

**2<sup>ND</sup>**

# **NATIONAL EPIDEMIOLOGY CONFERENCE [NEC] 2022**

**13<sup>th</sup> - 14<sup>th</sup> September 2022**

**● One Health Approach –  
Reenergizing Future Epidemiology Landscape**



# PROGRAMME AND ABSTRACTS

## 2<sup>nd</sup> NATIONAL EPIDEMIOLOGY CONFERENCE

*One Health Approach – Reenergizing Future Epidemiology  
Landscape*

**Date: 13<sup>th</sup> – 14<sup>th</sup> September 2022**

**Platform: Online**

*Organized by:*

***MALAYSIAN ASSOCIATION OF EPIDEMIOLOGY***

**Co-organizer: UNIMAS**

**MAE** MALAYSIAN  
ASSOCIATION OF  
EPIDEMIOLOGY

**UNIMAS**  
UNIVERSITI MALAYSIA SARAWAK

# CONTENTS

NO	SUBJECT	PAGE
1	Foreword by: The President of Malaysian Association of Epidemiology (MAE)	1
2	Foreword by: The Chairman of the 2 <sup>nd</sup> National Epidemiology Conference	2
3	Theme and Objectives	3
4	Organising Committee	4
5	Conference Programme – Day 1 (13 <sup>th</sup> September 2022)	7
6	Conference Programme – Day 2 (14 <sup>th</sup> September 2022)	9
7	Invited Speaker Profiles:	11
8	List of Scientific Paper Oral Presentation: Session 1 - 4	17
9	List of Scientific Paper e-Poster Presentation:	21
10	Abstracts <ul style="list-style-type: none"><li>➤ Plenary</li><li>➤ Symposium</li><li>➤ Scientific Paper Oral Presentation:</li><li>➤ Scientific Paper e-Poster Presentation:</li></ul>	23 25 29 57
11	Acknowledgement	84

# FOREWORD

By the President of Malaysian Association of Epidemiology (MAE)



*Assalamualaikum and Salam Sejahtera*

On behalf of the Malaysian Association of Epidemiology (MAE), I am really honored and delighted to welcome all participants to the 2<sup>nd</sup> National Epidemiology Conference 2021 (NEC 2021), jointly organized by MAE and UNIMAS.

After its establishment in November 2019, MAE has moved forward in enhancing training and development among public health professionals at all levels. We are creating networking among public health professionals as well as smart partnership with other agencies. Recently, we are now a joint member of International Epidemiological Association (IEA).

Our success in organizing the 1<sup>st</sup> NEC 2021 has given more knowledge and experience for us moving forward to have this 2<sup>nd</sup> NEC 2022 with the theme “One Health Approach – Reenergizing Future Epidemiology Landscape”. We learned a lot in battling Pandemic COVID -19 for the past 2 ½ years. Managing the pandemic needs a holistic approach involving cross disciplines and specialties to work together. One Health Approach is the best way forward to address the challenges facing by public health, and to develop sustainable strategies in managing future outbreak.

I would like to thank our joint organizer UNIMAS, and all members of the organizing committee for their dedication in ensuring the success of this conference. May you have a successful and fruitful event, and we hope you will enjoy the conference.

Thank you.

**Associate Professor Dr. Mohd Rohaizat Hassan**

President of Malaysian Association of Epidemiology (MAE)

# FOREWORD

By the Chairman of 2<sup>nd</sup> National Epidemiology Conference (NEC) 2022



*Assalamualaikum and Salam Sejahtera*

Dear friends and colleagues,

It is my pleasure to welcome you to the 2<sup>nd</sup> National Epidemiology Conference. The theme for this year's conference is, "One Health Approached – Reenergizing Future Epidemiology Landscape."

One Health is an important concept that covers a collaborative, multisectoral, and transdisciplinary approach which can be applied at the local, regional, national, and global levels. The goal is to achieve optimal health outcomes recognizing the interconnection between people, animals, plants, and their shared environment.

In this NEC 2022, we highlight experiences from international and local speakers on their work related to One Health approach. As we celebrated World Epidemiology Day on 7 September 2022, NEC 2022 aim to recognise the role of field epidemiology in our effort to protect public health. It is my sincere hope that the lessons learned from this conference will inspire the young public health practitioners to be lifelong learners to improve their skills to prevent, detect and manage diseases while embracing the One Health approach.

I am grateful to all the team members and sponsors for their support of this conference. I wish all of our participants a fruitful and beneficial experience.

Thank you.

**Professor Dr. Razitasham Safii**

Chairman of 2<sup>nd</sup> National Epidemiology Conference (NEC) 2022

# THEME

*One Health Approach –  
Reenergizing Future Epidemiology Landscape*

## OBJECTIVES

- Empowering public health practitioners to collaborate, innovate and shape the future of epidemiology and public health landscape
- Creating a platform for researchers, students, academicians and practitioners to present and exchange innovative ideas and application of epidemiology and public health practices
- Support and nurture the next generation of public health epidemiologists

# ORGANIZING COMMITTEE

## Advisor

**Assoc. Professor Dr. Mohd Rohaizat Hassan**

[Universiti Kebangsaan Malaysia]

**Professor Dr. Asri Bin Said**

[Universiti Malaysia Sarawak]

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[Batang Padang District Health Office, Perak]

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**Dr. Samuel Lihan**

[Universiti Malaysia Sarawak]

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# CONFERENCE PROGRAMME

## National Epidemiology Conference 2022

### One Health Approach – Reenergizing Future Epidemiology Landscape

13th – 14th September 2022

Day 1: 13 September 2022 (Tuesday)

TIME	PROGRAMME
8:00am-9:00am	Registration
9:15am-9:40am	<b>OPENING CEREMONY</b> National Anthem “NegaraKu” + official UNIMAS song Doa Recitation Welcome Note by MAE President Officiation by Dean, FPSK UNIMAS and launching on “World Epidemiology Day” MAE Montage
9:45am - 10:45am	<b>Plenary Session 1: The Epidemiologist and Public Health Emergency Response</b> <b>Chairperson: Prof Datu Dr Andrew Kiyu Dawie Usop</b>  <b>Speaker: Dr. Chawetsan Namwat,</b> Director of Emergency Health Hazard and Disease Control Division, Department of Disease Control, Ministry of Public Health, Tiwanon Rd., Mueang, Nonthaburi, 11000, Thailand. Emel: <a href="mailto:chawetsan@gmail.com">chawetsan@gmail.com</a>
9:45am-10:30am	<b>Presentation</b>
10:30am-10:45am	<b>Q &amp; A session</b>
10:45am-11:00am	<b>Refreshment and Networking</b>
<b>Symposium 1: Theme: Current Perspective of field Epidemiology in Malaysia</b> <b>Chairperson: Prof Dr. Rasitasam@Razitasham Safii</b>	

11:00am-11:30am	<p><b>Speaker 1: Dato Dr. Fadzilah Kamaludin,</b> Deputy Director, South Asia Field Epidemiology Training and Technology (Safetynet), Tarlac City, Philippines. Emel: <a href="mailto:k.fadzilah@safetynet-web.org">k.fadzilah@safetynet-web.org</a></p> <p>Topic: <b>FETP Training in Malaysia:- International Learning Opportunities in Field Epidemiology</b></p>
11:00am-11:20am	<b>Presentation</b>
11:20am-11:30am	<b>Q &amp; A session</b>
11:30am - 12:00pm	<p><b>Speaker 2: Dr. Kamaliah Ghazali</b> Director of Department of Veterinary Services of Pahang, Jalan Sri Kemunting 2, 25100 Kuantan, Pahang. Emel: <a href="mailto:kamaliah@dvs.gov.my">kamaliah@dvs.gov.my</a> or <a href="mailto:kamaliahg@yahoo.com">kamaliahg@yahoo.com</a></p> <p>Topic: <b>Rabies in Peninsular Malaysia: Sharing epidemiology perspective on the outbreak</b></p>
11:30am-11:50am	<b>Presentation</b>
11:50am-12:00pm	<b>Q &amp; A session</b>
12:00pm-13:00pm	<b>E-POSTER PRESENTATION</b>
13:00pm-14:00pm	<b>REFRESHMENT &amp; NETWORKING</b>
14:00pm-15:20pm	<ul style="list-style-type: none"> <li>● Scientific Paper Presentation 1</li> <li>● Scientific Paper Presentation 2</li> </ul>
15:30pm-16:40pm	<ul style="list-style-type: none"> <li>● Scientific Paper Presentation 3</li> <li>● Scientific Paper Presentation 4</li> </ul>
17:00pm	<b>End of Day 1</b>

# CONFERENCE PROGRAMME

DAY 2: 14 September 2022 (Wednesday)

TIME	PROGRAMME
9:00am-10:00am	<p><b>Plenary Session 2 : Innovation and contribution of the community to the healthy ageing</b></p> <p><b>Chairperson: Associate Prof Dr. Mohd Rohaizat Hassan</b></p> <p><b>Speaker: Associate Professor Dr. Myo Nyein Aung,</b> Department of Global Health Research, Advanced Research Institute for Health Sciences and Faculty of International Liberal Arts, Juntendo University, 2-1-1, Hongo, Bunkyo-ku, Tokyo, 113-8421, Japan Emel: <a href="mailto:dr.myonyeinaung@gmail.com">dr.myonyeinaung@gmail.com</a> or <a href="mailto:myo@juntendo.ac.jp">myo@juntendo.ac.jp</a></p>
9:00am-9:45am	<b>Presentation</b>
9:45am-10:00am	<b>Q &amp; A session</b>
10:00am-10:15am	<b>Refreshment and Networking</b>
<p><b>Symposium 2 : One Health approach: Perspective from Environmental Health</b> <b>Chairperson: Dr Norafidah Abdul Rashid</b></p>	
10:15am-10:45am	<p><b>Speaker 3 : Dr Nor Aryana Hassan,</b> Ketua Sektor (PPKA), Sektor Kawalan Tembakau Dan FCTC, Bahagian Kawalan Penyakit, Kementerian Kesihatan Malaysia. E-mel: <a href="mailto:noraryana@moh.gov.my">noraryana@moh.gov.my</a></p> <p>Topic: <b>One health problems in Tobacco Use</b></p>
10:15am-10:35am	<b>Presentation</b>
10:35am-10:45am	<b>Q &amp; A session</b>
10:45am-11:15am	<p><b>Speaker 4: Dr Samuel Lihan,</b> Senior Lecturer, Institute of Biodiversity and Environmental Conservation, University Malaysia Sarawak Emel: <a href="mailto:lsamuel@animas.my">lsamuel@animas.my</a></p> <p>Topic: <b>Bacterial Diseases Transmitted Through Water Environment and Zoonotic Exposures</b></p>

<b>10:45am-11:05am</b>	<b>Presentation</b>
<b>11:05am-11:15am</b>	<b>Q &amp; A session</b>
<b>11:15am-11:45am</b>	Oral & Poster Winners Announcement
<b>11:45am-12:00pm</b>	<b>CLOSING CEREMONY</b> Closing Note by Organizing Chairman
<b>12:30pm</b>	<b>End</b>

## Bacterial Diseases Transmitted Through Water Environment and Zoonotic Exposures

Dr. Samuel Lihan

### Abstract

The health of the people is no longer separated from the health of the animals and the surrounding environments such as water, soil and air. The ongoing interactions among the people, animals and environments have changed because of certain factors, among others are the growing human population, climate change and the increasing movement of people and animals as well as animal product across borders. The changes have linked to the outbreak of known and emerging infectious zoonotic diseases, which are the diseases that spread between animals and human.

A diverse range of microbial diseases can spread from wild and pet animals to human population. These includes bacteria, viruses, parasites, prions and other microbial agents. Water is one of the most vital resources for all life on earth. Contaminated water and poor sanitation have been associated with transmission of bacterial pathogens such as cholera, diarrhoea, dysentery, typhoid and many other diseases. The presence of diverse bacterial pathogens in the water environment with their characteristic of exhibiting multiple antibiotic resistance has become a global health issue. Water has become the reservoir for the antibiotic resistant bacteria and the transmission of the bacteria could be possible through certain routes including the drinking of contaminated water and through direct contact during recreational activities. The bacterial pathogens from the animal and water environment have caused significant morbidity and mortality among human population. Over a billion of the people have been afflicted and millions of annual deaths.

The outbreak of zoonoses have not only affecting human health but also have adverse impact on regional economics. In this presentation, the presence of bacteria in the water environment and animals as well as the characteristics of the bacterial pathogens from the water and animals will be discussed. The possible routes of the transmission of the bacterial diseases form both sources to human will also be highlighted.

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