Malaysia One Health University Network (MyOHUN)

Achievements & Success Stories
An Overview

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The complexity of human-animal-environment relationships partly as an impact from man-made changes to the host, agent, environment, ecosystems and nature illustrates that our future will be characterized by a new interdependence, and true progress on the prevention and control of diseases can only be achieved through One Health.

A multi/trans-disciplinary collaborative approach to improving the health of humans, animals and the environment; a new global strategy of cooperation to provide solution.

It encourages the collaborative efforts of multiple disciplines working locally, nationally, and globally to attain optimal health for people, animals and the environment and create a world safe and secure from global health threats posed by infectious and zoonotic diseases.
One Health

- One health is a multi/trans-disciplinary collaborative approach to provide solution

- Physicians
- Veterinarians
- Nurses
- Ecologists
- Zoologists
- Entomologists
- Sociologists
- Economists
- Anthropologists
- Pathologists
- Microbiologists
- Epidemiologists
- Politicians
- etc

- To respond, predict, prevent and identify infectious and zoonotic disease threats (OHW)
One Heath Workforce

- **Coordination and collaboration across all levels** of the human and animal health sectors are essential to meet the **Global Health Security Agenda (GHSA)** vision for a world safe and secure from global health threats posed by infectious diseases.

- Achieving this goal will require a **shift** in our workforce **culture** and **regulatory** framework.

- **Government ministries, universities, industries and NGO** must work together to achieve a stronger and more effective public health system, from **the first responders on the front line to the policy makers implementing change**.
Global Examples of Emerging & Re-emerging Infectious and Zoonotic Diseases

Asia, SEA & (M’sia)
- Nipah (1998)
- SARS (2003)
- H1N1 (2009)
- H9N7
- MERS-CoV (2014)
- Rabies
- Tuberculosis
- Leptospirosis
- Anthrax
- BSE
- Ebola?
- Zika virus (2016)

The Borderless World
- National Security Council
- Inter-Ministerial Committee for Control of Zoonotic Diseases
- Malaysia One Health University Network (MyOHUN)
Economic Impacts of Infectious Diseases

- H5N1 ($25-30 bn)
- SARS ($40-50 bn)
- Nipah ($350 - 400 m)
- BSE ($19.6 - 24.1 bn)
- AMR $100 trillion in 2050

These diseases produce suffering, death and impose enormous financial burdens on society.
In December 2011, the Southeast Asia One Health University Network (SEAOHUN) and the country-level One Health University Networks namely INDOHUN, MyOHUN, THOHUN and VOHUN was established (NCO – Sept. 2013).

In 2014, SEAOHUN is participated in transformation of One Health Workforce (OHW) in the region and dedicated in building the capacity of the global health workforce to prevent, detect and respond to emerging infectious diseases with the financial support from USAID and in collaboration with the University of Minnesota and Tuft University, USA.

All activities of SEAOHUN are consistent with 5 strategic objectives and outcomes of the Emerging Pandemic Threats 2 (EPT-2) (2015-2019) and to support implementation of the Global Health Security Agenda (GHSA).

OHCEA (6): Ethiopia, Democratic Republic of Congo, Kenya, Rwanda, Tanzania & Uganda
MyOHUN

DAI-USAID RESPON Project
- Years 4 and 5 – SEAOHUN formally established Dec 2011

MyOHUN
- NCO – Sept 2013
- EPT-I: completed in Sept 2014

SOUTH EAST ASIA ONE HEALTH UNIVERSITY NETWORK (SEAOHUN)

MyOHUN EXECUTIVE BOARD

VICE CHANCELLOR
UPM

MyOHUN CHAIRMAN

NATIONAL COORDINATING OFFICE (NCO)

22 Faculties from 17 Universities

UNIVERSITIES

GOVERNMENT AGENCIES

Universities (8) - UPM, UKM & UM
Governments (5) – DVS, MoH, VRI, PERHILITAN

CERTIFICATION ISO MS 9001:2008 (FEB 2016)

5 Government Institutes & Departments from 3 Ministries

USAID
One Health
Workforce
SEAOHUN
MyOHUN
Executive Board Members

Chairman
1. Prof. Dr. Mohd Hair Bejo, Dean (UPM)

Members
1. Prof. Dr. Noor Hassim Ismail (UKM)
2. Dato’ Dr. Quaza Nizamuddin bin Hassan Nizam, DG (DVS)
3. Dato' Abdul Kadir bin Abu Hashim, DG (PERHILITAN)
4. Dato’ Dr. Chong Chee Kheong (MOH)
5. Prof. Dr. Sazaly bin Abu Bakar (UM)
6. Prof. Dr. Bariah Mohd Ali, Dean (UKM)
7. Prof. Dr. Abd Rahman Omar (UPM)
8. Prof. Dr. Mohd Rizal Abd Manaf (UKM)
9. Prof. Dr. Latiffah Hassan (UPM)
10. Dr. Sohayati Abdul Rahman (VRI, DVS)
11. Dr. Rohani Jahis (MOH)
12. Prof. Dr. Hidayatulfathi Othman (UKM)
MyOHUN – 22 Faculties from 17 Universities, 5 Government Institutes & Departments from 3 Ministries.

Universiti Malaysia Kelantan
- Faculty of Veterinary Medicine

University Sains Malaysia
- School of Biological Sciences
- Faculty of Medicine
- School of Health Sciences

Universiti Malaya
- Faculty of Medicine

Universiti Malaysia Terengganu
- School of Fundamental Science

Penang Medical College
- Faculty of Medicine

Cyberjaya University College of Medical Sciences
- Faculty of Medicine

Mara Technology University
- Faculty of Medicine

Universiti Kebangsaan Malaysia
- Faculty of Health Sciences
- Faculty of Medicine
- Faculty of Social Science and Humanities

International Islamic University Malaysia
- Faculty of Medicine

Management Science University
- Faculty of Health and Life Sciences

Universiti Putra Malaysia
- Faculty of Veterinary Medicine
- Faculty of Medicine and Health Sciences
- Faculty of Environmental Sciences

International Medical University
- School of Medicine

UTAR
- Faculty of Medicine & Health Sciences

Universiti Sultan Zainal Abidin
- Faculty of Medicine and Health Science

University Malaysia Sabah
- School of Medicine

Universiti Malaysia Sarawak
- Faculty of Medicine

Malaysian Government Ministries and Organizations
- Ministry of Health
- Ministry of Environment
- Department of Veterinary Services
- Institute of Medical Research
- Department of Wildlife and National Parks
- National Public Health Laboratory
Members of MyOHUN

1. Faculty of Veterinary Medicine, UPM
2. Faculty of Medicine and Health Sciences, UPM
3. Faculty of Medicine, UKM
4. Faculty of Health Sciences, UKM
5. Faculty of Medicine, UiTM
6. Faculty of Veterinary Medicine, UMK
7. Faculty of Medicine, PMC
8. School of Medical Sciences, USM
9. School of Health Sciences, USM
10. Faculty of Medicine, IIUM
11. Faculty of Medicine, UNIZA
12. Faculty of Medicine, UIMAS
13. School of Medicine, UMS
14. School of Fundamental Science, UMT
15. Faculty of Medicine, CUCMS
16. Faculty of Medicine and Health Sciences, UNITAR
17. Faculty of Medicine, UM
18. School of Medicine, IMU
19. Faculty of Medicine and Health Sciences, USIM
20. Faculty of Health and Life Sciences, MSU
21. Faculty of Environmental Sciences, UPM
22. Faculty of Social Science and Humanities

Ministry of Health Malaysia
23. Institute of Medical Research
24. National Public Health Laboratory
Minister of Agricultural and Agro-based Industry Malaysia
25. Department of Veterinary Services
26. Veterinary Research Institute
Ministry of National Resources and Environment
27. Department of Wildlife and Natural Park

- 22 - Faculties (17 universities)
- 05 - Government Institutes & Departments (3 Ministries)
National Security Council – One Health Approach

Nipah outbreaks in Malaysia in 1998

MOH

MOHE

Military

LC (PBT)

MOA (DVS)

MOSTI

MOT

Police

CDC

AAHL
One Health Approach
Inter-Ministerial Committee for Control of Zoonotic Diseases

Nipah outbreaks in Malaysia in 1998

Inter-Ministerial Committee for Control of Zoonotic Diseases

HPAI (H5N1) & Rabies outbreaks 2017

National Committee for AMR in 2017 ✓ MyOHUN

MyOHUN: Inter-Ministerial Committee for Control of Zoonotic Diseases

National Security Council

MOH

MOA (DVS)

- **Vision**
  - Network of social and intellectual excellence on One Health against infectious and zoonotic diseases of national and global concern

- **Mission**
  - To link and enable universities, government and relevant agencies to generate social and intellectual capital on One Health against infectious and zoonotic diseases

- **Value**
  - Inclusive, Transparent, Excellence

- **Goals**
  1. Strengthened One Health Workforce policy environment and stakeholder engagement
  2. Increased universities, government and related agencies capacity to identify and address One Health Workforce needs
  3. Increased One Health Workforce capacity to prevent, detect and respond to infectious and zoonotic diseases

- **Strategic Objectives**
  1. One Health Workforce Assessments, Planning, and Policy Communication
  2. Education & Training of One Health Students (*Future OHW/pre-service*)
  3. Education & Training of Government Professionals/Health Practitioners (*Current OHW/in-service*)
  4. Faculty/Staff Development and Improved Academic Offerings
  5. Organizational Development of Sustainable OHUNs

- **Action Plan and KPI**
MyOHUN Achievements & Success Stories

MyOHUN activities

✓ 23 activities in year 1 (2015)
✓ 46 activities in year 2 (2016)
✓ 34 activities in year 3 (2017)
✓ 31 activities year 4 (2018)
✓ 28 +++ activities in year 5 (2019)

to meet its 5 strategic objectives and outcomes (KPI)
MyOHUN Achievements & Success Stories

1. Problem Based Learning
2. Curriculum Mapping & Review
3. Development of Modules
4. Simulation of Disease Outbreaks
5. Wildlife Zoonosis & Ecosystem Health
6. One Health Student Clubs
7. One Health Young Leaders and Communicators
8. One Health Programmes to Community
9. Research
10. Colloquium, Seminars & Workshops
11. Antimicrobial Resistance
12. One Health Disaster Frontliners
13. Roadmap for National OHW
14. Sustainable One Health University Network
Problem Based Learning

- Publication of One Health PBL Book I
- Training on One Health PBL for Academicians
- Training of Trainers (Facilitators) for One Health PBL
- *In-situ* One Health PBL
- Piloting PBL Book II
Curriculum Mapping & Review

- Mapping One Health Implementation in Curriculum
- One Health Core Competency (OHCC) Centric Teaching
- Curriculum Review: Incorporating OH Core Competency in Postgraduate Programs
- Implementation in OH in New Curriculum

USAID
One Health
SEAOHUN
MyOHUN
Development of Manuals

✓ Development of One Health Manual for Diagnosis of Leptospirosis

✓ Development of One Health Manual on Handling Disease Outbreaks

(Common Manuals to all agencies)
Simulation of Disease Outbreaks and Trainings

- Field Simulation Training on Handling Disease Outbreak – Avian Influenza (AI)
- One Health Table Top Simulation Exercise - Field Training on Rabies Outbreak
- One Health Field Epidemiology Training
- Development of Table Top and Field Simulation Teaching Module
- Training of Trainers on Integrated Surveillance System
- One Health Field Training for Emerging Zoonoses
Wildlife Zoonosis & Ecosystem Health

- Training on Wildlife Disease Risk Analysis
- Training of Wildlife Zoonoses and Ecosystem Health
- Seminar on Wildlife Zoonoses
One Health Student Clubs

- 8 OH Student Clubs from 8 Universities
- One Health Initiative
- One Health Medical Pioneer Programme
- One Health Young Leaders
One Health Young Leaders and Communicators

- To enhance capabilities of the young leaders
- To enhance One Health knowledge among the young leaders
- To establish sustainable networking for future One Health Workforce
One Health Programmes to Community

- Community Education
- One Health Program to Local Community
- Community Education and Field Training on Disease Transmission Among the Indigenous People (Orang Asli) in Peninsular Malaysia
Antimicrobial Resistance

- One Health Antimicrobial Resistance (AMR) Seminar & Launching of Malaysian Action Plan on AMR (MyAP-AMR: 2017-2021)
- One Health Antimicrobial Resistance Surveillance
- One Health Integrated Antimicrobial (AMR) Seminar and Workshops
- AMR and Antibiotics Awareness Creative Contents Video Development
One Health Disaster Front-liners

✅ Natural Disaster Management Agency (NADMA)

✅ Development Comprehensive Module for Front-liners

✅ Case Scenario for Zoonotic Disaster Simulation

✅ Training of Trainers on One Health Disaster Front-liner Modules
Research

- 17 Community-based Extension Project Successfully Completed
- Training of Current OHW on Research Grant Opportunities and Writing Effective Research Proposal on One Health Projects
- Seed Funding for One Health Project
- Teaching Grants for One Health Competencies
Colloquium, Seminars & Workshops

✓ International Congress on One Health & AAVS-MyOHUN-WPSA (Malaysia) Meeting 2019
✓ Emerging & Zoonotic Disease Investigation Colloquium
✓ Seminar on Infectious Disease Management
✓ Seminar on Threats to Tropical Ecosystem Health
✓ Integrating One Health Concept Among Public Health Personnel
✓ Infectious Disease Management
✓ Grant to Participate in National and International Conferences / Workshop / Seminars
Sustainable MyOHUN & SEAOHUN

1. Memberships: multi / trans disciplinary - 22 Faculties from 17 Universities, 3 Government Ministries (5 Government Departments) – to invite more

2. Executive Board & Members: Universities and Governments agencies - to invite private & NGO


6. Regional champion (eg. PBL, QMS and Leptospirosis)

7. Actively involves on issues and challenges of infectious and zoonotic diseases, AMR, biosecurity & biosafety, bioterrorism & agroterrorism through OH approach (OHW)
Thank You

MyOHUN Executive Board Meeting

2nd Working Group Meeting, 10-11 October, 2011, Kuala Lumpur Malaysia