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The Project for Strengthening the ASEAN Regional Capacity on Disaster Health Management (ARCH Project)

Report - ASEAN Academic Conference on Disaster Health Management

1-2 December 2021

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Report – ASEAN Academic Conference on Disaster Health Management

I. Background of the Conference

1) Background of the Conference

Southeast Asia is a region where natural disasters frequently occur and the damage from those disasters is huge. A massive earthquake of Magnitude 9.1 occurred off the coast of Sumatra in Indonesia and resulted in the Indian Ocean Tsunami on 26th Dec 2004. After this unprecedented catastrophe, the Association of South East Asian Nations (ASEAN) initiated regional challenges toward strengthening regional collaboration for disaster prevention and response. After Typhoon Haiyan struck the Philippines in Nov 2013, momentum to strengthen the regional capacity for disaster response was further increased in ASEAN. The ASEAN Leaders finally signed "the ASEAN Declaration on One ASEAN, One Response: ASEAN Responding to Disasters as One in the Region and outside the Region" at the 28th ASEAN Summit in Vientiane, Lao PDR on 6 September 2016.

On the other hand, ASEAN has not yet developed a robust regional mechanism and capacity to realize "One ASEAN, One Response", especially for disaster medical response. Moreover, there are big differences and gaps among the 10 AMS countries in terms of their systems and capacities to implement disaster health management. Far from achieving familiarity with the concept of disaster health management in each AMS and realizing regional collaboration of medical response toward "One ASEAN, One Response", the system and capacity for emergency medicine, which must be a base for implementation of medical response operation in the acute phase of disaster, has not been established yet in some AMS. Based on these perceptions, ASEAN raises Disaster Health Management as one of its priority areas in the "ASEAN Post-2015 Health Development Agenda", stipulating that ASEAN should strengthen its regional collaboration and coordination mechanism and its regional capacity on Disaster Health Management.

Under the above circumstances, Thailand decided to formulate the Project for Strengthening the ASEAN Regional Capacity on Disaster Health Management (ARCH) in cooperation with the Japan International Cooperation Agency (JICA) to develop a regional collaboration mechanism and capacity on disaster health management in the ASEAN region. Then, Thai National Institute of Emergency Medicine (NIEM) and Japan International Cooperation Agency (JICA) agreed to implement the ARCH, which was a technical cooperation project under Japan's Official Development Assistance (ODA), in February 2016. The ARCH project started in July 2016, led by three parties which are NIEM, Thai Ministry of Public Health (MOPH), and JICA. The ARCH Project was implemented from July 2016 until July 2019 at first and was extended for 21 months until March 2021. Moreover, the Project has been extended again for another 9 months from April 2021 to Dec. 2021 in order to complete the planned activities which were not able to be conducted by March 2021 due to the outbreak of COVID-19.

The ASEAN Leaders' Declaration on Disaster Health Management (ALD on DHM) was adopted on the occasion of the 31st ASEAN Summit in the Philippines in 2017. The adoption of the Declaration represents a milestone for the ARCH Project as it expedites the formulation of the vision and mechanism for regional collaboration. In addition, the Plan of Action (POA) 2019-2025 to implement the ALD on DHM was adopted by the 14th ASEAN Health Ministers Meeting (AHMM) in 2019, with Regional Coordination Committee on Disaster Health Management (RCC-DHM) established to operationalize the implementation of the POA to achieve its 21 targets including the 14 regional and 7 national targets. The POA included activities that were initiated under the ARCH Project, including the establishment of the ASEAN Academic Conference, ASEAN Academic Network on Disaster Health Management (AANDHM), and the ASEAN Institute on Disaster Health

Management (AIDHM). These establishments were proposed to facilitate the academic part of the POA including research activities, education/ training activities, and knowledge sharing. In enhancing the academic network on DHM in AMS, the ASEAN Academic Conference on 1-2 December 2021 will be the first ever held in an ASEAN region as a product of the ARCH Project. In addition, there are continuous efforts in establishing the AANDHM and the AIDHM as the key mechanisms in AMS capacity building in which both of the TOR of AANDHM and AIDHM have been endorsed by the Project Working Group 2 in 2020, and subsequently elevated to the RCC-DHM for endorsement on 7 July and 21 April 2021, respectively. Recent effort shows the significant progress for the endorsement of the TOR for the AANDHM by the ASEAN Health Cluster (AHC) 2 and Senior Official Meetings on Health Development (SOMHD) on 13 September and 10 November 2021, respectively.

2) Purpose of the Conference

- To share various outcomes of the ARCH Project and experiences of medical responses to actual disasters and health emergencies by medical practitioners and researchers in the ASEAN region and beyond.
- To discuss how ASEAN can further collaborate in the region and beyond to address risks related to disasters, health emergencies and other threats.

3) Aims of the Conference

- To share key development and achievements in strengthening DHM in ASEAN through the ARCH Project.
- To discuss important points and strategies in DHM strengthening in ASEAN to be considered for the ARCH Project Phase 2.
- To explore ways to strengthen academic collaborations on DHM between ASEAN and external partners including WHO, Japan Association for Disaster Medicine (JADM), and WADEM.

4) Date of the Event and Method

The conference was held online on December 1-2, 2021.

5) Sessions Agenda

- Session 1: "ARCH Project, ASEAN Regional Mechanism, and Global Initiatives for EMT"
- Session 2: "Impact of ARCH on National Capacities and Policies on Disaster Health Management in ASEAN Member States and Japan"
- Session 3: "Experiences of Disaster Health Management in Actual Disasters in ASEAN Member States and Japan"
- Session 4: "Academic Network on Disaster Health Management"
- Panel Discussion: "How can ASEAN Realize the "One ASEAN One Response in the Field of Disaster Health Management?"

II. Key Persons' CV with Photos

1) The Chairman of the Conference



The Chairman of the Conference

Flt.Lt. Atchariya Pangma, MD, MPH

ARCH Project Director, Secretary-General of the National Institute for Emergency Medicine, Thailand

Flt.Lt. Atchariya Pangma currently serves as the Secretary-General of the National Institute for Emergency Medicine (NIEM) in Thailand. He has worked in the field of Emergency Medicine for more than 20 years. Since training and serving as a General Practitioner and Flight Surgeon in the Royal Thai Air Force (RTAF), he has specialised in Aviation Medicine while having extensive experience in emergency aeromedical

operation by being actively involved in more than 1,000 cases of ground interfacility transfers and 200 cases in flight. After joining NIEM, he has been involved in the development and execution of the country's public aeromedical services called "THAI SKY DOCTOR".

As a former director and current Secretary-General of NIEM since 2017, Flt.Lt. Atchariya Pangma manages the Thai Sky Doctor System, oversees the Universal Coverage for Emergency Patients Policy, and initiates many other projects. During the 2011 Mega floods in Thailand, he took an important role in overseeing the public evacuation and patient retrieval/ transport both by cars, boats and airplanes. Giving his attention to the worsening situation of disasters occurring in the country, he is currently involved in the field of disaster health management as a director of the Project for Strengthening the ASEAN Regional Capacity on Disaster Health Management (ARCH Project) which is a project being co-hosted between NIEM, Ministry of Public Health and the Japan International Cooperation Agency (JICA). As a director of this project, he is now trying to develop tools and mechanisms that would strengthen the coordination and collaboration in the health area of disaster management between the ASEAN Member States.

2) Co-host Opening Speaker



Co-host Opening Speaker Dr. Tatsuro Kai Chairman of Japan Advisory Committee

Dr. Kai has been involved in Emergency and Disaster Medicine for over 40 years. After the 1995 Kobe Earthquake, he and his colleagues established a new Japanese disaster medical strategy and the Japan-DMAT system. He also worked as chairperson of Japan Disaster Relief Medical Teams, as a senior researcher of Disaster Reduction and Human Renovation Institute in Kobe for a long time, and also as course manager on

JICA Disaster and Emergency Medicine training course over 20 years, with over 400 medical personnel participating in this course across the world.

3) Co-host Opening Speaker



Co-host Opening Speaker

Ms. Rodora Turalde-Babaran Director of Human Development, ASEAN Socio-Cultural Community Department, ASEAN Secretariat

Ms. Turalde-Babaran has been Director of Human Development, ASEAN Socio-Cultural Community Department of the ASEAN Secretariat since September 2014. She is responsible for managing the overall, multifaceted operations of the Human Development Directorate under which are four divisions namely, Health Division, Education, Youth and Sports Division, Labour and Civil Service Division, and the Poverty Eradication and Gender Division.

Ms. Turalde-Babaran obtained her Master Degree in Development Management from the Asian Institute of Management and her Bachelor of Science in Social Work from University of the Philippines.

4) Keynote Lecturer



Keynote Lecturer Dr. Flavio Salio Network Lead, Emergency Medical Teams, World Health Organization

Dr. Salio is currently the Network Leader for the Emergency Medical Team Network.

Since 2005, Dr. Salio has been active in providing strategic leadership to health programmes and emergency response coordination for international and Non-

Governmental Organizations in different types of emergencies (natural disasters, outbreaks, conflicts / protracted crises) and Head of Mission in several country contexts (Pakistan, Bangladesh, Central African Republic, Sudan, Mozambique, Bosnia, Malta, to name a few). He played an important role in leading the development of emergency preparedness plans, rapid response teams, field hospital set up and management.

In 2019, he completed a one-year assignment as Emergency Team Lead for WHO in Yemen. Additional deployments include the Ebola outbreak in DRC, and support to the design of the trauma plan and Trauma Stabilization Point (TSP) standards in Iraq, Gaza and Yemen. Previously he was deployed to the West Africa Ebola outbreak and Nepal earthquake as Emergency Medical Teams Coordinator on behalf of the World Health Organization. During the onset of the COVID-19 pandemic, Dr. Salio had just returned as network leader to the EMT Initiative, which saw the deployment of over 120 teams to countries in need of support and mobilization of thousands of national surge responders.

Dr. Salio is also a faculty member of the European Master in Disaster Medicine, involved in medical operations and health policy research and training. He is a certified Emergency Manager, has a Master in Peacekeeping Management, training in Epidemiology, and is completing his PhD in Disaster Medicine at the Universita del Piemonte Orientale.

5) Closing Remark Speaker



Closing Remark Speaker

Dr. Arnel Z. Rivera OIC, Director IV, Health Emergency Management Bureau, Department of Health, Philippines (Representative as a Chair of Regional Coordination Committee on Disaster Health Management/ RCC-DHM)

Dr. Arnel Z. Rivera was the Chief Response, Recovery and Rehabilitation Division of the Health Emergency Management Bureau. Other positions held include: Finance and

Administrative Division Chief of the Bureau of Quarantine, Department Chair of the Emergency Department Services of the Tondo Medical Center, TWG Member of the Committee on Biological, Chemical and Radionuclear Warfare Department of Health, Chairman of Committee on Emergency Room Manual Development and TWG on Development of Administrative Order for Biosecurity and Biosafety.

His field of specialization is in general surgery and family medicine. He has a masters degree in Hospital Administration and an International Diploma in Humanitarian Assistance. He has won several awards including the Presidential Citation for Dedicated and Exemplary Service, Most Outstanding Division Chief (PSDTSD), Certificates of Recognition, Certificates of Appreciations, Plaque of Appreciation, Plaque of Recognition, Certificate of Commendation, Championship Team Trophy and Individual Gold Medal, and Outstanding Achievement Award. In addition, Dr. Rivera has conducted research projects and published several papers including the recent publication of *2020 and Beyond: Reflections and Outlook at a Time of a Global Pandemic*, NCT Magazine. He is also the focal point for Chemical, Biological, Radiologic and Nuclear (CBRN) Concerns of the Bureau.

III. Programme of the ASEAN Academic Conference

Time (GMT+7)	Agenda Item	Remarks
Day 1: 1 Decembe	er 2021	
8:45-9:00	Test Run To test the participants' video and audio connection with Microsoft Teams meeting platform to ensure smooth discussions during the actual meeting. Participants are requested to attend within this period and to participate in the testing.	Master of Ceremonies; Ms. Ob-orm Utthasit
9:00-	Opening Session	
9:00-9:05	Opening Remarks by Chair of the ASEAN Academic Conference	Secretary-General of the National Institute for Emergency Medicine (NIEM) Dr. Atchariya Pangma
9:05-9:10	Opening Remarks	Chairman of Japanese Advisory Committee (JAC) Dr. Tatsuro Kai
9:10-9:15	Opening Remarks	ASEAN Secretariat Ms. Rodora T. Babaran
9:15-9:20	Group Photo	
9:20-9:25	Announcement on Conference management	Master of Ceremonies; Ms. Dangfun Promkhun
9:25-	Session 1 "ARCH Project, ASEAN Regional Mechanism, and Global Initiatives for EMT"	Session Chair Thailand (PWG 1 Chair) Dr. Jirot Sindhvananda
9:25-9:30	Explanation of aims of the session by the Session Chair	Session Chair Dr. Jirot Sindhvananda
9:30-9:55	Overall Progress of the ARCH and Future Strategy (ARCH 2) + Q&A (5 mins)	ARCH Project Mr. Shuichi Ikeda
9:55-10:20	ARCH Project's contribution to ASEAN regional policy and strategy on disaster health management + Q&A (5 mins)	ASEAN Secretariat Dr. Ferdinal M. Fernando
10:20-10:45	The ARCH Project and the global initiatives of disaster health management + Q&A (5 mins)	Thailand Dr. Alisa Yanasan

Time (GMT+7)	Agenda Item	Remarks
10:45-11:10	How the ARCH Project has contributed to the WHO EMT Initiative + Q&A (5 mins)	Japanese Advisory Committee (JAC) Dr. Tatsuhiko Kubo
11:10-11:15	Summary of the session	Session Chair Dr. Jirot Sindhvananda
11:15-11:25	Coffee Break	
11:25-	Session 2 "Impact of ARCH on National Capacities and Policies on Disaster Health Management in ASEAN Member States and Japan"	Session Chair ASEAN Secretariat Dr. Ferdinal M. Fernando
11:25-11:30	Explanation of aims of the session by Session Chair	Session Chair Dr. Ferdinal M. Fernando
11:30-12:00	Impact of the ARCH Project on Capacity Development of ASEAN Member States in Disaster Health Management + Q&A (10 mins)	ARCH Project Mr. Taro Kita
12:00-13:00	Lunch Break	
13:00-13:25	Impact for Thailand + Q&A (5 mins)	Thailand Ms. Sansana Limpaporn
13:25-13:50	Impact for Vietnam + Q&A (5 mins)	Vietnam Dr. Chinh Nguyen Duc
13:50-14:15	Impact for the Philippines + Q&A (5 mins)	Philippines Dr. Alfonso C. Danac
14:15-14:40	Impact for Indonesia + Q&A (5 mins)	Indonesia Dr. Ina Agustina Isturini Dr. Bella Donna Ms. Madelina Ariani
14:40-15:05	Impact for Japan + Q&A (5 mins)	Japanese Advisory Committee (JAC) Dr. Yuichi Koido
15:05-15:10	Summary of the session	Session Chair Dr. Ferdinal M. Fernando
15:10-15:25	Coffee Break	
15:25-15:30	Introduction of the Speaker	Master of Ceremonies Ms. Ob-orm Utthasit
15:30-16:30	Keynote Lecture (Global I-EMT Initiative) + Q&A (15 mins)	World Health

Time (GMT+7)	Agenda Item	Remarks
		Organization (WHO) Dr. Flavio Salio
Day 2: 2 Decembe	er 2021	
8:45-9:00 (15 mins)	Test Run To test the participants' video and audio connection with Microsoft Teams meeting platform to ensure smooth discussions during the actual meeting. Participants are requested to attend within this period and to participate in the testing.	Master of Ceremonies Ms. Sansana Limpaporn
9:00-	Session 3 "Experiences of Disaster Health Management in Actual Disasters in ASEAN Member States and Japan"	Session Chair Thailand Dr. Phusit Prakongsai
	Explanation of aims of the session by the Session Chair	Session Chair: Thailand Dr. Phusit Prakongsai
9:00-9:15	Brunei + Q&A (5 mins)	Dr. Hjh Lailawati Hj Jumat
9:15-9:30	Cambodia + Q&A (5 mins)	Dr. Kol Hero
9:30-9:45	Indonesia + Q&A (5 mins)	Dr. Eka Jusuf Singka
9:45-10:00	Laos + Q&A (5 mins)	Dr. Vangnakhone Dittaphong Dr. Daovilay Banchongphanith
10:00:10:15	Malaysia + Q&A (5 mins)	Dr. Khairi bin Kassim @ Hashim
10:15-10:30	Coffee Break	
10:30:10:45	Myanmar + Q&A (5 mins)	Dr. Nyan Win Myint
10:45-11:00	Philippines + Q&A (5 mins)	Ms. Janice P. Feliciano
11:00-11:15	Singapore + Q&A (5 mins)	Dr. Alvin Ong Cong Wei
11:15-11:30	Thailand + Q&A (5 mins)	Dr. Kriangsak Pintatham
11:30-11:45	Vietnam + Q&A (5 mins)	Dr. Lam Nguyen Nhu Dr. Le Quoc Chieu
11:45-12:00	Japan + Q&A (5 mins)	Mr. Yoshiki Toyokuni
	Summary of the session	Session Chair

Time (GMT+7)	Agenda Item	Remarks
		Thailand Dr. Phusit Prakongsai
12:00-13:00	Lunch Break	
13:00-	Session 4 "Academic Network on Disaster Health Management"	Session Chair Deputy Secretary- General of NIEM Dr. Pisit Charoenying
13:00-13:05	Explanation of aims of the session by Session Chair	Session Chair Deputy Secretary- General of NIEM Dr. Pisit Charoenying
13:05-13:25	ASEAN Academic Network (Including Development of Standard Curriculum) + Q&A (5 mins)	Thailand Dr. Phumin Silapunt
13:25-13:45	ASEAN Networks Relevant to Cross-Cutting Concerns on Disaster Health Management + Q&A (5 mins)	ASEAN Secretariat Mr. Jim P. Catampongan Mr. Michael Glen
13:45-14:05	History of the Japanese Association of Disaster Risk Management Research Network (Health EDRM RN) + Q&A (5 mins)	Japan Association of Disaster Medicine (JADM) Dr. Yasuhiro Otomo
14:05-14:25	WHO Thematic Platform for Health Emergency and Disaster Risk Management Research Network (Health EDRM RN) + Q&A (5 mins)	WHO Kobe Dr. Ryoma Kayano
14:25-14:50	Academic Publication of ARCH Project: Crystalize Your Efforts in the Articles! + Q&A (10 mins)	Advisory Working Group (AWG) Dr. Shinichi Egawa
14:50-15:00	Summary of the session	Chair Deputy Secretary- General of NIEM Dr. Pisit Charoenying
15:00-15:10	Coffee Break	
15:10-	Panel Discussion: "How can ASEAN Realize the "One ASEAN One Response in the Field of Disaster Health Management?"	Discussion Chair JICA Ms. Asuka Tsuboike
15:10-15:15	Explanation of aims of the session by Chair	Discussion Chair JICA Ms. Asuka Tsuboike

Time (GMT+7)	Agenda Item	Remarks
15:15-15:35	1. "How can the ARCH Project Phase 2 Contribute to Capacity Strengthening in Disaster Health Management in each ASEAN Member States." Each panelist will be given 5 minutes each to share their view and followed by discussion	Panelists: Representative of RCCDHM Chair Country; Dr. Irvin R. Miranda Thailand;
		Dr. Phumin Silapunt ASEAN Secretariat; Mr. Jim P. Catampongan AHA Centre; Ms. Agustina Tnunay
15:35-15:50	Discussions	
15:50-16:10	2. "How can the ARCH Project Phase 2 Contribute to Strengthening Preparedness and Response to Health Emergencies, including Pandemics such as COVID-19?" Each panelist will be given 5 minutes each to share their view and followed by discussion	Panelists: Representative of RCCDHM Chair Country; Dr. Irvin R. Miranda Thailand; Dr. Phumin Silapunt ASEAN Secretariat; Mr. Jim P. Catampongan AHA Centre; Ms. Agustina Tnunay
16:10-16:20	Discussions	
16:20-16:25	Summary of the panel discussion	Discussion Chair JICA Ms. Asuka Tsuboike
16:25-16:30	Closing Session	AHC 2 and RCCDHM Chair (Philippines) Dr. Arnel Z. Rivera

IV. Overall Summary of the Conference

The 1st ASEAN Academic Conference on Disaster Health Management (DHM) was held online on December 1 - 2, 2021, with around 120 participants from 10 ASEAN Member States (AMS), ASEAN Secretariat, AHA Centre, and Japan.

The conference was launched with speeches by Dr. Atchariya Pangma, the Chairman of the Conference, the ARCH Project Director, and Secretary-General of the National Institute for Emergency Medicine, Thailand, and Dr Tatsuro Kai, the Chairperson of the Japanese Advisory Committee on the Project for Strengthening the ASEAN Regional Capacity on Disaster Health Management (ARCH Project), and Ms. Rodora Turalde-Babaran, Director of Human Development, ASEAN Socio-Cultural Community Department, ASEAN Secretariat.

Dr. Flavio SALIO, Network Lead, Emergency Medical Teams, World Health Organization (WHO) gave the keynote speech on the current status and future prospects of the WHO EMT Initiative and expectations for the ARCH Project.

Active discussions were exchanged in four sessions and panel discussions.

Session 1: ARCH, ASEAN regional mechanism, and Global Initiatives for EMT

Discussions were held on the outcomes of the ARCH project, especially its impact and contributions to policies and capacity development on DHM within and outside of ASEAN and globally, as well as issues to be addressed through ASEAN plus Japan in the future.

Session 2: Impact of ARCH on national capacities and policies in DHM in AMS and Japan

Experiences were shared on the impact of the ARCH Project in ASEAN member states (AMS), and whether the participation of 5 countries ^[1] including Thailand and Japan in the ARCH Project, especially in hosting the Regional Collaboration Drill (RCD), has resulted in any positive changes in national capacities and policies on DHM.

Session 3: Experiences of DHM in actual disasters in AMS and Japan

The experience of 10 AMS countries and Japan on emergency medical response to actual large-scale disasters or public health emergencies that have occurred since the beginning of the ARCH Project implementation in 2016 were shared.

Session 4: Academic network of DHM

The vision and strategic direction of the ASEAN Academic Network on DHM, which is being established with the support of the ARCH Project, and the launch of the ASEAN Academic Journal on DHM were discussed referring to the experiences and current status of the Japanese Association of Disaster Medicine (JADM), the World Association for Disaster and Emergency Medicine (WADEM), and the Health Emergency and Disaster Risk Management Research Network (Health EDRM RN), as well as other relevant networks in ASEAN.

Panel Discussion:

How can ASEAN realize "One ASEAN One Response in the field of disaster health management (DHM)?

Discussions were held on how the Phase 2 Project for strengthening the ASEAN Regional Capacity on Disaster Health Management (ARCH 2) shall contribute to capacity development of each AMS on DHM, and how to respond to public health emergencies such as the COVID-19 pandemic.

Note

[1] 4 AMS countries, that have hosted the RCD: Indonesia, Philippines, Thailand, and Viet Nam, plus Japan

V. Sessions

Opening Session

Opening Remark by the Chairman of the ASEAN Academic Conference

Delivered by Dr. Atchariya Pangma Secretary-General of the National Institute for Emergency Medicine, Thailand

Good morning, Excellencies, Distinguished colleagues, Ladies and gentlemen,

It is a great pleasure for me to welcome you to this virtual ASEAN Academic Conference on Disaster Health Management which in this year is hosted by Thailand together with the ARCH Project. I am very glad to acknowledge a vast number of participants from ASEAN Member States joining us. I would also like to warmly welcome the participants from Japan and also the other ASEAN Sectoral bodies who are with us today.

The ASEAN Academic Conference on Disaster Health Management is the prime forum in ASEAN to exchange academic findings and insights related to Disaster Health Management. The forum is one of the targets stipulated in the Plan of Action or the POA to implement the ASEAN Leaders' Declaration on Disaster Health Management, so I can assure you that our gathering here does matter at the regional level.

The current global health crisis showed us the crucial contribution of data, information and lessons learned in addressing the healthcare challenges brought about by disasters and in the attempts towards a comprehensive disaster response supporting the society and economy in a time of a major turmoil. Our first ASEAN Academic Conference on Disaster Health Management is a good example.

Today we are holding a discussion on the question of "How can ASEAN realize the One ASEAN One Response in the Field of Disaster Health Management (DHM)", in which we will highlight the importance of the international community coming and working together to strengthen the academic capacities of the region through the four sessions, a keynote speech and a panel discussion at the end of Day 2 of the conference. With these sessions, we will share and discuss how ASEAN can further collaborate in the region and beyond to address the risks related to disasters, health emergencies and other threats.

I would like to thank the ARCH Project Team who worked very hard to support this conference, all academicians who contribute and join our activities, the Japanese colleagues for their strong support in making a special volume of our journal and also my final thanks to the technical editorial team. We are very grateful.

Ladies and gentlemen,

Let me finally wish you a successful virtual conference and assure you that I will spare no efforts to help strengthen the regional academic capacity on disaster health management. May you all have a productive time.

Thank you.

Opening Remark by the Japanese Advisory Committee

Delivered by Dr. Tatsuro Kai Chairman of the Japanese Advisory Committee

The chairperson, Dr. Atchariya Pangma, ARCH Project Director and Secretary-General of the National Institute for Emergency Medicine of Thailand,

Ms. Rodora T. Babaran, the Director of Human Development, ASEAN Socio-Cultural Community Department, ASEAN Secretariat,

Invited Guests, Ladies and Gentlemen,

It is with my great pleasure to be with you today on the occasion of the first ASEAN Academic Conference. On behalf of the Japanese Advisory Committee for the Project for Strengthening the ASEAN Regional Capacity on Disaster Health Management (ARCH Project). I would like to take this opportunity to congratulate and warmly welcome all of you.

Like ASEAN, Japan is a disaster-prone country. In order to share knowledge and experience obtained through previous natural disasters, the training courses on Disaster Medicine in Japan have been conducted since 1988, and accepted training participants from more than 50 countries worldwide.

A survey on the Current Situation of Disaster Medicine/ Emergency Medicine in the ASEAN region was conducted between 2014 and 2015. Based on this survey, the ARCH Project was formulated as a technical cooperation project.

The origin of disaster medicine in Japan dates back to the Cambodian refugees' relief mission in 1979. The management system on disaster response has been strengthened since the mid-80s, including the foundation of the Japan Disaster Relief (JDR team), a structure with a legal foundation. The JDR has responded to major natural disasters and emergencies all around the world.

On the other hand, the great Hanshin-Awaji earthquake in 1995 led to the establishment of the Japanese DMAT for domestic emergencies to provide emergency medical care in affected areas. The experience gained through JDR's international operations has contributed to the development of Japan's domestic disaster response system.

The ARCH Project started to support ASEAN to strengthen its regional capacity in disaster health management by sharing Japan's knowledge and experience on domestic and international disaster medical response.

The exchange of human resources for disaster medicine in Japan and ASEAN has been promoted through various ARCH Project activities such as training programs, and Regional Collaboration Drills. Needless to say, knowledge sharing has to be two-way interaction. As the ARCH Project, we realized that Japan was beginning to learn a lot from ASEAN Member States.

The world is constantly faced with large-scale disaster; however, disasters usually occur when lessons learned have already been forgotten.

The fact reminded us of the importance of international mutual learning across borders, and the importance of applying the knowledge and lessons learned to large-scale disasters that may occur anywhere in the world at any time, rather than accumulating them in just one country or region.

We have come to realize that the ARCH Project provides a forum to accelerate mutual learning on disaster health management.

We are in the process of establishing the ASEAN Academic Network on Disaster Health Management, which is one of the 21 targets of the Plan of Action to implement the ASEAN Leaders' Declaration on Disaster Health Management.

The network will support the academic, research and learning components of the capacity building efforts on Disaster Health Management of ASEAN and ASEAN Member States.

Along with this ASEAN Academic Conference on Disaster Health Management which is organized every two years, it is also planned to conduct joint research activities, and an ASEAN Journal or E-Bulletin of Disaster Health Management will be established and published twice a year.

The network will also support each ASEAN Member States to develop a disaster health training system responsible for the implementation of capacity development, knowledge management, and research.

Disaster medicine is a relatively new academic field. Through this newly established academic network and mechanism, I hope that the lessons we have learned will be properly managed, and the knowledge sharing with the world will continue in the future.

To end of my speech, please allow me to wish you all the best for the success of the 1st ASEAN Academic Conference on Disaster Health Management, and I hope that the outcomes of the mutual learning fostered in Japan and ASEAN will be disseminated to the world through the ASEAN Academic Network, and contribute greatly to the further development of disaster health development.

Thank you very much.

Opening Remark by the ASEAN Secretariat

Delivered by Ms. Rodora T. Babaran Director of the Human Development Directorate, ASEAN Socio-Cultural Community Department ASEAN Secretariat

Dr. Atchariya Pangma, Secretary-General of the National Institute for Emergency Medicine of Thailand, and Chair of the ASEAN Academic Conference,

Dr. Tatsuro Kai, Chair of the Japanese Advisory Committee for the ARCH Project,

Distinguished Session Chairs, speakers and delegates,

Ladies and Gentlemen,

A pleasant morning to all of you.

It is an honor to speak at the opening of the ASEAN Academic Conference on Disaster Health Management.

First and foremost, I would like to acknowledge all participants for your leadership and contributions in enhancing capacities in preparing for and responding to the health aspects of disasters, public health emergencies and other crises in your respective countries and at ASEAN level through the ASEAN Health Sector.

I also appreciate and commend all of you for the steadfast and indefatigable commitment of being in the frontline of the medical and public health response of your countries to the protracted and unprecedented health crisis brought about by COVID-19 pandemic. We salute your valuable contributions in ensuring that vulnerable people have access to urgent life-saving medical care, and that our health systems continue to function despite surges of cases. You did these, despite putting your own lives at risk.

I also acknowledge Thailand, through the Ministry of Public Health and the National Institute for Emergency Medicine, for leading the ASEAN Health Sector in strengthening disaster health management. We also convey our gratitude to Japan, through the Japan International Cooperation Agency, for the strategic and sustained collaboration with Thailand and the ASEAN Health Sector which has resulted in significant progress in disaster health management in the last five years.

Distinguished delegates,

The holding of the Conference is fitting and timely, as we are at many crossroads. Let me highlight two points here.

One, the ASEAN Health Sector has just completed the first half of the operationalization of the ASEAN Post-2015 Health Development Agenda, which contributes to the ten-year roadmap of the ASEAN Socio-Cultural Community Blueprint 2025. The Agenda includes Disaster Health Management (DHM), one of the new strategic health priorities which the sector agreed to cooperate under the purview of ASEAN Health Cluster 2 on Responding to All Hazards and Emerging Threats. During this period, notable progress under DHM has been made, including the adoption of the ASEAN Leaders' Declaration on Disaster Health Management in 2017 which outlines the health sectors' strategic priorities in contributing to the realization of the ASEAN Declaration on One ASEAN One Response. A Plan of Action to implement the ALD on DHM was adopted by ASEAN Health Ministers in 2019, and which is now implemented through a Regional Coordination Committee currently chaired by the Philippines.

The health component of the ASEAN's disaster management mechanism has significantly evolved through the development of a *Standard Operating Procedure in the Coordination of Emergency Medical Teams of ASEAN* and related tools and forms, and its integration into the *Standard Operating Procedure for Regional Standby Arrangements and Coordination of Joint Disaster Relief and Emergency Response Operations* overseen by the *ASEAN Coordinating Centre for Humanitarian Assistance and Disaster Response*.

These are important DHM gains which the ASEAN Health Sector is apt to celebrate and be proud of. On the other hand, these are also initial feats which need to be followed through to ensure the implementation and institutionalization; hence, priority activities will be part in the 2021-2025 Work Programme of ASEAN Health Cluster 2.

Distinguished delegates,

The second crossroad relates to the ARCH Project, which Phase 2 will commence in January 2022 and be implemented through March 2026. The ARCH Project Phase 1 and Extension Phase have established a solid foundation for further DHM strengthening at national and regional levels through the setting up of regional coordination platform, the conduct of regional collaboration drills, the development of regional response coordination procedures and tools, and the delivery of tailor-made training programmes.

The ARCH Project has also been pivotal in the crafting of the Declaration and Plan of Action on DHM and continues to be committed to significantly support the realization of ASEAN commitments. Among others, it has created sub-working groups to lead in the drafting of standard training curricula and in studying and recommending collective measures that will enable ASEAN to deploy EMT consistent with WHO standards.

As the Conference takes stock of the achievements of Phase 1 and Extension Phase including important lessons from the five-year experience, let this Conference also serve as a collective, albeit virtual, celebration for the successful cooperation in DHM! While the priority activities for Phase 2 have already been determined, let this Conference be an avenue to further capture insights that will further enrich your work in the next three years.

The ASEAN Secretariat stands ready to support your cooperation in strengthening our capabilities in preparing for and responding to the health aspects of disasters, public health emergencies and other crises.

I look forward to the successful conduct of the two-day Conference. I also look forward to its outcomes and recommendations.

Thank you.

Keynote Lecture (Global I-EMT Initiative)

1) Keynote Lecturer's CV with Photo



Keynote Lecturer Dr. Flavio Salio Network Lead, Emergency Medical Teams, World Health Organization

Dr. Salio is currently the Network Leader for the Emergency Medical Team Network.

Since 2005, Dr. Salio has been active in providing strategic leadership to health programmes and emergency response coordination for international and Non-

Governmental Organizations in different types of emergencies (natural disasters, outbreaks, conflicts / protracted crises) and Head of Mission in several country contexts (Pakistan, Bangladesh, Central African Republic, Sudan, Mozambique, Bosnia, Malta, to name a few). He played an important role in leading the development of emergency preparedness plans, rapid response teams, field hospital set up and management.

In 2019, he completed a one-year assignment as Emergency Team Lead for WHO in Yemen. Additional deployments include the Ebola outbreak in DRC, and support to the design of the trauma plan and Trauma Stabilization Point (TSP) standards in Iraq, Gaza and Yemen. Previously he was deployed to the West Africa Ebola outbreak and Nepal earthquake as Emergency Medical Teams Coordinator on behalf of the World Health Organization. During the onset of the COVID-19 pandemic, Dr. Salio had just returned as network leader to the EMT Initiative, which saw the deployment of over 120 teams to countries in need of support and mobilization of thousands of national surge responders.

Dr. Salio is also a faculty member of the European Master in Disaster Medicine, involved in medical operations and health policy research and training. He is a certified Emergency Manager, has a Master in Peacekeeping Management, training in Epidemiology, and is completing his PhD in Disaster Medicine at the Universita del Piemonte Orientale.

2) Abstract of the Keynote Lecture

In the past years, the development of the global EMT initiative has been a success, particularly the publication of the Classification and Minimum Standard for Emergency Medical Teams (also called Blue Book). The emphasis on the national teams, EMT training and simulation centers, and recommendations for the optimal care, have been added in the Blue Book also with the renewed focus on investing mechanisms for surge capacity starting at the national level with local adaptation while maintaining the international standards. More importantly, the Minimum Requirements for international deployments were established

New elements of the EMT Quality Management Framework have been added. In fostering and solidifying EMT Network, strategic governance of EMT network has been supported through mentoring, continuous learning has been enhanced through toolkits, protocols, trainings, websites, operational research, and national EMT coordination mechanism has been strengthened in typologies, skills, levels, and adaption of the standards.

In the Working Group on EMT Initiative, there are 4 areas of research priorities which are 1) system resilience including simulation exercises, 2) emergency response including countries support activities, specialized care teams, quality assurance tools 3) surge including classification and standards and 4) policy which are the integration of military asset to response, standard, healthcare workforce and others. Technical Working Groups have played a key role in contributing the efforts at global level, namely, the Technical Working Group

on Highly Infectious Diseases (HID), Technical Working Group on medical Evacuation (MEDEVAC), and Technical Working Group on BURN. The case of Sierra Leone provided an excellent example of requested assistance in burn specialty care and manifests the south-south cooperation through WHO coordination and Senegal support, and also the donor intervention through EU civil protection mechanism.

The current COVID-19 situation has also resulted in numbers of lessons learned from the EMT operation for COVID-19 response. This allows the opportunities to refine the flow of the EMT coordination amongst countries, to invest in training curriculums for teams at the regional level through in-country support, to build and classify teams at exposing to the response experience, and to revisit mobilization capacity and teamwork for EMTs. The result indicates the positive progress of the supported countries EMTs. It highlighted benefits on investing in standards setting and the role international teams played in solidarity and confidence building and also the flexibility shown during emergency deployment and response in pandemic. Additionally, the linking of EMTs with other rapid response capacities such as the Public Health Rapid Response Teams (RRTs) and Rapid Mobile Lab should be pursued. The alignment of these mechanisms can facilitate response operations and streamlined actions related to mitigation, detection, investigation, isolation, early treatment and continuation of care.

The ways forward for the development of the EMTs include addressing the gaps in the technical and operation skills amongst the emergency workforces, greater flexibility of mechanism, systematic review of response mechanism, continued emphasis on local and national teams and readiness status. Moreover, there is a need to continue the regional and sub-regional approach based on the lesson learned from ongoing initiatives such as the ARCH Project.

3) Summary of Discussions (Q&A)

Question and Answer

1. Question from Mr. Ikeda: In the wake of COVID19 pandemic, what is the current status of the accreditation process for the WHO EMT classification? For instance, in ASEAN, EMTs of Indonesia and the Philippines are in the process of accreditation.

Response from Dr. Flavio: The current action has been the revision of the pool of mentors to be used from Jan 2022. Next step is to provide refreshed training to clarify the new tools, and explain the revision to tools from the new version of the blue book. The assignment of new mentors, checklist, scoring systems are identified to be applied for the team. Now, during the pandemic restriction, the interaction is mostly online, but the opportunity to interact in person is much looked forward to. We are making progress in the classification system.

2. Question from Mr. Ikeda: Is WHO proceeding with the re-classification for already classified team for the new system?

Response from Dr. Flavio: Through the strategic advisory group, we extended the classification of the classified team to 2 years following the process of revisiting comments back in 2016 in which the team submitted evidence of improvement based on the provided comments. Re-Classification is an on-going process. We need to develop typology for different types of re-classifications to streamline the process. Some fast track can be introduced to the process.

3. Question from Dr. Kubo: From WHO observation, what have been the strengths or potential as features for the ASEAN in EMT development in relation to the contribution from the ARCH Project?

Response from Dr. Flavio: ASEAN region has been an inspiring case in ensuring common endorsement of standards, common understanding of deployment methodology, reporting system, ensuring streamlined

understanding among AMS. This posts opportunity for sub regional and regional coordination in other regions for future benefit in which everyone can bring sharing to the table for mutual learning. The alignment of the military medicine in disaster response can be revisited and can be scaled to other regions. I do hope that the lessons learned in the ASEAN region will benefit other regions.

4. Question from Malaysia: Is WHO EMT accreditation necessary for international EMT deployment?

Response from Dr. Flavio: The receiving country will decide on the acceptance of the offer of teams. However, the classification provides a systematic way of processing and steps to follow – to ensure the same language and typologies apply for both recipient and EMT offerors.

Response from ASEC: The deployment of EMT in ASEAN focuses on the natural disaster aspect, and still not yet the public health aspect. The EMT deployment for public health emergencies can be moved to discussion during the second phase. The aim of the deployment is to deploy regionally, and still not internationally. The strengthening of the national and sub-national capacity is also one of the main focuses for this project. It is expected during the ARCH Project Phase 2 to harness collaborations either for natural or public health emergencies.

5. Question from Mr. Ikeda: ASEAN had committed to the one ASEAN one response concept which was where the ARCH Project came in. 10 AMS countries have the will to contribute to this mission through their EMTs. Some maybe more difficult to satisfy WHO standard for EMTs but ASEAN measures will assist to fill in the gap in terms of medical equipment, stockpile sharing between the EMTs and so forth. From WHO point of view, this may be different from a self-sufficient deployable team. What does WHO think about the ASEAN collective measures to fill in the gap to fulfill minimum requirements?

Response from Dr. Flavio: Medical stockpile improvement is an important step forward where one should not be isolated in the process so that the collaboration as said can be achieved. The key element is the type of equipment provided. EMT must be trained to use the same equipment with the same type of tools which can complement the response of the team, not obstruct. However, this is an interesting measure and the step must be defined.

6. Question from Singapore: WHO encourages for a full capacity of self-sufficient deployable team in terms of stockpile. But we found that the host country can provide agreed foundational items such as fuels. Among AMS understanding, the host country indicates things they have and need so that they do not duplicate simple supplies such as gasoline and others. The concept is not to duplicate what's already available on the ground.

Response from Dr. Flavio: This is an ideal situation, but we have encountered situations where the provision of stock is impossible. However, across the ASEAN countries, teams must ensure the configuration and types of tools and minimize the exposure to risk and to avoid tensions between recipients and teams.

Session 1: ARCH Project, ASEAN Regional Mechanism, and Global Initiatives for EMT

1) Session Aims and Purposes

The session aims to discuss which strategies were employed in the formulation of the ARCH Project to address challenges observed in the pre-ARCH status.

The discussion will be further elaborated to review the outcome of the ARCH project, especially its impact and contributions on policies and capacity development on disaster health management within and outside ASEAN, as well as globally, and also identify issues that the ASEAN plus Japan should address in the future.

2) Chairperson and Speakers' CV with Photos



The Session Chair Jirot Sindhvananda, MD Senior Advisor, Chulabhorn International College of Medicine, Thailand

Dr. Jirot is a senior advisor of Chulabhorn International College of medicine (CICM), Thammasat University, assisting in Dermatology, Aging care and wellness aspect. He also works as a member of committees under the Department of Medical Service Support (DMSS) of Ministry of Public Health (MOPH) developing regulations about Telemedicine, Genomic Medicine, Medical and Wellness Issues and Hot Spring Health Regulation.

Dr. Jirot graduated from Siriraj Medical School, Mahidol University in 1982 and after he served the country as general practitioner for 2 years in the Northeastern region he returned to study in the field of Dermatology at The Institute of Dermatology (IOD), Department of Medical Services (DMS), MOPH and received Thai Board in Dermatology in 1987. He worked as staff of IOD and went abroad to Japan for further study in the field of Photobiology. He spent about 1 year in Japan as part of "Strengthen Capacity of IOD Plan" under Diploma Course in Dermatology Project, a cooperation project under an IOD-Japan International Cooperation Agency (JICA)–Thailand International Cooperation Agency (TICA) MOU. During that period, he had a chance to study in Juntendo University, Tokyo, Tokai University, Tokyo and Kensai University, Osaka under the arrangement of Prof. Dr. Hideoki Ogawa Professor and Chairman of the Department of Dermatology. After gaining his Diploma in Photobiology, he worked at IOD and took care of the International Health Section of DMS. Dr. Jirot took the post of Director of IOD during 2005-2012 then moved to Deputy Director General of DMS for 2 years. He moved to be Senior Advisor to MOPH for 5 years, taking care of Drug Addiction Issues and International Health especially ASEAN (working as a member of Thai SOMHD) Issues. He has worked with the ARCH Project from the starting point and worked as a representative of MOPH and member in many committees under the ARCH project and Joint Coordinating Committee (JCCs) and has served as a chair of PWGs meeting under ARCH Project from the beginning.

Speaker



Shuichi Ikeda, MSc

JICA Expert, Chief Advisor for the Project of Strengthening the ASEAN Regional Capacity on Disaster Health Management (ARCH)

Mr. Ikeda graduated from the Faculty of Agriculture, Tsukuba University in 1983 and took a Master's degree in Environment Science from Tsukuba University in 1985. Since joining Japan International Cooperation Agency (JICA) in 1985, he has worked in various departments in the head office and also worked in overseas offices such as Myanmar, USA and Laos. He was Deputy Director General (DDG), Secretariat of

Japan Disaster Relief (JDR) from 2008 to 2011 and DDG, Department of Global Environment from 2011 to 2013. He served as Chief Representative of JICA Thailand from 2013 to 2016 and Director General of JICA Chugoku (JICA domestic branch office) from 2016 to 2018. He is now working as Chief Advisor for the Project of Strengthening the ASEAN Regional Capacity on Disaster Health Management (ARCH), since June 2018.



Speaker

Ferdinal Moreno Fernando, MD, MDM Assistant Director and Head of the Health Division of the Human Development Directorate (HDD), ASEAN Socio-Cultural Community Department, ASEAN Secretariat

Dr. Fernando has been Assistant Director and Head of the Health Division of the Human Development Directorate (HDD) under the ASEAN Socio-Cultural Community Department (ASCCD) of ASEAN Secretariat since 2011. Under his

purview is the facilitation, coordination, initiation, management and implementation of the ASEAN Health Development Agenda and its Work Programmes focused on Health Priorities involving promoting healthy lifestyles; responding to all hazards and emerging threats; strengthening health systems and access to care; and enduring food safety.

He has been a licensed physician in the Philippines since 1993. He has also been engaged with various development work and health-related initiatives at local and international levels for the past 26 years as part of his professional or volunteer work.



Speaker

Alisa Yanasan, MD Deputy Director, Division of Public Health Emergency Management, Ministry of Public Health, Thailand

Dr. Alisa is currenly appointed as the Deputy Director of the Division of Public Health Emergency Management, Ministry of Public Health, Thailand. She also serves as the Chief of Emergency Medicine Unit, Lerdsin Hospital, Thailand.

She graduated from Faculty of Medicine, Thammasat University in 2007, and

completed an advanced post graduate course on Geriatric Medicine, Thai Board of Emergency Medicine, in 2010. Her expertise is in emergency medicine, nontechnical skills, and public health emergency operation center. She also conducts several research projects, particularly in health data in disasters.



Speaker Tatsuhiko Kubo, MD, PhD Professor, Hiroshima University, Japan

Dr. Kubo is a Professor of the Hiroshima University, Leader of the Japan Disaster Relief Medical Team (JDR) EMT initiative corresponding unit; and the Advisory committee member of the ASEAN ARCH Project had been dispatched to the super typhoon Yolanda relief mission in 2013. At the health cluster meeting during that

mission, Dr. Kubo recommended to the Department of Health of the Philippines and the WHO to let all the international emergency medical teams (iEMTs) to report their daily activity by the Philippine's national surveillance SPEED form. Afterwards all the iEMTs started to report by the SPEED form and suddenly became sentinels of the national health information system. Based on this lesson learned, Dr. Kubo has developed the SPEED Japan version so called J-SPEED. Further, Dr. Kubo had been trying to push up the SPEED to the international standard and chaired a working group of the WHO with Dr. Ian Norton and developed the Emergency Medical Team Minimum Data Set (MDS). In February 2017, the WHO has endorsed the MDS as a new standard. In 2019, the MDS has been activated for the first time by the Ministry of Health of Mozambique at the cyclone Idai response with on-sight support by Dr. Kubo as the JDR Expert Team. Family: wife, one son and three daughters. Hobby: music and kitchen garden.

3) Abstract of the Speakers

Overall Progress of the ARCH and Future Strategy (ARCH 2)

Presented by Mr. Shuichi Ikeda JICA Expert, Chief Advisor for the ARCH Project

The Association of Southeast Asian Nations (ASEAN) initiated regional challenges toward strengthening regional collaboration for disaster prevention and response since the earthquake and tsunami of Sumatra in Indonesia occurred on 26th Dec 2004. In 2016, ASEAN Leaders signed "the ASEAN Declaration on One ASEAN, One Response". Under these circumstances, ASEAN decided to implement the Project for Strengthening the ASEAN Regional Capacity on Disaster Health Management (ARCH Project) in cooperation with JICA, whose objective is to strengthen coordination on disaster health management (DHM) for rapid and effective response to disasters occurring in the ASEAN region and to enhance the capacity of each ASEAN Member State (AMS) on DHM. The ARCH Project started in July 2016 and will terminate its Project period at the end of this year with many outcomes. ARCH Project is the first-ever successful regional cooperation mechanism and standardization of DHM in ASEAN, one of the most disaster-prone regions. It also contributes to the capacity building of AMS. The ARCH Project has a remarkable impact on the resilience and flexible medical response to disasters, although continuous efforts of stakeholders to make this initiative sustainable are necessary.

ARCH Project 's Contribution to ASEAN Regional Policy and Strategy on Disaster Health Management

Presented by Dr. Ferdinal M. Fernando Assistant Director and Head of the Health Division of the Human Development Directorate ASEAN Socio-Cultural Community Department, ASEAN Secretariat

Disaster Health Management is one of the strategic priorities of APHDA 2016-2025 acknowledging the significant burden of disasters, public health emergencies and related crises to the health and livelihoods of populations and to the resilience of health systems in the region. The 2019 ASEAN Leaders' Declaration on Disaster Health Management (ALD DHM) and 2019-2025 and the Plan of Action to implement the Declaration (POA) further articulated the priority on DHM and the health sector's commitment to AADMER and ASEAN's One ASEAN One Response.

The ARCH Project significantly contributed to the formulation and implementation of POA – ALD on DHM through engagement of ASEAN Contact Points on DHM and support to the Regional Coordination Committee on Disaster Health Management. It also implemented collaboration and networking, tools and guidelines, and capacity strengthening priorities in the APHDA as overseen by ASEAN Health Cluster 2 on Responding to All Hazards and Emerging Threats. It also facilitated in defining the initial health component of ASEAN disaster response mechanism through the development and integration of the Standard Operating Procedure for the Coordination of Emergency Medical Teams into the ASEAN SASOP.

The ARCH Project, as it starts Phase 2, will continue to play a significant role in strengthening DHM, as well as in public health emergency preparedness building on recent experience from the COVID-19 pandemic.

The ARCH Project and the Global Initiatives of Disaster Health Management

Presented by Dr. Alisa Yanasan Deputy Director, Division of Public Health Emergency Management Ministry of Public Health, Thailand

In recent decades, a number of Global Frameworks have been developed for Disaster Management, such as the Yokohama Strategy, the Hyogo Framework, and the recent Sendai Framework, which the Bangkok Principal was consolidated to implement the health aspect of the Sendai Framework.

In realizing the ASEAN Leaders' Declaration, the ARCH Project has illustrated a step towards the global framework in strengthening disaster health management. The Project Working Group (PWG) 1 has the role in the development of databases for EMTs and health need assessment in emergencies, while PWG 2 has the role in capacity development and network building to support research and academic aspects of the project including curriculum development and training support. Moreover, the ARCH Project activities highlighted the Regional Collaboration Drill (RCD) which aims to improve proficiency of AMS EMT towards the international standards and improved readiness based on their national response plan. The Minimum Data Set (MDS) was also tested at the Start-Up Drill in 2016 and the MDS daily report was endorsed by WHO strategic Advisory Group.

However, challenges are still to be addressed such as the utilization of regional coordination mechanisms through RCCDHM, expansion of the academic network, sharing of regional experience globally and future collaboration with other networks, and the exploration of other cross-cutting fields. Thus, the DHM knowledge in cross-learning with other fields in health and non-health sectors is crucial in better response in all aspects.

How the ARCH Project has Contributed to the WHO EMT Initiative

Presented by Dr. Tatsuhiko Kubo Professor, Hiroshima University, Japan

In February 2017, the WHO EMT Strategic Advisory Group (SAG) endorsed the EMT Minimum Data Set (MDS) as a newly agreed standard of the EMT daily report. Importantly, the ARCH project has been testing the MDS before the aforementioned endorsement since the start-up regional collaboration drill in 2016. At that RCD, all participating states agreed to utilize the form regionally. This positive evaluation was informed to the SAG of the WHO and thereby contributed to the international endorsement process. Moreover, the origin of the MDS is the Surveillance in Post Extreme Emergencies and Disasters (SPEED) of the Philippines. The ARCH is also influencing actual EMT operations. In March 2019, devastating cyclone Idai hit Mozambique. Three out of five international supporting staff of EMTCC were the members who were trained just one month before at the EMTCC Training Course hosted by the ARCH project. The MDS tools repeatedly tested at the ARCH were used, which realized the data-based unified coordination of various EMTs as if they were a single entity and making "one response" under the authority of the Ministry of Health Mozambique. The nature of "One ASEAN, One Response" has a strong universality with the EMT initiative and this region would remain as an international pathfinder to make the "one response".

4) Summary of Discussions (Q&A)

1. Question from Malaysia: SPEED form is very handy. Can the smartphone App version be accessed off-line during the downtime of the internet in a disaster event?

Answer by Dr. Kubo: The SPEED Data is transferred in an online situation. There's another WHO spreadsheet format which is simple to use provided by WHO. However, this version is not widely used at this stage, and tests are more needed. It is encouraged that the ARCH Project member should use the smartphone version to test and provide feedback if any.

2. Question from Vietnam: Is there any reporting form or data set developed for the purpose of COVID-19 response in Japan?

Answer by Dr. Kubo: There's a J-SPEED for COVID-19 version collecting information from local hospital, health center and local authority which can get visualized data in a timely manner.

3. Dr. Jirot Sindhvananda, Session Chair, responded that ARCH Project can evolve to include other emerging trends like the pandemic and other issues within its original mandate. There's a possibility that COVID-19 can co-occur with other disasters that needed a response. ARCH Project has already provided platforms for AMS to interact and network. The ASEAN mechanism has also been set up, while AMS members have the responsibility to run it. With regards to the tools, the already developed tools can be used for other emerging threats in the future, as well as work in cross-cutting areas in the regional bodies. The Minimum Data Set, can also be made better through the next coming drills after COVID-19, while other training and capacity building activities can be further carried out effectively in the future. On behalf of the chair of the 1st session, Dr. Jirot was honored to be a part of ARCH Project and wished for fruitful collaboration in the future.

Session 2: Impact of ARCH on National Capacities and Policies on Disaster Health Management in ASEAN Member States and Japan

1) Session Aims and Purposes

The session aims to confirm the impact of the ARCH Project in AMS, and share the experiences of 5 countries (*) including Thailand and Japan, on whether their participation in the ARCH Project, especially hosting the RCD, has led to any positive changes in national capacities and policies on disaster health management, and to confirm the significance of their further participation and strategic value of the ARCH2 Project.

(*) 4 AMS countries that have hosted the RCD, and contributed to the publication of academic article in PDM: Indonesia, Philippines, Thailand, and Viet Nam, + Japan

2) Chairperson and Speakers' CV with Photos



The Session Chair

Ferdinal Moreno Fernando, MD, MDM Assistant Director and Head of the Health Division of the Human Development Directorate (HDD), ASEAN Socio-Cultural Community Department, ASEAN Secretariat

Dr. Fernando has been Assistant Director and Head of the Health Division of the Human Development Directorate (HDD) under the ASEAN Socio-Cultural Community Department (ASCCD) of ASEAN Secretariat since 2011. Under his

purview is the facilitation, coordination, initiation, management and implementation of the ASEAN Health Development Agenda and its Work Programmes focused on Health Priorities involving promoting healthy lifestyles; responding to all hazards and emerging threats; strengthening health systems and access to care; and enduring food safety.

He has been a licensed physician in the Philippines since 1993. He has also been engaged with various development work and health-related initiatives at local and international levels for the past 26 years as part of his professional or volunteer work.



Speaker

Taro Kita, BHSc JICA Expert, Collaboration on International Disaster Management/ Project Coordination for the Project of Strengthening the ASEAN Regional Capacity on Disaster Health Management (ARCH)

Mr. Kita has been serving as a JICA Expert (Collaboration on International Disaster Management/ Project Coordination) for the Project for Strengthening the ASEAN Regional Capacity on Disaster Health Management (ARCH Project) since 2019.

Prior to joining the ARCH Project, he worked under the International Red Cross and Red Crescent Movement for 30 years, with experience in management in various emergency field missions including post-disaster, public health emergencies, refugee crises, and armed conflict, as well as project management for development projects, in Africa, Asia, and Middle America.



Speaker

Sansana Limpaporn, MABIT Professional, National Institute for the Emergency Medicine, Thailand

Ms. Sansana is a Professional in the Disaster Operational Support Section, Bureau of Emergency Medical operational Support, National Institute for Emergency Medicine (NIEM), Thailand.

Ms. Sansana graduated from the Faculty of Law, Thammasat University, in 1991, and has post-graduate degrees in PR and Advertising, Sripatum University (1997), and in Business Information Technology. Middlesex University, London (2003).

She has been working with the Project for Strengthening the ASEAN Regional Capacity on Disaster Health Management (ARCH Project) since the very beginning of the project in 2014 as a secretary of the Deputy Secretary-General, NIEM: Dr. Phumin Silapunt; one of the keymen of the ARCH Project.

At present, she is responsible for managing the project and coordinating, nationally and internationally, between the ARCH Project and its stakeholders; ASEAN Member States, ASEAN Secretariat, AHA Centre, JICA, ASEAN Health Cluster 2, SOMHD, Thai Taskforce and so on.



Speaker

Chinh Nguyen Duc, MD, PHD, Assoc. Professor Advisor, Viet Duc University Hospital, Viet Nam

Assoc. Prof. Chinh is an advisor of the department of septic surgery and wound care, of Viet Duc University Hospital, one of the biggest centers of surgery and trauma care in Vietnam. He is also a visiting professor of the surgical faculty of Hanoi Medical University, Vietnam University of Traditional Medicine.

Assoc. Prof. Chinh graduated from Hanoi Medical University in 1983, and has a

Second post-graduate Degree (2003), and a PhD in Vietnam (2010). He undertook further postgraduate study in GI surgery as well as laparoscopy in France, Japan, Taiwan, US, Australia.

As an advisor of the Department of Septic Surgery and Wound Care, Assoc. Prof. Chinh is responsible for conducting clinic, consultations, operation and treatment of digestive diseases and other infectious diseases as well as surgical communicable pathologies such as complication of GI tuberculosis, Fournier' gangrene, and descending necrotizing mediastinitis; also, for wound care, he is an expert on caring for complex trauma wounds. As a visiting lecturer of universities, he is responsible for teaching and training young doctors and medical staff. He is also an expert on pre-hospital and Disaster Health Management. Regarding scientific research, he has published over 100 qualified papers both nationally and internationally on the abovementioned topics.

Assoc. Prof. Chinh is a member of the committee of Vietnam Association of Endolaparoscopic Surgeons (2020-2025); Vietnam Proctology Association; IASGO; ELSA; ASEAN Pacific URGO Wound Expert Board.





Alfonso C. Danac, MD, FPCS, FPSGS, FPALES, FACS, FPCHA, MHM, MBA Chief of Medical and Professional Staff Technical Consultant and Incident Commander Jose B. Lingad Memorial General Hospital, Philippines

Dr. Danac obtained his Medical Degree at the Angeles University Foundation School of Medicine and had his Residency Training in General Surgery at the Jose B. Lingad Memorial General Hospital (JBLMGH). He earned a Master Degree in Hospital

Management and Master in Business Administration at Jose Rizal College Graduate School in July 2019.

He is currently the Chief of Medical and Professional Staff of JBLMGH and is the Technical Consultant and Incident Commander of the JBLMGH COVID-19 Preparedness and Response Team. He is also the Training Officer of the Trauma and Critical Care Fellowship Training Program of the JBLMGH Department of Surgery, Consultant and Former Chair of the JBLMGH Department of Emergency Medicine and ER Services, Training Committee Member and Former Training of Officer of the JBLMGH Department of Surgery and Training Committee Member and Former Chair of the Angeles University Foundation Medical Center (AUFMC) Department of Surgery. He is also an Associate Professor of the Department of Anatomy and Department of Surgery of AUF School of Medicine, and a member of the Faculty of the Definitive Surgery for Trauma Course (DSTC) and Advanced Trauma Life Support (ATLS).

He plays an active role in various regional, national and international health emergency related incidents and planned events foremost of which is being the Drill Master in the 3rd Regional Collaboration Drill of the ARCH Project and later on becoming a Mentor for the succeeding RCDs and one of the Philippine representatives to the ARCH Project Working Group.



Speaker

Bella Donna, MD, MPH Head of Disaster Health Management Division, Center for Health Policy Management (CHPM) Faculty of Medicine, Public Health and Nursing, Universitas Gajah Mada, Indonesia

Dr. Bella Donna currently works as a Head of Disaster Health Management Division CHPM FoM-PHN UGM. Her other current positions at UGM also include being a

Board Member of Health System and Disaster Management block team for medical student and health postgraduate students, a Board Member of Disaster Working Group of FoM-PHN, and a Board Member of Community and Family Health Care Inter-Professional Education. She is also a Board Member of International Training Consortium Disaster Risk Reduction, Ministry of Health and WHO.

She has contributed to several assignments in disaster responses such as Yogyakarta earthquake 2006, Padang earthquake 2009, as well as some big disaster events in 2018 (Lombok, Central Sulawesi, Pandeglang and South Lampung), in the Sulawesi Barat earthquake as Head of Management Support for Emergency Response to Deliver Advance Team in 2021, Landslide at Banjarnegara and Volcano Eruption at Merapi: DERU Advance Team Faculty of Medicine in 2010, and etc.

Moreover, she has published several research papers and books such as post disaster needs assessment tools and training modules for disaster health planning, including the recent publication of Impact of Large-Scale Social Restrictions (PSBB) in Communities on Hospital Visits for patients of COVID-19, 2021.



Speaker

Ina Agustina Isturini, MD, MPH

Deputy Director for Prevention, Mitigation, & Preparedness, Center for Health Crisis Unit, Ministry of Health, Indonesia

Dr. Ina Agustina Isturini is a Deputy Director for Prevention, Mitigation, & Preparedness at the Center for Health Crisis Unit, Ministry of Health, Indonesia. She is a health crisis management expert and has been working for more than 16

years at the Center for Health Crisis Unit, Ministry of Health.

She has contributed to several assignments in disaster responses such as the Yogyakarta earthquake 2006, the Pangandaran tsunami in 2006, the DKI Jakarta flood in 2007, the bomb attack in Marriot & Ritz Carlton Hotel Jakarta in 2009, the Merapi Volcano eruption in 2010, the Sinabung volcano eruption in 2013, the Lombok earthquake in 2018, etc.

She obtained her Medical Doctor Degree at Padjadjaran University, and Magister of Public Health at University of Indonesia. Her expertise is in Disaster Health Management as well as Health Crisis Management. She also has published research papers such as Evidence based policy analysis on discrepancies between national regulations and programs related to safe health facilities and international framework, Health Crisis Response in Indonesia in 2016, and Health Sector Preparedness During the Eid-al-Fitr Homecoming Across Indonesia in 2017.



Speaker

Ms. Madelina Ariani

Researcher and Consultant on Disaster Health Management Division, Center for Health Policy and Management (CHPM) Faculty of Medicine, Public Health and Nursing, Universitas Gadjah Mada, Indonesia

Ms. Madelina Ariani currently works as a researcher and consultant on Disaster

Health Management Division CHPM FoM-PHN UGM. Her other current positions at UGM also include being a member of the Health System and Disaster Health Management team for undergraduate and post-graduate programs, as well as a member of Disaster Working Group of FoM-PHN UGM.

She has contributed to several disaster response assignments in assisting management in health cluster/ province or district health office such as the Pidi Jaya Aceh earthquake 2016, the Lombok earthquake, the Central Sulawesi earthquake, tsunami and liquefaction 2018, the tsunami in South Lampung and the Sulawesi Barat earthquake at January 2021. She has worked on research project desk reviews of regional planning documents related to health security and disaster preparedness etc. In addition, she is a trainer of Disaster Plan Training for Hospital, Primary Health Care, and District Health Office.

She has published several books and policy briefs including the recent policy brief on Policy Recommendation on Organizational Models for Sub-National Public Health Emergency Operation Center in Indonesia: presented to the Ministry of Health and South Sulawesi Stakeholders in 2021.



Speaker

Yuichi Koido, MD, PhD Secretary-General of the DMAT of the National Hospital Organization Headquarters

Dr. Koido graduated from Saitama Medical University in 1984. After serving as a lecturer and medical director at the Advanced Emergency and Critical Care Center of Nippon Medical School Hospital in 1997, became the director of the clinical research department of the National Hospital Organization Disaster Medical Center (DMC) in 2008. In 2009, appointed as the director of the critical care center of the

DMC, and in 2010, appointed as the secretary general of the DMAT Secretariat, Ministry of Health, Labor and Welfare of Japan. Currently, the Secretary-General of the DMAT of the National Hospital Organization Headquarters since April 2020.

3) Abstract of the Speakers

Impact of the ARCH Project on Capacity Development of ASEAN Member States in Disaster Health Management

> Presented by Mr. Taro Kita JICA Expert, Collaboration on International Disaster Management/ Project Coordination for the ARCH Project

The impact of the Project for Strengthening the ASEAN Regional Capacity on Disaster Health Management (ARCH Project) on each ASEAN Member States (AMS) since the project implementation in July 2016 was reviewed.

The analysis of the impact on AMS was based on a comparison with the previous status in each AMS, including legislative and policy framework, training and education programs, management and coordination of Emergency Medical Teams (EMT) and application of the project outcomes in actual disaster and emergency operations.

AMS made significant progress in the management of EMTs, strengthening EMTCC capacity for receiving international assistance, as well as the development of legislation or strategic plans related to disaster health management, and application of the project products such as standard operating procedures or regional tools in actual disasters/ emergencies.

The ARCH Project is highly appreciated by AMS as the opportunity to share knowledge and experience among countries, and thereby contributing to achieving the "One ASEAN One Response" concept, as well as the driving force for each AMS to develop its capacity in disaster health management.

Impact for Thailand

Presented by Ms. Sansana Limpaporn Professional, National institute for Emergency Medicine, Thailand

Collaboratively, Thailand and Japan International Cooperation Agency (JICA) co-founded the Project for Strengthening ASEAN Capacity on Disaster Health Management (ARCH Project) in 2016. During the past 5 years, Thailand have knowledge learnt, shared and exchanged with ASEAN Member States, ASEAN Secretariat, ASEAN Coordinating Centre for Humanitarian Assistance on disaster management (AHA Centre) and Japanese experts via ARCH Project activities, for example, number of conferences, 4 training courses and 5 Regional Collaboration Drills (RCD). We applied what we have learnt to our context, as follows:

- 1. By hosting 2 RCDs, we have learnt how to systematically organize either a field exercise or a table-top exercise for an international level and how to improve and apply domestically.
- 2. We conducted the Basic DHM training course in 4 provinces with 240 participants in total.
- 3. The tools we have developed; Medical Record, Tally Sheet, Daily Report, Health Need Assessment, etc. have been applied and taught.
- 4. Medical and non-medical personnel involved in disaster health management have been trained in 4 courses of ARCH Project.
- 5. It is a great opportunity to know and collaborate with other organizations or bodies in ASEAN e.g. ASEAN Committee on Disaster Management (ACDM), ASEAN Secretariat, AHA Centre, Senior Officials' Meeting on Health Development (SOMHD), and ASEAN Health Cluster in order to have a sustainable development on disaster health management.

Impact for Viet Nam

Presented by Dr. Chinh Nguyen Duc Advisor, Viet Duc University Hospital, Viet Nam

Aims and results of hosting the RCD in your country

As a country with frequent natural disasters, in the framework of the project to strengthen capacity to respond to health in the ASEAN Regional Disaster (ARCH), Vietnam has decided to host 2nd RCD in March 2018 in Da Nang city.

The RCD has specific objectives: implementing an emergency operation center (EOC); checking the appropriate forms to be used for disaster situations, and practicing medical assistance plan and emergency HNA of I-EMT in Viet Nam as well as ensuring the cooperation of both the national EMT (N-EMT) and I-EMT functions

Participants were included: 10 I - EMT from 9 ASEAN countries and Japan. The Vietnamese side had 2 N - EMT; established 01 RDC center and 03 PHEOC centers (1 region and 2 provinces).

The drill included a day for table top exercise (TTX) and another day for field training exercise (FTX) at Hoa Xuan Stadium, Da Nang. TTX included the operation of the RDC, which supports the I-EMTs to complete procedures to enter and leave Viet Nam at the beginning and the end of their duties, familiarizing and practicing to fill out all the forms (15 forms according to standard ASEAN procedure guidelines) under detailed hypothetical scenarios. FTX included administration of regional and provincial PHEOCs, triage, providing first aid and referral practices by collaborating I-EMTs and N-EMTs and HNA practices in the affected and isolated areas, making reports in accordance with the WHO EMT MDS, and sending data to the control center.

The general assessment shows that the drills have been successful in achieving the goals and safety. Both I- EMT and N-EMT updated their knowledge, practice their skills in providing first aid and referring the victims and coordinating well between I-EMT and N-EMT. No accident was happened during these days and all participants were safe. Additionally, the cooperation among the countries was strengthened

Problems of systems or capacities in your country that became apparent through hosting the RCD and measures to be taken at present or in the future

Some shortcomings still exist including poor communication, complicated forms, no standards of first aid skills between I - EMT and N-EMT, language translators and role of EOCs in coordinating and analyzing data need to be improved.

There is no SOP to coordinate agencies (Ministry of Health with other agencies/departments), Ministry of Health and Department of Health for DHM, especially in deploying the resources: human and equipment, including ambulance, uniforms.

There are differences in procedures of first aid compared with other countries in the region, including the forms and equipment.

The database through recording, statistics, and damage assessment is not met with the international standards

Cases where the outputs and products of the ARCH Project were utilized to strengthen or improve systems and capacities on DHM in your country.

The drill was successful with many experiences gained including planning for disaster response, deploying and operating health resources, EOC function, and reporting statistics for the disaster.

Planned for disaster response, deploying and operating health resources;

Strengthening EOC office and reporting system;

Forms has been translated and successfully piloted in disaster response in 2020; and

Uniforms including PPE for health staff in general, for EMT in particular were proposed and piloted.

Impact for the Philippines

Presented by Dr. Alfonso C. Danac Chief of Medical and Professional Staff II Jose B. Lingad Memorial General Hospital, Philippines

The Philippines hosted the 3rd Regional Collaboration Drill (RCD) under the ASEAN Regional Capacity on Disaster Health Management (ARCH) Project in December 2018. Over 300 players, and more than 100 participants, players and observers from the ASEAN Member States (AMS) including Japan and Taiwan participated in the activity.

The drill examined the draft regional collaboration mechanism and tools on disaster health management which were developed through the ARCH Project. The drill further refined the emergency medical team (EMT) operations at all levels in terms of command and control, coordination and collaboration, and communication.

The Philippine hosting of the drill is in line with the preparation of the country to respond to a possible 7.2 magnitude earthquake in Metro Manila. Hosting an international drill is an opportunity for many health emergency response teams all over the country to participate and learn from the other response teams of the AMS. Almost 200 players from all the 17 regions in the Philippines and other government and non-government organizations participated in the said international drill. In the end, it benefited the country to enhance interagency collaboration and coordination both at the national and international response operation activities. Likewise, the said drill also contributed in the effort of the Philippines to organize the Philippine Emergency Medical Assistance Team (PEMAT) through enhancement of the existing draft operational guides and standard operating procedures (SOP) based on the learnings from the drill.

Policies on Mobilization of Health Emergency Response Teams (Administrative Order No. 2018-0018) and the management of the Philippine and International Health Emergency Response Teams were issued as guide in the mobilization of response teams. The ARCH SOP on EMT coordination was used as reference in the development of the said policies.

In addition, though not yet WHO-verified, PEMATs were mobilized in the disasters and planned events such as polio vaccination (2019), 30th SEA Games (2019), Typhoon Vongfong (2020), Traslacion Mass Gathering (2020), and Taal Volcanic Eruption (2020). Further, PEMAT actively participated in international drills such as INSARAG (2021 and 2020), and 4th RCD (2019).

Indeed, from a country with several experiences on disaster, the Philippines benefited from hosting the 3rd RCD as it improved our coordination between countries, and among local responders.

Impact for Indonesia

Presented by Dr. Ina Agustina Isturini Deputy Director for Prevention, Mitigation, Preparedness Ministry of Health, Indonesia

> Dr. Bella Donna Head of Disaster Health Management Division Universitas Gajah Mada, Indonesia

Ms. Madelina Ariani Research and Consultant on Disaster Health Management Division Universitas Gajah Mada, Indonesia

Indonesia agreed to be the 4th host of Regional Collaboration Drill (RCD) in 2019, in order to contribute in strengthening regional coordination capacity on disaster health management through cooperation and sharing experiences, to improve national capacities in responding disaster event in ASEAN, and to propose composite team model as best practice of Indonesia's EMT management.

Impact of RCD was exceeded our expectations. First, RCD represents a resemblant process of disaster management in ASEAN, such as how to manage international EMT who will be deployed, how to coordinate with AHA Center and AMS through EOC website. Second, RCD showed an integrated simulation between medic and management skills, not only patient treatment skills of EMT but also management process on reception and departure center, permission and coordination in health emergency operation center (HEOC), how to make a daily report and coordinate with EMT coordination cell, as well as teach EMTCC and HEOC to organize all including operation and data information. Moreover, we found that some needs to be improved such as the request and verification process of healthcare volunteers or EMT for each country. Thus, the Center for Health Crisis Unit, MOH Indonesia has adopted a disaster health management simulation of RCD into an annual disaster simulation.

Achievement of Indonesia in this RCD were (1) composite team model of EMT that consisting of multi medical and health professionals with core team to be a new EMT and healthcare target, was practiced on trial for future disaster response in Indonesia; (2) appreciated by participants, most of them responded that the overall activity was satisfying. (3) got valuable inputs from mentors. Nevertheless, it was not easy for Indonesia in preparing RCD and it was needed many coordination meetings and communication with many platforms because of distance between Jakarta and Bali as simulation location, ensured related agency, ministry, department at national, Bali Province, and Karangasem District had involved, and collaborated with academics, researchers, and practitioners who support in all process of RCD as committee, participants, and observers.

Impact for Japan

Presented by Dr. Yuichi Koido

Secretary-General of the DMAT of the National Hospital Organization Headquarters, Japan

Japan is a country experienced all kinds of natural disasters and even experienced major airline accidents, terrorist attack, and nuclear power plant accidents. Japan's disaster medical system has improved significantly over the past 30 years by gaining experience of such a wide variety of disasters. Disaster medicine in Japan originated from the Cambodian refugees' relief mission in 1979. Since then, the management system has been strengthened including the foundation of the Japan Disaster Relief (JDR) Team, a structure with a legal foundation. The experience gained through international operations has contributed to the development of Japan's domestic disaster response system such as DMAT and EMIS. Japan learned the operational effectiveness of the post-disaster health surveillance system through the disaster response operation in 2013 Typhoon Yolanda Disaster in Philippines and introduced a modified system in Japan for domestic disaster response, which was later refined and proposed for an international standard. While the ARCH Project started to support AMS to strengthen its regional capacity in disaster health management, it is important to build a bidirectional relationship between ASEAN and Japan in terms of mutual learning and support to tackle future disasters.

4) Summary of Discussions (Q&A)

Impact of ARCH on National Capacities and Policies on Disaster Health Management in ASEAN Member States and Japan

1. Question from Dr. Phusit Prakongsai: In relation to the COVID-19 pandemic, what could be the ARCH Project contribution to the response of Covid 19 as it could sustain for some time?

Response from Mr. Kita: ARCH Project began with the objective in relation to natural disaster response. But during the extension phase, some AMS reflected their experiences on the adaptation from ARCH to covid 19.

Response from Mr. Ikeda: This needs to be discussed in panel discussion on how ARCH 2 can continue to contribute to COVID-19. We have to consider establishing ASEAN center for public emergency which is a new initiative from a different entity. Further discussion can lead to the feasibility to develop guideline for MDS (Covid version) to be applied to the response system. All of which can be discussed during Phase 2 workshop where AMS will be invited to discuss Covid as an additional issue.

Response from ASEC: The entry point and coordination for this are to be identified under the ASEAN heath sector to respond to the current demand. The role of ARCH Project to respond to pandemic is also to be identified such as the possibility of having public health experts included in EMT and other. It is also necessary to study the upcoming agencies under ASEAN and explore the alignment of this issue with the new agencies and their mission.

Response from Mr. Hook Sing: As it is understood, the ARCH Project has been established with the role to respond to disaster health emergencies, not public health response. There is existing public health in place within ASEAN, and thus, the role should not be replicated. The Covid aspect of EMT employment should be explored in the area of basic standard deployment e.g., the deployment of vaccinated personnel and EMT members, Covid test requirement and others.

Impact for Thailand

1. Question from Vietnam: Since EMT is a new concept in Vietnam, but to be able to contribute widely Vietnam would like to develop International EMT. Is it possible to send personnel from Vietnam for training?

Response from Mr. Ikeda: During the ARCH Project Phase 2, the standard curriculum for in-country training for AMS is one of the potential activities to be conducted. Vietnam is welcome to host training courses, while the ARCH Project can provide assistance to the course. Another aspect of AMS training is the Training of Trainer (ToT) course, in this respect, Vietnam can also send personnel to train to be instructors to enhance your resource development.

2. Question from ASEC: With the current experience on the pandemic, will there be any modification of the training course content or updates from the lesson learned?

Response from Mr. Ikeda: The ARCH Project Phase 2 will include response to public health emergencies, as well as the component to include other topics for standard curriculum update and incorporate the guideline into the training course. It has been a challenge to revise due to the current context right now. However, this may receive continuous discussion.

Impact for Philippines

1. Question from Dr. Kubo: It is impressive how the Philippine team fits into these exercises with such flexibility and efficiently. How did the Philippine team set up?

Response from Philippines: We have 3 sophisticated teams with experience enriched from Typhoon Haiyan. ARCH was able to put everything into practice and together organize concepts for us. The key to cohesive operation is putting people on the right tasks, knowing your tasks and using knowledge of mobilization including clinical management, referral, MDS, EMTCC. However, all this is very challenging to put agreed protocols in use, without knowing team members in person.

2. Question from ASEC: Are there other agencies related to having opportunities to practice and learn from?

Response from Philippines: There's no local authority, but other international events for PEMAT to be mobilized e.g., the SEA Game, ASEAN Summit as said. These allow us to practice the concepts.

Impact for Indonesia

1. Question from Malaysia: How do Indonesia select the members to participate in the ARCH Project?

Response from Indonesia: The members for ARCH Project participants are chosen based on active EMT practitioners and partners such as NGOs, university, hospitals and others. For NGOs such as MDMC and the Red Cross Indonesia, we invited them to join other trainings based on several events. We will need their continuous support for policy development, facilitating some training, national contingency planning, disaster health risk reduction activities etc. This is why we need to loop them for ARCH too.

2. Question from ASEC: Is there specific assistance that ARCH Project can support for this process of Indonesia and the Philippines for the certification process of the WHO standardization of EMT?

Response from Indonesia: The certification process is currently pending because of COVID-19 in Indonesia. We recently had the national I-EMT meeting and concluded reviving of the certification process.

Response from Philippine: The Philippine is preparing the process for application. The concern is currently on the mentoring and coaching part to fulfill the verification. We are now committed to the training of the personnel and now exposing teams with different EMTCC.

3. Comments from ASEC: ASEC continue to support the Philippines and Indonesia for the certification process for WHO. There will be more AMS to be verified and applied for, or in the process. The process can be also shared for cross learning.

4. Comments from Mr. Ikeda: The concept of cross-learning is very important; the recipients will get the knowledge from the verification process through the experience. And they can share knowledge across AMS. The ARCH Project phase 2 can activate the mutual learning aspect. The Philippines and Indonesia can organize sharing sessions while other AMS could observe, as an example project approach.

Impact of the ARCH Project in Japan

1. Comment from Mr. Ikeda: One of the important key messages for the ARCH and ARCH2 Projects is mutual learning, how we can accelerate the mutual learning not only for ASEAN but also for Japan. Japan considers that knowledge sharing and networking with ASEAN is crucial to address real disaster situations. ARCH 2 can explore the involvement of Japanese academics to work and contribute to ARCH 2.

2. Comment from Malaysia: AMS are facing similar problems that Japan experienced in its early stage such as hospital preparedness, logistics, and sharing medical information, therefore, it would be greatly appreciated if Japan could share its experience with the AMS.

3. Comment from Dr. Phumin: The importance of mutual learning and knowledge sharing is well recognized, and the ASEAN Academic Network on DHM will be established during the ARCH2 to ensure sustainable development of DHM field in ASEAN and Japan.

4. Conclusion by Dr. Fernando: Thanking all presenters for sharing key development, learning from experience on impacts on capacity and policy, highlighting needs for mutual learning and sharing progress of AMS's capacity for DHM responses. All have learned that DHM strategies and policy have already been translated at various levels. Moreover, cross sectoral, cultural, cross stakeholder learning, capacity building and tools are also developed.

Session 3: Experiences of Disaster Health Management in Actual Disasters in ASEAN Member States and Japan

1) Session Aims and Purposes

The session aims to share the experience of 10 AMS countries and Japan on emergency medical response to actual large-scale disasters that have occurred since the beginning of the ARCH Project implementation in 2016, and identify challenges and solutions related to national systems or capacities.

In the absence of a large-scale disaster requiring emergency medical response, case reports on COVID-19 response can be presented.

2) Chairperson and Speakers' CV with Photos



The Session Chair Phusit Prakongsai, MD, PhD Senior Advisor on Health Promotion, Office of Permanent Secretary, Ministry of Public Health, Thailand

Dr. Phusit earned his PhD in Public Health and Policy from London School of Hygiene and Tropical Medicine (LSHTM), United Kingdom in 2008, Medical Doctor Degree from Mahidol University in 1988, and a Certificate in Preventive Medicine

from Thai Medical Council in 1993. He has 10 years of field experience in public health and health care management in three district hospitals in the rural area of Thailand from 1988 to 1998. He served as the principal investigator and co-investigator of several research projects related to health system and policy, health insurance, universal health coverage, and health care finance at the International Health Policy Program (IHPP), Bureau of Policy and Strategy, Ministry of Public Health (MOPH) of Thailand from 1999 to 2019. He received the WHO long-term fellowship for pursuing his PhD study in London in 2002. After his graduation, he was appointed to be the director of IHPP, MOPH of Thailand from October 2010 to December 2014, and served as the Director of Bureau of International Health (BIH), MOPH from October 2014 to June 2017. Since then, he has been appointed as Senior Advisor on Health Promotion, Office of Permanent Secretary, MOPH from June 2017 until present.



Speaker

Dr. Hjh Lailawati Hj Jumat Director of Hospital Services, Department of Medical Services at Ministry of Health, Brunei Darussalam

Dr. Hjh Lailawati Hj Jumat is a medical practitioner with more than 20 years' experience in health sector management and over 10 years' experience in clinical administration. She is currently the Director of Hospital Services, Department of

Medical Services at the Ministry of Health. She is the Deputy Emergency Commander and one of the officers in-charge of the Department's Emergency Operation Centre (DEOC), coordinating COVID-19 medical response, deployment of healthcare workers, developing reports, SOPs and guidelines. She is also a member of the National COVID-19 Vaccine Technical Committee.



Dr. Kol Hero

Director of the Department of Preventive Medicine (DPM), Ministry of Health, Cambodia

Dr. Kol Hero is the Director of the Department of Preventive Medicine (DPM), Ministry of Health, Kingdom of Cambodia since 2017. The department of Preventive Medicine has three bureaus: Disaster and Environmental Health Management, Non-Communicable Controls and Oral Health. His activities at the current position are to

assist the department to formulate national policy, strategy and action plan including initiating pilot projects and programs with development partners and relevant stakeholders locally, regionally and globally.

Besides the current work at the ministry, he dedicates his time to lecture students of public health at the University of Health Science in the country for two master courses, environmental-occupational health and non-communicable diseases, and a bachelor course in environmental-occupational health since 2015.

He graduated from medical school (previously called Faculty mix of medicine, pharmacy and odontostomatology and currently called University of Health Science) in 1991 and worked at a provincial hospital 1992-1998 before moving to work at the central level of MOH. He worked for the office of regulation and ethics, the department of hospital services, from 1998-2001. Then, he moved to work in the DPM in late 2001 as a deputy director. He has engaged in various tasks and research activities within his scope of the responsibility. He gained his master degree of science in epidemiology of public health from the university of the Philippines Manila (1996-1998); Master of Business Administration (MBA) from School of Business and Finance, Frankfurt, Germany (2004-2005); and MBA in Phnom Penh Cambodia (2002-2005). He also a candidate of Doctor of Business Administration in the country since 2007.



Speaker

Eka Jusuf Singka, MD, MSc Director of Center for Health Crisis Unit, Ministry of Health, Indonesia

Dr. Eka Jusuf Singka is a Director of the Center for Health Crisis Unit, Ministry of Health. He obtained his Medical Doctor at University of Hasanuddin, Master of Science at University of York, England, and the doctoral degree at University of Islam Negeri Syarif Hidayatullah, Jakarta.

Dr. Eka has a lot of professional experience, among others as the Director of Center for

Health of Hajj (2017-2021), Deputy Director for Hajj Health Risk Factors Control and Counselling – Centre for Health of Hajj (2016-2017), Deputy Director for Health Technical and Functional Training - Centre for Education and Training of Health Apparatus (2013-2016), and Deputy Director for Overseas and Foreign Deployment of Human Resources for Health - Centre for Planning and Deployment Human Resources of Health (2012-2013).

He has contributed to several assignments in large-scale disaster responses. They are Earthquake & Tsunami in Aceh Province (2004-2005), Earthquake in Nias island (2005), Tsunami in Banten and Lampung Province (2018), and COVID-19 Pandemic in 2020-2021. He also has published research/ papers, namely *Hajj Health Management in Indonesia* which was published in Medical Journal of Indonesia in July 2020 and *Return Migration of Indonesian Nurses from Japan: Where Should They Go?* which was published in the Journal of Nursing Education and Practice in January 2018.



Vangnakhone Dittaphong, MD Director of Sethathirath Hospital, Ministry of Health, Lao PDR

Dr. Vangnakhone Dittaphong has been working as a Medical Doctor (MD) at the Anesthesiology Department of Mittaphab Hospital since 1999. He has a Diploma Degree of Medical Doctor from the University of Health Sciences, Vientiane Capital, Lao PDR. He also completed a General anesthesia from the University of Victor Segalen Bordeaux II, France, and Anesthesia in Neurosurgery from the University of Louis Pasteur Strasbourg, France.

Vangnakhone is one of the key officials within the Anesthesiology department, Intensive Care Unit and Emergency Department of Mittaphab Hospital.

His responsibilities include teaching Primary Care, Anesthesiology Intensive Care, and Emergency Medicine at the Faculty of Medicine University of Medical Sciences. He supervises the postgraduate students who are practicing in the hospital and also helps provincial and district levels on Intensive Care and Emergency Medicine. Dr. Vangnakhone serves as a Deputy Director of Mittaphab Hospital, and also a Director of Sethathirath Hospital, Ministry of Health.



Speaker Daovilay Banchongphanith, MD, MPHM Secretary and Coordinator, Ministry of Health, Lao PDR

Dr. Daovilay Banchongphanith has been working as a Secretary and Coordinator at the Ministry of Health since 2012. She has a Diploma of Medical Doctor from University of Health Science Vientiane Capital, Lao PDR, and a Master Degree in Primary Health Care Management from Mahidol University of Thailand.

Dr. Daovilay is one of the key officials within the Cabinet Office of Secretariat of Ministry of Health (MoH) Disaster Health Management Committee (MoH.DHMC) and Coordinator of Secretariat Central Disaster Management Committee (SCDMC).

Her responsibilities of a Secretary and Coordinator are as follows; writing the disaster (The collapse of Saddle Dam and Flooding), budget planning, assisting and attending the meeting in MoH and SCDMC, writing monthly and yearly report of cabinet, collecting the data from the province and sending to SCDMC, writing budget yearly plan/ master plan, and preparing medical team for the Military Drill in Lao, ARCH Project, 3 Drill, and also assisting the logistic. As a Coordinator and Secretariat of Disaster Committee of Ministry of Health, her roles include assisting the meeting in EOC, writing the Report and collecting the Data to NDMO, coordinating to UN agencies and NGOs, responding the official document to authority medical team from MoH and Foreigner medical team to assist the provincial. Dr. Daovilay also serves as a Team Leader and Deputy Director of the Regulation Division of the Cabinet of the Ministry of Health to present.



Speaker Dr. Khairi bin Kassim & Hashim Head of the Emergency Department, Serdang Hospital, Malaysia

Dr. Khairi is a certified Emergency Physician since 2003. He has been appointed as Head of Emergency Department in various major hospitals in the States of Pahang and Selangor. Currently he heads the Emergency Department in Serdang Hospital, a tertiary referral hospital near the Malaysia's capital city of Kuala Lumpur.

He currently chairs the National Disaster Medicine Committee for Emergency Medical and Trauma Services of Ministry of Health Malaysia. He has been involved in developing guidelines on disaster management at the hospital, at state and national level. He also conducts regular disaster medicine training at the national level for Ministry of Health personnel.

At the international level, he was a member of the Malaysian Medical Team to the Aceh Tsunami, Indonesia in 2004. He was appointed as Team Leader, Malaysian Field Hospital for Rohingya Refugees, Cox's Bazar, Bangladesh in January, 2018. Currently, he is the Malaysian representative for the "Project for Strengthening the ASEAN Regional Capacity on Disaster Health Management" (ARCH Project).



Speaker

Dr. Nyan Win Myint Director at Central Epidemiology Unit, Department of Public Health, Myanmar

Dr Nyan Win Myint is a Director at the Central Epidemiology Unit, Department of Public Health, Myanmar. Dr Nyan has experience in communicable diseases control, disaster and humanitarian emergencies, and international public health. He spent 18 years providing epidemiological support to the Ministry of Health,

Myanmar's public health emergency responses, epidemiological surveillance and monitoring, outbreak investigation, point of entries and travel health, field epidemiology training program and operational research. He is the country focal point for international health regulations (IHR) and health security issues in Myanmar to coordinate with international organizations such as WHO, ASEAN, GMS and MBDS etc. He is deeply involved with the Ministry of Health preparedness and response to COVD-19 as Emergency Operation Center Manager, Rapid Response Team Deployment and Travel Measures implementation and epidemiology investigation. Nyan has a Master's in Public Health and a PhD in Tropical Medicine from Mahidol University. He has Humphrey Fellowship on Health Policy and Management from Emory University and fellowship on Public Health Emergency Management from United States Centers for Diseases Prevention and Control.



Ms. Janice Feliciano Nutritionist-Dietitian V, Department of Health, Health Emergency Management Bureau, Philippines

Ms. Janice Feliciano is a Nutritionist-Dietitian V at the Department of Health, Health Emergency Management Bureau, Philippines, and also a Senior Lecturer IIII at Centro Escolar University, School of Nutrition and Hospitality Management.

Her signification contributions include representing the Philippines in leading the Project for Strengthening the ASEAN Regional Capacity on Disaster Health Management (ARCH Project), lead of the 3rd ASEAN Regional Collaboration Drill in 2018, international instructor in Nutrition in Emergencies of the Asian Disaster Preparedness Center in 2017, and resource person and member in different areas. Her technical contributions also include a development of ASEAN Standard Operating Procedures on the Coordination of Emergency Medical Teams, Disaster Risk Reduction and Management for Health Planning Guide, Philippine Emergency Medical Team Operational Guide, Policy on the Mobilization of Health Emergency Response Teams, Policy on the Management of Philippine and International Health Emergency Response Teams, Manuals on Nutrition in Emergencies, and others.



Speaker

Dr. Alvin Ong Cong Wei Clinical Director and Consultant, Department of Post-Acute and Continuing Care, Jurong Community Hospital, Singapore

Dr. Alvin Ong Cong Wei is currently appointed as Clinical Director and Consultant in the Department of Post-Acute and Continuing Care, Jurong Community Hospital, National University Health System (NUHS).

He graduated from National University of Singapore (NUS) in 2007 with a Bachelor

of Medicine and Bachelor of Surgery. He completed his Master of Medicine (Family Medicine) in 2012. He was conferred Fellowship of the College of Family Physicians Singapore in 2016 and Fellowship of Academy of Medicine Singapore in 2017.

He is the Associate Program Director of Family Medicine Consultant Development Program and Core Faculty member of the Family Medicine Residency Program in NUHS. He is also an adjunct lecturer in the Department of Medicine in NUS and an appointed examiner for the NUS Graduate Diploma in Family Medicine since 2016. He is an accredited Family Physician with the Family Medicine Accreditation Board. He was awarded with the prestigious Community Care Excellence Award, Individual Gold Award by the Agency of Integrated Care in 2020.

His passion includes system transformation in chronic diseases management; optimizing continuity and coordination of individualized care across healthcare transitions; as well as quality improvement in healthcare.



Kriangsak Pintatham, MD

Emergency Physician, Chiang Rai Prachanukroh Hospital, Ministry of Public Health, Thailand

Dr. Kriangsak graduated with a Doctor of Medicine degree from the Faculty of Medicine, Chiang Mai University. He graduated from a doctor specializing in emergency medicine. He is currently an emergency physician at Chiang Rai Prachanukroh Hospital since 2014. He has expertise in pre-hospital emergency medicine and disaster medicine. He also holds a position on the Executive

Committee of the College of Emergency Physicians of Thailand.

Dr. Kriangsak is a working group and Thai expert involved in ARCH project from the start of the project and participated in regional collaboration drills of the project plan from its inception to the present. He has been involved under the PWG 2 on Disaster Curriculum Development for ASEAN Countries.

Dr. Kriangsak was involved in the search for 13 footballers who disappeared in Tham Luang in 2018, playing a role as a coordinator of the emergency operations team and the emergency operations team to transport patients. Dr. Kriangsak Pintatham had the opportunity to present and share this mission in various forums in many countries including the United States, Mexico and Malaysia.



Speaker

Lam Nguyen Nhu, MD, PHD, Assoc. Professor Head of the Disaster Medicine Department, Deputy Director, Viet Nam National Burn Hospital, Viet Nam Vice Chairman of the Vietnam Association of Disaster and Emergency Medicine

Assoc. Prof. Lam is head of the Disaster Medicine Department, Deputy Director, Viet Nam National Burn Hospital. He is also Vice Chairman of the Vietnam Association of Disaster and Emergency Medicine (VNADEM).

After graduating from medical university (1991), Assoc. Prof. Lam studied at Adelaide University, Australia, receiving a master degree (2001), then a PhD in Vietnam (2006). He also undertook further training courses in disaster medicine, burn care in the US and Japan.

Assoc. Prof. Lam is now working as a burn expert, Vice Chairman of the Viet Nam Burn Association (VNBA), an active member of the International Society for Burn Injuries (ISBA) teaching undergraduate and postgraduate students in burn care and therapy.

Assoc. Prof. Lam has published over 120 scientific articles in burn, emergency and disaster medicine in domestic and international journals.



Le Quoc Chieu, MD Vice Leader of Emergency Medical Team and Leader of Science – Technology Unit, Vietnam National Burn Hospital

Dr. Le Quoc Chieu is currently the Vice Leader of the Emergency Medical Team and the Leader of Science – Technology Unit, Vietnam National Burns Hospital.

He graduated from Vietnam Military Medical University (VMMU) and completed his Master of Medicine in Internal Medicine. He is currently a PhD student at Burn and Medical Disaster in VMMU. He is a member of the Vietnam Burn Association

and Vietnam Association of Emergency and Disaster Medicine. His personal goals are to become an expert in medical disaster and burns, as well as to contribute to the community on disaster prevention. He wishes to commit to actively participate in responding to medical emergencies and disasters in Vietnam and other countries in ASEAN, and to continue support to the ARCH Project.



Speaker

Yoshiki Toyokuni, PhD Chief of Disaster Medical Coordination Unit for Japan DMAT Secretariat

Mr. Toyokuni is a Chief of Disaster Medical Coordination Unit for Japan DMAT Secretariat. He serves research project operation for Secretariat, trains for DMAT members and other medical teams, and coordinates several training courses and drills domestically and internationally. He responded to all natural disasters such

as 2016 Kumamoto Earthquake, Ontake volcano eruption disasters. He also responded to the Mozambique cyclone disaster in 2018 and operated EMTCC for EMTs. He is a Research Assistant at National Research Institute of Fire and Disaster. He graduated from Oregon State University in 2002, earned a master's degree in Sports Medicine from Long Island University 2004, and PhD in Medicine from University of Occupational and Environmental Health, Japan in 2021.

3) Abstract of the Speakers

Brunei Darussalam: COVID-19 Medical Response in Brunei Darussalam

Presented by Dr. Hjh Lailawati Hj Jumat Director of Hospital Services, Department of Medical Services Ministry of Health, Brunei Darussalam

Brunei recorded its first local transmission case on 7 August 2021, 457 days since the first imported case was detected. As of 24 November 2021, there are 14,701 confirmed cases (14,638 local transmissions), 441 active cases of which 5 are in critical care, and a total of 57 deaths. 2,385 individuals are serving a Quarantine order. Currently, 77.5% of the population completed 2 vaccination doses, and 93.3% have received at least 1 dose.

The National COVID-19 Steering Committee of Cabinet Ministers, chaired by the Health Minister and 2 other Ministers, provides policy and strategic directives on COVID-19 management, supported by 7 Task Forces chaired by Permanent Secretaries. COVID-19 Response is a consolidated approach coordinated by the National Coordination Centre for COVID-19 (N3C19) and supported operationally by various EOCs through a streamlined chain of communication.

During the upsurge of cases, several facilities were repurposed as community isolation centres, laboratory capacity was increased and additional swabbing and vaccination centres were set up. Healthcare personnel were re-deployed and new support staff recruited. Critical and cases needing close monitoring are admitted to the National Isolation Centre, whereas asymptomatic and mild cases are managed in isolation centre or isolated at home.

Public communication supports transparency through daily press conferences led by the Health Minister, official press statement releases, and a 24-hour hotline.

The use of technology via mobile application, BruHealth, has data analytic capabilities for case-tracking and quarantine management.

As Brunei Darussalam moves towards the endemic phase and more restrictions are relaxed, it is expected that cases will increase. Therefore, the aim is to maintain high vaccine coverage including boosters, so that severe infection, hospitalisations and fatalities are kept under control.

Endorsed by SOMHD, AHC 2, RCC-DHM, PWG 1&2 on 18 April 2022

Cambodia: Cambodia's Experiences on Disaster Health Management in Actual Disasters

Presented by Dr. Kol Hero Director of the Department of Preventive Medicine Ministry of Health, Cambodia

Cambodia has suffered from almost all types of hydro-meteorological hazards in several occasions e.g., flash floods and Mekong River floods, drought, and heavy storms (typhoons) as well as fire incidents and epidemics.

As a result of the natural disasters which have greatly affected the Cambodian economy and well-being of the society, the Royal Government of Cambodia has recognized disaster management as a key component of its social and economic planning and a key tool to the country's poverty reduction. Cambodia's National Committee for Disaster Management (NCDM) was established in 1995 in which the Ministry of Health is one of the NCDM members and has its Committee for Disaster Management set up in 2000. At the provincial level, the Provincial Health Department Focal Point for Disaster Management was re-established in 2019. Moreover, the Disaster Management Law was enacted in 2015.

Even though Cambodia does not currently have I-EMT, EMS Teams are available for daily health emergencies e.g., 119 hotlines. In each provincial health department, a team of physicians and health technicians formed a Rapid Response Team (RRT) of which main responsibility is to focus on investigating disease outbreaks.

Challenges encountered by Cambodia are the lack of human resources, limited budget, and lack of political and financial support for developing better-functioning EMTs.

Indonesia: Experiences of Disaster Health Management in Actual Disasters in Indonesia, Central Sulawesi Large-Scale Disaster in 2018

> Presented by Dr. Eka Jusuf Singka Director of Center for Health Crisis Unit Ministry of Health, Indonesia

Indonesia is a disaster-prone area and faces many large-scale disasters. One of the large-scale disasters is the *Central Sulawesi Earthquake on 28 September 2018.* There were thousands of deaths and severe injuries, also hundred thousand of IDPs.

In the early days of the disaster, the health services were not functioning. Access to many locations was difficult, electricity shut down, gas ran out, and communication signal was interrupted. Also, there was a lot of looting and many dead bodies couldn't be evacuated.

Emergency status was declared by the governor a day after the disaster happened, until a month later. Health cluster was activated and resource mobilization, including EMT, was started.

Some problems related to medical response are coordination was not optimal, because of lack of team understanding about disaster management. Also, although Indonesia hadn't asked for international assistance, but there were some international EMTs arrived. I-EMT wasn't utilized optimally because of some barriers (language, the specification didn't meet the needs, etc).

Some efforts to improve DHM are: regulation review and revision, improving the capacity of EMTs, & strengthening coordination in the pre-disaster phase.

Lao PDR: Experiences of Disaster Health Management in Sanamxay District, Attapeu Province, Lao PDR

Presented by Dr. Vangnakhone Dittaphong Director of Sethathirath Hospital, Ministry of Health, Lao PDR

> Dr. Daovilay Banchongphanith Secretary and Coordinator, Ministry of Health, Lao PDR

On 23 July 2018, severe flash flooding occurred in 13 villages in Attapeu because of heavy rainfall and collapse of the Xepien-Xenamnoy hydropower dam construction site. Actions were taken through the health sector response to ensure that the affected population had access to immediate medical care and as specialty first batch of EMT was dispatched to the Attapeu area since the same day. However, challenges in dispatching EMTs were the lack of medical personnel, limited logistical supplies, and little prior experience in DHM. Therefore, medical international support from Viet Nam, Thailand, China, and South Korea became tremendously helpful and surveillance was conducted to prevent potential communicable disease outbreaks.

The success of Sanamxay DHM was the strong political command which led to quick decision making, and also medical services, disease surveillance and reporting were established in a timely manner. Moreover, MOH capacity to the response was effective due to prior training and frequent exercises, EMTs from each hospital were given sufficient notice before deployment and DHR provided the necessary equipment and transportation, Medical services in the general areas of paediatrics, internal medicine and wound care were provided at the district hospital and health service point at each shelter, Surge capacity of the provincial hospital was provided by neighbouring provincial hospitals in Champasak and Sekong as well as central hospitals, There was a referral system for patients from shelters to obtain medical care at the district hospital or provincial hospital if needed. However, there were challenges to be observed during the DHM in which the confusion and delays of service as a result of ambiguous line of command, non-health response actions were delegated to MOH, weak multi-sectoral coordination mechanism, and limited disaster response and logistics management capacity.

After Action Review has generated the recommendations for Lao PDR as followed: 1) responsibilities that fall outside the scope of health sector emergency response in collaboration with non-health sectors must be identified 2) contingency funds must be set up for emergencies at the national and provincial levels 3) an establishment on formal coordination structure for WASH 4) the DHM and response committee must be revised and 5) a plan for national, provincial and district emergency response capacity building must be developed.

Malaysia: Hospital's Response to Surge Capacity

Presented by Dr. Khairi bin Kassim @ Hashim Head of the Emergency Department, Serdang Hospital, Malaysia

The Klang Valley hospitals were experiencing a huge increase in COVID-19 patients requiring treatment between July to September, 2021. Emergency Medical and Trauma Services (EMTS) as part of the frontliners managing the COVID-19 patients were facing the difficult situation of congestion due to the inadequate number of beds available in the wards or ICUs. The impact of surge capacity in ED leads to compromised patient care, tarnished hospital's image and reduced public confidence in the healthcare system. However, using the disaster management 4S concept (Space, Staff, Stuff and Structure/SOP), the hospital managed to identify the gaps and formulate ways to overcome them.

Myanmar: COVID-19 Situation and Response Strategies in Myanmar

Presented by Dr. Nyan Win Myint Director at Central Epidemiology Unit, Department of Public Health, Myanmar

Myanmar has 521,931 confirmed cases of COVID-19 as of 29th November 2021 and over thirteen thousand lives (19,097) lost were reported with the result of a Case Fatality Rate of 3.66%. The Ministry of Health has started the preparedness and response since 5th January 2020 when WHO announced an unknown pneumonia outbreak in Wuhan, China. National Level Central Committee on prevention, control and treatment of COVID-19 and Ministry of Health provides necessary guidance and coordination on policies, strategies, activities, regulations, law enforcement and direct to the regional governments, ministries and international organizations, related to prevent, control and treat COVID-19 as whole of government and whole of society approach. Health Sector Contingency Plan on COVID-19 has focused in technical areas under International Health Regulations. Emergency Operating Center (EOC) was activated and Rapid Response Teams (RRT) were formed at different levels and acted as necessary. Clinical management committee developed the necessary case definitions and Standard Operating Procedure (SOP) to support clinical decisions for all physicians. The Myanmar government has established a strong international cooperation mechanism through WHO, ASEAN and other international agencies. MOH transparently and timely informs WHO and other partners as International Health regulations mechanism. Genomic surveillance for SARS CoV-2 variants in Myanmar detected Variants of Concern and Variants of Interest in some parts of the country. Myanmar government also ensures COVID-19 preparedness and response activities in ethnic areas and IDP camps. Testing strategies are updated due to available evidence and technical recommendations of WHO and US-CDC. The Ministry of Health has given highest priority on risk communication activities from the beginning by actively engaging in health awareness to the public. Moreover, the Ministry of Health in coordination with stakeholders has administered more than 28.1 million doses to the public and high-risk population as of 27th November 2021.

Philippines: The Philippines Experience

Presented by Ms. Janice P. Feliciano Nutritionist-Dietitian V, Health Emergency Management Bureau Department of Health, Philippines

The Philippines, because of the geologic and geographic setting, are prone to a lot of hazards namely earthquake, tsunami, typhoon, storm surge, flood, landslide and volcanic eruption. The Philippines sits on a unique tectonic setting ideal for volcano and earthquake activity. It is situated at the boundaries of two tectonic plates – the Philippine Sea Plate and the Eurasian plate – both of which sub-duct or dive beneath the archipelago along the deep trenches in its east and west seaboard.

There are 53 active volcanoes in the Philippines. One of which is the Taal Volcano. Taal Volcano erupted on the afternoon of January 12, 2020, 43 years after its previous eruption in 1977. According to the Philippine Institute of Volcanology and Seismology (PHIVOLCS), seismic swarms began in the morning of that day and were later followed by a phreatic eruption from Volcano Island Main Crater in the afternoon. Loud rumbling sounds were also felt and heard from the volcano island. Stronger explosions also began that spewed an ash column exceeding a kilometer high, prompting PHIVOLCS to upgrade the alert status to Alert Level 3 by 4:00 pm. On the same day, by 7:30 pm, PHIVOLCS upgraded the alert status to Alert Level 4 after volcanic activities intensified as continuous eruption generated a tall 10 to 15 kilometers with frequent volcanic lightning that rained wet ashfall.

A total of 39 people died as a result of this eruption of Taal, although only one reported case was directly caused by the eruption on January 12, 2020. Demand for N95 masks increased rapidly during the eruption and later, the COVID-19 pandemic (after the Philippines' first case was reported on January 30). The Department of Agriculture reported that the damage to crop, fisheries, coffee, pineapple, rice and corn. A state of calamity was declared in the whole CALABARZON Region via *Proclamation No. 906* which was signed by President Rodrigo Duterte on February 21, 2020.

In this regard, the Philippine Emergency Medical Assistance Team (PEMAT) responded. PEMAT from Dr. Jose N. Rodriguez Memorial Hospital and Sanitarium, and from Jose B. Lingad Memorial General Hospital mobilized a team to respond to the area. PEMAT from Eastern Visayas Medical Center, although very much willing to be deployed was not pursued because of the concern on flights as they are based in the Visayas Region. However, they extended assistance through mobilization of masks needed in the affected area.

PEMAT is a 27-man team composed of doctors, nurses, midwives, medical technician, social welfare officer, pharmacist, administrative officer, finance officer, logisticians, electricians and others. They were mobilized for 2 weeks. They were self-sufficient in terms of logistics and human-resource, true to the WHO-EMT guiding principles. The draft SOPs on PEMAT Clinical and Logistics Management were also tested in this deployment.

As in any other deployment, it started with preparatory activities such as notification and orientation of the PEMAT members, preparation of all logistics requirements, check-in at the regional and local Emergency Operation Center and courtesy calls with the local chief executives. Once settled in the area, the team had briefing in order to set-up their camp to be able to immediately start its operation, including the briefing at their local counterparts for the referral of patients, waste management and other needs in their 2-week deployment.

After which, PEMAT provided services to the victims/survivors, which includes both clinical and public health services. There is an area for registration, triage, resuscitation, isolation, social welfare desk, breastfeeding corner, laboratory, pharmacy, operation center, supply room, quarters, toilets, waste management area, pantry, cooking area, area for the dead, and others following the WHO-EMT principles. On the average, PEMAT were able to cater to 100-150 patients in a day, following the WHO-EMT core and guiding principles. In addition, PEMAT generates daily reports for submission to the local and regional EOCs.

Also, during the deployment, a team from DOH and WHO Country Office conducted a sort of Quality Assurance Visit where they checked how the PEMATs followed the WHO-EMT guiding and core principles, and the provisions in the draft SOP of PEMAT.

After two weeks of deployment, PEMAT demobilized through proper hand-over of the logistics and records to the area, conduct of post-incident evaluation or after action review, and checking all the logistics used were cleaned and placed back in their PEMAT logistics warehouse. It is important to note that all these processes were the same processes followed by the PEMAT during the EMT Induction Course.

This year, though not yet WHO-verified, PEMAT from Dr. Jose N. Rodriguez Memorial Hospital and Sanitarium received the honorable mention award from the International Hospital Federation Awards, recognizing excellence in healthcare, as a result of their response to the Taal Volcano eruption.

Singapore: Experience from a Multi-Disciplinary Care Team Against COVID-19 Pandemic: A Healthcare Perspective

Presented by Dr. Alvin Ong Cong Wei Clinical Director and Consultant, Department of Post-Acute and Continuing Care Jurong Community Hospital, Singapore

Globally, the capacity of healthcare systems across continents has been strained and put to the test with the emergence of the Coronavirus disease 2019 (COVID-19) pandemic. The timely need to ensure the availability of healthcare facilities to isolate and manage the surge in COVID-19 cases without overwhelming existing hospital capacity has posed challenges in many countries. In this paper, we discuss the conceptualization, preparations and operationalization of a community healthcare facility that was set up within a short time frame to attend to the convalescent needs of a large number of COVID-19 patients in the early phase of handling the pandemic.

In the first month of operations, we monitored a total of 2129 clinical encounters, with the majority of patients between 17–35 years of age and between day 2 to day 6 of illness upon admission. Overall, there was a good outcome for the patients, with only 2.3% requiring transfer back to restructured hospitals. There was also no mortality. We hope that the sharing of our experiences of the challenges and learning lessons gleaned may be useful to guide individuals in planning for the future preparedness of healthcare systems in managing pandemics.

Thailand: Thai Cave Rescue Mission

Presented by Dr. Kriangsak Pintatham Emergency Physician, Chiang Rai Prachanukroh Hospital Ministry of Public Health, Thailand

Following the incident of 13 footballers and coaches who disappeared in Tham Luang cave in Chiang Rai on June 23, 2018, a plan was made to mobilize resources from all sectors to carry out a search and rescue mission. In public health, resources have been mobilized to establish a field hospital to provide initial assistance. A team was prepared to transport patients from the cave to the field hospital and from the field hospital to Chiang Rai Prachanukroh Hospital. Hospital response to patient preparation mobilizing experts in various fields to play a role in this mission. As a result of the incident, good coordination and preparation were achieved, the mission was accomplished and the 13 victims were safe. The incident is an important lesson for Thailand in learning to use a system of internal and external coordination in response to emergencies.

Viet Nam: Medical Responses to Flood in Central Provinces, Viet Nam, 2020

Presented by Dr. Lam Nguyen Nhu Head of the Disaster Medicine Department Deputy Director, Viet Nam National Burn Hospital, Viet Nam

> Dr. Le Quoc Chieu Vice Leader of Emergency Medical Team Leader of Science – Technology Unit Vietnam National Burn Hospital

The flood in central Vietnam, starting from July 6, 2020 caused great damage with 249 dead and missing, 705 injured. Health facilities were also flooded, damaged and isolated.

Local governments and health departments had activated disaster response plans, implemented activities of the HEOC, sending EMTs to affected areas, ensuring environmental sanitation, taking health care in evacuation places, and coordinating health care system for caring patients in isolated hospitals.

The Ministry of Health has mobilized 10 central hospitals and institutes, established 7 working groups to support environmental sanitation and epidemic prevention and control, and 2 teams to conduct health need assessment (HNA) by using the ARCH forms.

Significant challenges have been identified and lessons learned have been drawn to improve the medical response to future disasters.

Japan: Experiences of Disaster Health Management in Actual Disasters in Japan

Presented by Mr. Yoshiki Toyokuni Chief of Disaster Medical Coordination Unity for Japan DMAT Secretariat

After 1995 the Great Hanshin-Awaji Earthquake, the Japanese disaster medical system developed rapidly. Since then, Japan experienced major earthquakes such as the 2011 Great East Japan Earthquake and other natural disasters. Japan has been steadily advancing the disaster medical system every time after all those experiences. After the 2016 Kumamoto earthquake, public health management was included into the Disaster Medical System. After the 2018 Torrential Rain Flood and Hokkaido Iburi Tobu Earthquake, medical team coordination for post disaster phase was established and infrastructural logistic support mechanism was clarified. After the 2019 Typhoon disaster, hospital electricity and water supply methods became more definitive. After 2020 COVID-19 pandemic, natural disaster medical operation management was applied and resulted in effective management.

4) Summary of Discussions (Q&A)

Brunei Darussalam

Dr. Jirot Sindhvananda, chairperson of PWG1, raised up a question on whether Brunei Darussalam has adopted the practices of Mutual Recognition Agreement (MRA) for overseas medical response team, e-health, telemedicine and telepharmacy as part of the pandemic management. The delegate from Brunei Darussalam responded that they were well aware of the MRA process. In reference to the presentation, the recruitment was made through direct engagement with the local embassy with support from the Ministry of Foreign Affairs (MoFA). Brunei Darussalam has adopted the telemedicine and telepharmacy practices to manage confirmed cases in isolation centers and on home isolation.

Cambodia

Thailand raised a question on Cambodia's concern about the MRA and personnel training on standard of care during the DHM. Dr. Hero responded that Cambodia has been working with development partners to provide some training for health workers at the sub-national level, while at the national level, responsible hospitals would set up and dispatch a team during the disaster health crisis. Guidance on standard of care has been developed with assistance from WHO, as well as the material Cambodia has received from attending the trainings under ARCH Project, especially from the TTX and SIMEX exercises.

Indonesia

Dr. Phusit Prakongsai raised a question of whether collaboration from ARCH would have been helpful to Indonesia in term of life savings. A delegate from Malaysia also raised a question about how foreign health workers could join the operation without any official request from the Indonesian government. Dr. Singka responded that foreign EMTs, entering through tourist visa and joined some local NGO-led EMTs, and reiterated the importance of formulating concrete procedures for AMS to follow to qualify for I-EMT and more comprehensive preparation for sending assistance in future DHM.

Malaysia

1. During the question and answer session, the chairperson offered a suggestion to create another platform for AMS to share their experience in management of COVID-19 pandemic. In addition, he also asked for more elaboration on the management of nasal infection and air ventilation within the congested wards and whether the hospital has prepared for the plausible next wave of new variant outbreak. Dr. Khairi responded that the hospital chose not to increase the number of beds into each ward, which would have increased the likelihood of infection. Instead, they cleared out other currently-no-in-use spaces (e.g. daycare center) for opening up new wards. Moreover, non-COVID patients have been diverted to other health facilities. For preparedness questions, some renovations within the hospital have been done. Air ventilation system of the ED has been improved by putting up hyperfilter and Ultraviolet Germicidal Irradiation (UVGI). Moreover, new oxygen storage tank, which could host up to 10,000 liters, has been put up near ED.

2. Mr. Shuichi Ikeda, Chief Advisor for ARCH, inquired Dr. Khairi on the suggestions of how ARCH II project can contribute to AMS's capacity in public health emergency response, including COVID-19. Dr. Khairi's suggestions were as follows; I) since ARCH Project has helped AMS to become familiar with SOPs and guidelines, ARCH, Japan and all AMS should therefore collaborate and share experiences to improve SOPs and guideline to be better prepared. II) The four RCDs, including TTX and SIMEX, which have been successfully conducted, proved to be very useful and practical. Malaysia is waiting for the opportunity to contribute as a host country during the ARCH 2 project.

Myanmar

The chairperson asked a delegate from Myanmar about the differences in CFR in different states, and the causes of the differences. Dr. Myint responded that the differences come from two factors; I) comorbidity and II) different vaccination coverage. Myanmar has mobilized more than 28 million doses of vaccines and has covered around 50% of the population over 18 years of age (at least one dose or fully vaccinated).

Philippines

The chairperson asked a question on whether the Philippines have experiences on receiving assistance from I-EMTs. Ms. Feliciano responded that the Philippines was able to manage the Taal Volcanic Eruption with domestic capacities. However, during the Typhoon Haiyan response operation in 2013, the country received tremendous support from I-EMTs. The Department of Health has also been developing a policy, specific to the procedure of receiving support from I-EMTs during emergencies and disasters. Dr. Irvin R. Miranda, DOH Philippines, added on the country's effort for the three Emergency Medical Teams to be verified by WHO, with support from the ARCH Project and other WHO mentors. The Philippines is building capacity to be self-reliant in DHM and also to become a mentor for other AMS.

Session 4: Academic Network on Disaster Health Management

1) Session Aims and Purposes

The session aims to discuss the vision and strategic direction of the ASEAN Academic Network on DHM (AANDHM), and learn from other existing international academic networks on how to enhance the AANDHM activities including the publication of the ASEAN academic journal on DHM which is one of the regional targets of the Plan of Action to realize the ASEAN Leaders' Declaration on DHM, as well as exploring possibilities of strengthening ties with other international academic networks on DHM.

2) Chairperson and Speakers' CV with Photos



The Session Chair Dr. Pisit Charoenying Deputy Secretary-General of the National Institute for Emergency Medicine

Capt. Pisit Charoenying currently serves as the Deputy Secretary-General of the National Institute for Emergency Medicine (NIEM) in Thailand, and is now supervising the development of the emergency medical service system in special context i.e., maritime, insecure environment, and etc. He has extensive experience in the medical field for more than 20 years as a Heart Surgeon and an instructor within the Royal Thai Navy. Before joining NIEM, Capt. Pisit began his

career as a General Physician (GP) at Somdej Pranangchao Sirikit Hospital of the Navan Medical Department and pursued his career path with extensive involvement in special trainings related to Maritime Medicine and Tactical Medicine both in Thailand and other countries, and continues working in the Royal Thai Navy at the Naval Medical Department.

As a Heart Surgeon, Capt. Pisit established the Heart and Chest Surgery Unit within Somdech Phra Pinklao Hospital, and as his specialty grew, he developed the curriculum on the Royal Thai Navy Tactical Combat Casualty Care in 2010 to support the operation of the Royal Thai Navy in the deep southern provinces of Thailand, resulting in a textbook to strengthen the capacity of the instructors. Capt. Pisit also has developed his extensive specialty in the use of Hyperbaric Chambers in patients with maritime-related illnesses such that he established the Hyperbaric Medical Center of Somdech Phra Pinklao Hospital in 2014. After joining NIEM, Capt. Pisit continues to apply his specialty and experience with the development of the emergency medical services system in the maritime context, while adapting himself to the new challenges of the emergency medical services system – the COVID-19 outbreak. Capt. Pisit has been known to be one of the key persons in managing and monitoring the special emergency medical service system within Bangkok Metropolitan and the Suburbs in order to make sure that the COVID-19 patients would be transported to the necessary facilities with greatest safety.



Speaker Phumin Silapunt, MD Deputy Director, Chulabhorn Hospital, Thailand

Dr. Phumin Silapunt is a Deputy-Director, Chulabhorn Hospital, Thailand. As the Deputy-Director, he is responsible for the hospital management and is an advisor to the HRH Princess Chulabhorn Disaster and Emergency Medicine Center.

He graduated as a medical doctor from Chulalongkorn University (1995), and in Public Health Administration, Sukhothaithammathirat University (1998), and is board certified in General Surgery (2001) by Chulalongkorn University.

When he was a Deputy Secretary-General, National Institute for Emergency Medicine, he co-founded the Project for Strengthening the ASEAN Regional Capacity on Disaster Health Management (ARCH Project) in 2014. Although he is not with NIEM now, he is still one of the strengths that the ARCH Project has. With his great support and assistance, the Sub-Working Group on Curriculum Development was established in order to develop two courses on Disaster Health Management.

At present, he is one of the ARCH Project's consultants who is responsible for supervising and giving out useful advice to ensure the project is run in accordance with the Plan of Action under the ASEAN Leaders' Declaration on Disaster Health Management.



Speaker

Jim P. Catampongan, MSc Senior Officer, Health Division, ASEAN Socio-Cultural Community Department, ASEAN Secretariat

Mr. Catampongan is a public health professional with extensive experience in emergency and disaster risk management including pandemic preparedness and response, as well as in community health development and organisational capacity strengthening.

He is currently a senior officer of the Health Division, which is part of the ASEAN Socio-Cultural Community Department of the ASEAN Secretariat in Jakarta. In particular, he serves and facilitates the cooperation of the ASEAN Health Sector in *Promoting Healthy Lifestyles* and in *Responding to All Hazards and Emerging Threats*, which is a set of strategic health priorities which the ASEAN Health Sector agreed to focus strategy on and which are addressed through working groups called the ASEAN Health Clusters.

The response to the COVID-19 pandemic is under the purview of the ASEAN Health Cluster 2 on Responding to All Hazards and Emerging Threats on which Mr. Catampongan is serving. The cluster implements regional cooperative programmes and initiatives for prevention and control of priority communicable diseases, emerging and re-emerging infectious diseases; strengthening disease surveillance, laboratory capacity, risk assessment and risk communication, public health emergency preparedness and response, among others.

Mr. Catampongan served the International Federation of Red Cross and Red Crescent Societies, World Health Organisation and the Philippine Red Cross before joining the ASEAN Secretariat in 2016. He has a master's degree in public health, as well as a post-graduate diploma and certificates in development management, humanitarian assistance and leadership.



Mr. Michael Glen Programme Coordinator, Mitigation of Biological Threats Programme, ASEAN Secretariat

Mr. Michael Glen is the Programme Coordinator for Health Security interface in ASEAN Secretariat, responsible for managing Mitigation of Biological Threats Programme, a programme in ASEAN Health sector, supported by the Weapons Threat Reduction Program, Global Affairs Canada. Specializing in managing public health projects, he started his career path in public health, at grass root level in Papua, Indonesia, and has spent his last decade working in international and

intergovernmental organization.

In his current post, he supports the region in materializing the health-security interface from the public health perspective. His role, among others, supports Member States in designing and building cooperation and working mechanism between ASEAN's health and security sector, with the objectives of strengthening the capacity of ASEAN in mitigating and responding to public health, biological, and other emerging threats. As one of the focal points in the ASEAN Secretariat for COVID-19 response, he plays a critical role in the coordination and engagement with ASEAN's Dialogue and Development Partners, in various COVID-19 pandemic response initiatives to support the region.

He holds a master's degree in International Relations and has authored a number of international papers. His latest publication was co-authorizing the abstract presentations on ASEAN Regional Architecture in Responding to all Hazards and Emerging Threats, and ASEAN Health Sector Perspective in Multi-sectoral and Multi-stakeholder Cooperation, in World One Health Congress, 2020.



Speaker

Ryoma Kayano, MD, PhD Technical Officer, WHO Centre for Health Development

Dr. Kayano joined WHO in 2015 following his career as the assistant professor for international research collaboration at Nagasaki University. He works for WHO Centre for Health Development (WHO Kobe Centre), a WHO HQ department in charge of global health policy research, and leads the research on Health Emergency and Disaster Research Management (Health EDRM).

As the focal point of the secretariat of WHO Health EDRM Research Network, he coordinates multiple global collaborative projects on Health EDRM research,

represented by regularly updating the key research needs of Health EDRM through the consultation with global experts.

As a lead editor, he led the development of WHO Guidance on Research Methods for Health EDRM published in 2021, the first comprehensive guide on how to plan, conduct and report Health EDRM research. Currently he is organizing the global dissemination project to make this guidance accessible and usable for a broader audience and to be used in education and training.

He also leads a project on establishing WHO Health EDRM Knowledge Hub to synthesize the existing knowledge on key Health EDRM research areas and inform policy and programme for better prevention, preparedness, response and recovery for emergencies and disasters.



Shinichi Egawa, MD, PhD, FACS

Professor, International Cooperation for Disaster Medicine Lab., International Research Institute of Disaster Science (IRIDeS), Tohoku University, Japan

Professor Shinichi Egawa is a pancreatic surgeon and Professor, International Cooperation for Disaster Medicine in the International Research Institute of Disaster Science (IRIDeS), Tohoku University. He participated in the headquarter of the Tohoku University Hospital in the 2011 Great East Japan Earthquake. His research major is about medical needs in disaster medicine, hospital business continuity plan,

health workforce development, computer simulation of disaster medicine, and development of a healthy and resilient community against disaster. He published 190 and more English articles and serves as Head of the program committee of WADEM 2022 Tokyo congress, Executive Editor for disaster medicine in Tohoku Journal of Experimental Medicine, Deputy Editor for Disaster Medicine and Public Health Preparedness, and the Advisory Working Group for the Project for Strengthening the ASEAN Regional Capacity on Disaster Health Management (ARCH Project).

3) Abstract of the Speakers

ASEAN Academic Network (Including Development of Standard Curriculum)

Presented by Dr. Phumin Silapunt Deputy Director, Chulabhorn Hospital, Thailand

ASEAN Academic Network on Disaster Health Management (AANDHM) is a crucial mechanism to build regional capacities on Disaster Health Management; both regional and national level. It is a result of the ASEAN Leaders' Declaration on Disaster Health Management. Members of the network are composed of academic organizations that are interested in disaster health management. It is not limited only to academics in the AMS, but also opened for other countries in order to expand an opportunity of knowledge, skills and experience exchanges among the AMS and non AMS.

AANDHM mandates and functions to support and reinforce disaster health management such as to promote educational and training activities, organize regional conferences, establish ASEAN Journal/E-Bulletin and conduct joint research among the network of member institutes.

Although we are in a process of AANDHM establishment, 10 ASEAN Member States collaboratively initiated a Sub-Working Group on Curriculum Development (SWG on CD) under ARCH Project to co-develop a Basic Course on Disaster Health Management (B-Course) as a training course for N-EMT in each AMS and a Coordination course (C-Course) for persons who coordinate EMT operation at national level.

The two curricula were drafted by ARCH Project team and experts incorporated with learning pyramid theory resulting in object-based learning and outcome-oriented activities such as an interactive discussion, brainstorming workshop were applied to facilitate learning and critical thinking experience of all participants.

The B-Course and C-Course shall be able to first instruct in 2022; the first year of ARCH Project phase 2.

Endorsed by SOMHD, AHC 2, RCC-DHM, PWG 1&2 on 18 April 2022

ASEAN Networks Relevant to Cross-Cutting Concerns on Disaster Health Management

Presented by Mr. Jim Catampongan Senior Officer, Health Division ASEAN Socio-Cultural Community Department, ASEAN Secretariat

Mr. Michael Glen Programme Coordinator, Mitigation of Biological Threats Programme ASEAN Secretariat

The presentation aimed to share perspectives and experiences of other ASEAN networks within the health and non-health sectors for consideration in the further development and operation of AAN-DHM.

Networks under the Mitigation of Biological Threats Programme - particularly the ASEAN Emergency Operations Centre Network on Public Health Emergencies, the ASEAN Plus Three Field Epidemiology Training Network and the ASEAN Biosafety and Biosecurity Network – were shared. Information related to their mission and objectives at regional and national levels, the core activities and initiatives, as well as the governance and implementation mechanisms were presented.

The ASEAN University Network, an alliance of leading higher institutions in ASEAN and under the ASEAN sector responsible for education, was also shared. Information on the areas of collaboration, membership and existence of thematic networks, governance and the secretariat were also presented.

History of the Japanese Association of Disaster Medicine and the Development of Disaster Medicine in Japan

Presented by Dr. Yasuhiro Otomo Chairman of the Board Directors of the Japanese Association for Disaster Medicine

Japan is a disaster-prone country unlike any other in the world. The Great Hanshin-Awaji Earthquake, which caused many preventable deaths, led to rapid development of the disaster medical system. However, because there was no academical society of disaster medicine, "Japanese Disaster Medicine Study Group", the predecessor of our association, was established. Since then, this group took the lead in discussions, and has contributed to establish the basic systems of disaster medicine. The name changed to "Japanese Association of Disaster Medicine" in 2000, with the aim of contributing to the development and technical improvement for the progress of disaster medicine. The association holds annual academic meetings and numerous training courses. It is also playing a central role in "Japan Academic Network of Disaster Medicine" expanding activities with other domestic disaster-related academic societies. In order to expand disaster medicine technology and knowledge worldwide, we founded the Asian Pacific Conferences on Disaster Medicine and participated in the World Association for Disaster and Emergency Medicine. We are now exposed to a serious threat of COVID-19. Members of our association are responding to this pandemic nationwide, applying our considerable experience and expertise of disaster medicine accumulated over many years.

Endorsed by SOMHD, AHC 2, RCC-DHM, PWG 1&2 on 18 April 2022

WHO Thematic Platform for Health Emergency and Disaster Risk Management Research Network (Health EDRM RN)

Presented by Dr. Ryoma Kayano Technical Officer, WHO Centre for Health Development

WHO Centre for Health Development (WHO Kobe Centre) has been working on WHO Thematic Platform for Health Emergency and Disaster Risk Management Research Network (Health EDRM RN) with its focus on 1) promoting information sharing 2) supporting researchers in conducting and addressing the identified gaps 3) facilitating global collaborative activities and 4) developing partnerships among participants. Moreover, the activities of WHO Kobe Center are developed in alignment with the global agenda on disaster risk reduction and resilience, namely the Sendai Framework for Disaster Risk Reduction (2015-2030).

In 2016, the Expert Meeting was convened to identify the challenges of the academic and research community. In the following year, the first Lancet letter on Health EDRM was published, indicating a strong requirement of Health EDRM research and global collaboration to implement the Sendai Framework. The Health EDRM RN is a platform to facilitate the research collaboration among countries and regions, and ASEAN researchers' engagement will enhance the output of global research activities, which contributes to the scientific evidence improvement for better policy and programme, with increased quantity and quality of research projects conducted by appropriate methods.

Academic Publication of ARCH Project: Crystalize Your Efforts in the Articles

Presented by Dr. Shinichi Egawa Professor, International Cooperation for Disaster Medicine Lab. International Research Institute of Disaster Science, Tohoku University, Japan

The ARCH Project needed a publication to advocate its significance, to increase the visibility among the experts of disaster medicine, to promote further publications from AMS and ARCH Project contributors, and to enhance the health workforce development for disaster medicine. After a series of discussions between the ARCH Project team and the Advisory Working Group, the five articles are now in the press as a supplemental issue with an open access in the Prehospital and Disaster Medicine journal. The five articles include; 1: the introduction of ARCH Project, 2: relationship with the global initiatives of disaster health management, 3: the development of regional collaboration mechanism, 4: strengthening ASEAN regional capacities, and 5: impact on national capacity development among the AMS and Japan. A doctorate (Ph. D.) is required to become an educator in a university to educate the next generations. Thus, the publication is a good strategy to establish a sustainable and renewable health workforce development. The ASEAN Academic Network should play the role of an open knowledge hub and a networking opportunity. Continuous support from ASEAN and the global community is necessary but it is critical to crystalize your effort in the articles.

4) Summary of Discussions (Q&A)

ASEAN Academic Network (Including Development of Standard Curriculum)

Mr. Ikeda raised the question of whether the establishment of regional training centers must be located within AMS, or any institutes in non-AMS can host the regional training centers. Dr. Silapunt offered his opinion that training courses can be organized both inside and outside AMS but the location of the center shall be situated in one of the AMS.

Dr. Shinichi Egawa, MD, PhD, Tohoku University, Japan, raised a question on an update on the current situation of the publication of academic journals or bulletins. Dr. Silapunt responded that it is at the moment in the stage of idea-proposing process, and it is likely to start from simpler platforms e.g., website and Facebook, and move towards E-Journey later on.

ASEAN Networks Relevant to Cross-Cutting Concerns on Disaster Health Management

Thailand raised a question to ASEC for their opinion on what the key elements that allow networks to successfully work together for a long period of time are. Mr. Catampongan suggested that the success of a network is correlated to how members are participating and contributing to implementation, as well as discussion and addressing solutions for any particular issues. Especially for a network that consists of many members, its leader should be dynamic, have strategic thinking and be able to bring together active and inactive members. Mr. Glen added that the lead country plays an important role, for example Thailand in the case of ASEAN +3 FETN. Secondly, institutionalization of the network will help to sustain initiatives and resources. Being part of the institution under ASEAN health sector will provide leverage for necessary resource mobilization to sustain the network. Dr. Egawa, a Japanese expert, also added to the point that interdisciplinary action/research will enhance the academic achievement of the network and the cooperation should not be limited to only within the network. Members of ANU should also engage in other international/regional arenas.

Academic Publication of ARCH Project: Crystalize Your Efforts in the Articles

Mr. Ikeda asked for suggestions for the next publication of ASEAN Journal on DHM, regarding the purpose, plan and process. Dr. Egawa suggested that currently there is no need to pursue for the high-impact-factor journals, which require a lot of resources for reviewing and publishing process. ASEAN should pursue any good journals, as long as a good peer review process is secured. As for incentive, review contributors should be credited. This method will induce more young researchers into the field and help to accelerate the development of the journal.

Panel Discussion: How can ASEAN Realize the "One ASEAN One Response in the Field of Disaster Health Management?"

1) Session Aims and Purposes

The Panel Discussion aims to exchange views on how the ARCH2 Project shall (1) contribute to capacity development of each AMS on DHM, and (2) respond to the public health emergencies such as COVID-19 pandemic. The discussion will guide the design and development of the detailed implementation plan of the ARCH2 Project.

Panelists will make presentations on the above mentioned 2 topics within 10 minutes (5 minutes for each topic) by using presentation materials (not exceeding 4 pages/ slides for each topic) as required.

A question-and-answer session will be conducted among the panelists first, which will be followed by questions, up to 3 on each topic, from the floor participants to the designated panelists.

2) Chairperson and Panelists' CV with Photos



The Discussion Chair Ms. Asuka Tsuboike Senior Director, Team 2, Urban and Regional Development Group, Infrastructure Management Department, Japan International Cooperation Agency (JICA)

Ms. Tsuboike, is a Senior Director, Team 2, Urban and Regional Development Group, Infrastructure Management Department, JICA. She leads urban and regional development projects in JICA headquarters. She has been overseeing the ARCH project and its activities since March 2018. Prior to her current position, she served as a First Secretary in the Japanese Delegation to OECD (The Organisation for Economic Co-operation and Development), responsible for the DAC (the

Development Assistance Committee) in Paris. She holds an MPA (Master of Public Administration) from the School of International Public Affairs of Columbia University.



Panelist

Dr. Irvin R. Miranda

Medical Officer IV, OIC-Division Chief, Department of Health, Health Emergency Management Bureau, Response Division, Philippines

Dr. Irvin R. Miranda is a Medical Officer IV, OIC-Division Chief at Department of Health, Health Emergency Management Bureau, Response Division, Philippines.

He graduated from Faculty of Medicine and Surgery, University of Santo Tomas, Philippines, and has a postgraduate degree from Graduate School, University of the East Ramon Magsaysay Memorial Medical Center, Philippines. Prior to his current position at the Health Emergency Management Bureau, he had experience working at the Office of the Secretary, Department of Health, in 2005. He later worked as a Medical Officer V at Municipality of Bongabong, Oriental Mindoro, and joined the Valenzuela City Health Office as Medical Officer III for seven years from 2008-2015. He also worked at the National Capital Regional Office, Department of Health, in 2015. In addition to his work experience, he is an active member of the ASEAN ERAT and has extensive health emergency and disaster risk reduction and health related trainings.



Panelist Phumin Silapunt, MD Deputy Director, Chulabhorn Hospital, Thailand

Dr. Phumin Silapunt is a Deputy-Director, Chulabhorn Hospital, Thailand. As the Deputy-Director, he is responsible for the hospital management and is an advisor to the HRH Princess Chulabhorn Disaster and Emergency Medicine Center.

He graduated as a medical doctor from Chulalongkorn University (1995), and in Public Health Administration, Sukhothaithammathirat University (1998), and is board certified in General Surgery (2001) by Chulalongkorn University.

When he was a Deputy Secretary-General, National Institute for Emergency Medicine, he co-founded the Project for Strengthening the ASEAN Regional Capacity on Disaster Health Management (ARCH Project) in 2014. Although he is not with NIEM now, he is still one of the strengths that the ARCH Project has. With his great support and assistance, the Sub-Working Group on Curriculum Development was established in order to develop two courses on Disaster Health Management.

At present, he is one of the ARCH Project's consultants who is responsible for supervising and giving out useful advice to ensure the project is run in accordance with the Plan of Action under the ASEAN Leaders' Declaration on Disaster Health Management.



Panelist

Jim P. Catampongan, MSc Senior Officer, Health Division, ASEAN Socio-Cultural Community Department, ASEAN Secretariat

Mr. Catampongan is a public health professional with extensive experience in emergency and disaster risk management including pandemic preparedness and response, as well as in community health development and organisational capacity strengthening.

He is currently a senior officer of the Health Division, which is part of the ASEAN Socio-Cultural Community Department of the ASEAN Secretariat in Jakarta. In particular, he serves and facilitates the cooperation of the ASEAN Health Sector in *Promoting Healthy Lifestyles* and in *Responding to All Hazards and Emerging Threats*, which is a set of strategic health priorities which the ASEAN Health Sector agreed to focus strategy on and which are addressed through working groups called the ASEAN Health Clusters.

The response to the COVID-19 pandemic is under the purview of the ASEAN Health Cluster 2 on Responding to All Hazards and Emerging Threats on which Mr. Catampongan is serving. The cluster implements regional cooperative programmes and initiatives for prevention and control of priority communicable diseases, emerging and re-emerging infectious diseases; strengthening disease surveillance, laboratory capacity, risk assessment and risk communication, public health emergency preparedness and response, among others.

Mr. Catampongan served the International Federation of Red Cross and Red Crescent Societies, World Health Organisation and the Philippine Red Cross before joining the ASEAN Secretariat in 2016. He has a master's degree in public health, as well as a post-graduate diploma and certificates in development management, humanitarian assistance and leadership.

Panelist



Ms. Agustina Tnunay

Assistant Director of Operations for Preparedness and Response of the AHA Centre (ASEAN Coordinating Centre for Humanitarian Assistance on disaster management

Ms. Agustina Tnunay or Rina for short, currently serves as the Assistant Director of Operations for Preparedness and Response of the AHA Centre (ASEAN Coordinating Centre for Humanitarian Assistance on disaster management). The AHA Centre is an entity of the Association of Southeast Asian Nations (ASEAN) responsible for facilitating cooperation and coordination among ASEAN countries, and relevant United Nations

agencies and international organizations, in promoting regional collaboration. Prior to joining the AHA Centre, Ms. Agustina worked with the United Nations World Food Programme (UN-WFP) from January 2000 to June 2012 as Logistic Officer where she has served in various disaster in the world including Cyclone Nargis as part of UN-WFP Myanmar in Yangon and she was involved in the humanitarian efforts led by UN-WFP Kabul, Afghanistan.

From July 2012 to March 2013, Ms. Agustina joined Nathan Associates Inc., contractor of USAID under the Project ASEAN-U.S. MARKET (Maximising Agricultural Revenue through Knowledge, Enterprise Development and Trade) as an Indonesian Value Chain Expert. During that time, she was involved in the value chain development activities, gender assessment, agricultural related workshops and other activities that are in line with MARKET's goals and objectives.

Ms. Agustina received her Bachelor's degree in Industrial Engineering from Atma Jaya Yogyakarta University, Yogyakarta, Indonesia and obtained her certification in Humanitarian Logistics from Fritz Institute – the Chartered Institute of Logistics and Transport, England, United Kingdom.

3) Summary of Discussions (Q&A)

Question I: How can the ARCH Project Phase 2 Contribute to Capacity Strengthening in DHM in each AMS?

Representative of RCCDHM Chair Country (Philippines)

The Philippines identified three possible recommendations for the ARCH Project Phase 2 as follows; I) Strengthening of each AMS national capacity, II) Strengthening ASEAN regional platform on coordination, and III) Strengthening on capacity building activities at the region and national level.

The ARCH Project shall be mentoring each AMS to organize its own EMT in reference to the regional and international standard, for example; collective measures on DHM, comprehensive team information for EMTs, and in-country courses.

Secondly, the ARCH Project shall aim to strengthen ASEAN regional platform for coordination with a continuous support for, i.e. I) RCC meetings, II) development of SOPs, and III) conduct of RCDs.

And lastly, Platform for sharing experiences and resources, best practices, and ASEAN-level training curriculums shall be supported by the ARCH Project. The Philippines believed that no AMS is currently the same in DHM, but collectively with Phase 2 we will aspire to work on an ASEAN common standard through the provision of technical assistance and collaborative engagements.

Thailand

Thailand suggested that the ARCH Project Phase 2 shall continue its focus on national capacity development on DHM, through various means, i.e. I) focusing on ASEAN collective measures on DHM, comprehensive team Information and, local training course, II) support on academic activities e.g. curriculum development, RCDs, training, regional conference, research and journal and consultation etc., III) reviewing activities on national policy, strategies and procedures, as well as on the national educational training system, using peer review method.

ASEAN Secretariat

The ARCH Project Phase 2 shall place its focus on I) strengthening collaborative frameworks, through RCC meetings, RCDs, ASEAN collective measure, and ASEAN EMT regional database, II) integrating DHM frameworks into national/sub-national frameworks, via study, review of national policies, strategies and procedures of AMS and of national education and training system, and III) enhancing knowledge management via standard regional training curricula, E-learning materials, support in-country trainings, ASEAN Academic Network, ASEAN Institute on DHM and network, regional academic conference, ASEAN Journal/E-bulletin on DHM and joint research.

The ARCH Project shall further develop and institutionalize the gains in Phase 1, related to DHM collaboration and networking; tools and procedures development; learning/education and capacity strengthening. It shall also facilitate and deepen peer support and technical cooperation among AMS ARCH and DHM contact points in identified national priorities. In addition, it shall explore and harness linkages and collaboration with other preparedness and response mechanisms within the ASEAN Health Sector and non-health sectors and enhance coordination with WHO EMT Initiative, and SEARO and WPRO working groups, and explore synergies and complementarity of efforts and maximize outcomes.

AHA Centre

For an update of works, AHA Centre is looking to strengthen the collaboration with the non-disaster management sector. EMT SOP is already agreed in principle for a new chapter in SASOP, but needs to be tested, which the AHA Centre is planning to have a TTX in 2022 or 2023.

Next phase of ARCH Project should be looking to strengthen the collaboration with other non-disaster management sectors (multi-sectoral and inter-ministerial coordination), as well as other ASEAN mechanisms such as ASEAN Center of Military Medicine (ACMM), which has similar capacity in disaster response. ASEAN Committee on Disaster Management (ACDM) shall also be invited to participate in the activities.

Question and Answer

In the question and answer session, Mr. Ikeda reiterated the importance of a national level training program, in which the ARCH 2 Project can provide support in terms of necessary resources. He also mentioned that it is important for each AMS to have its own initiatives in conducting local training first, then a request for support (such as peer review team) can be made to ASEC and ARCH2 Project.

Mr. Ikeda also asked the AHA Centre for its concrete plan of the ASEAN Regional Disaster Emergency Response Simulation Exercise (ARDEX) in 2023 as the ARCH Project will need to resume the RCDs in 2023. In response, AHA Centre stated that ARDEX in the Philippines in 2022 has been officially cancelled. AHA Centre is planning to organize a TTX with one of the AMSs, since some policies (EMT SOP in SASOP) need to be tested and agreed by all five sectors in ASEAN. It can be combined with the ASEAN Regional Forum Disaster Relief Exercise (ARF DiREx), which will be hosted by Indonesia in 2023. A more concrete plan, however, can only be given after their meeting in February 2022. A scenario of catastrophic situation during the pandemics can be added to the drills. Question 2: How can the ARCH Project Phase 2 Contribute to Strengthening Preparedness and Response to Health Emergencies, including Pandemics such as COVID-19

Representative of RCCDHM Chair Country (Philippines)

The ARCH Project Phase 2 shall aim to strengthen the platform on information sharing e.g., being or finding a venue for all AMS to exchange practices and lessons learned from one another. AHA Centre has a good information management system that can be shared to the health sector. Moreover, the project should conduct drills and exercises focusing on pandemics, which will lead to not only strengthening linkages as DHM actors but we are able to interact with other humanitarian actors, such as military and NGOs. And lastly, it is vital to provide support to both regional and national training curricula and policies, which also include pandemics management. In addition, more linkages with other ASEAN sectors will also help to achieve the One ASEAN, One Response vision.

Thailand

Regarding the response to PHE, which is already a part of SOP for coordination of EMT in ASEAN, Thailand suggested the ARCH Project Phase 2 to I) conduct survey research on the current situation on PHEM in ASEAN, II) develop curricula for PHE, III) organize regional or local training courses on PHEM, IV) organize RCD with outbreak scenario, IV) conduct joint research and studies on PHEM, VI) publish article related to PHEM in ASEAN Journal on DHM, and VII) organize some sessions about PHEM at the regional conference on DHM. Thailand's concerns in implementing such activities lied at possibility of duplicating works with other ASEAN health priority and mechanism, as well as personnel and financial support of the project.

ASEAN Secretariat

There have been a range of initiatives in responding to PHE, especially those focusing on the pandemic outbreaks, within the ASEAN mechanism. ASEAN Strategic Framework for PHE has been adopted as a core document to enhance preparedness, response and resilience to PHE and strengthen coordination for the betterment of regional health security. In order to support the implementation of the Framework, ASEAN Public Health Emergency Coordination System (APHECS) has been established with its main objective to institute a region-wide formal mechanism.

Moreover, the ASEAN Health Cluster is led towards the establishment of an ASEAN Center for Public Health Emergencies and Emerging Diseases (ACPHEED), serving as a center of excellence and regional resource hub. Strategically, the ARCH Project, taking into account the EMT as part of the PHE response, will have a substantial contribution in both APHECS and ACPHEED establishment.

In summary, the ARCH Project Phase 2 shall I) participate in consultations, exercises and related activities for the development of framework and structure of APHECS and the operationalization of ACPHEED, II) look into SOPs for EMT response in the context of pandemics and PHEs, as well as multiple emergency situations (earthquake in the midst of major outbreaks), and III) coordinate and engage with WHO EMT Initiative and regional work on technical guidelines related to highly-infectious diseases (HID)

AHA Centre

AHA Centre shared some of the outputs, developed at the regional level for the DHM response in the context of pandemic outbreaks. There is a strong need to strengthen both local and international EMT capacity to have a better preparedness for the response if required. The Center is currently having a so-called ASEAN Humanitarian Assistance for Myanmar, implementing leaders' declaration on humanitarian response on COVID-19, which consists of two phases, i.e. I) life-saving phase and II) life-sustaining phase. This is an example

for the ARCH Project to think about for its work in the next phase. AHA Centre suggested that there should be an agreement on the finish line for the capacity building for AMS.

Question and Answer

In the question and answer session, Ms. Tsuboike, the chairperson of the panel discussion, invited Dr. Kubo to share Japanese EMT experience in COVID-19 situation. Dr. Kubo mentioned that the technique and knowledge of EMT in DHM are similar and adaptable to PHEM. Although there has been no official deployment of DMAT, many DMAT members have been deployed to the pandemic response, using J-Speed. Thus, two sectors can have more collaboration in the future.

Dr. Egawa raised a question to Mr. Catampongan (ASEAN Secretariat) regarding the establishment of ACPHEED and its potential ambiguity between PHE and DHM. Mr. Catampongan responded that a serious collaboration on the development and operationalization of the ACPHEED is required to clarify and identify the scope of work. It is currently in the developing stage, and once the host country is decided, the scope of work, in relation to other ASEAN mechanisms, will be finalized.

Dr. Egawa added that the WHO has established the Health Emergency and Disaster Risk Management (Health EDRM) as one framework, requiring the same background skills to execute. As in the context of Japan, the Tohoku earthquake in 2011 resulted in a tsunami and nuclear crisis, which required a whole-society approach in management, inducing collaboration between the health and non-health sector.

Thailand added that since the development of EMT, especially IEM-T requires a lot of resources, EMT should develop its capacity to respond to both types of hazards. This multi-functionality has been put in the developed SOP of EMT. However, some challenges lie in the lack of human resources and it should be discussed in the next RCCDHM meeting.

Finally, Mr. Catampongan informed the participants that on top of the existing 5 priorities set by ASEAN Health Cluster 2, SOMHD decided to add the 6th issue, regarding the response to PHE. More details are, however, needed to be discussed in the following meetings.

At the end of the session, Ms. Tsuboike made conclusions as followed; I) The two questions of this panel discussion are interlinked. II) Along with the achievement from the Phase 1 and Extension Phase, a platform developed by the ARCH Project for networking, experience sharing and peer review will be strengthened in the Phase 2 activities. III) Capacity assessment in the beginning of Phase 2 is a key to assess the current situation, and the method for each AMS to achieve the common goal in the regional level. IV) It is important to have a network linkage with other non-health sectors of ASEAN in regard to PHE response.

Closing Session

Closing Remark by the Chairman of the ASEAN Health Cluster 2 and RCCDHM

Delivered by Dr. Arnel Z. Rivera OIC, Director IV, Health Emergency Management Bureau, Department of Health, Philippines Representative of the ASEAN Health Cluster 2 and RCCDHM Chair, Philippines

To all fellows of ASEAN Member States, Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Viet Nam.

To the ARCH Project Team from Thailand and Japan,

Japan International Cooperation Agency,

ASEAN Secretariat,

Distinguished Guests,

Fellow Health Workers,

A pleasant afternoon to all. After 2-day of learning and sharing of experiences, we have come to the end of the conference. I am sure that everyone here recognizes that disaster risk reduction management for health or disaster health management are integral to saving lives, providing care during emergencies, and aiding community recovery and rehabilitation.

It's a collaboration not only within the country but also in the international arena, especially in the ASEAN region. As this Conference comes to an end, I know that all of us will strive to improve not only our current regional collaboration mechanism on disaster health management but together as One ASEAN One Response. We will further refine the emergency medical team operations at all levels in terms of command and control, coordination and collaboration, and communication.

We hope that this platform serves as a venue to showcase every member state best practice on disaster health management and emergency medical response activities. Display the importance of service delivery networks and strengthen the coordination and collaboration amongst all ASEAN Member States guided by our desire for a genuine collaboration towards disaster safety.

At this juncture, allow me to thank you all for participating in this very first ASEAN Academic Conference on Disaster Health Management. Your active and dynamic participation has made this Conference a successful one, and with that I am grateful to each and every one of you.

As the Chair of the Regional Coordination Committee on Disaster Health Management, I am happy that this Conference brought together different actors and stakeholders to take responsibility on Disaster Health Management in their respective countries in the ASEAN region and globally.

Truly, the ASEAN spirit and solidarity has once again prevailed in this activity. Also, we thank our colleagues from the ARCH Project Team in Thailand and Japan, and the ASEAN Secretariat for all the support in the preparations for this Conference. And of course, thanks to you all the resource persons, and participants from the ASEAN Member States. We hope for your continued support in the next activities and meetings of the ARCH Project next year and in the succeeding years to come. I look forward to seeing all of you face-to-face soon. Indeed, it was a memorable 2021 but we look forward to a more peaceful 2022.

Stay safe and healthy. Once again, thank you very much. Merry Christmas and Happy New Year to everyone.

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