we want to share to AMS(C-Yes)
- I don't know exactly . (My)
- Still on going discussion(I)



Evaluation of Activities:
 Output 5 Capacity development activities for each AMS are implemented.
 5-2 Conduct trainings on disaster health management and emergency medical service for AMS

Conducted trainings were beneficial for your country's capacity building on disaster health management and emergency medical service.

- Gained the new knowledge and method on disaster health management and emergency medical service(C5)
- The topics incorporated and experiences integrated were very important in enhancing the disaster risk reduction and management capacities among those trained and in feed-backing these in systems development. (P5)
- Vietnam, one of countries of ASEAN is facing with the disaster quite often happened, however, the materials and skilled staff for disaster management are not always available. Conducting training helps to build up one professional team (human resource and materials) ready to respond to the demand on disaster management)(V5)
- Because these training are based on best experiences and lesson learn from previous disasters(My5)

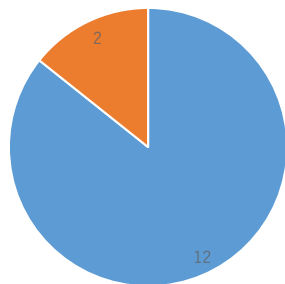


Evaluation of Activities:

Output 5 Capacity development activities for each AMS are implemented.

5-2 Conduct trainings on disaster health management and emergency medical service for AMS

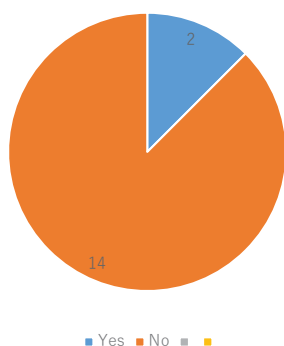
Conducted trainings strengthened ASEAN's capacity building on disaster health management and emergency medical service..



- participant should be maintain as ASEAN asset through AHA Centre(15)
- The learnings which yielded and exchange of best practices from the attendance to training generally contributed to strengthening AMS capacity building initiatives. The level at which discussions were very practical promote application as an expected follow-through. (P5)
- Due to the SOP for International disaster management among ASEAN countries is not available, different to respond immediately in case the serious disaster happened, so trainings strengthened ASEAN's capacity building on disaster health management and emergency medical service because we could follow one SOP approved by our Govt.(V5)
- Learning each other, improve coordination, networking set up(V4)

Real Disaster Response

Did your country dispatch EMT when a dam collapsed in Laos, July 2018?



Vietnam

①How was the EMT coordinated?

(Border province's Health team was formed and dispatched)

②Did knowledge you obtained from project contribute on the situation? Please write down the detail.

(Leadership and management from project to have a command from MoH to guide province nearby border to form and dispatch health team base on the 4 on-site principle)

Laos

①How was the EMT coordinated?

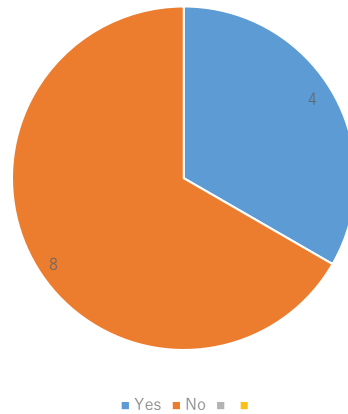
(We have the EOC in the Ministry of Health and Minister is commander to deployment EMT)

②Did knowledge you obtained from project contribute on the situation? Please write down the detail.

(Yes we apply the knowledge from the project to situation that occur)

Real Disaster Response

Has your country dispatched EMT to other countries?



Real Disaster Response

① How was the EMT coordinated?

- Coordinated with Bangladesh authorities and Malaysian embassy (Ma)
- In 2016, our country EMT dispatched EMT to other country. The coordination was influence among other member states and host countries.(My)
- Coordinated through Government to Government(My) Government-to-Government coordination.(S)
- Actually it's not clear in Vietnam. First our Steering Committee for Natural Disaster Prevention and Control get the information for responding the assistance, then they contact to other Ministries for deployment of human resources including MOH for worker staff such as EMT. The hospitals and EMT (belong the Ambulance system) could be involved not only EMT because some specialty the EMT cannot manage themselves. And finally EMT both from hospitals and Ambulance are coordinated as one team to respond the requirement.(V)

② Did knowledge you obtained from project contribute on the situation? Please write down the detail.

- Since this was a government to government arrangement, a different approach and SOP was used (Ma)
 - The main problem was the members of EMT. The EMT members were not fixed and poor organization. And then the EMT were organized exactly according to the classifications.(My)
 - Yes , Easy to contact through Government to Government , Departmental to Departmental due to project contribute(My)
 - The knowledge we obtained from project are based on real situation and lesson learn from previous disasters(My)
 - No, as the deployment was before AMS involvement in ARCH Project.(S)
 - Yes, it's really helpful
1. I learned the mechanism and procedure how to start in real situation.
 2. The urgent deployment is very important in short time and I know how to deal with.
 3. The SOP, the forms used for situation I could share with my colleagues not only for the international disaster management, also could be used national if the disaster occurred in my country.
 4. Strengthen the relationship among ASEAN countries members, also to other countries such as Japan ... (V)

To achieve outputs, what kind of extra activities do you want to add into the project?

<p>Output1 ; Coordinati on platform on disaster health managemen t is set up.</p>	<p>Regular Regional Coordination Committee meeting every year by AMS(Ma) Some of operational details still needs to be worked out(S) Including other sub cluster (public health, nutrition, mental health, reproductive health) in platform(I) Organize regional conferences, convention, fora on newer areas/ challenges of disaster health management. Need to practicing in real disaster(V) Coordination meeting and evaluation meeting at the end of year should be done yearly(My) More advertising or about the project to field operation staff, or Putting the platform to SASOP, sonwhen real emergencies, the platform will be used.(T)</p>
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To achieve outputs, what kind of extra activities do you want to add into the project?

<p>Output 2 Framework of regional collaboration practices is developed.</p>	<p>√ More Regional Drills to be conducted to perhaps tell the SOP fully. Maybe longer days and different disaster scenarios.(Brunei) Hoped that AMS affected by disaster would allow other AMS to assist and respond during actual disaster(Ma) Some of operational details still needs to be worked out(S) Regular exercise with other stakeholders in disaster management(I) Conduct of a drill that will involve the real set-up of an EMT. For example, if the team is EMT Type 1 Fixed, then the composition should be EMT Type 1 Fixed. There is also a need to include the use of VOSOCC and JOCCA. Expand areas of concerns of PWG from policies and training to information and logistics management. (P) Framework should be developed with time-bound by a well-organized team(My)</p>
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To achieve outputs, what kind of extra activities do you want to add into the project?

<p>Output 5: Capacity development activities for each AMS are implemented.</p>	<p>√ More comprehensive training programs + suggest ONLINE access? Forums / group chats?(Brunei) Capacity mapping to identify real needs of each country(I) Sharing of working organizational structure and systems. (P) Regular capacity development schedules should be set up in each country(My) Can we ask AMS participants about the possibilities of having at least one training of the subnational level each year? As the KPI to follow the progression(T)</p>
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【Questions for further cooperation】

In order to strengthen disaster health management and emergency medical service in ASEAN, what kind of activities are most necessary.

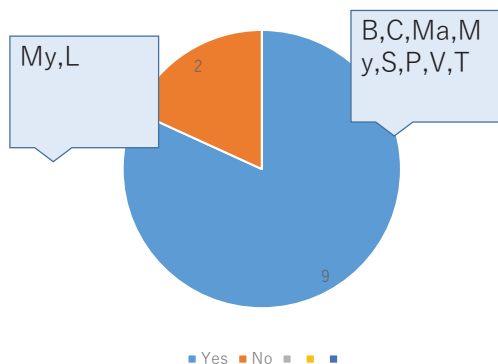
- Drills / exercises with different scenarios, Training programs specific in DHM(Brunei)
- An annual Regional Collaboration Drill should be conducted in AMS on a rotational basis.(Ma)
- Coordination and collaboration(MY)
- EMT in each country should be well- prepared and well organized and co-operated (My)
- Training workshops, drills and exercises.(S)
- Drill and evaluation post disaster(I)
- Conduct of field and tabletop exercises. (P)
- Regular exercise(V)
- EMT in each country should be well- prepared and well organized and co-operated(My)
- Advocacy and promotion activities (P)
- Should include in the declaration of ASEAN countries and updated/revised during the SUMMIT meeting annually (V)
- More Regional drills, more scientific conference, ASEAN association of disaster medicine, ASEAN training center for disaster health management(V)
- Government commitment(T)
- The Drill are most necessary (L)

What is burden or/and obstacle for ASEAN to realize "Regional coordination on disaster health management is strengthened in ASEAN?"

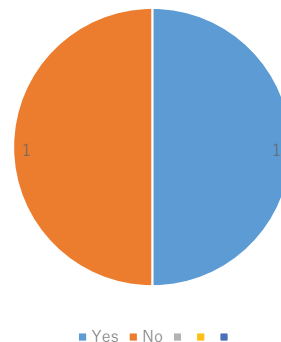
- **Government approval** and **financial constraints**(Brunei)
- Human resource, Equipment, and **financing**(Cambodia)
- Resources pooling and Financial Limitations(My)
- Different level of preparedness and capability between each AMS.(Ma)
- **Financial support**.(Ma)
- **Bureaucracy**.(S)
- Diversity of the background of each countries(T)
- Too many stake holders and coordination bodies(I)
- Possible burden/obstacle for ASEAN to realize Regional Coordination is an in-country policy which is not aligned with the SOP developed. A way around this is for AMS to review existing in-country policies and have the Protocol approved by senior leaders of the AMS. (P)
- Differences in policies and priorities(P)
- Low level of administrative/management support(P)
- Language barriers ,Culture,Mechanism / polices ,Health sectors are different (V)
- Management mechanism among each AMS(V)
- Gaps and different on economic development, Health care system, interested cooperation, **cost**(V)
- The coordination to be improve organization and contact information (L)

About Drill

Has your country ever conducted emergency medical drill before?



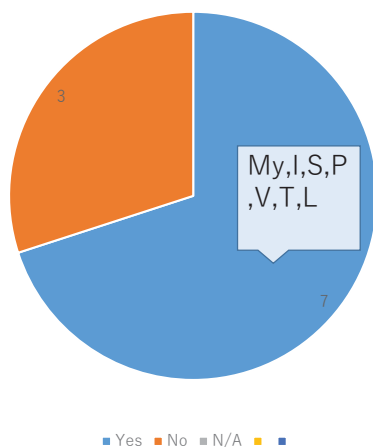
(If you chose "No",) Would you like to conduct drill in your country if you can get support from ARCH project?



What kind of operation do you want to practice on the drill in your country? Please check the activities you want to try.

Work of Emergency Operation Centre	8
Organizing EMTCC	3
Cooperation with AHA Centre	4
Operation for hosting and cooperating I-EMT	5
Collaboration of N-EMT and I-EMT	6
Others	Use of VOSOCC and JOCCA (P)

By following SOP for I-EMT, your country will be able to dispatch EMT to ASEAN member countries when disaster occurred.

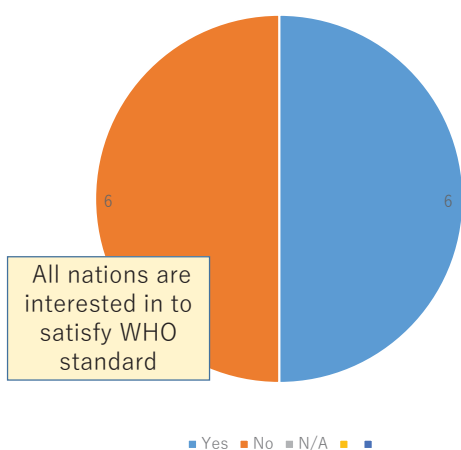


Yes, however there is a need to streamline processes and coordination with ASEAN Committee on Disaster Management (ACDM), ASEAN Center for Military Medicine (ACMM), and other regional collaboration platforms.(S)

If you chose “No”, what are the main obstacles to do that.

Our country does not own EMT.	
There is no system to send EMT abroad.	2
It is difficult for our EMT to fulfill the WHO standard in near future.	2
There is few members who registered on EMT.	1
Shortage of training for EMT members.	1
The number of medical practitioner in not enough who is capable of working in foreign countries.	2
Shortage of logistical support staff.	2
It is required transportation to send I-EMT.	
Limited medical equipment and medicines for EMT.	1
Others	

【EMT】
Are you planning to take a test for WHO Global Classification?



When are you taking the test?

tentatively end of 2019(My)

Next year(I)

Done with Step 1 on the mentor program consultative site visit, and step 2 on the mentor team support development of organization and their preparation of minimum standards evidence package. Preparing for step 3 on the verification peer review team and conduct of site visit. Also, ongoing is the finalization of the draft Philippine EMT Operation Guide. (P)

Depending on our Minister(V)

2019(T)

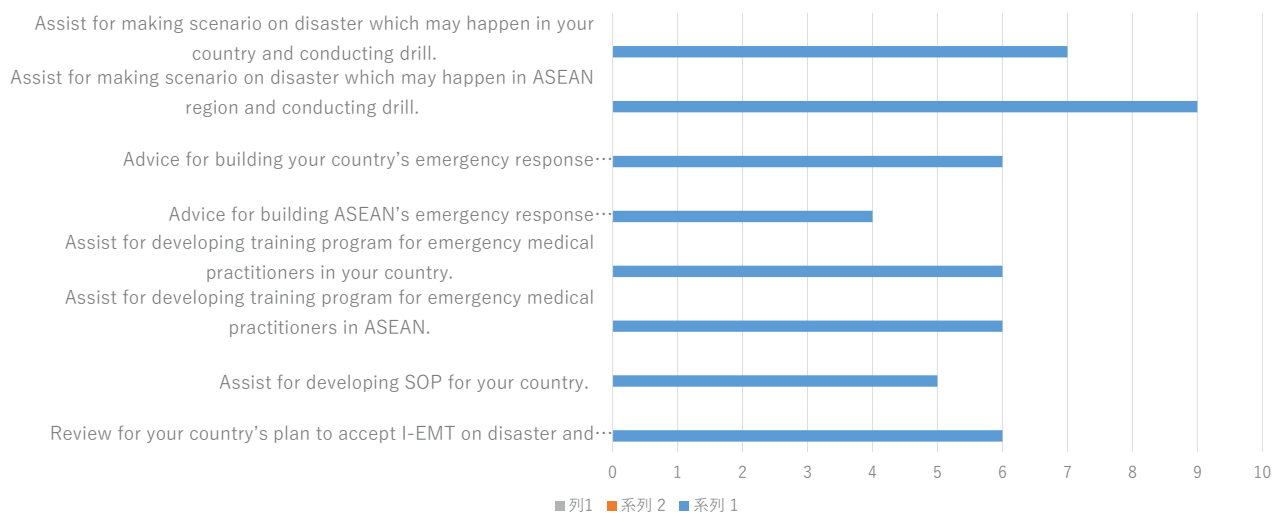
in next year 2019(L)

Type1 fix	Type2
7 (My,P,V)	3 (P,V)
1 Type1 mobile(Thai)	

To achieve ALD (attachment2) , what kind of activities will your country work on?

- Work on DHM capacity development in our country(Brunei)
- Need to discuss further with MOH higher officials on ways to achieve the targets set out in ALD. (Ma)
- We will participate in initiatives as recommended in ALD.(S)
- 1. Maintain participation on each activities(I)
- 2. Conduct regular consultation with relevant stakeholders(I)
 - Support in the conduct of drills and exercises.
 - Sustain capacity development activities.
 - Continue establishing linkage with AMS.
 - Test AMS Materials and Tools for country applicability. (P)
- Strengthening and enhancing of the regional collaborative frameworks on disaster health management
- Increase dialogue and communication platform among the ASEAN Member States and stakeholders to forge greater collaboration
- Integration of disaster health management framework/concepts into national and sub-national legal and regulatory framework
- Promote investment to improve and develop critical health facilities and infrastructure at national level.
- Facilitate the development of regional collaboration on disaster health management.
- Collaborate with relevant ASEAN Sectorial bodies both in health and non-health sector and other international organization.(V)
- Cordination and Commander on site(V)
- To achieve ALD, our country will participate timely and effectively to fulfill the facts in Declaration.(My)
- Preparing the exercise EMT in Central hospital, Provincial Hospital and District Hospital(L)

In order to put ALD into practice, what are you expecting to JICA?



In order to put ALD into practice, what are you expecting to JICA?

- Assist for developing SOP for your country.
 - Review for your country's plan to accept I-EMT on disaster and training for EMTCC.
 - Others: Assist in system enhancement on disaster risk reduction and management(P)
- Funding to build up the EMT standard as I-EMT including training course, materials, exchange human resources ... as well as organizing the workshop on disaster management.(V)
- - To Assist for developing training program for emergency medical practitioners in my country;
- To Assist for developing SOP for my country;
- To Review for my country's plan to accept I-EMT on disaster and training for EMTCC(L)

添付資料 13 :

各国研修ニーズと中心機関の特定にかかる質問票

Questionnaire

As of July 14, 2019

Objectives of the Study

- 1) To identify **possible educational/training institutes** which are capable to conduct domestic training programs on DHM in each ASEAN Member States (AMS)
- 2) To identify **training/competency needs** of personnel in Disaster Health Management (DHM)
- 3) To identify **needs for external supports** in case that the above institutes will organize domestic training programs on DHM
- 4) To specify AMS educational/training institutes which will be members of ASEAN academic/training centers network on DHM whose purpose is to strengthen regional and domestic capacities on DHM in collaboration with ASEAN regional disaster training center which is considered to be established in the POA on DHM

1. Current medical education system in each AMS

1.1 Please explain the steps to become doctor/nurse*

Doctor	
Nurse	
Remarks	

*【Example】Japanese case(doctor): 6 years at university →passing the National Examination for Medical Practitioners→2 years of clinical resident training at university hospitals/clinical training hospitals→ 3 years of training for specialty after completing clinical resident training →passing exam for specialized doctors →acquisition of certification for specialized doctors

1.2 Which organization manage ambulance services in your country?

1.3 Who is an ambulance crew member? (type of profession)

1.4 How is ambulance crew trained? (e.g. organizer in training, duration of training,

content)

1.5 Number of educational institutes

1) Doctor	Number of institutes	2) Nurse	Number of institutes
Postgraduate		Postgraduate	
University/College		University/College	

1.6 License

1.6.1 Is national examination for medical license conducted in your country?	Doctor: 1. Yes 2. No Nurse: 1. Yes 2. No
1.6.2 How often is license revised? (e.g. every 5 years)	Doctor: Nurse:
1.6.3 Is the license valid in other ASEAN Member States?	1. Yes 2. No
Remarks	

2. Educational institutes for emergency medicine

2.1 Is training curriculum available for doctors and nurses working for ER?	1. Yes 2. No
2.2 If yes, which institute has the training curriculum?	
2.3 How long is the training period?	
2.4 Do they obtain certification?	1. Yes 2. No
2.5 What are the main challenges in ensuring the quality of emergency medicine education in your country?	
Remarks	

3. Current education for disaster health management (DHM) for medical personnel

<p>3.1 Please click the check boxes to the followings if the training is available for medical personnel in your country.</p>	<p>3.2 If it is available, please specify which organization provide the training for each topic.</p>	
<p><input type="checkbox"/> mass casualty incident (MCI), <u>Pre-hospital</u></p> <p><input type="checkbox"/> mass casualty incident (MCI), <u>In-hospital</u></p> <p><input type="checkbox"/> chemical, biological, radiological, nuclear, explosive (CBRNE)</p> <p><input type="checkbox"/> Psychological care</p> <p><input type="checkbox"/> water, sanitation and hygiene (WASH)</p> <p><input type="checkbox"/> Public health</p> <p><input type="checkbox"/> Logistics</p> <p><input type="checkbox"/> business continuity plan (BCP)</p> <p><input type="checkbox"/> safety and security</p> <p><input type="checkbox"/> Others (pls. specify) ()</p>	<p>Name of the organization</p> <p>()</p> <p>()</p> <p>()</p> <p>()</p> <p>()</p> <p>()</p> <p>()</p> <p>()</p> <p>()</p> <p>()</p> <p>()</p> <p>()</p>	
<p>3.3 If it is available, how long is the training course?</p> <p>3.4 And how often is it conducted? (e.g. twice a year)</p>		
<p><input type="checkbox"/> mass casualty incident (MCI), <u>Pre-hospital</u></p> <p><input type="checkbox"/> mass casualty incident (MCI), <u>In-hospital</u></p> <p><input type="checkbox"/> chemical, biological, radiological, nuclear, explosive (CBRNE)</p> <p><input type="checkbox"/> Psychological care</p> <p><input type="checkbox"/> WASH</p> <p><input type="checkbox"/> Public health</p> <p><input type="checkbox"/> Logistics</p>	<p>Duration of the course</p> <p>()</p> <p>()</p> <p>()</p> <p>()</p> <p>()</p> <p>()</p> <p>()</p>	<p>Frequency</p> <p>()</p> <p>()</p> <p>()</p> <p>()</p> <p>()</p> <p>()</p> <p>()</p>

<input type="checkbox"/> business continuity plan (BCP) <input type="checkbox"/> safety and security <input type="checkbox"/> Others (pls. specify) ()	() () ()	() () ()
Remarks		
3.5 Please click the check boxes to the followings if any external training course is available in your country.	3.6 If it is available, please specify which organization provide the training for each topic	
<input type="checkbox"/> Basic disaster life support (BDLS) <input type="checkbox"/> Advanced disaster life support (ADLS) Major Incident Medical Management and Support (MIMMIS) <input type="checkbox"/> Field MIMMIS <input type="checkbox"/> Hospital MIMMIS <input type="checkbox"/> advanced trauma life support (ATLS) <input type="checkbox"/> International Trauma Life Support (ITLS) <input type="checkbox"/> Incident Command System (ICS) <input type="checkbox"/> Psychological First Aid (PFA) <input type="checkbox"/> Others (pls.specify)	Name of organization () () () () () () () () () ()	
Remarks		

4. Education and training needs for DHM/Needs for external supports

4.1 What kind of training programme does your country need most?
4.2 What type of support needed from curriculum committee* in carrying out DHM training in your country? Please specify.

*Curriculum committee is planned to be set up under ARCH Project, which is comprised of representatives from AMS.

5. Potential core educational institute(s) to conduct training courses for DHM in each AMS

5.1 Which institute(s) will be eligible to lead training activities in your country and to contribute to networking with relevant institutes in other AMS under the POA for ALD?
5.2 Please specify the reason for 5.1
5.3 Are there any academic society (e.g. Society for Acute Medicine) or NGO in your country, which provide DHM training program? If yes, please specify the names of organization(s).

6. Others

6.1 Do you think current DHM education/training in your country give special consideration to multicultural issues (e.g. culture, religion, gender) in disaster management?	1. Yes (go to 6.2) 2. No (go to 6.3)
6.2 If yes, please give an example	
6.3 If no, what should be included in DHM education in order to work in a multicultural environment?	

6.4 What are the challenges in providing training programs for DHM?

If you have any further comment about this survey please write here freely.

END

Thank you very much for your cooperation.

添付資料 14 :

プロジェクト評価報告書英文

EVALUATION REPORT
ON
THE PROJECT
FOR
STRENGTHENING REGIONAL CAPACITY ON
DISASTER HEALTH MANAGEMENT
(ARCH PROJECT)

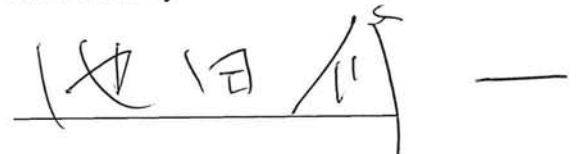
December 24, 2018

Approved by



Dr. Atchariya PANGMA
Project Director, ARCH
Secretary-General,
National Institute for Emergency Medicine,

Presented by



Shuichi IKEDA
Evaluator
JICA Chief Advisor, ARCH

1. Background of the Evaluation

The Project for Strengthening Regional Capacity on Disaster Health Management (ARCH Project) was commenced in July, 2016 as an ASEAN Regional Cooperation project approved by the Committee of Permanent Representatives to ASEAN (CPR) in Jan.2016, and has been implemented as a three-year technical cooperation project until July,2019, by Thai National Institute for Emergency Medicine(NIEM), Ministry of Public Health(MOPH), and Japan International Cooperation Agency(JICA), based on a Record of Discussions (R/D) signed in Feb.2016, which constitutes the bilateral agreement for the implementation of the project under Japan's ODA. According to Article IV of the R/D stipulated for the Evaluation, JICA's Chief Advisor, as JICA's evaluator, has conducted the evaluation in consultation and collaboration with various stakeholders of the Project and has prepared this evaluation report.

2. Outline of the Project

The outline of the Project is described in the Project Design Matrix (PDM) which is attached in the last page (Annex1) of this report. Followings are summary of the Project.

2-1 Overall Goal;

“ASEAN and Japan collaboration mechanism on disaster health management is developed.”

2-2 Project Purpose;

“Regional coordination on disaster health management is strengthened in ASEAN.”

2-3 Outputs

Output1; “Coordination platform on disaster health management is set up.”

Output2; “Framework of regional collaboration practices is developed.”

Output3; “Tools for effective regional collaboration on disaster health management are developed.”

Output4; “Academic network on disaster health management in AMS is enhanced.”

Output5; “Capacity development activities for each AMS are implemented.”

3. Objectives of the Evaluation

- (1) To verify the accomplishments of the Project compared to those planned;
- (2) To identify obstacles and/or facilitating factors that have affected the implementation process;
- (3) To analyze the Project in terms of the five evaluation criteria (i.e. Relevance, Effectiveness, Efficiency, Impact, and Sustainability); and
- (4) To make recommendations on the Project regarding the measures to be taken for the remaining period as well as the post-project period.

4. Analyses for the Evaluation

(1) Accomplishment of the Project

The accomplishment of the Project was measured in terms of the Outputs and the Project Purpose in comparison with the Objectively Verifiable Indicators of PDM as well as the plan delineated in the R/D.

(2) Implementation Process

The implementation process of the Project was reviewed to see if the Activities have been implemented according to the schedule delineated in the latest PO, and to see if the Project has been managed properly as well as to identify obstacles and/or facilitating factors that have affected the implementation process.

(3) Evaluation based on the Five Evaluation Criteria

(a) Relevance : Relevance of the Project was reviewed to see the validity of the Project Purpose and the Overall Goal in connection with the needs of the beneficiaries and policies of the ASEAN and Japan.

(b) Effectiveness : Effectiveness was analysed by evaluating the extent to which the Project has achieved and contributed to the beneficiaries.

(c) Efficiency : Efficiency of the Project implementation was analysed focusing on the relationship between the Outputs and Inputs in terms of timing, quality, and quantity.

(d) Impacts : Impacts of the Project were forecasted by referring to positive and negative impacts caused by the Project.

(e) Sustainability : Sustainability of the Project was analysed in institutional, financial and technical aspects by examining the extent to which the achievement of the Project would be sustained and/or expanded after the

Project is completed.

4. Accomplishments of the Project

1) Activities and Outputs

Activity and Output	Progress	Outstanding issues
<p>Output 1 Coordination platform on disaster health management is set up.</p> <p>1-1 Regional coordination meetings are organized every year to share the progress and discuss the direction of the Project.</p>	<p>RCC was set up and RCC meetings were held 4 times.</p>	<p>RCC meetings will be held one more time on next March</p>
<p>Output 2 Framework of regional collaboration practices is developed.</p> <p>2-1 Develop and prepare the program of the regional collaboration drill with project working group</p> <p>2-2 Conduct the regional collaboration drill every year in AMS</p> <p>2-3 Compile recommendations on regional collaboration on disaster health management based on the discussion and knowledge sharing through project activities</p> <p>2-4 On-site practice is conducted when disaster occurs in ASEAN (if possible).</p>	<p>RCDs were conducted 4 times, including the start-up drill. Last RCD (3rd RCD) was conducted in Philippines in Dec, 2018. I-Speed was tested in the 3rd RCD</p> <p>So far, no cases for on-site practice</p> <p>MDS was tested in the RCDs and was verified the effectiveness.</p>	
<p>Output 3 Tools for effective regional collaboration on disaster health management are developed.</p> <p>3-1 Formulate project working groups for regional collaboration tools at the beginning of the project</p> <p>3-2 Develop a draft regional SOP and minimum requirements for disaster health management with the project working group</p> <p>3-3 Prepare databases of emergency medical teams of AMS</p> <p>3-4 Draft framework of health needs assessment in emergencies with the project</p>	<p>PWG1&2 were set and meetings were respectively held 7 times and 5 times</p> <p>Drafts of SOP, MR, HNA were developed. SOP, MR and HNA were finalized through testing those tools in the RCD in Philippines and were reviewed in the PWG1.</p> <p>Template of DB for EMT was made. EMTs Data was collected from All AMS.</p>	<p>Final drafts will be submitted to SOMHD.</p> <p>It is necessary to study ASEAN regional collective approach toward deployment of ASEAN-EMT.</p>

working group		
<p>Output 4 Academic network on disaster health management in AMS is enhanced.</p> <p>4-1 Present outcomes of the Project activities at academic conferences such as JADM, APCDM and WADEM</p>	<p>Various Presentations on the activities and outputs of ARCH were made at the 13th and 14th APCDM, 2nd REMPAN Workshop, 22nd JADM annual meeting, and WADEM</p>	
<p>Output 5 Capacity development activities for each AMS are implemented.</p> <p>5-1 Prepare training plan, curriculum and materials on disaster health management and emergency medical system based on needs survey with the project working group</p> <p>5-2 Conduct trainings on disaster health management and emergency medical service for AMS</p> <p>5-3 Conduct monitoring survey and evaluation on capacity development on disaster health management in each AMS</p> <p>5-4 Conduct a study tour in Japan for AMS</p> <p>5-5 Conduct training program in Japan for the Thai counterpart personnel</p>	<p>AMS trainings were conducted 3times.</p> <p>Thai C/P training programs in Japan were conducted twice.</p> <p>Study tour in Japan for key members from all AMS was conducted in October 2018 and the review meeting for the evaluation of the Project was held during the Study tour.</p>	

2) Accomplishment for Project Purpose

Project Purpose	Regional coordination on disaster health management is strengthened in ASEAN.
Verifiable Indicators	<p>1 Coordination meetings on disaster health management in ASEAN are held on a regular basis.</p> <p>2 Activities needed for regional collaboration are clarified and approved in the coordination meeting.</p> <p>3 Recommendations for developing regional collaboration mechanism in disaster health management is proposed to the SOMHD.</p> <p>4 Regional collaboration tools are developed and approved in the coordination meeting.</p>

Indicator1; **Expected to be achieved.** The RCC meetings were already held 4

times and one more meeting is scheduled to be held.

Indicator2; **Achieved.** Necessary activities of regional collaboration were clarified and the progress and products were reviewed in the RCC and PWG.

Indicator3; **Expected to be achieved.** The RCC and PWG have discussed not only on the directly related activities and outputs of the ARCH but also on the text of the ASEAN Leaders' Declaration (ALD) on Disaster Health Management and the Plan of Actions (POA) to implement the ALD in consideration of sustainability for regional collaboration after the project. The text of ALD and the POA drafted through the discussion in the RCC and the PWG were submitted to the Health Cluster 2 meetings and the SOMHD. The ALD was already adopted in the ASEAN Summit on Nov. 2107.

Indicator4; **Expected to be achieved.** The Regional Collaboration tools such as the SOP have been almost developed. Those tools will be submitted to the SOMHD in next April.

3) Accomplishment for Overall Goal

Overall Goal	ASEAN and Japan collaboration mechanism on disaster health management is developed.
Verifiable Indicators	<ol style="list-style-type: none"> 1. Roadmap of ASEAN regional collaboration mechanism on disaster health management is finalized and proposed to SOMHD. 2. Hub organization in-charge of coordination of ASEAN and Japan collaboration mechanism is identified, and its role is clarified. 3. Necessary staff and budget of hub organization of ASEAN and Japan collaboration mechanism are proposed. 4. Activities based on ASEAN and Japan collaboration mechanism will work if large scale disaster occurs.

Indicator1; **Expected to be achieved.**

The ASEAN Leaders' Declaration on Disaster Health Management (ALD DHM) was adopted on the occasion of the 31st ASEAN Summit in Philippines on 13 Nov. 2017. The Plan of Action (POA) to implement the ALDDHM (2018-2025) was drafted by leadership of Thailand and was submitted once to the SOMHD in April 2018. The RCC and PWG of ARCH have discussed to improve the POA and a revised version based on those discussions will be submitted again to the

SOMHD in April 2019.

Indicator2; Partially Achieved. Expected to be achieved after the project period

The Regional Coordination Committee (RCC) on DHM and the ASEAN Institute of DHM (AIDHM) were proposed as two important mechanisms to operationalize the POA. The RCCDHM and the AIDHM could be regarded as “Hub organization in-charge of coordination of ASEAN and Japan collaboration mechanism” referred in this Indicator. The draft of the Terms of Reference (TOR) for the RCC and the AIDHM were also discussed and polished in the Project. Although it is still necessary to continue negotiations and discussions among AMS on the RCC and AIDHM, if the discussions will be concluded, it can be said that this indicator would be satisfied.

ARCH has been conducting in close collaboration with the Japanese Advisory Committee and the JDR Secretariat as well as JDR registered members. In addition, several opportunities have been provided for the ARCH AMS members to participate and make presentations in the JADM and the APCDM. The network of practitioners and experts on disaster health management between AMS and Japan has been already strengthened through the ARCH.

ARCH took a very important role for the standardization of the Minimum Data Set (MDS) which is the I-EMT reporting format developed in collaboration between WHO and Japan (JICA and JDR members). Moreover, the i-SPEED which is a rapid information collection system for the Surveillance in Post Extreme Emergencies and Disasters (SPEED) of Philippines was tested by the Regional Coordination Drill of the ARCH. The i-Speed system was developed based on the Japanese system (J-SPEED) and is compatible with the MDS and has possibilities to largely improve the management on disaster health information in each AMS. The ARCH is expected to test the effectiveness and promote this i-SPEED in ASEAN.

Indicator3; Expected to be achieved after the project period.

After a host country for permanent secretariat of the RCCDHM and the AIDHM is decided and first meeting of the RCC is held and the AIDHM is established, this indicator could be said to be achieved.

Indicator4; uncertain

6. Implementation Process

Involvement of the Thai Ministry of Public Health (MOPH) in the ARCH hadn't been clear since the project started in July 2016. However, the MOPH is mainly responsible for contact with health sector bodies or meetings in ASEAN and WHO. In addition, the MOPH is responsible to set up the Emergency Operation Center (EOC) in the health sector if a large scale disaster occurs in Thailand. Moreover, MOPH should be responsible for overseas deployment of EMT. Therefore, it is essential to get commitment from the MOPH in some certain all the activities of the ARCH. Accordingly, the R/D of the project was amended on Aug. 2017, the Permanent Secretary and Director of Division of Public Health Emergency Management (DPHEM) of MOPH were assigned respectively as the Co-Project Director and the Co-Project Manager. The amended R/D also clarified the titles and organizations for the members of the Joint Coordination Committee (JCC) and stipulated that JICA should dispatch long-term experts who are responsible to improve the coordination with ASEAN bodies and WHO and to strengthen the collaboration among the MOPH, NIEM and JICA. The long-term expert (Chief Advisor) based on the amended R/D was dispatched in June 2018.

7. Five Evaluation Criteria

Relevance	High; <ul style="list-style-type: none"> ✓ ASEAN is continuously the region where frequently occurs large scale disasters. ASEAN have been strengthening their efforts for disaster prevention/mitigation as well as rapid and effective disaster response. ✓ Regarding the disaster medicines which had not been approached enough in comparison with other sectors relating to disaster management in the ASEAN, as a result of the adoption of ALDDHM at the occasion of the ASEAN Summit last year, it can be expected that political priority for the Disaster Health Management could rise higher in this region than the situation before the project.
Effectiveness	Relatively High; <ul style="list-style-type: none"> ✓ Targets of all the indicators for the Project Purpose have been achieved or could be achieved by the end of the Project. ✓ The SOP and other tools developed by the project are very useful, but they are not sufficient for actual international deployment,

	<p>because EMTs of AMS have difficulties in meeting some elements of WHO I-EMT minimum standards, especially in the area of logistics, and their capabilities are not enough for self-sufficient international deployment.</p> <ul style="list-style-type: none"> ✓ It is not certain how the participants of the AMS trainings and the RCDs have utilized their acquired knowledge or could contribute for capacity development on Disaster Health Management in each AMS.
Efficiency	<p>Medium;</p> <ul style="list-style-type: none"> ✓ The organizational commitment from Thai MOPH for the ARCH had not been clear even up to the latter part of the Project period. ✓ There are many relevant parties of Japan involved in the project implementation such as the Advisory Committee, the Consultant Team, Infrastructure and Peacebuilding Department of JICA and the Secretariat of Japan Disaster Relief Team. However, the roles and responsibilities of each party were not distinct and communication among the parties was somewhat confused in the first half of the project period. ✓ Because the participants for the RCC and PWG from each AMS were often changed, it was difficult to maintain the consistency of the sequence of discussions. ✓ It is not certain how the participants of the AMS trainings and the RCDs could contribute for the regional collaboration and capacity development on Disaster Health Management in the ASEAN and their home countries.
Impact	<p>High;</p> <ul style="list-style-type: none"> ✓ The ARCH has been able to have many opportunities to make presentations on the progress and outputs of the project and to publicize the importance of Disaster Health Management on the occasions of the ASEAN Summit, ASEAN Health Ministers Meeting, SOMHD or other important ASEAN meetings relating to the disaster management. ✓ The text of the ALD was drafted through a series of discussions in the RCC and PWG of the ARCH. ALD DHM was adopted on the occasion of the 31st ASEAN Summit in Philippines on 13 Nov. 2017 and the leaders of the ASEAN confirmed to strengthen the further

	<p>efforts for Disaster Health Management in the ASEAN.</p> <ul style="list-style-type: none"> ✓ Plan of Action (POA) to implement the ALDDHM (2018-2025) was drafted and was submitted once to the SOMHD in April 2018. The RCC and PWG of ARCH have discussed to improve the POA and a revised version based on those discussions will be submitted again to the SOMHD on April 2019. If the POA will be approved by the SOMHD and proceed into the implementation stage, it could be regarded that the ASEAN Collaboration Mechanism was developed and ASEAN is expected to be gradually strengthening the capacities of Disaster Health Management and be acquiring the capabilities of rapid and effective medical response for any large scale disasters in near future. ✓ MDS which JICA proposed WHO to develop and took the lead for the development was tested by the RCD of ARCH and its effectiveness was verified by the ARCH regional drills. MDS was officially adopted by WHO on Feb.2017 as an international standard. It is regarded that ARCH has also made a significant international contribution beyond the ASEAN region. ✓ Based on J-SPEED which was developed in Japan, referring to Philippine Method "SPEED", a Japanese company has developed i-SPEED system and that company is now trying to introduce its products to Philippines using JICA's Public-Private Partnership Program. ARCH worked to test the effectiveness of this rapid information collection system by the Regional Coordination Drill and introduced this i-SPEED system to other AMS. If the effectiveness will be verified and i-Speed will be utilized in this region, ARCH can contribute to improve the information management on Disaster Medicine.
<p>Sustainability</p>	<p>High;</p> <ul style="list-style-type: none"> ✓ The ALD was already adopted and the Leaders of the ASEAN have reconfirmed to strengthen the system and mechanism for the Disaster Health Management in each country as well as in the region as a whole. It could be expected that the political priority for the DHM will continue at a higher level. ✓ Once the POA will be approved, it is regarded that the RCC set up by the ARCH could expand its role and function, and upgrade to

	<p>the RCCDHM which should be a permanent formal mechanism of the ASEAN.</p> <ul style="list-style-type: none"> ✓ Once the SOP and other collaboration tools developed by the ARCH are endorsed by the SOMHD, those will be recognized as the official tools which should be continuously utilized in ASEAN. The integration of those tools into the SASOP, which is a most important official standard procedure for Humanitarian Assistance to disasters in ASEAN, could ensure the effective utilization for actual disaster cases. Moreover it is expected that the tools will be continuously effective for various cases in ASEAN in future because the RCCDHM set up by the POA would repeatedly review and improve and revise the tools if necessary. ✓ Once the POA is approved and AIDHM is established, implementation of RCD and AMS training courses which were initiated by the ARCH will be taken over to the AIDHM. AIDHM will be responsible to develop training curriculum and teaching materials as the regional training center on DHM, referencing the products of the ARCH. AIDHM will also play the role as the facilitator to enhance the Academic network on DHM ✓ It is regarded that the activities and products through the ARCH will be integrated into the part of the POA and be improved.
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8. Conclusion

Most of the Activities have been implemented and the Outputs have been almost achieved as planned. Regarding the indicators for the Project Purpose, the Project has already achieved or can be expected to achieve all of the targets by the termination of the Project period. In addition, the Project has worked on the efforts beyond the Project Purpose and has made results in some extent toward the Overall Goal, which should be achieved several years after the termination of the Project period, and it is regarded that the Project has succeeded to generate a bigger Impact and to secure higher Sustainability than those expected before the Project. Then if the POA to implement the ALD is approved and the RCC & AIDHM to operationalize the POA start up, the Impact and Sustainability for the ARCH could be ensured further.

On the other hand, it is necessary to continue testing the products through the ARCH such as the collaboration tools or the RCD whether those can be functional

and effectively applied to an actual disaster. In addition, it is also necessary to improve the capacities on DHM in each AMS and to consider the regional collective measures in order to complement the incomplete capacities of AMS until each AMS could fulfill capabilities necessary for disaster medical response.

9.Recommendation

Based on the above conclusion, it is recommended that this ARCH Project should extend the cooperation period until the POA is approved and the main Mechanism of the POA (RCC & AIDHM) can start and get its actual activities on track so that the ARCH could ensure the Impact and Sustainability.

In addition, it is recommended that continuous testing for the tools and study on the capacity development needs in each AMS should be conducted and the regional approach to complement the capabilities of ASEAN-EMT should be discussed during the extension period.

Annex 1 ; Project Design Matrix(PDM)

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumption
<p>Overall Goal ASEAN and Japan collaboration mechanism on disaster health management is developed.</p>	<p>1. Roadmap of ASEAN regional collaboration mechanism on disaster health management is finalized and proposed to SOMHD. 2. Hub organization in-charge of coordination of ASEAN and Japan collaboration mechanism is identified, and its role is clarified. 3. Necessary staff and budget of hub organization of ASEAN and Japan collaboration mechanism are proposed. 4. Activities based on ASEAN and Japan collaboration mechanism works if large scale disaster occurs.</p>	<p>1. Monitoring/review survey report 2. Agreement documents in ASEAN SOMHD 3. Summary of related meetings/ conferences (SOMHD or Summit etc)</p>	
<p>Project Purpose Regional coordination on disaster health management is strengthened in ASEAN.</p>	<p>1. Coordination meetings on disaster health management in ASEAN are held at regular basis. 2. Activities needed for regional collaboration are clarified and approved in the coordination meeting. 3. Recommendations for developing regional collaboration mechanism in disaster health management is proposed to SOMHD. 4. Regional collaboration tools are developed and approved in the coordination meeting.</p>	<p>1. Agreement and/or summary of coordination meeting</p>	<p>1 Policy of ASEAN on disaster health management is not changed. 2 Commitment from AMS is assured. 3 Serious political problem will not happen among ASEAN.</p>
<p>Output Output 1. Coordination platform on disaster health management is set up.</p>	<p>1-1 Number of regional coordination meeting during the Project (Target: at least once a year) 1-2 Clarification of focal point of each AMS 1-3 Agreement of set-up of regional coordination platform on disaster health management in ASEAN</p>	<p>1-1 and 1-3 Records of coordination meetings 1-2 List of focal points</p>	<p>1 Commitment of AMS for is assured.</p>
<p>Output 2. Framework of regional collaboration practices is developed.</p>	<p>2-1 Regional collaboration drill is conducted. (basically, once a year) 2-2 Recommendations/lessons learned for the regional collaboration drills are concluded. 2-3 Mechanism of regional collaboration of among emergency medical teams in disaster affected area is clarified.</p>	<p>2-1 Records of the regional collaboration drills 2-2 Monitoring/review survey report 2-3 Draft regional agreement of the regional collaboration on disaster health management</p>	
<p>Output 3. Tools for effective regional collaboration on disaster health management are developed.</p>	<p>3-1 Standard Operating Procedure (SOP) (draft) 3-2 Minimum requirements for disaster health management personnel (draft) 3-3 Framework of health needs assessment in emergencies (draft) 3-4 Preparation of database of emergency medical teams in ASEAN</p>	<p>3-1, 3-2, 3-3, and 3-4 Regional collaboration tools such as SOP, minimum requirement, framework of health needs assessment, database, Records of coordination meetings Monitoring/review survey report 4-1 Academic conference/journal such as JADM, APCDM, and WADEM</p>	
<p>Output 4. Academic network on disaster health management in AMS is enhanced.</p>	<p>4-1 Number of presentation(s) made at academic conference(s) (Target: at least 1 paper/year)</p>		
<p>Output 5. Capacity development activities for each AMS are implemented.</p>	<p>5-1 Number of trainings (Target: 4 courses) 5-2 Number of participants to attend to the training courses (Target: 150 pax) 5-3 Lessons learned from the training courses was utilized in each AMS 5-4 Number of participants to attend to the counterpart training courses (Target :20 pax)</p>	<p>5-1 and 5-3 Training report(s) 5-2 Monitoring/review survey report 5-3 Training report(s)</p>	
<p>Activities</p>	<p>Inputs</p>		
<p>1-1 Regional coordination meetings are organized every year to share the progress and discuss the direction of the Project.</p>	<p>Japanese side [Experts] (1)Expert Consultant team (a) Dispatch of Experts 1. Leader 2. Specialist in medical system 3. Specialist in disaster health management/emergency medicine 4. Specialist in planning/organizing regional collaboration drill 5. Specialist in planning/organizing trainings 6. Project coordinator 7. Others, if necessary (b) Provision of necessary equipment (if necessary) (2) Japanese Advisory Committee 1. Provide advice and technical support to JICA on the project management. 2. Join the project working groups 3. Participate in the regional collaboration drills 4. Conduct advisory survey [Local cost] 1. Expense mutually agreed upon as necessary</p>	<p>Thailand side [Counterpart Personnel] 1. Project Director 2. Project Manager 3. Officer(s) in charge 4. Secretary at the project office [Facilities and Equipment] 1. Project office space for JICA experts 2. Facilities and equipment necessary for trainings/regional drills 3. Equipment mutually agreed upon as necessary [Available data and information related to project] [Local cost] 1. Expense mutually agreed upon as necessary</p>	
<p>2-1 Develop and prepare the program of the regional collaboration drill with project working group</p>			
<p>2-2 Conduct the regional collaboration drill every year in AMS</p>			
<p>2-3 Compile recommendations on regional collaboration on disaster health management based on the discussion and knowledge sharing through project activities</p>			
<p>2-4 On site practice is conducted when disaster occurs in ASEAN (if possible).</p>			
<p>3-1 Formulate project working groups for regional collaboration tools at the beginning of the project</p>			
<p>3-2 Develop a draft regional SOP and minimum requirements for disaster health management with the project working group</p>			
<p>3-3 Prepare databases of emergency medical teams of AMS</p>			
<p>3-4 Draft framework of health needs assessment in emergencies with the project working group</p>			
<p>4-1 Present outcomes of the Project activities at academic conferences such as JADM, APCDM and WADEM</p>			
<p>5-1 Prepare training plan, curriculum and materials on disaster health management and emergency medical system based on needs survey with the project working group</p>			
<p>5-2 Conduct trainings on disaster health management and emergency medical service for AMS</p>			
<p>5-3 Conduct monitoring survey and evaluation on capacity development on disaster health management in each AMS</p>			
<p>5-4 Conduct a study tour in Japan for AMS</p>			
<p>5-5 Conduct training program in Japan for the Thai counterpart personnel</p>			