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ONE HEALTH WORKFORCE NEXT GENERATION

ANNUAL REPORT

October 1, 2020 – September 30, 2021

ONE HEALTH WORKFORCE

NEXT GENERATION

YEAR 2 ANNUAL REPORT
October 1, 2020 - September 30, 2021

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- AFROHUN Secretariat
- AFROHUN Cameroon
- AFROHUN Côte d'Ivoire
- AFROHUN DRC
- AFROHUN Ethiopia
- AFROHUN Kenya
- AFROHUN Rwanda
- AFROHUN Senegal
- AFROHUN Tanzania
- AFROHUN Uganda

SEAOHUN (SOUTHEAST ASIA ONE HEALTH UNIVERSITY NETWORK)

- SEAOHUN Secretariat
- Cambodia One Health University Network
- Lao One Health University Network
- Indonesia One Health University Network
- Malaysia One Health University Network
- Myanmar One Health University Network
- Philippine One Health University Network
- Thailand One Health University Network
- Viet Nam One Health University Network

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CONTENT

This report represents a collaborative effort in which all implementing partners and University Networks within the One Health Workforce-Next Generation project provided content. This publication was substantively developed and contributed by editors (see above), One Health University Networks, and the OHW-NG Global Team (University of California, Davis; Columbia University; Ata Health Strategies; EcoHealth Alliance; University of California, Berkeley; University of California, Irvine; University of New Mexico, Labyrinth Global Health, the American Society for Microbiology, International Society of Infectious Diseases/ProMED, and the Smithsonian Institution).

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TABLE OF CONTENTS

vi **Acronyms & Abbreviations**

01 **Executive Summary**

12 **Global**

OBJECTIVE 1: Training & Empowerment
OBJECTIVE 2: Assessment & Tracking
OBJECTIVE 3: Organizational Sustainability
Business Plan Update
Gender Action Plan Update
Project Management & Communications

72 **Performance Data**

Monitoring Evaluation & Learning Plan Update

82 **Appendices**

Knowledge Management & Learning Plan Update
Transition Plan Update

104 **One Health University Network Reports**

AFROHUN
SEAOHUN



HỘI SINH VIÊN TRƯỜNG ĐẠI HỌC Y DƯỢC THÁI BÌNH

PHÒNG CHỐNG DỊCH COVID - 19

1 COVID-19 ?

Bệnh viêm đường hô hấp cấp do chủng mới vi rút Corona là bệnh truyền nhiễm cấp tính thuộc nhóm A.
Bệnh lây truyền qua đường hô hấp do tiếp xúc với các giọt nước bọt hay dịch tiết mũi họng của người bệnh hoặc với đồ vật bị nhiễm vi rút rồi đưa lên mũi miệng của người lành.
Bệnh có thời gian ủ bệnh từ 2-14 ngày.
Đến nay chưa có thuốc điều trị đặc hiệu và vắc xin phòng bệnh.

2 BIỂU HIỆN

01: Sốt
02: Đau đầu
03: Đau họng
04: Hụt
05: KHÓ HO

3 QUY TRÌNH RỬA TAY 6 BƯỚC CỦA BỘ Y TẾ

01: Làm ướt tay bằng nước sạch.
02: Lấy xà phòng.
03: Chà xát lòng bàn tay.
04: Chà xát kẽ ngón tay.
05: Dùng ngón tay trái chà xát lòng bàn tay phải và ngược lại.
06: Rửa sạch tay dưới vòi nước chảy.

4 CÁCH PHÒNG TRÁNH

Tránh tiếp xúc gần người bệnh.
Tránh tiếp xúc với người đang ho, hắt hơi.
Tránh tiếp xúc với đồ vật chung.
Tránh tiếp xúc với động vật hoang dã.
Không khạc, ho, hắt hơi vào người khác.
Không dùng chung đồ vật cá nhân.

Acronyms & Abbreviations

AFROHUN	Africa One Health University Network
AMR	Antimicrobial Resistance
ASEAN	Association of Southeast Asian Nations
CAMBOHUN	Cambodia One Health University Network
CBE	Competency-based Education
CCMS	Curriculum Curation Management System
CDC	Centers for Disease Control
CHEA	Council for Higher Education Accreditation
CIQG	Council International Quality Group
CLASS	Calibrated, Lifelong, Adaptive, Scalable, and Sustainable
COI	Conflict of Interest
COVAB	College of Veterinary Medicine, Animal Resources and Biosecurity
COVID-19	Coronavirus Disease 2019
CPD	Continuing Professional Development
CUGH	Consortium of Universities for Global Health
DDL	Development Data Library
DEC	Development Experience Clearinghouse
DRC	Democratic Republic of Congo
ECHO	Extension for Community Healthcare Outcomes
ECOWAS	Economic Community of West African States
EISMV	Ecole Inter-Etats des Sciences et Medicine Veterinaires
FAO	United Nations Food and Agriculture Organization
FAQ	Frequently Asked Question
GAP	Gender Action Plan
GHSA	Global Health Security Agenda
GL	Global Level
HCM UMP	University of Medicine and Pharmacy at Ho Chi Minh City
HCM NLU	Nong Lam University at Ho Chi Minh City
HMU	Hanoi Medical University
HR	Human Resources
HUAF	Hue University of Agriculture and Forestry
IBOHE	International Board of One Health Examiners
ICE	Institute for Credentialing Excellence
ICT	Information and Communication Technologies
IHR	International Health Regulations
IUM	International Islamic University Malaysia
IMED	International Meeting on Emerging Diseases and Surveillance
INDOHUN	Indonesia One Health University Network
IPC	Infection Prevention and Control
IRB	Institutional Review Board
ISE	Institut des Sciences de l'Environnement
ISED	Institut de Santé et Développement
JEE	Joint External Evaluation
KM	Knowledge Management

KML	Knowledge Management and Learning
KMS	Knowledge Management System
KSPH	Kinshasa School of Public Health
LAOHUN	Lao One Health University Network
LOE	Level of Effort
M&E	Monitoring and Evaluation
MEL	Monitoring, Evaluation and Learning
MMOHUN	Myanmar One Health University Network
MOU	Memorandum of Understanding
MPH	Master of Public Health
MSU	Management and Science University
MyOHUN	Malaysia One Health University Network
NGO	Non-governmental Organization
NICRA	Negotiated Indirect Cost Rate Agreements
NUOL	National University of Laos
NUPAS	Non-US Organization Pre-Award Survey
OCA	Organizational Capacity Assessment
OH	One Health
OHI	One Health Institute
OHSC	One Health Student Club
OHUN	One Health University Network
OHWA	One Health Workforce Academy
OHW-NG	One Health Workforce - Next Generation
OIE	World Organisation for Animal Health
PhilOHUN	Philippine One Health University Network
PIRS	Performance Indicator Reference Sheet
PM	Project Management
PMC	Project Management and Communications
PNCA	Prek Leap National College of Agriculture
PO	Project Outcome
RCCE	Risk Communication and Community Engagement
RM	Resource Mobilization
RUA	Royal University of Agriculture
SAM	System for Award Management
SEAOHUN	Southeast Asia One Health University Network
SMART	Specific, Measurable, Appropriate, Realistic, Time-bound
SOHIC	Student One Health Innovation Club
SOP	Standard Operating Procedure
SWOT	Strengths, Weaknesses, Opportunities, Threats
TAC	Technical Advisory Committee
TAOHUN	Taiwan One Health University Network
THOHUN	Thailand One Health University Network
TOT	Training of Trainers
TPI	The Partnering Initiative

UB	University of Buea
UC	University of California
UCAC-ICY	Catholic University of Central Africa - Catholic Institute of Yaoundé
UCAD	Université Cheikh Anta Diop
UCD	University of California, Davis
UdM	Université des Montagnes
UHS	University of Health Sciences
UiTM	Universiti Teknologi MARA
UKM	Universiti Kebangsaan Malaysia
UM	Universiti Malaya
UMK	Universiti Malaysia Kelantan
UMS	Universiti Malaysia Sabah
UMT	Universiti Malaysia Terengganu
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNIKIN	University of Kinshasa
UNILU	University of Lubumbashi
UNIMAS	Universiti Malaysia Sarawak
UniZA	Universiti Sultan Zainal Abidin
UoC	University of Cyberjaya
UPM	Universiti Putra Malaysia
USAID	United States Agency for International Development
USG	United States Government
USIM	Universiti Sains Islam Malaysia
USM	Universiti Sains Malaysia
vCOP	Virtual Community of Practice
VNUA	Viet Nam National University of Agriculture
VOHUN	Viet Nam One Health University Network
WASH	Water, Sanitation, and Hygiene
WHO	World Health Organization





October 1, 2020 – September 30, 2021

EXECUTIVE SUMMARY

One Health Workforce - Next Generation

Empowering the Africa One Health University Network (AFROHUN) and Southeast Asia One Health University Network (SEAOHUN) to become global leaders in transforming workforce capacity to prevent, detect, and respond to emerging disease threats.



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THIS YEAR IN NUMBERS



>18K
TRAINED



9

AFROHUN
COUNTRY
CHAPTERS



8

SEAOHUN
COUNTRY
NETWORKS
(OHUNS)



119

AFROHUN
NETWORK
ACTIVITIES



89

SEAOHUN
NETWORK
ACTIVITIES



31

GLOBAL
ACTIVITIES



3

GLOBAL
OBJECTIVES



41

ACTIVITIES
INCREASING
CAPACITY TO
RESPOND TO
COVID-19



11

GLOBAL TEAM
PARTNERS

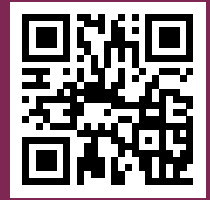


110

MEMBER
UNIVERSITIES

Learn more about our Global Consortium:

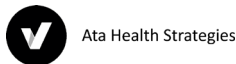
Scan with your iPhone or other code reader to learn more about the OHW-NG project, our consortium, AFROHUN and SEAOHUN, and to access the full list of our resources and publications



THE OHW-NG CONSORTIUM

Our Consortium consists of experienced partners across North America, Africa, and Asia, and training is coordinated and implemented through the AFROHUN and SEAOHUN Secretariats. The OHW-NG Global Team is a highly collaborative group of organizations (mostly US-based) with complementary missions and extensive experience working in the AFROHUN and SEAOHUN member countries, including those countries proposed for Network expansion over time.

The US-based Global Team institutions include the University of California, Davis; Columbia University; Ata Health Strategies; EcoHealth Alliance; University of California, Berkeley; University of California, Irvine; University of New Mexico; Labyrinth Global Health; the American Society for Microbiology; International Society of Infectious Diseases/ProMED; and the Smithsonian Institution.



THE ONE HEALTH UNIVERSITY NETWORKS

The One Health University Networks are uniquely positioned to serve as knowledge hubs of credible information and to prepare and connect current and future health professionals with the knowledge and skills for strengthening health security for enhanced disease prevention, detection, and response.



18

MEMBER
UNIVERSITIES



26

MEMBER
INSTITUTIONS



18

STUDENT
ONE HEALTH
INNOVATION
CLUBS



2,785

INDIVIDUALS
TRAINED



45

PRODUCTS
DEVELOPED



60

NEW
PARTNERSHIPS

SELECTED HIGHLIGHTS (2020-2021)

- Established virtual Communities of Practice (vCOPs), including a community engaging 64 university faculty and staff (41 male, 23 female) in 3 Extension for Community Healthcare Outcomes (ECHO) sessions on e-learning to enhance knowledge and skills amidst the increasing demand for e-learning, during the COVID-19 pandemic.
- Strengthened capacity of 66 faculty and AFROHUN country and Secretariat staff on competency-based education and the application of the One Health Competency Framework to be used for curriculum development, workforce planning, and competency assessment.
- Hosted regional student-focused competitions, including the AFROHUN Global Health Case Competition and One Health Hackathon to foster student engagement and showcase their understanding of national, regional, and global One Health issues and innovation in applying the One Health approach to complex problems.
- Refined the Gender Strategy, Gender Policy, and Roadmap.
- The 5-year business plan was finalized and approved by AFROHUN's Board of Directors.

Our Vision

A global leader in One Health approaches to sustainable health, for healthy, productive animals, prosperous communities and productive ecosystems.

Our Mission

To drive transformational change for continuous improvement of health and well-being of humans, animals, and environment through OH principles and approach to research, training and community service.

Our Core Values

Innovation, Multidisciplinary teamwork, Mutuality and Respect, Strategic Partnerships, Inclusiveness, Collective decision-making, Accountability and Transparency.



Scan with your iPhone camera or other code reader to access the AFROHUN report:





AFRICA ONE HEALTH UNIVERSITY NETWORK MEMBERS

AFROHUN Cameroon

Université des Montagnes (UdM)

University of Buea (UB)

- Faculty of Agriculture and Veterinary Medicine
- Faculty of Health Sciences

University of Ngaoundéré

- School of Veterinary Medicine and Sciences

AFROHUN Côte d'Ivoire

Université Félix Houphouët-Boigny

AFROHUN DRC

University of Lubumbashi (UNILU)

- School of Veterinary Medicine

University of Kinshasa (UNIKIN)

- School of Public Health

AFROHUN Ethiopia

Jimma University

- College of Public Health and Medical Science
- College of Agriculture and Veterinary Medicine, School of Veterinary Medicine

Mekelle University

- School of Veterinary Medicine
- School of Public Health

Addis Ababa University

- Aklilu Lemma Institute of Pathobiology

AFROHUN Kenya

Moi University

- School of Public Health

University of Nairobi

- Faculty of Veterinary Medicine
- School of Public Health

AFROHUN Rwanda

University of Rwanda

- School of Public Health
- School of Animal Sciences and Veterinary Medicine

University of Global Health Equity

AFROHUN Senegal

Université Cheikh Anta Diop (UCAD)

- Institut des Sciences de l'Environnement (ISE)
- Institut de Santé et Développement (ISED)

Ecole Inter-Etats des Sciences et Medicine Veterinaires (EISMV) de Dakar

AFROHUN Tanzania

Muhimbili University of Health & Allied Sciences

- School of Public Health and Social Sciences

Sokoine University of Agriculture

- Faculty of Veterinary Medicine

AFROHUN Uganda

Makerere University

- School of Public Health
- College of Veterinary Medicine, Animal Resources and Biosecurity (COVAB)

Mbarara University of Science and Technology

- Faculty of Medicine



Southeast Asia One Health
University Network



92

MEMBER
UNIVERSITIES



182

MEMBER
FACULTIES



33

ONE HEALTH
STUDENT CLUBS



>15K

INDIVIDUALS
TRAINED



170

PRODUCTS
DEVELOPED



25

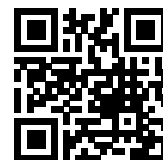
NEW
PARTNERSHIPS

SELECTED HIGHLIGHTS (2020-2021)

- Reached millions of individuals through a variety of social and mass media platforms on COVID-19 risk communication and community engagement (RCCE), empowering them with the knowledge to protect themselves, their families and communities against the threat of COVID-19.
- Awarded 5 fellowships, enabling early career professionals to build their multidisciplinary networks and gain practical experience working on One Health issues at leading academic and research institutions across the region.
- Awarded 11 scholarships in 2021, all to students pursuing Master's degrees, empowering them with the knowledge to advance in their careers and implement One Health approaches in their work.
- Supported 8 early- to mid-career researchers pursuing One Health-related research through their small grant programs. Small grant awards supported research topics from environmental pollution to zoonotic disease awareness and antimicrobial resistance.
- Hosted a regional student-focused competition, the SEAOHUN Regional Students Competition, inspiring the additional collaboration on further international student-focused events in 2021-2022. Through this competition, students were provided the opportunity to demonstrate their knowledge in One Health and apply their skills in relaying scientific information to non-scientific audiences in innovative and engaging ways.



Scan with your iPhone camera or other code reader to access the SEAOHUN report:





SOUTHEAST ASIA ONE HEALTH UNIVERSITY NETWORK MEMBERS

CAMBOHUN

Prek Leap National College of Agriculture
(PNCA)
Royal University of Agriculture (RUA)
University of Health Sciences, Cambodia
(UHS-Cambodia)

INDOHUN

Airlangga University
Andalas University
Bogor Agriculture University
Brawijaya University
Cendrawasih University
Diponegoro University
Gadjah Mada University
Hasanuddin University
Mataram University
Muhammadiyah Hamka University
Mulawarman University
Nusa Cendana University
Padjajaran University
Sam Ratulangi University
Sriwijaya University
Syiah Kuala University
Udayana University
University of Indonesia
University of North Sumatra
University of West Nusa Tenggara

LAOHUN

Champasack University
National University of Laos (NUOL)
Savannakhet University
Souphanouvong University
University of Health Sciences, Lao PDR
(UHS-Laos)

MMOHUN

University of Medicine 1, Yangon
University of Public Health, Yangon
University of Veterinary Science, Yezin

MyOHUN

University of Cyberjaya (UoC) University
International Islamic University Malaysia (IIUM)
International Medical University
Management and Science University (MSU)
Royal College of Surgeons in Ireland (RCSI)
& University College Dublin (UCD) Malaysia
Campus
Universiti Kebangsaan Malaysia (UKM)
Universiti Malaya (UM)
Universiti Malaysia Kelantan (UMK)
Universiti Malaysia Sabah (UMS)
Universiti Malaysia Sarawak (UNIMAS)
Universiti Malaysia Terengganu (UMT)
Universiti Putra Malaysia (UPM)
Universiti Sains Islam Malaysia (USIM)
Universiti Sains Malaysia (USM)
Universiti Sultan Zainal Abidin (UniSZA)
Universiti Teknologi MARA (UiTM)
Universiti Tunku Abdul Rahman

PhilOHUN

Benguet State University
Cavite State University
Central Luzon State University
Central Mindanao University
Pampanga State Agricultural University
University of Eastern Philippines
University of the Philippines Los Baños
University of the Philippines Manila
Visayas State University

THOHUN

Burapha University
Chiang Mai University
Chulabhorn Royal Academy
Chulalongkorn University
Kasetsart University
Khon Kaen University
Mahasarakham University
Mahidol University
Prince of Songkla University
Thammasat University
Walailak University

VOHUN

Bac Giang University of Agriculture and Forestry
Buon Ma Thuot University
Can Tho University
Can Tho University of Medicine and Pharmacy
Hai Phong University of Medicine and Pharmacy
Hanoi Medical University (HMU)
Hanoi University of Public Health
Hue University of Agriculture and Forestry
(HUAF)
Hue University of Medicine and Pharmacy
Nam Dinh University of Nursing
Nghe An College of Economics
Nong Lam University at Ho Chi Minh city
(HCM NLU)
Phenikaa University
Quy Nhon University
School of Medicine and Pharmacy, Vietnam
National University, Hanoi
Tay Nguyen University
Thai Binh University of Medicine and Pharmacy
Thai Nguyen University of Agriculture and Forestry
Thai Nguyen University of Medicine and Pharmacy
Tra Vinh University
University of Medicine and Pharmacy at Ho Chi
Minh city (HCM UMP)
Viet Nam National University of Agriculture
(VNUA)
Vinh Long University of Technology and Education
Vinh Medical University

OBJECTIVES & GENDER

Objective 1

Training & Empowerment

Develop, deliver, and institutionalize training and educational offerings in alignment with prioritized One Health core competencies and technical skills

SELECT HIGHLIGHTS

Implemented the eDelphi Panel (see page 16) to review and inform next generation core competencies for One Health training **reaching 80 international experts, in the first round.**

- **Established the International Board of One Health Examiners (IBOHE)** with 16 members from AFROHUN and SEAOHUN to oversee international quality assurance and accreditation procedures for competency-based One Health Certificate and Continuing Professional Development programs designed and delivered by the Networks and OHW-NG Consortium (see page 18).
- **Conducted a survey of stakeholders for the One Health Workforce Academies (OHWA) with more than 200 international respondents**, which revealed that more than 90% of respondents plan to acquire competency-based One Health certification, and will visit the OHWA for training and credentialing (see page 19).
- **Developed the Curriculum Curation Management System** and started to populate the competency-based training contents in the OHWA site, including modules for a One Health training course and a course in outbreak response, and several case studies in One Health (see page 15).
- **Launched virtual Communities of Practice using the ECHO platform** by AFROHUN Kenya on Antimicrobial Resistance and by the AFROHUN Secretariat on eLearning reaching >290 participants from institutions across the continent (see page 19).
- **Held a Risk Communication workshop series** for new SEAOHUN partners in Cambodia, Lao PDR, Myanmar, and the Philippines,

helping faculty and health professionals from member Universities strengthen their capacity in risk communication with affected communities, and in teaching risk communication to better prepare the future workforce in their respective countries (see page 15).

- **Implemented a One Health curriculum integration workshop for 40 faculty** of the M.P.H. program at Kinshasa School of Public Health, DRC, strengthening the pipeline of One Health professionals and improving the surveillance and response capacities in the country (see page 15).

Objective 2

Assessment & Tracking

Establish systems, policies, and procedures to assess and track multisectoral workforce placement, performance, and impact

SELECT HIGHLIGHTS

- **Launched the alumni tracking survey circulated to >13,000 alumni** in the SEAOHUN and AFROHUN Networks to determine how to better connect to and engage with alumni around the world (see page 36).
- **Conducted a National One Health Coordination Survey with AFROHUN reaching 175 respondents from seven countries** to capture valuable insights and perceptions around University Network engagement with national coordination platforms from a variety of external stakeholders in academia, ministries, and professional and research organizations (see page 39).
- **Finalized the One Health Competency Framework Manual and completed workshops reaching more than 130 participants** across both Networks, helping to promote competency-based training and evaluation of the One Health workforce (see page 37).

- **Supported enhancements to the One Health Workforce Academies website**, which now features a curriculum curation database, One Health course modules and case studies created by the Global Consortium, and specific AFROHUN and SEAOHUN One Health Workforce Academy pages (see page 36).
- Strengthened Knowledge Management (KM) capacity for AFROHUN through a series of workshops that informed the Network's KM Strategy (see page 35).
- Conducted a KM introductory session for SEAOHUN, enabling members to learn more about KM activities, including Monitoring and Evaluation (M&E) (see page 35).
- Facilitated SEAOHUN's application of Airtable as a KM tool for Monitoring Evaluation and Learning (see page 35).
- **Both Networks reached the OHW-NG goal of achieving one newly funded partnership**, an important first victory in achieving funding diversification and financial sustainability (see page 35).
- Supported AFROHUN and SEAOHUN in prioritizing revenue-generating activities, including training activities under the umbrella of the One Health Workforce Academies, membership services models, and for SEAOHUN, the 10th anniversary conference. **This is the first time the Networks will generate income outside of grants as part of their efforts to diversify their funding portfolios** (see page 54).
- AFROHUN and SEAOHUN achieved either "adequate" or "strong" benchmarking scores on the major Non-U.S. Organization Pre-Award Survey (NUPAS) capacity domains, signifying **the Networks have sufficient capacity for managing a direct funding award, a critical milestone for ensuring the Networks are eligible for receiving planned direct USAID transition awards** (see page 49).
- Developed critical Board governance materials for SEAOHUN and AFROHUN including **Bylaws, Governance manual, and conflict of interest policies**, which will result in a stronger, more skilled and diversified Board that serves to improve organizational sustainability, governance and resource mobilization (see page 50).

Objective 3

Organizational Sustainability

Strengthen the functional and organizational capacities of the regional One Health university networks to ensure they are capable of acquiring and managing direct donor funding

SELECT HIGHLIGHTS

- **AFROHUN and SEAOHUN developed their first ever partnership engagement strategies**, which outline each Network's priority partners, engagement approach, and specific partnership goals and targets (see page 52).

Gender

Integrating gender considerations and mainstreaming gender competencies with the One Health University Networks at every level (planning, policy development, program implementation, and program evaluation) for an effective and equitable transdisciplinary workforce

SELECT HIGHLIGHTS

- Conducted a Gender Tracer Study with AFROHUN that identified opportunities to strengthen training on conducting gender analyses and integration of gender into programs. The study also revealed opportunities to incorporate gender competencies into training materials and curricula.
- Engaged 35 gender champions and gender experts, and conducted 33 gender-oriented OHW-NG activities.
- In Senegal, conducted gender and emerging infectious disease training with the Student One Health Innovation Club, reaching 75 students (37 males and 38 females).
- In DR Congo, engaged 50 faculty members at the Kinshasa School of Public Health (31 males and 19 females) on the importance of incorporating gender into One Health training and identifying opportunities to discuss gender perspectives and strategies to embed gender in training.
- In Malaysia, developed and launched a webinar series on gender and zoonotic diseases reaching over 230 students and faculty members.
- In Viet Nam, held a two-day workshop on gender perspectives and One Health for over 430 students (>70% female) from 22 universities.



OBJECTIVE

2

OBJECTIVE

1

OBJECTIVE

3

OBJECTIVE ONE

Training & Empowerment

Developing, delivering, and institutionalizing training of essential workforce to meet current and future demands of global health security in alignment with One Health competencies

TARGETED OUTCOMES & IMPACTS

- Increased proficiency in One Health competencies for pre-service and in-service professionals
- A well-trained and technically proficient workforce pipeline
- Engaged One Health University Networks that can be activated during health emergencies

STRATEGIES

- 1.1 One Health Training Content Curation and Development
- 1.2 One Health Workforce Academies
- 1.3 One Health Empowerment and Career Development
- 1.4 One Health Experiential Learning
- 1.5 One Health Policy Engagement

MAJOR ACTIVITIES

- GL Activity 1.1.1 Update of One Health training activities curation project
- GL Activity 1.1.2 Refine One Health core competencies
- GL Activity 1.1.3 Establish an International Board of One Health Examiners
- GL Activity 1.2.1 Enhance One Health Workforce Academy websites
- GL Activity 1.2.2 Implement virtual Communities of Practice
- GL Activity 1.3.1 Define criteria for Continuing Professional Development credits

HIGHLIGHTS

- Implemented an eDelphi Panel to review and inform next generation core competencies for One Health training. For the first round of the eDelphi Panel (March – September 2021), 80 international panelists, including AFROHUN and SEAOHUN experts, completed exercises to identify their demographic information, experiential criteria, and their views on One Health interprofessional and disciplinary intersections, as well as relative importance of One Health knowledge domains and sub-domains.
- Established the International Board of One Health Examiners (IBOHE) with 16 members from AFROHUN and SEAOHUN to oversee international quality assurance and accreditation procedures for competency-based One Health Certificate and Continuing Professional Development programs (December 2020 – September 2021).
- Conducted a survey of stakeholders for One Health Workforce Academies (OHWA) with more than 200 international respondents, including AFROHUN and SEAOHUN members. The results, so far, reveal that more than 90% of respondents plan to acquire competency-based One Health certification, and will visit the OHWA for training and credentialing (January – September 2021).
- Installed the Curriculum Curation Management System in the OHWA website, which is being populated with ongoing competency-based One Health training activities offered by institutions in AFROHUN and SEAOHUN, as well as Global Consortium affiliates (April – September 2021).
- Implemented the competency-based training contents in the OHWA, including modules for a One Health training course and a course in outbreak response, and several case studies in One Health (June – September 2021).
- Launched Communities of Practice using the ECHO platform by AFROHUN Kenya on Antimicrobial Resistance and by the AFROHUN Secretariat on eLearning (June – September 2021). The AMR ECHO had approximately 150 participants (average 21% female) from 21 institutions representing universities, hospitals, international agencies and non-governmental organizations in the health sector. The eLearning ECHO had approximately 140 participants from eight AFROHUN countries.
- Implemented a Student Hackathon Competition for members of Student One Health Innovation Clubs (SOHICs) in AFROHUN. The hackathon (digital technology-enabled solutions) focused on health management level issues/problems/challenges with a One Health perspective that may require an IT solution to address (hackathon.afrohun.org). There were 71 team applications, and 3 finalists received awards (June – August 2021).
- In collaboration with AFROHUN Tanzania, conducted a Continuing Professional Development workshop for Tanzania Professional Councils including Medicine, Veterinary Medicine, Public Health, Nursing, Farmers, and Environmental Systems. The CPD modules are being designed for implementation by faculty of Muhimbili University and Soikone University of Agriculture (July – September 2021).
- Held workshop series for new SEAOHUN partners in Cambodia, Lao PDR, Myanmar, and the Philippines, helping faculty and health professionals from member Universities strengthen their capacity in risk communication with affected communities, and in teaching risk communication to better prepare the future workforce in their respective countries (October – December 2020).
- Implemented a One Health curriculum integration workshop for 40 faculty of the M.P.H. program at Kinshasa School of Public Health, DRC, strengthening the pipeline of One Health professionals and improving the surveillance and response capacities in the country (December 2020 – March 2021).

ACTIVITIES

Strategy 1.1 One Health Training Content Curation & Development

Global (GL) Activity 1.1.1 Update of One Health Training Activities Curation Project

The development, delivery, and institutionalization of One Health training activities for pre-service and in-service professionals demands sustained efforts in quality assurance of training materials and maintaining an up-to-date inventory of opportunities for trainees to acquire skills and competencies. In Year 2 (2020-2021), we made substantial progress toward these goals by implementing and populating a permanent Curriculum Curation Management System (CCMS) in a user-friendly platform, including a framework for a searchable database of training activities. These accomplishments establish the foundation for the long-term goal of the certification credential in One Health that can be earned by trainees who complete a designated set of training activities, acquire the essential skills and core competencies, and can be attested by an authoritative board (i.e. International Board of One Health Examiners). These are major steps toward ensuring that employers recognize, recruit, and reward competent graduates of the One Health University Networks.

One Health Workforce Academies (OHWA)

The data entry and retrieval platform for the curriculum curation project was integrated into the OHWA website with a validated questionnaire following feedback from AFROHUN and SEAOHUN Secretariat staff, national coordinators, and activity leads. Proposals to develop new training activities

for the OHWA were reviewed, including competency-based case studies and modular sets on “Outbreak Response”, “Payment for Ecosystem Services” and a One Health certificate course, which is currently being piloted on the OHWA site.

Training-of-Trainers (ToT) Workshops

A five-day ToT workshop for integrating One Health into the curriculum of the M.P.H. degree offered by the Kinshasa School of Public Health (KSPH) focused on One Health core competencies, including gender. Forty faculty participants attended the workshop from each of the KSPH departments.

An eight-day ToT workshop on risk communication as a One Health competency was implemented for four new OHUNs in SEAOHUN. Approximately 60 faculty participants were awarded a certificate of completion.

A five-day workshop on the integration of One Health into the curriculum of Continuing Professional Development trainings offered by Professional Councils was implemented in AFROHUN Tanzania. Global Consortium partners provided technical support for agenda development and participated in the closing exercise of the workshop.

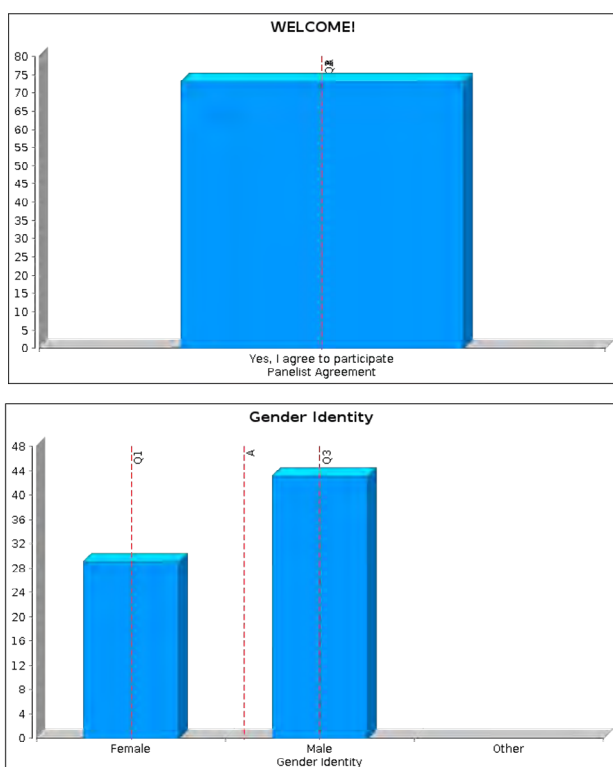
GL Activity 1.1.2 Refine One Health Core Competencies

The One Health framework sits at the intersection of professions and academic disciplines with established traditions of competency-based training. Therefore, defining core competencies for One Health demands a process of consensus-generation. The proven method for identifying varying expert perspectives and potentially deriving negotiated consensus is the Delphi Technique (See: Adler, Michael & Erio Ziglio (1996) *Gazing Into the Oracle: The Delphi Method and Its Application to Social Policy and Public Health*, (Jessica Kingsley Publishers)). Therefore, the protocol for a Delphi Panel procedure for reviewing and updating One Health core competencies was developed and implemented with feedback from AFROHUN and SEAOHUN partners. Terms of Reference for participants in the eDelphi Panel (eDelphi is conducted on a web platform instead of in-person) was produced, Institutional Review Board approval obtained, and more than 200 potential

panelists were identified. For the first round, 80 panelists completed all 20 exercises on the eDelphi platform. For example, panelists identified their demographic information and experiential criteria, and shared their views on One Health interprofessional and disciplinary intersections and ranked the relative importance of One Health knowledge domains and sub-domains (Figure 1.1).

A proposal to the Consortium of Universities for Global Health (CUGH) to support the Delphi Panel was successful. An abstract to present the interprofessional differences and consensus resulting from the panel was submitted for presentation at the 2022 CUGH Annual Conference to be held 28 March – 1 April 2022.

An abstract to present the results of the eDelphi Panel exercises was accepted by the International Meeting on Emerging Infectious Diseases and Surveillance (iMED) to be held virtually 4-6 November 2021.



Interest and Expertise Groups					
	HUMAN HEALTH	ANIMAL HEALTH	ENVIRONMENTAL HEALTH	AGRICULTURAL HEALTH	OTHER
AFROHUN - Africa One Health University Network	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
SEAOHUN - Southeast Asia One Health University Network	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
INTERNATIONAL MULTILATERAL AGENCY (e.g. FAO, OIE, UNEP, WHO)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
GLOBAL ACADEMIC INSTITUTIONS (e.g. Universities, Colleges, WHO-Academy, FAO eLearning Academy), NOT AFROHUN or SEAOHUN member	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
OTHER	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

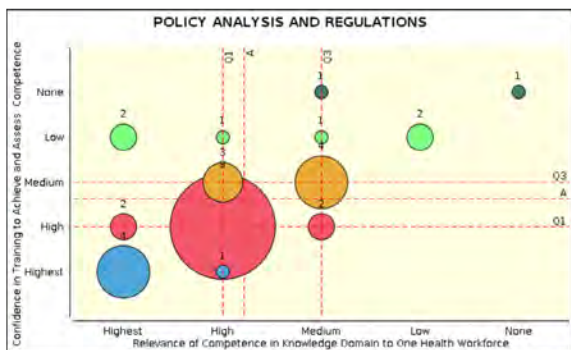
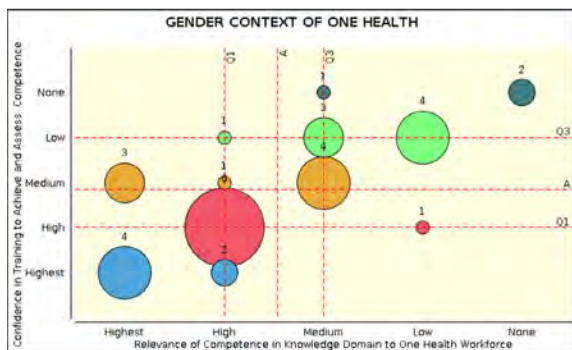
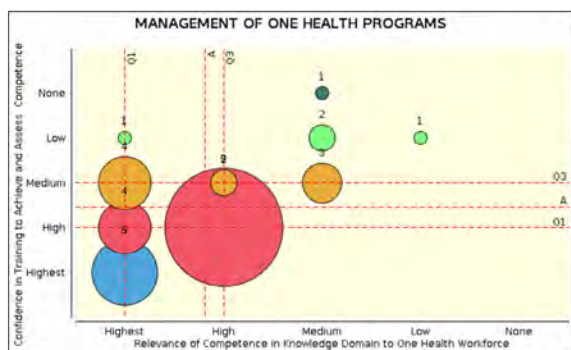
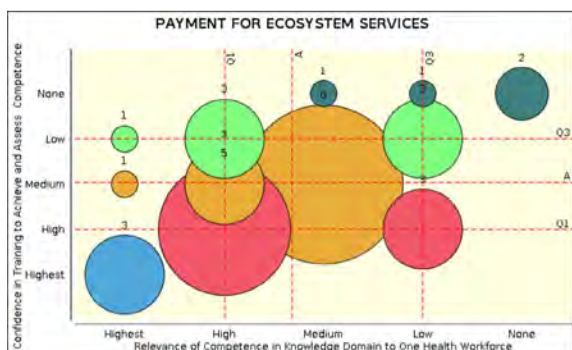
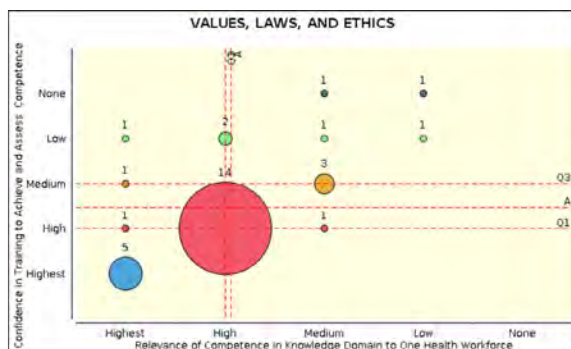
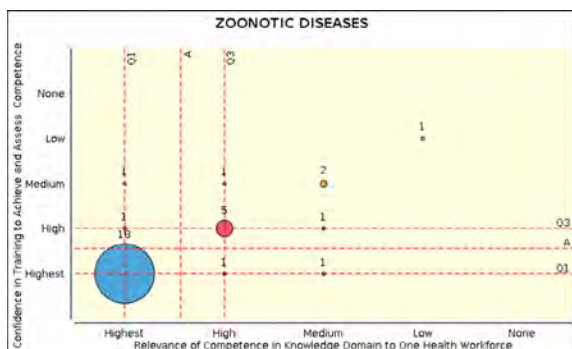
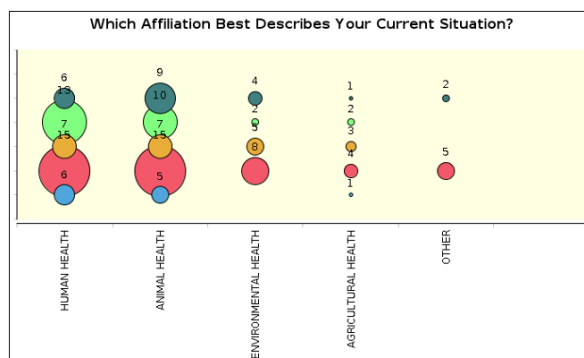
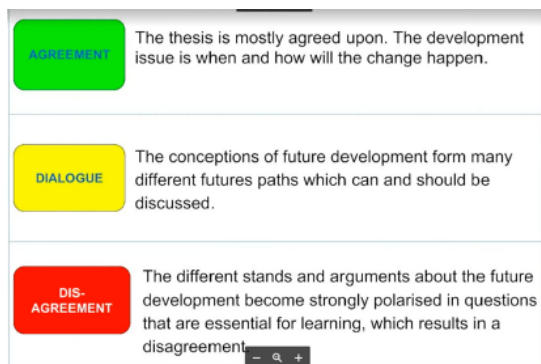


Figure 1.1 Highlights of results of panelist responses to the set of exercises in the first round of the eDelphi Panel to review and refine core competencies for One Health. About 40% of panelists are female (top panels). Panelists represented AFROHUN, SEAOHUN, and other international agencies and institutions across a wide range of One Health Sectors (middle panels). Examples of panelists ranking of core competency domains of One Health showing areas of strong agreement when bubbles cluster to the lower left corner, or wide range of disagreements when data stretch across the diagonal axis, necessitating further discussion in the next stages of the Delphi process.

GL Activity 1.1.3 Establish an International Board of One Health Examiners

The Terms of Reference for the IBOHE was produced, and nominees for the IBOHE were received from all SEAOHUN partners and the AFROHUN Technical Advisory Committee (TAC) for the One Health Workforce Academy. The total number of IBOHE members is currently 16, and results of the eDelphi Panel have been shared with them. Work is ongoing to identify a Chair and Co-Chair of the Board, and for nomination of external experts who are knowledgeable about accreditation of certificate programs.

GL Activity 1.1.4 Calibrate One Health Activities for Student Clubs

A one-page fillable form was developed to record and attest to One Health competencies covered by student activities. The form was included in the Student One Health Innovation Club (SOHIC) guide for which Global Consortium partners provided review and feedback to AFROHUN. The guide has been distributed to all AFROHUN country chapters. Additionally, a presentation was delivered to AFROHUN Senegal during a five-day workshop aimed at integrating One Health core competencies into student activities.

SEAOHUN hosted a student competition on the theme of “Risks of Zoonotic Diseases” which emphasized the integration of “hard” and “soft” skills which align with the technical and functional competency domains of One Health. There were 52 team submissions from 7 countries.

This competition focused on crafting video messages about zoonotic disease and risk communication and contributed to the professional development of students, providing them an opportunity to share the One Health approach while improving risk communication skills.

GL Activity 1.1.5 Improve Integration of Gender into One Health Education and Training

A Gender Tracer Study was conducted, and the results were presented to AFROHUN Secretariat staff. Opportunities to include a training module on Gender in the content of the One Health Workforce Academy were reviewed and development of a module targeting student audiences is underway.

In addition, a presentation on the gender context of One Health was included in the five-day workshop on One Health curriculum integration at the Kinshasa School of Public Health, DRC.

Strategy 1.2 One Health Workforce Academy

Envisioned to be the first of its kind internationally, the One Health Workforce Academy (OHWA) is a one-stop-shop for preparing and nurturing competent personnel for global health security, outbreak response, and pandemic preparedness at the intersection of animal health, human health, and environmental systems. To gain international visibility and credibility, OHWA must be a live interactive website, contain resources that are not available elsewhere in terms of quality, and include a variety of opportunities for career advancement. In Year 2, we have made major advances towards these goals through enhancement of the OHWA website and development of content capable of attracting a multidisciplinary audience.

GL Activity 1.2.1 Enhance One Health Workforce Academy Websites

The OHWA website was enhanced with content and a permanent title was secured:

onehealthworkforceacademies.org.

The stakeholders for the OHWA. Currently there are more than 250 respondents, which includes members from the AFROHUN and SEAOHUN Networks as well as professional and government workers from the two regions.

GL Activity 1.2.2 Implement Virtual Communities of Practice

The development of skills for collaboration and partnerships is essential for disseminating and translating One Health knowledge, but it is also difficult to accomplish because of the wide range of schedules and differing priorities of the various professionals and academic disciplines that the One Health framework demands. Empowering Virtual Communities of Practice (vCoP) is one of the strategies that we emphasized for disseminating One Health knowledge.

In Year 1, we successfully deployed the ECHO platform for responding to COVID-19 pandemic. We also trained AFROHUN and SEAOHUN secretariat staff on managing ECHO programs. In Year 2, we succeeded in identifying key topics of regional and national interests for AFROHUN to embark on semi-independent management of ECHO programming. Two virtual communities of practice (vCoP) were successfully launched using the Project ECHO platform. A vCoP for AFROHUN Kenya focused on antimicrobial resistance, which gained approximately 70 active participants. A vCoP hosted by the AFROHUN Secretariat on eLearning achieved 50 participants. For more information, see **Success Story: Building Bridges**.

GL Activity 1.2.3 Engage with Student One Health Club Activities

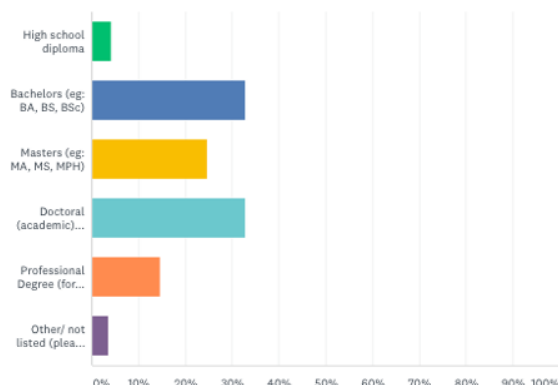
A student hackathon competition for SOHICs was successfully implemented in AFROHUN. There were 71 team applications, and 3 finalists received awards (June – August 2021).

Strategy 1.3 One Health Empowerment and Career Development

In-service professionals represent the anticipated immediate audience of training programs and credentialing procedures implemented within the OHWA. The time available for pursuing career development by busy, employed professionals is limited, and such investment of time and resources demands a return on investment that the OHW-NG Global Team and regional Networks must cultivate. The buy-in process begins with a survey of employers and stakeholders who presumably will provide financial support and time release for their employees to use the resources of the OHWA. By conducting a stakeholder survey in Year 2, we took a major step toward ensuring that the OHWA will provide optimal opportunities for empowerment and career development. For example, the preliminary results of our survey showed that the current workforce is populated by personnel with backgrounds in a broad range of academic disciplines and professions, which points to the need for a convergent preparation curriculum in technical and functional competency domains of One Health to support the collaborative integrity of the One Health workforce. As well, the information gathered is useful for calibrating the proficiency level targets for training (Figure 1.2).

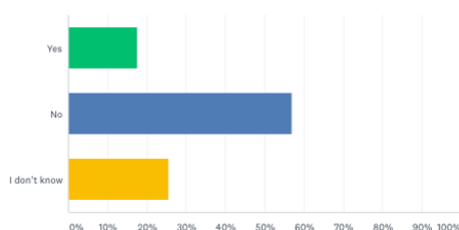
A Your highest academic degree obtained:

Answered: 170 Skipped: 77



B Has your organization ever advertised employment opportunities with specific reference to “One Health” or sought to recruit personnel specifically trained in One Health? :

Answered: 125 Skipped: 122



C Are you personally interested in training toward earning a Certificate in One Health?

Answered: 122 Skipped: 125

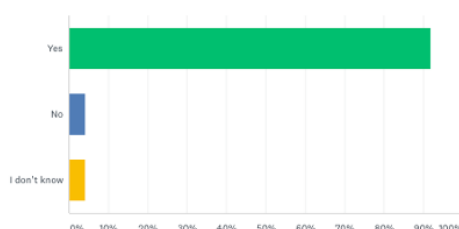


Figure 1.2 Information provided by 174 respondents to our pilot survey of stakeholders for the One Health Workforce Academy. (A) Responses to “Your highest academic degree obtained” (B) Responses to “Has your organization ever advertised employment opportunities with specific reference to One Health or sought to recruit personnel specifically trained in One Health?” (C) Responses to “Are you personally interested in training toward earning a certificate in One Health?”

GL Activity 1.3.1 Define Criteria for Continuing Professional Development Credits

IBOHE members are defining criteria for Continuing Professional Development (CPD) credits. To inform that process, the Global Team held meetings with FAO about needs for professional training and career advancement in One Health, including participation in the Technical Advisory Group for the tripartite’s (WHO-FAO-OIE) competency framework for field epidemiology training programs (September 2021). We also met with the WHO Academy to explore opportunities for collaboration with the OHWA with respect to professional development training and opportunities. As well, the Global Team provided technical support for AFROHUN Tanzania’s engagement with professional council representatives to implement a workshop on the integration of One Health into CPD training (September 2021).

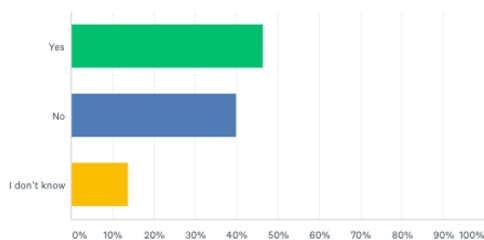
Through an approved Institutional Review Board (IRB) international survey, we gathered information on the demand for CPD training in One Health, and we identified potential barriers to CPD in One Health (Figure 1.3). The two most prominent barriers identified by respondents regarding participation in One Health training through OHWA are cost and time. Therefore, we are developing strategies for asynchronous delivery of training content, and we will conduct a “willingness-to-pay” study of the first cohort of trainees who enroll in the course to determine a fee structure and the value of scholarships and sponsorships that may be provided by employers to support CPD training for in-service professionals.

GL Activity 1.3.2 Establish a One Health Employment Forum

A pilot survey of potential employers and employees was conducted with more than 150 participants. The results show that many employers expect to recruit One Health trainees over the next five years, but there is some uncertainty about employer rewards for One Health training (Figure 1.4). An employment forum page has been established on the OHWA website. The forum is expected to feature opportunities for employers to advertise open positions that require knowledge and specialized training in One Health, and interviews with in-service professionals to document their experience, value of One Health training and credential.

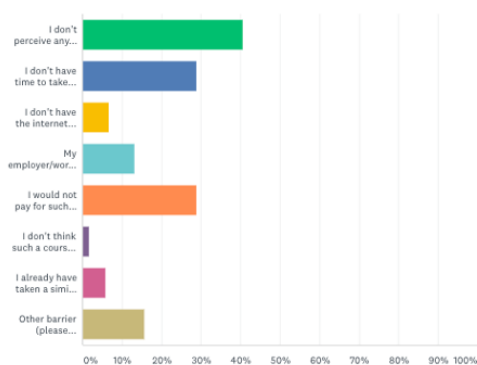
A Does your current job require you to complete any in-service/on-the-job trainings or courses?

Answered: 138 Skipped: 109



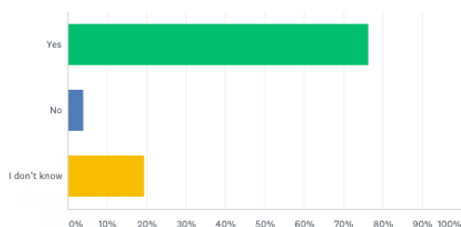
B If a competency-based One Health Certificate course was offered, what barriers would you expect in participating in such a course? Select all that apply.

Answered: 121 Skipped: 126



A Do you expect the need to hire new people with training and/or experience in One Health in the next 1 – 5 years?

Answered: 123 Skipped: 124



B Do you expect that your organization will reward personnel with a credential such as a Certificate in One Health, through established merits and promotion procedures?

Answered: 123 Skipped: 124

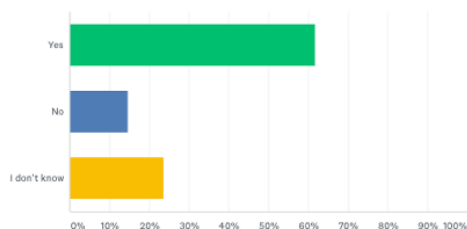


Figure 1.3 Information provided by 174 respondents to our pilot survey of stakeholders for the One Health Workforce Academy on continuing professional development and One Health. (A) Responses to “Does your current job require you to complete any in-service/on-the-job trainings or courses?” (B) Responses to “If a competency-based One Health Certificate course was offered, what barriers would you expect in participating in such a course? Select all that apply.”

Figure 1.4 Information provided by 174 respondents to our pilot survey of stakeholders for the One Health Workforce Academy on employment. (A) Responses to “Do you expect the need to hire new people with training and/or experience in One Health in the next 1-5 years?” (B) Responses to “Do you expect that your organization will reward personnel with a credential such as a Certificate in One Health, through established merits and promotion procedures?”

Strategy 1.4 One Health Experiential Learning

The translation of theoretical frameworks to practical applications is crucial if One Health training is to have meaningful influence on strengthening health security and preventing pandemics.

Therefore, field experiential learning has always been considered a core competency. Although the pandemic has severely limited field training opportunities, it has also stimulated a lot of thinking about alternative methods. Activities during this period contributed to our goals through exploration of experiential training including discussions of simulation exercises, which were considered for the risk communication workshop, and linkage of demonstration sites to theory-based training such as ecosystem health and payment for ecosystem services, field simulation exercises, and hybrid training delivery formats.

GL Activity 1.4.1 One Health Short Course Technical Assistance

The Global Team has been providing technical support to AFROHUN and SEAOHUN country teams who are planning experiential learning activities. Areas for technical support include assistance with course design and delivery as well as subject matter expertise in topic areas such as risk analysis, wildlife health, rabies, and social innovation. For example, remote technical assistance was provided to AFROHUN Kenya around their experiential training activities at One Health demonstration sites, as well as to THOHUN, helping to begin the process of transforming the field-based learning component of THOHUN-TELI to an online blended learning experience.

Field demonstration sites which are suitable for training in One Health are typically places where human populations interact with wildlife and ecosystems for various reasons including but not limited to hunting, tourism, forest harvesting, and recreation. The socio-economic context of such interactions is not yet well defined in the One Health framework. For example, field training is expected for One Health education, but it is not included in the modules identified by AFROHUN

and SEAOHUN, and there are no competency domains defined for field training. In part to bridge this gap, we are developing a short course in “Payment for Ecosystem Services” with field components. We also reviewed the syllabus and a prototype course was prepared for installation in the OHWA website under the training resources banner.

Strategy 1.5 One Health Policy Engagement

Implementation science, including policy formulation and analysis, is a cornerstone of transdisciplinary frameworks such as One Health. For example, the high level of variability in the response of different countries to the COVID-19 pandemic and the concomitant variation in the case load of patients and mortality is compelling evidence that knowledge alone is insufficient to protect global population health. Recognized threats in the One Health framework, such as the emergence of antibiotic resistance among pathogens, need coherent policies to curb the threat, and the science should inform the policy. Activities during this period began the process of identifying key topics that are suitable for case studies in policy engagement.

GL Activity 1.5.1 Training on One Health Policy Briefs

A desk review of One Health topics suitable for policy briefs was completed, including, for example, the extension on the ban of lead-based bullets used in hunting wildlife and the link to human lead poisoning, and national action plans for antimicrobial resistance. A proposal for “This is Public Health – Global” focusing on “Antibiotics Stewardship is Public Health” was successful through the Global Network for Academic Public Health. This opportunity may serve as a template for developing policy briefs on the topic.

In addition, we developed the agenda for a policy brief writing workshop and received feedback from SEAOHUN and AFROHUN partners. Implementation of the workshop has been scheduled for Year 3 of the project.



LESSONS LEARNED

Centralizing One Health Training: The One Health Workforce Academies

Access to and development of One Health training content is critical for equipping Networks and partner institutions with the tools needed to train the current and future One Health workforce. Therefore, the One Health Workforce-Next Generation project is addressing this need through an effort to centralize One Health training offerings for in-service and pre-service One Health professionals. The One Health Workforce Academies (OHWAs) were launched as the online platform capable of hosting, curating, and delivering training content and is expected to not only expand the reach of the SEAOHUN and AFROHUN Networks. OHWA can also serve as a revenue-generating mechanism. The OHWAs and the content within will continue to grow throughout Years 3, 4, and 5 of the OHW-NG Project.

Timely and Empowered Learning: Institutionalizing Competency-Based One Health Training

Long-term sustainability of One Health workforce personnel development pipeline requires institutionalization of training

activities within universities, for examples, through established curricula and dedicated concentrations and degree programs, in order to attract trainees and the commitment of faculty members and leaders of departments, schools, and colleges. Thus, institutionalization is a higher stage beyond one-off training activities such as workshops and tutorials that were prominent during the early stages of the development of One Health framework. Tracking progress on the pathway toward institutionalization allows learning across the hierarchy of categories involved in One Health training and career development. OHW-NG implemented the CLASS framework (Calibrated, Lifelong, Adaptive, Scalable, and Sustainable) to track advances in well-defined criteria. Participation of the AFROHUN and SEAOHUN Networks in the self-assessment component of the CLASS scoring process remained strong in Year 2. However, the timing of the assessment needs to be adjusted such that the assessment and validation process can occur prior to the start of work planning process each year in order to inform on the activities to prioritize in subsequent years. This will support prompt identification of gaps and opportunities for reinforcement of strengths.

NEXT STEPS

Enrollment of in-service trainees in the first class of the competency-based course installed in the One Health Workforce Academy website will commence shortly. The OHWA website is designed with the capacity to accept up to 1000 registrant-trainees, each with permanent user-profiles.

We will continue recruiting participants to the full survey of employers and stakeholders in the One Health Workforce Academies, particularly from AFROHUN, where the response rate is currently too low to produce generalizable information. The reason for the initial low response rate is the timing of the release of the survey, which coincided with many other requests to potential respondents, including alumni survey, and request to participate in the Delphi Panel for One Health competencies. Therefore, we have an indefinite closing date of the survey and we will issue periodic reminders to potential respondents to encourage their participation.

Additional rounds of the eDelphi panel will be implemented to disentangle topics with marginal consensus during the initial round, such as dentistry, gender, toxicology, and payment for ecosystem services.

Additional training activities based on One Health competencies will be integrated into the OHWA website, and this process will continue until the end of Year 3.

The International Board of One Health Examiners will be convened to make recommendations to AFROHUN and SEAOHUN about accreditation pathways, One Health CPD credit assignments, and to develop a proposal for certification examination.

GENDER EMPOWERMENT

When nominating and confirming panelists for the eDelphi Panel and International Board of One Health Examiners, ensuring a balanced gender representation was key. The eDelphi Panel has approximately a 40/60 female/male representation, and the IBOHE is 65% female. Gender context is included in the foundational competency domain being evaluated through the eDelphi Panel constituted to review the core competencies, thus it was imperative that there is a gender balance among the individuals tasked with reviewing and refining One Health knowledge domains, core competencies, and skills.

Data on the gender identity of survey respondents for the OHWA stakeholder survey is being collected, along with other demographic information, such as education level and sector of work. This data is being analyzed in conjunction with responses to other questions and is being used to help target additional survey responses from less represented gender groups.



Success Story

Building Bridges Across Disciplinary & Professional Boundaries through One Health Communities of Practice

To prepare a skilled and competent workforce, we must develop and disseminate knowledge about pressing issues in the One Health framework. Though development of skills for collaboration and partnerships is essential for disseminating and translating One Health knowledge, it is difficult to accomplish because of the wide range of schedules and differing priorities of the various professionals and disciplines that the One Health framework demands.

Learning for the Age of Social Distancing

The COVID-19 pandemic disrupted delivery of in-person education and training programs worldwide, severely challenging conventional mechanisms for knowledge sharing and acquiring technical skills. Though digital transformation of training delivery started before the pandemic, the rapid pace of adoption and implementation of online education was unprecedented, necessitating the development of best practices for digital

online teaching and learning (eLearning). Empowering Virtual Communities of Practice (vCoP) is a major strategy that the One Health Workforce – Next Generation project emphasized for disseminating One Health knowledge. In Year 1, we successfully deployed the ECHO platform for responding to the COVID-19 pandemic and trained AFROHUN and SEAOHUN Secretariat staff on managing ECHO programs. In Year 2, together with AFROHUN, we succeeded in identifying key topics of regional and national interests and the AFROHUN Secretariat embarked on semi-independent management of ECHO programming.

Over the past year, the AFROHUN Secretariat planned and implemented an eLearning ECHO vCoP with participation of more than 80 individuals across nine countries. Pre- and post-assessments of outcomes indicate that these sessions added to participant knowledge and supported the sharing of best practices (Figure 1).

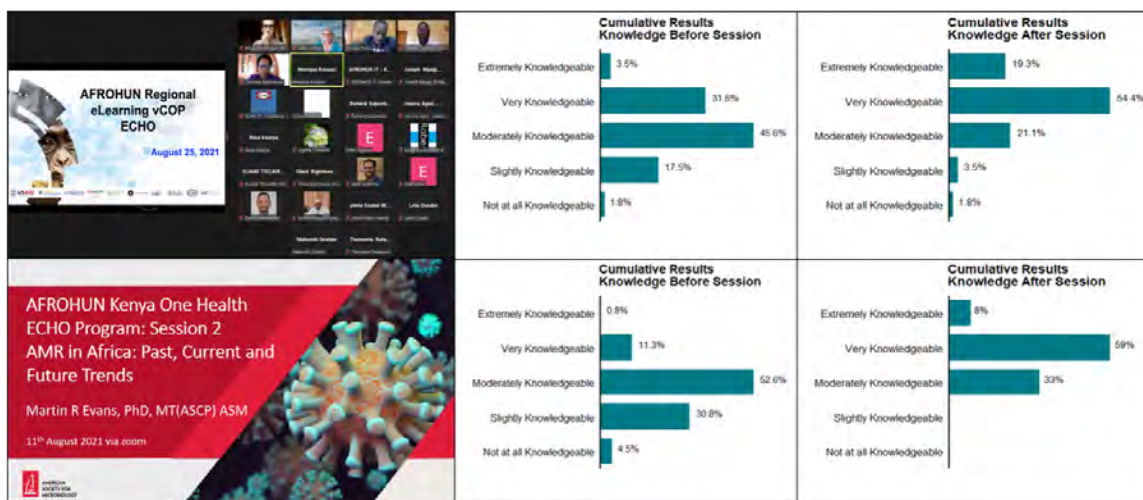


Figure 1. Virtual Communities of Practice on eLearning and Antimicrobial Resistance, based on the ECHO Platform, increased knowledge of One Health topics among >80 participants.

Meet the Virtual Community



Makumbi Ibrahim

Master's Student, Makerere University
Instructional Design & Technology

I really enjoy the Virtual Community. It provides vital information and skills that are within my career of Instructional Design and Technology. The five sessions I have attended had a positive impact on my career and day to day life.

The issues discussed and solutions presented were handled with a professional touch. The case presenters and subject matter experts were very knowledgeable and skillful. They leave no stone unturned.

The sessions opened up doors for me to create networks. I have a connection to a number of individuals with different knowledge and skills that can help me as I grow in the field of e-Learning and instructional design and technology.

I believe it [the virtual community] will last as long as it is opened to other people who are not in the current cohort but have interest in the subject matter. It [the virtual community] connects individuals from different parts of Africa to learn remotely in order to transform their society.

“It [the virtual community]

connects individuals from different parts of Africa to learn remotely in order to transform their society.”

—Makumbi Ibrahim

Meet the Virtual Community

Eliane Teclaire Etohe

Mrs. ETOBE Eliane Téclaire leads the E-learning department at the Catholic University of Central Africa - Catholic Institute of Yaoundé (UCAC-ICY) in Cameroon and is the project manager for the implementation of a UCAC-ICY-based distance learning system. She has a master's degree in technopedagogy from the University Louis Pasteur of Strasbourg with formal training in the utilization of information communication technologies in teaching and training.

Following the COVID-19 pandemic confinement, AFROHUN decided to build the capacity of university teachers in active pedagogy through the training of trainers. We attended webinars, then a meeting in Ngaoundéré, and webinars after this meeting to implement what we had learned in order to pass it on to our peers. It was a bit of a slow process, but it was a good initiative, and four of my fellow teachers took the last few webinars and came away enlightened.

My experience with vCOPs and ECHOs was very rewarding. In addition to my own experience in the field of technology education, the experience and knowledge shared by the facilitators is very useful for those working in this field. My two trainings are more than ten years old, there are new skills to learn.

The potential of the ECHO/vCOP model is that it has succeeded in bringing together academics and specialists in technopedagogy from different countries around the concept of technopedagogy. This is important because it allows not only capacity building but also exchange of experience.

The part I really enjoyed was the practical part on Moodle (an open source learning platform and course management system) because it is something I haven't done before, and since in our university we also use Moodle, it gave me additional skills. I think these sessions are a success because they allow teachers to discover what E-learning is and to break all the preconceived ideas about this teaching modality.

What I learned or rather what I improved, is my knowledge about the use of ICT in teaching and training, especially the problem situations that so far I am struggling to put into practice. But it's starting to come. Now that a WhatsApp group has been created, if this group is well facilitated, I think it will strengthen the relationship between the participants. Because no matter what you say, anything that is virtual needs a facilitator to make it live.

“What I learned or rather what I improved, is my knowledge about the use of ICT in teaching and training, especially the problem situations that so far I am struggling to put into practice. But it's starting to come.”

—Eliane Teclaire Etohe

Building Sustainable Communities of Practice to Address Antimicrobial Resistance

Antibiotics are used extensively in human and animal health care, and antibiotic residues in wastewater have contributed to environmental pollution, which fuels the development of resistance among pathogenic microorganisms. The trans-sectoral impact of antibiotic resistance renders it a quintessential challenge for the One Health framework. If the scourge of antibiotic resistance is not tackled now, one human death could occur every three seconds by the year 2050, and the annual death toll would increase from 700,000 to 10 million at a cost of >US\$100 trillion in global production.

The Africa sub-continent is expected to bear a particularly heavy burden of diseases due to failing antibiotic therapy against communicable diseases. Improving stewardship of antibiotics is a multisectoral challenge, encompassing several professions and academic disciplines, including agriculture, medicine, nursing,

pharmacy, environmental science, behavioral science, and community engagement.

Proposed remediation strategies hinge on improving antibiotic stewardship, defined as stringent and appropriate use of antibiotics. Educating pre-service trainees and in-service professional is a crucial strategy for improving antibiotic stewardship, as is building sustainable communities of practice, which would reinforce the benefits of stewardship by promoting and disseminating best practices among collaborating professionals.

This year, AFROHUN Kenya successfully planned and implemented the “One Health ECHO: Antimicrobial Resistance & One Health” with support of the Global Team and the American Society for Microbiology. More than 150 participants from 21 institutions representing different sectors of One Health joined the vCoP (Figure 2) and pre- and post-assessments indicated that participation increased knowledge about this critical health challenge (Figure 1).

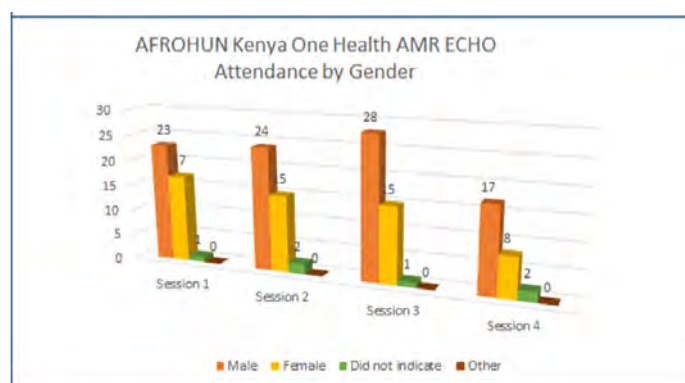
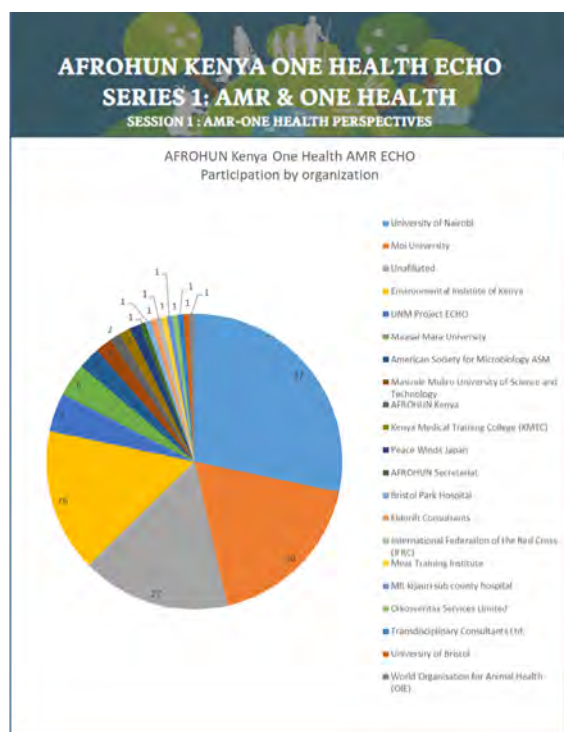


Figure 2. The Virtual Community of Practice on Antimicrobial Resistance attracted an audience from multiple sectors and disciplines involved in the One Health framework. About a quarter to half of the participants were female, reflecting the gender ratio of the disciplines.

IN FOCUS

The Curriculum Curation Management System: A One Stop Shop for Competency-Based Learning

A major success of international investments in One Health university networks during the past decade is the creation and implementation of training modules that align with academic and professional consensus on skills and competencies. One Health skills and competencies are essential for a workforce that is prepared to confront challenges to global health security and to respond regional priorities, including but not limited to pathogen spillover from animals to human populations, infectious disease outbreaks, and pandemics such as COVID-19.

An initial collection of One Health training modules was developed by partners in AFROHUN and SEAOHUN, which took into consideration specific national and regional circumstances and priorities. However, decentralization of training module implementation resulted in a wide range of delivery modes, subject matter content, learning objectives, and evaluation strategies. To stay at the forefront of One Health training and empowerment activities, we embarked on a curriculum curation project in Year 1 (2019-2020) to take stock of existing modules, competencies, sub-competencies, and learning objectives; map variations in content, delivery modes, and evaluation tools; and to identify opportunities for new modules with specific learning objectives that fill gaps in training,

including gender barriers and outbreak response. Though this curriculum curation project needs to be updated annually, it can be done efficiently and cost effectively through virtual engagement.

To facilitate this process, over the past year we transitioned from an Excel-based system to an online database that facilitated both data collection and data analysis. The new system was entitled the “Curriculum Curation Management System” (CCMS) and was successfully implemented via the One Health Workforce Academies (OHWA) website (Figure 1). As of October 2021, all partner countries had entered data including competency-domains associated with specific training activities and we have more than 1,000 data units in the CCMS. This will continue to increase as the consortium partners develop new training activities toward certification of in-service professionals, and as AFROHUN and SEAOHUN develop new training activities for their respective Academies. Excerpts of the curated curriculum are linked to a searchable frontpage of the OHWA for pre-service and in-service trainees to access opportunities for acquiring specific One Health competencies.

In addition, we also provided a glossary of One Health terms with definitions, explanations, and illustrative examples, which is freely accessible through the OHWA site.



Figure 1. The Curriculum Curation Management System (CCMS) was successfully implemented into the new One Health Workforce Academies website. The CCMS is actively populated with training activities and is searchable by competency domain terms and other key characteristics.

OBJECTIVE

2

OBJECTIVE

1

OBJECTIVE

3

OBJECTIVE TWO

Assessment & Tracking

*Establishing systems, policies, and procedures to assess and track
multisectoral workforce placement, performance, and impact*

TARGETED OUTCOMES & IMPACTS

- Improved quality and increased use of workforce and assessment data for decision making
- Increased placement of One Health alumni in targeted sectors
- Improved multi-sectoral workforce strategies within AFROHUN country chapters and SEAOHUN One Health University Networks

STRATEGIES

2.1 Establish Regional Knowledge Management Strategies

2.2 Develop a Standardized One Health Competency Assessment Toolkit using a Capability Maturity Model

2.3 Engage One Health Coordinating Bodies to Support Workforce Assessment and Tracking, Including Inclusion of One Health Competencies in Continuing Professional Development Certification Requirements

MAJOR ACTIVITIES

GL Activity 2.1.1 Support AFROHUN to develop and implement a KM strategy and toolkit

GL Activity 2.1.3 Support SEAOHUN to conduct a KM needs assessment

GL Activity 2.1.5 Support alumni tracking and engagement systems

GL Activity 2.1.6 Support website development for the One Health Workforce Academies

GL Activity 2.2.1 Finalize the OH competency framework

GL Activity 2.2.2 Develop an evaluation toolkit for OH trainees at the basic, proficient and advanced levels

GL Activity 2.3.2 Synthesis of data scan results and country-level One Health workforce policy and planning support

HIGHLIGHTS

- Launched the alumni tracking survey in the SEAOHUN and AFROHUN Networks to determine how to better connect to and engage with alumni around the world. Survey circulated to over 13,000 alumni in Africa and Southeast Asia in English and translated into four different languages. In addition, a standard analytics package was developed that can be used by the Secretariats to summarize, analyze, and report alumni data (July – September 2021).
- Conducted a National One Health Coordination Survey with AFROHUN to capture insights and perceptions around national coordination platforms from a variety of external stakeholders in academia, ministries, and professional and research organizations. A total of 175 detailed responses from seven countries have been received July 2021. Regional and country level analysis of responses will help support prioritization of activities for AFROHUN moving forward and will be an integral piece of KM work.
- Finalized the One Health Competency Framework Manual, helping to promote competency-based training and evaluation of the One Health workforce. This manual includes a resource library, competency framework, and assessment toolkit which can be adapted for use across settings. This manual helped in the facilitation of regional training workshops for both Networks, which were attended by 141 participants (June – September 2021).
- Enhanced the One Health Workforce Academies website, which now features a functioning curriculum curation database, One Health courses and case studies created by the Global Consortium, and specific AFROHUN and SEAOHUN One Health Workforce Academy pages (September 2021). For more information, please see Objective 1 section on website development.
- Through a series of knowledge management (KM) workshops, AFROHUN collected and compiled data informing their KM Strategy. As part of the Knowledge Management toolkit, AFROHUN has developed the Network's Smart Library and trained the librarians who will be maintaining the collection of materials. The Secretariat has taken over ownership and management of the library, as of August 2021, as part of the process to transition activities to the Network from the Global Team for sustainability.
- Conducted an initial KM introductory session for SEAOHUN, enabling members to learn more about KM activities. Through this session, VOHUN took a particular interest in KM and its alignment with their Monitoring and Evaluation (M&E) activities. KM was included as part of VOHUN's M&E Training of Trainers workshop (September 2021).

ACTIVITIES

Strategy 2.1 Establish Regional Knowledge Management (KM) Strategies

SEAOHUN and AFROHUN are learning networks, whose raison d'être is to develop and share information and resources. In addition, they are involved in multi-stakeholder, multi-national projects which must collect, validate, use, and disseminate programmatic information and workforce performance data. Knowledge Management (KM) – the process of capturing, sharing, and effectively using information – is central to this effort.

GL Activity 2.1.1 Support AFROHUN to Develop and Implement a KM Strategy and Toolkit

Identification of KM strengths, weaknesses, opportunities, and threats (SWOT) was a priority for the AFROHUN Secretariat to move their organizational and programmatic KM strategy forward. During Year 2, the Secretariat hired a Knowledge Management consultant to lead this initiative. Through the facilitation of a series of KM workshops, AFROHUN's KM needs, gaps, and opportunities, as well as a vision and mission for KM with the Network, were documented. The participants of these workshops included Country Managers, Country Administrators, Thematic Leads, and Secretariat staff. In addition to the workshops, a survey was sent to stakeholders to solicit input around AFROHUN's current KM state. The information and data collected from the workshops and survey were synthesized into a KM Strategy and Learning Plan, which will work as the guiding framework for the Secretariat to view all their knowledge points through a unified and strategic lens moving forward.

GL Activity 2.1.3 Support SEAOHUN to Conduct a KM Needs Assessment

Knowledge Management has been prioritized within VOHUN to complement the work done around Monitoring and Evaluation (M&E). VOHUN conducted an M&E workshop that incorporated the introduction of KM, sample tools, and an overview of KM trends across the Network. This workshop was key in providing foundation training around KM for VOHUN to build on the trends and tools moving forward. During the workshop, colleagues used Airtable as a sample platform for KM, and the Network is in the process of identifying the appropriate platform that could be utilized to support KM needs across VOHUN and its University members. Moving forward, the Global Team will support VOHUN in sharing its KM initiatives with other One Health University Networks and will provide technical assistance on KM to other OHUNs. Supporting OHUNs adds to the success of SEAOHUN's overall regional Network.

GL Activity 2.1.4 Support SEAOHUN to Develop and Implement a KM Strategy and Toolkit

The Global Team and SEAOHUN Secretariat launched an M&E Airtable system to assist in the collection, organization, and management of project data. Currently this system is co-managed by the Secretariat and Global Team but will be transitioned to Secretariat ownership and management in Year 3. This KM tool collects activity reports and associated data on project indicators such as updated and newly developed training content, individuals trained, and products developed. It is enabling efficient storage, summary, and retrieval of data and project documents at the university, country, and regional levels.

VOHUN has showcased how to incorporate KM needs through an M&E lens by conducting a KM assessment with its University members to collect data around KM capacity and to identify key KM trends. These findings were incorporated into a report and shared during the M&E workshop held in September 2021. The workshop also incorporated other KM sessions that allowed for an introduction to KM principles and interaction with KM tools. The Global Team intends to further explore KM interest with other members of the SEAOHUN Network moving forward.

GL Activity 2.1.5 Support Alumni Tracking and Engagement Systems

Technical Support is Critical to Survey and Analytics Implementation Success

The Global Team developed and launched an alumni tracking survey and analytics package, which has proven valuable for the Network. The survey has been translated to four different languages (in addition to English) and distributed to over 13,000 alumni in Africa (two Country Chapters) and Southeast Asia (four OHUNs), with additional AFROHUN Country Chapter alumni to be added to the distribution list in Year 3. A total of 460 responses have been received by mid-October 2021 (the majority from MYOHUN (179) and INDOHUN (92) and Rwanda (61). The Objective 2 team supported the Networks in management of survey distribution and implementation, as well as in the analytics. Early results show significant interest in curricular improvements and additions, a desire to learn more from continuing education/ executive education offerings, volunteers to help with alumni mentoring and funding, and a desire to share success stories in terms of how One Health education has helped alumni careers and personal development.

Analytics are Key to Alumni Engagement

The Global Team is supporting both Networks on creating meaningful engagement strategies based on the results of the alumni survey. Given the momentum in Year 2, the Global Team will assist the Networks in data analysis of the survey

responses in Year 3, helping to develop hypotheses around successful alumni engagement approaches and propose implementation strategies to create meaningful alumni communities. It is the intent that these engaged alumni communities will provide mentoring, funding, and ongoing support for new alumni, and that more senior alumni will serve as experts in their field from which the Networks can draw knowledge and expertise, helping them continue to be seen as leaders in One Health. By providing this additional, continued support for alumni engagement, the Objective 2 team can provide ongoing monitoring of engagement successes, as well as downstream competency reporting, once engaged alumni report how their training has supported their careers and community enrichment activities.

GL Activity 2.1.6 Support Website Development for the One Health Workforce Academies and GL Activity 2.1.7 Develop a Curriculum Curation Database

The One Health Workforce Academies (OHWA) brings together the activities led by the various objective teams to deliver a robust website for training of One Health pre-service and in-service trainees. In Year 2, the web development team updated the website by incorporating a Curriculum Curation Database, which was completed and integrated into the OHWA website. In this database, users can search for One Health course offerings within the member institutions and course offerings are searchable by competency. Two courses, which are currently being refined by the Global Consortium, have also been integrated into the website and are accessible for trainees to preview and pre-register for taking once finalized. Network university members have also been inputting information into the system, enabling trainees and faculty to access course offerings across the Networks. The affiliated network courses inputted through the Curriculum Curation database can be accessed under “Explore Training Material” here. The Objective 2 team has been refining data inputs based on feedback from those inputting course data.

Strategy 2.2 Develop a Standardized One Health Competency Assessment Toolkit using a Capability Maturity Model

A decade of investment in One Health workforce development has resulted in the production of a diverse portfolio of One Health training curricula, courses, and training modules at various levels from basic to advanced. In Year 1, the Global Team drafted a One Health competency framework for 16 key domains using a capability maturity model to define performance along a continuum from novice to expert levels. In Year 2, we focused on finalizing the One Health Competency Framework in partnership with SEAOHUN and AFROHUN, expanding competency evaluation resources, and implementing the toolkit in alignment with the OHWA and One Health certificate development activities planned in coordination with Objective 1.

GL Activity 2.2.1 Finalize the One Health Competency Framework

Upon sharing the One Health competency framework manual with the Networks and the Global Team, feedback was collected and competencies of One Health domains were revised and updated. Additional competencies and sub-competencies were developed and added. Sensitization workshops on competency-based education were conducted with the Secretariats, country teams, and university members. The manual was presented during the workshops and the team advocated for its use and adaptation within participants' institutions. Finally, a survey tool was administered to select university members from AFROHUN and SEAOHUN to evaluate assessment methods across institutions in the Networks. Survey results highlighted the lack of systematic assessment for One Health education and use

of a competency framework for curriculum development, workforce planning, and competency assessment.

GL Activity 2.2.2 Develop an Evaluation Toolkit for One Health Trainees at the Basic, Proficient, and Advanced levels

Assessment of One Health competencies is a critical component of One Health workforce planning. Competency assessment can be conducted in numerous ways, including written tests, demonstrations, group projects, individual projects, papers, and direct observation of professional practice. The One Health evaluation toolkit consists of methods and tools for evaluating workforce training and practices. First, competency evaluation tools were developed for two domains (gender and outbreak response) to demonstrate the design and type of assessment for review. After these tools were reviewed and feedback collected, the following key tasks were conducted.

Convened a workshop to review evaluation tools. In collaboration with the SEAOHUN Secretariat, a virtual review workshop was conducted to facilitate the review of selected evaluation tools and to foster the exchange of best practices on competency assessment strategies and practices among the OHUNs. Through the sharing of existing practices and past experience, Network members were key in helping to revise the draft One Health competency assessment tools.

Developed competency assessment tools for 17 domains. Based on the feedback from the review workshop, evaluation tools were designed and developed using Kirkpatrick's four levels of evaluation. This enabled design of a comprehensive assessment tool which documents participants' training, learning outcomes, behavior, and performance, and tracks results at the organizational and institutional level.

Drafted a user guide for the assessment tools. The guide will assist readers on the detailed approach and steps for designing, developing, and utilizing the competency evaluation tools. It is expected that countries and their member universities can adapt and use the tools based on their needs and scope of the training.

Provided training on competency-based education (CBE) and assessment strategies. The training introduced the One Health competency framework and facilitated learning on the implementation of CBE and competency assessment strategies to member countries. Through this introduction, it is intended that participants/faculty members will advocate for the CBE at their universities and share knowledge with their peers to adapt and utilize the resources in teaching and evaluation of students. The training was organized in a series of five 90-minute sessions every week and participants who completed at least four sessions received a certificate of completion. Participants from AFROHUN included 8 countries (Cameroon, Côte d'Ivoire, DRC, Ethiopia, Kenya, Senegal, Tanzania, Uganda) while the participants from SEAOHUN included the new country members (Cambodia, Lao PDR, Myanmar & Philippines). The training materials and delivery approach were piloted in Uganda with 25 participants and subsequently delivered to the SEAOHUN Network and additional AFROHUN country chapters, providing training to 141 participants. Out of the 141 participants who completed the training, 72 were from AFROHUN (30 Female & 42 Male) and 69 were from SEAOHUN (38 Female & 25 Male, while 5 did not express their gender). See **Success Story - Successfully Implements Training on Competency-Based Education and Assessment for One Health University Networks**.

Provided technical assistance in the design and development of a Continuing Professional Development (CPD) Course on One Health in Tanzania. AFROHUN Tanzania reviewed CPD

programs with representatives of professional councils and identified several gaps including a lack of CPD courses in some councils and a lack of standardized CPD credit scores across professional councils. AFROHUN Tanzania successfully conducted the first workshop to enhance awareness of One Health among members of the professional councils, co-design a One Health short course based on the identified gaps, and standardize CPD credits for the course across the councils. Technical assistance was also provided to AFROHUN Tanzania in the design and development of evaluation tools and courses for One Health tutors in Tanzania.

Strategy 2.3 Engage One Health Coordinating Bodies to Support Workforce Assessment and Tracking with Inclusion of One Health Competencies in Continuing Professional Development Certification Requirements

National One Health coordinating mechanisms, reinforced by regional coordinating bodies (both intergovernmental economic coalitions and sectoral organizations, such as ECOWAS, ASEAN, and Africa CDC), are key pathways for One Health workforce coordination. At the country level, these bodies are critical to the identification of national and subnational One Health skills and needs, as well as the assessment of workforce gaps. Engagement with the universities that provide One Health education and training will enhance the analysis of training pipelines, the identification of demands for specific skills and competencies, and the prioritization of specific domains for pre-service education and in-service training.

GL Activity 2.3.1 Continuation of Needs Assessment and Technical Support for Country Data Scans to Identify Successful Engagement with National and Regional One Health Platforms

A dedicated team of AFROHUN faculty members led the outreach and roll-out of the National One Health Coordination Survey in their respective countries, which was distributed in English and French to reach a broad audience. This survey was collaboratively designed with AFROHUN and SEAOHUN to capture insights and perceptions around national coordination platforms from a variety of external stakeholders in academia, ministries, research organizations, professional associations, and beyond. While engagement with stakeholders outside of the AFROHUN Network was a challenge, the team persistently tapped into their professional networks during the data collection period to capture diverse responses. This outreach, which garnered 175 detailed responses from individuals representing seven African countries (the majority of whom indicated availability for follow-up inquiries), provided a wealth of actionable insights to guide future activities at the country level and regionally for AFROHUN, thanks to the broad range of closed- and open-ended questions. For example, 93% of respondents indicated that, to their knowledge, there is a One Health coordinating body or platform in their country. This, alongside responses regarding the level and types of engagement respondents have with their respective coordinating bodies or platforms, is key information to encourage and identify ways for these entities to collaborate. While the Global Team conducted a broad review of the data to compare top-level responses across countries, the faculty who were involved in the survey's roll-out were invited to conduct country-level analyses using a standardized analysis guide. Data is currently being analyzed in parallel with country faculty who indicated interest in analyzing their own data. This process ensures that regionally salient as well as locally important perspectives are included in the analysis.

GL Activity 2.3.2 Synthesis of Data Scan Results and Country-Level One Health Workforce Policy and Planning Support

The Global Team conducted a rigorous data scan of country-level One Health workforce policy and planning evidence in the AFROHUN member countries. This data scan drew insights from various publicly available sources, including journal articles, workshop reports, and policy documents, and ultimately serves to better understand the regional gaps and opportunities for platform strengthening.

Regional Opportunities for Cross-Learning

The synthesis and presentations of the data scans yielded insights into the various regional opportunities that exist for cross-learning. From shared trends in national data collection around the workforce (or the lack thereof) in sectors linked to One Health coordination, to differing approaches to fundraising and operationalizing One Health activities locally, the scans and the survey results shed light on the wealth of knowledge and best practices to be shared. Particularly, as improved communication was regularly cited as a need for many of the national platforms, this synthesis supports the idea of hosting national cross-sectoral and multi-country workshops where best practices can be shared and where areas of improvement could be collectively discussed.

Expert Help for Dynamic Assessments

The data scan for AFROHUN was successful because of the leadership of a Global Team member and One Health expert who has extensive regional experience and fluency in both English and French. Different in nature from a literature review, this activity required intensive examination of ministry documents, conference documents, and other publicly available resources in order to extract information about the national workforce, platforms, academic programs, and initiatives. This Global Team member's support led to the development of a country-by-country summary and SWOT analysis of One Health coordinating bodies.

LESSONS LEARNED

Effective KM Requires Cross-Objective Communication

While KM and Learning have been center to the OHW-NG project, throughout the KM Strategy process, it has been highlighted that there can be additional collaboration amongst the various objectives. The KM Strategy and Learning Plan will serve to coordinate these efforts and serve as a framework to allow the AFROHUN Secretariat to view all their knowledge points through a unified and strategic lens moving forward. Thus, it is necessary to share findings across all OHW-NG priorities, including policy and planning, communities of practice, and alumni surveys, in order to identify common themes.

A Call for Action: Alumni Survey Engagement

Although the alumni survey was distributed to greater than 13,000 alumni across Africa and Southeast Asia, it has only generated around 450 responses, a response rate of roughly 3.5%. This was despite being translated into local languages for ease of completion and understanding, and despite the sending of weekly reminders to complete the survey. Toward the end of highlighting as many OHW-NG alumni as possible and identifying their perceived strengths and weaknesses of project offerings, the Global Consortium is working to identify ways in which to achieve a greater response rate. These may include the entry of survey respondents into a raffle to win a gift card, better highlighting how completing the survey will benefit the future of One Health, and extending the potential to be featured in a OHW-NG product or success story.

Collaboration is Essential for a Successful OHWA

The development of the OHWA is a highly collaborative endeavor, requiring synergy among the various OHW-NG objectives to understand and harmonize inputs that are integral to the construction of website content. Maintaining regular meetings with the different stakeholders responsible for website development is critical to website functionality and success and this continued engagement has assisted in the progress achieved to-date.

Competency-Based Assessment Strategies: Transition from the Traditional Approach

Comprehensive assessment is part of CBE, thus it is important that educators pursue resources and professional development that introduce different methods of assessment strategies and tools. Making changes to the assessment approach can be daunting for some educators, especially those who have been using traditional assessment strategies throughout their career. Based on discussions during the review workshops, we learned that country and University members required technical assistance in adopting competency-based assessment strategies in various settings, such as simulation training, practical demonstrations, and individual/group exercises. Additionally, it was identified that follow-up workshops to support the incorporation of competency-based assessments in training courses, such as continuing professional development courses, and the adaptation and utilization of assessment tools at a larger scale, would be beneficial.

NEXT STEPS

Knowledge Management Sustainability

During Year 3, with the help of the KM consultant, the KM Strategy and Learning Plan will help expand and grow the capacity of KM within the AFROHUN Secretariat and broader Network. Prioritizing staff capacity around KM will help ensure that KM is institutionalized and codified for sustainability beyond the OHW-NG Project. This will be achieved through a training workshop, the socialization of the KM Strategy and Learning Plan to the entire Network, and by focusing on Year 1 KM priorities. As well, the Global Team will engage with the SEAOHUN Network around KM, helping to identify how KM can play a role in supporting the ongoing activities for the region, especially through a south-to-south learning exchange among OHUNs.

Engaging One Health Alumni

Based on results from the alumni tracking survey, the AFROHUN and SEAOHUN teams, in conjunction with the Objective 2 team, will review and develop engagement strategies to support both virtual and in-person events (subject to COVID-19 restrictions) that support mentoring, funding, and career growth opportunities for alumni. As well, curricula will be reviewed in line with alumni feedback to continue offering premier courses in One Health and to potentially adopt fee-based courses identified as most relevant to core competencies. Finally, alumni survey information will be used to support development of success stories from alumni as a way to drive enrollment in student clubs and curricular paths/programs and to assess and highlight the impact OHW-NG programs are having on the One Health workforce.



OBJECTIVE

1

OBJECTIVE

2

OBJECTIVE

3

Continued OHWA Refinement

In Year 3, the Objective 2 team will refine the process for the intake of courses onto the website, develop a standard operating procedure (SOP) for course creators, organize trainings and workshops on the use of the website and learning management system, and continue to refine the courses uploaded onto the website for enrollment.

Building Capacity in Competency-Based Assessment

In Year 3, we will focus on providing technical support and build institutional capacity in each Network to use competency-based assessment methods based on the Kirkpatrick's four levels of evaluation. Technical support will include the design and development of a prototype One Health training module in collaboration with Objective 1 and the Networks. This module will be piloted to demonstrate competency-based education in simulation-based and table-top exercises (with instructional guide), thus providing an opportunity to promote incorporation of simulation-based exercises into member University course assessments.

Identifying Entry Points for Engagement with National Coordinating Mechanisms

The Global Team's approach to all activities under Strategy 2.3 has been purposefully iterative, inclusive, and adaptable to ensure that these surveys and assessments are not seen as terminal. As such, this dual-analyzed survey will be presented again to AFROHUN partners for further engagement and refinement as a tool that can be of use in planning external stakeholder engagement activities, including strategic fundraising planning, in Year 3 and beyond. Additionally, follow-up one-on-one interviews with a subset of the survey respondents who indicated willingness for further communication will be conducted to help identify strategic entry points for the Networks in engaging with national coordination activities. The perspectives captured by the surveys and interviews will highlight areas where faculty and students can engage to support the progress of national One Health activities. These data should be considered a resource to be continuously revisited over the life of the project for insights on how various national stakeholders have interacted with national platforms, what they perceive to be strengths and opportunities for strengthening, and their hopes for the future.

GENDER EMPOWERMENT

The team successfully engaged woman participants in activities, including trainings and surveys. For the competency assessment training a total of 141 participants completed the training.

- **72 from AFROHUN (30 females and 42 males)**
- **69 from SEAOHUN (38 females, 25 males, and 5 unknown gender (not expressed))**

For the Alumni Tracking survey, a total of 460 respondents completed the questionnaire (99 AFROHUN and 361 from SEAOHUN). For AFROHUN, 34.3% of respondents were female and for SEAOHUN 58.79% were female.



Success Story

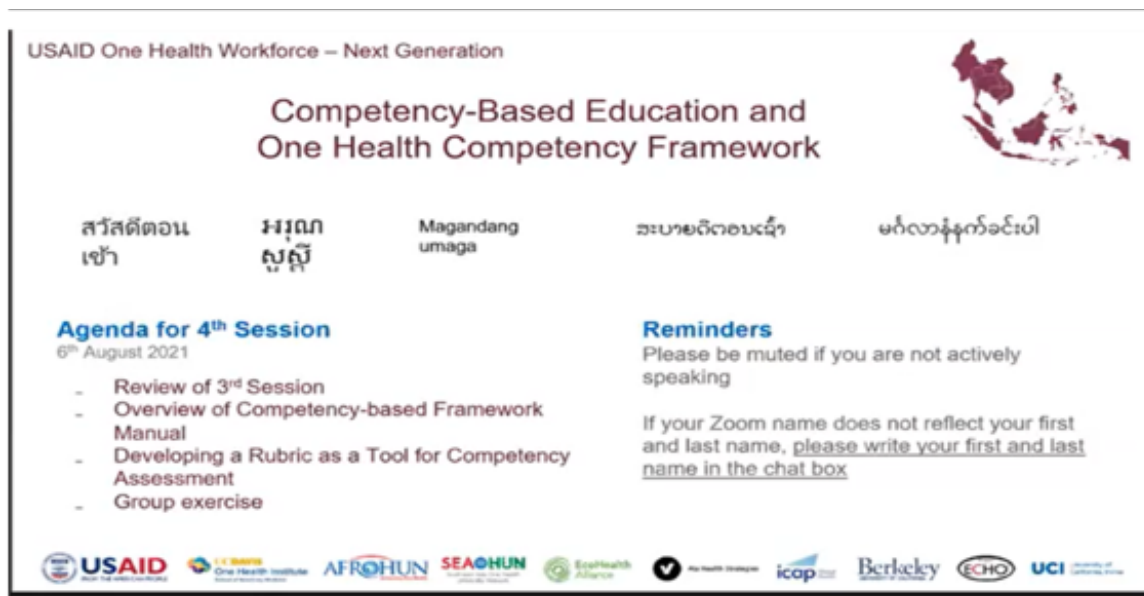
Training on Competency-Based Education & Assessment for One Health University Networks

Competency-based education (CBE) is a system-wide approach in which educators and students work towards mastering specific core skills within a focus area of a given discipline. The CBE method requires a shift from the traditional content-based instruction and assessment to a more flexible and interactive, capacity-based learning that includes assessment strategies.

To ensure that key stakeholders within the AFROHUN and SEAOHUN University Networks were developing competency-based training materials to equip and build the capacity of their One Health workforce, the Global Team convened a CBE and assessment training session with each University Network. A pre-training assessment revealed 86 percent of participants from AFROHUN and SEAOHUN indicated that no national One Health (OH) competency framework defining minimum competencies for OH professionals existed in their countries.

Through the CBE training, we introduced the OH competency framework manual and assessment tool to participants and faculty members so they could advocate for CBE at their universities and share knowledge with their peers to adapt and utilize resources to teach and evaluate students.

We piloted the training with 25 participants from Uganda and subsequently trained 141 participants, 72 from AFROHUN and 69 from SEAOHUN, who received certificates of completion. The Global Team organized the 90-minute weekly sessions over five weeks, which included didactic presentations to introduce the concepts of the CBE framework and assessment strategies and the introduction to curriculum development using principles of backward design. We also facilitated virtual, interactive group discussions for participants to share experiences and best practices. Participants were evaluated using pre-and post-testing polls to assess participant



A screenshot taken during the SEAOHUN Zoom training.

knowledge, experiences, and satisfaction with each session. In addition, participants received reading assignments from the competency-based framework manual and assessment tools to enhance their understanding of competency-based assessment strategies.

Overall, participants were satisfied with the training workshop.

“Thank you for the well-planned facilitation and wonderful training experience. It was interesting beyond words,” said one participant from Jimma University in Ethiopia.

“The training session was interesting. Thank you for the valuable [shared] documents,” remarked another participant from the University of Gaston Berger de Saint-Louis in Senegal.

Following the training, many participants expressed that the training was essential for their work and workforce development. In addition, more than 87 percent of the participants reported that the training was relevant and applicable to their work and geographical setting.

Though most participants still use traditional education and assessment approaches, this training demonstrated the significance of competency-based assessment and gave participants a model to practice and to implement competency-based assessment in their respective settings. As a result, there is now clearer focus on providing technical support and on implementing a selected OH training course to demonstrate competency-assessment strategies on simulation and practical exercises that build institutional capacity in each Network.

A recording of the CBE training session and additional resources are available here: bit.ly/CBE-training-resources

OBJECTIVE

2

OBJECTIVE

1

OBJECTIVE

3

OBJECTIVE THREE

Organizational Sustainability

Strengthen the functional and organizational capacities of the regional One Health University Networks to ensure they are capable of acquiring and managing direct donor funding

TARGETED OUTCOMES & IMPACT

- Direct recipient of external donor funding
- New and diverse funding partners and enhanced ability to identify and develop partnerships
- Model identified for creating ongoing Network revenue for organizational sustainability

STRATEGIES

3.1 Assessment, Benchmarking, and Strategic Planning

3.2 Build Network Organizational Capacities

3.3 Develop New and Diversified Partnerships, Tools, and Capacities to Advance Partnership Development and Resource Mobilization Strategies within the Five-Year Business Plan

3.4 Pilot and Scale Revenue Generating Mechanisms for the University Networks

MAJOR ACTIVITIES

GL Activity 3.1.1 Assessment of advancement towards compliance with Non-U.S. Organization Pre-Award Survey (NUPAS) and other organizational requirements

GL Activity 3.1.2 Monitor Business Plan implementation

GL Activity 3.2.1 Strengthen AFROHUN and SEAOHUN Board & Network legal & operational capacity

GL Activity 3.2.2 Grant writing and project management training workshops

GL Activity 3.3.1 Develop a specific strategy to diversify partnerships, as well as assess the resource requirements to successfully engage new potential partners

GL Activity 3.4.1 Implement pilot revenue generating activities

OBJECTIVE

1

OBJECTIVE

2

OBJECTIVE

3

HIGHLIGHTS

- Developed the first ever partnership engagement strategies for AFROHUN and SEAOHUN, which outline each Network's priority partners, engagement approach, and specific partnership goals and targets (September – December 2020). Notably, both Networks have reached the project goal of achieving one new funded partnership, which is an important first victory in achieving funding diversification and financial sustainability.
- AFROHUN and SEAOHUN prioritized revenue-generating activities to pilot in Year 3, which include activities under the umbrella of the One Health Workforce Academies, membership services models, and for SEAOHUN, the 10th anniversary conference (September 2021). This is the first time the Networks will generate income outside of grants as part of their efforts to diversify their funding portfolios.
- AFROHUN and SEAOHUN improved their capabilities to achieve either "adequate" or "strong" benchmarking scores on the major Non-U.S. Organization Pre-Award Survey (NUPAS) capacity domains, signifying the Networks have sufficient capacity for managing a direct funding award. This is a critical milestone for ensuring the Networks are eligible for receiving direct USAID transition awards (September 2021).
- Developed critical Board governance materials for SEAOHUN and AFROHUN including Bylaws, Governance manual, and conflict of interest policy. These procedures will result in a stronger, more skilled and diversified Board, which will help improve key parts of their organizational sustainability, including governance and resource mobilization (September 2020 – June 2021).

ACTIVITIES

Strategy 3.1 Assessment, Benchmarking, and Strategic Planning

GL Activity 3.1.1 Assessment of Advancement Towards Compliance with NUPAS and Other Organizational Requirements

Benchmarking

A formal benchmarking of each Network on the Non-U.S. Organization Pre-Award Survey (NUPAS) was conducted by the Global Team, with support from an external consultant team engaged for their expertise on implementing USAID NUPAS Assessments. With Global Team support, AFROHUN progressed in 13 capacity areas, including moving a full stage in development along the NUPAS tool in nine capacity areas. SEAOHUN also progressed in 13 capacity areas, and achieved a full stage increase along the NUPAS tool in 10 capacity areas. Notably, both Networks now maintain an average score across all NUPAS major capacity areas of ‘adequate’ or ‘strong’ (assuming completion of the project management manual for AFROHUN) - which represents an assessment of low risk for direct USAID funding. This is a major achievement and a significant milestone towards the Networks’ organizational capability and ability to manage diverse donor funds. More information is available in [Success Story - Ready the networks for direct USAID funding supports lasting changes](#).

Transition Planning

The Global Team actively supported each Network to develop and implement transition planning. Please reference the [Transition Plan Appendix](#) for detailed information.

GL Activity 3.1.2 Monitor Business Plan Implementation

Semi-Annual Review

The Global Team guided each Network to conduct a semi-annual review of the Network business plans. Review meetings were conducted, activities in the capacity plans were jointly marked per their completion status (early progress, significant progress, almost complete, completed), and progress dashboards were updated for each major activity category. The reviews resulted in a three-page summary report of progress and next steps that were shared with AFROHUN and SEAOHUN Boards for their awareness and oversight. This review process strengthens the planning and oversight function of each Secretariat and is an activity that the networks can perform independently in future years.



Figure 3.1 Progress dashboards for Network capacity building plans were produced for each Network as part of their semi-annual review of their business plans.

Annual Network Business Plan Update

The Global Team also helped each Network make meaningful updates to their business plans. This included a cost structure analysis, principles for an expansion plan (AFROHUN only), identification of revenue-generating priorities, and revisions to their partnership strategies and capacity plans. This year, the Networks focused on making the business plans inclusive of newly onboarded projects, making the plans organization-wide and inclusive of their full portfolios.

Strategy 3.2 Build Network Organizational Capacities

GL Activity 3.2.1 Strengthen AFROHUN and SEAOHUN Board and Network legal and operational capacity

Executive Board Bylaws and Governance Materials

Board bylaws are a key component of good corporate governance practices, however the networks either did not have Board Bylaws or had Bylaws that were in need of updating. To address this need, a Global Team member worked closely with SEAOHUN to develop Executive Board bylaws to eliminate ambiguity between the roles of the SEAOHUN Executive and Foundation Boards, plan for the expansion and diversification of the SEAOHUN Board, clarify levels of membership status for new affiliate member countries like Taiwan (TAOHUN), and encourage private sector partners. A Board governance manual, which included a letter of commitment for Board members to clarify and solidify their roles as Board members and a conflict-of-interest declaration form, was also developed. These materials were presented to the Executive Board and fully adopted. These materials were adapted to produce a zero draft for AFROHUN. These materials are a substantive improvement in the professionalism and the consistent application of quality practices by both Boards.

AFROHUN Executive Board Transition Plan

In 2022, AFROHUN's entire Executive Board membership was set to turn-over, and AFROHUN did not have a plan for recruiting and onboarding members in a phased manner. To address this issue, a Global Team member

worked with the AFROHUN Secretariat to create an AFROHUN Board Transition Plan, which expanded the Board from six to 11 members; enhanced Board member diversity in geography, discipline, and gender; called for recruitment of new members with specific experience in resource mobilization with respect to business, government and private sectors; and set term limits. The plan balances representation from founding member Universities with representation from new and expansion countries. Lastly, the plan also creates a Board Development Committee and identifies key steps to strengthen Board capacity. This transition plan was ratified by the Dean's Summit and is a major milestone in ensuring the smooth transition of the Board in 2022.

GL Activity 3.2.2 Grant Writing and Project Management Training Workshops

Grant-Writing Workshop

A two-hour regional grant-writing training workshop was successfully developed and delivered to AFROHUN. Over 30 AFROHUN Secretariat and country staff attended, as well as select faculty from AFROHUN DRC, AFROHUN Cameroon, AFROHUN Côte d'Ivoire, and AFROHUN Rwanda. All participants reported they planned to "apply what they learned to their work", and the most impactful aspects were the live workshoping of an unsuccessful grant application to learn how to improve it and the development of a concept note. Global Team members further supported AFROHUN to conduct cascade trainings at the country level. The ability to successfully secure research and government grants is important to AFROHUN's funding model and sustainability. A similar workshop will be conducted with the SEAOHUN Network in Year 3.

Project Management Training

The NUPAS benchmarking indicated SEAOHUN was in need of capacity strengthening in project management (PM). Thus, a four-part OHW-NG SEAOHUN Project Management Training Series was developed by Global Team members. The series comprised 90-minute sessions on topics including PM, project definition and selection, project planning, managing specific PM software, estimating project budgets, project scheduling, qualitative risk management, as well as monitoring, evaluation and learning and adaptive reporting. Participation was high with greater than 35 representatives from the SEAOHUN Secretariat and OHUNs, and session feedback polls showed consistently high reports of utility, relevance, and quality of the sessions. Participants worked on a team project of their choice and displayed higher levels of cooperation and coordination between country teams throughout the training series. This training will be delivered to the AFROHUN Network in Year 3.

GL Activity 3.2.3 Continued Support for Organizational Sustainability

Procurement

A Global Team member worked closely with both Networks to strengthen their new sub-award management system initiated in Year 1. Six customized trainings in risk assessment, sub-award management, and U.S. government rules and regulations, including mandatory standard provisions, were delivered to AFROHUN and SEAOHUN. As well, assistance was provided to each Network in revising their sub-award management manuals. These manuals codify the systems of oversight of sub-recipients that will be a critical part of the Networks' ability to manage direct funding from USAID and other funders. Routine mentoring and tools were provided as part of monthly meetings with each Network, such as to inform AFROHUN in their first site visit to sub-recipient DRC Kinshasa School of Public Health (KSPH), and to advise SEAOHUN on how

to trouble-shoot financial reporting issues with sub-recipients. This allowed SEAOHUN to set in place a strong procedure to draw from for future sub-award management. Lastly, a subrecipient site visit protocol and checklist was developed by the Global Team to support routine, annual Secretariat oversight site visits to each country chapter for AFROHUN and each OHUN for SEAOHUN. This activity supports a practice of close accountability of country-level use of funds.

Financial Management

The Global Team has worked closely with each Network to strengthen their financial reporting, especially by providing a customized training on USG financial reporting requirements and procedures, which was delivered to each Network. Following this training, SEAOHUN delivered cascade trainings to four OHUNs, and AFROHUN delivered a training to the AFROHUN DRC country chapter and KSPH sub-recipient.

During benchmarking assessments, the Global Team identified areas for capacity strengthening for financial management across the two Networks. As a result of the assessments, training was provided to SEAOHUN Secretariat members on variance analysis, which helps organizations understand differences between budgets with projected expenses and actual expenditures. As part of the training, a template detailing an easy-to-follow variance procedure was provided, which SEAOHUN adopted for use. Training on cash flow budgeting was also provided as this is an important step for understanding reliability of cash flows in scenarios of multiple funding awards. Staff from the AFROHUN Secretariat were invited to share their best practices for this procedure, and SEAOHUN has now adopted cash-flow budgeting as part of their financial management practices. These procedures will be included in the updated version of the SEAOHUN Finance Manual in Year 3.



Lastly, training was provided to both Networks on cost allocation principles (including cost objectives and distribution of costs across multiple projects) and indirect cost assessment and documentation (including Negotiated Indirect Cost Rate Agreements). Training was also provided to AFROHUN on budgeting to accurately reflect regional versus country-level costs, and to develop a cost allocation framework, enabling the organization to appropriately distribute indirect costs benefiting more than one project or activity across multiple fund sources. These competencies are essential for USAID compliance and effective financial management of multiple funding sources, two key areas in financial sustainability.

Human Resources

Asynchronous training in human resources (HR) management fundamentals was provided for both Secretariats, which underscored key principles of effective HR practice outlined in the NUPAS related to planning, recruiting, onboarding, and workplace culture. Following Global Team recommendations, the Networks adopted strong procedures for documenting and distributing level of effort (LOE) across staff, which is essential for managing staff time across multiple projects. Each Network also reported having determined their core versus project staff, which helps organizations to understand the most essential roles versus those that are dependent only on soft project funds. Lastly, AFROHUN has adopted a tool provided by the Global Team for estimating the personnel and level of effort needed for the transition process, culminating in the production of a “Staffing Plan for the Transition” which is scalable to the size of the activities to be transitioned.

Project Management

In response to gaps identified during the benchmarking assessment, SEAOHUN successfully hired its first program manager and program associate, which strongly augmented the Secretariat’s capacity to manage programmatic activities. Additionally, the Global Team assisted SEAOHUN with establishing a project management manual, which standardizes project

planning, implementing, oversight, and reporting procedures. Further, the Global Team worked with the SEAOHUN Secretariat and OHUN staff to improve program reporting in the OHW-NG Monitoring, Evaluation and Learning (MEL) system through training, establishing a dedicated MEL database, and rigorous data-cleaning which significantly improved data quality.

Other Organizational Requirements

The Global Team assisted AFROHUN in updating their registration with SAM.gov, a requirement for being a prime recipient in the transition award. The Global Team further supported orientations with each Network on the “Representations, Certifications, and Pre-award Assurances” that will be required of each Secretariat when they apply for transition awards. Sample policy language and tools for making their organizations compliant with these requirements were also provided.

Strategy 3.3 Develop New and Diversified Partnerships, Tools, and Capacities to Advance Partnership Development and Resource Mobilization Strategies within the Five-Year Business Plan

GL Activity 3.3.1 Develop a specific strategy to diversify partnerships, as well as assess the resource requirements to successfully engage new potential partners

Network Partner Engagement Strategies

The Global Team supported both Networks to finalize their first ever partnership engagement strategies. After a comprehensive mapping of key private, academic, government, and other stakeholders at the country and regional levels, priority partners and partnership development goals and objectives were defined. Each Network set a goal to obtain one new partner in Year 2

and every year thereafter. The Secretariats also set financial targets for securing new funds in Years 2 and 3. These strategies were reviewed and refined at the end of Year 2 to guide Year 3 work. Importantly, both Networks met their new partner goals in Year 2 and mobilized new funds from these partnerships.

Applied Training in Partnership Development

The Global Team, in partnership with The Partnering Initiative (TPI), designed and launched an eight-month training series addressing resource mobilization, communications, grant-writing, partnership models and types, setting up partnership governance structures, determining partnering objectives, addressing power imbalances and trust, negotiation, and partnership evaluation. TPI is a non-profit organization based in the U.K. that has worked for 17 years to develop non-profit organizational capacity in support of sustainable development goals. Nineteen participants attended this series, including members of the AFROHUN Secretariat, Country Managers, and Administrators. A total of 13 individuals are enrolled in the follow-on TPI Certificate in Partnering Practice, a credential that will reflect positively in their grant applications. The trainings heavily utilized real-world tools and application of course content to current partnership efforts. SEAOHUN will conduct this training in Year 3.

Partnership Development Twinning & Resource Mobilization

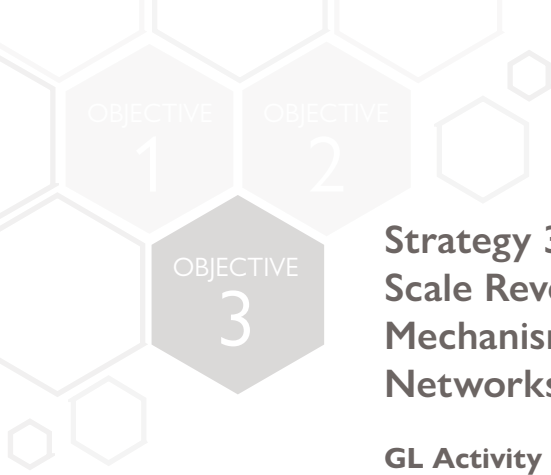
Following the hire of SEAOHUN's first-ever Resource Mobilization and Donor Relations Manager (RM Manager), the Global Team launched a twinning mentorship structure between SEAOHUN partnership development staff and a Global Team member with expertise in resource mobilization. In addition, the SEAOHUN RM Manager and Executive Director received coaching from the Global Team to discuss topics such as crafting effective outreach emails, how

to create an impactful pitch deck, best practices for donor communication, and identifying potential partners and funding opportunities. During the monthly sessions, feedback was provided on potential funder profiles, event sponsorship levels, a preliminary SEAOHUN pitch deck, communications to corporate audiences, and Terms of Reference for a new Resource Mobilization Committee. As a result of these sessions, SEAOHUN developed a funding pipeline database, which they are using to systematically track funding opportunities and outcomes for the first time. This mentoring also led to an important Global Consortium-wide meeting to brainstorm revenue generation options for SEAOHUN's upcoming 10th anniversary conference (described under Strategy 3.4).

Global Team members also conducted a training session on resource mobilization fundamentals for the AFROHUN Secretariat and Country Managers. This session introduced several key frameworks for resource mobilization in which participants worked in small groups to develop a resource mobilization strategy for their Country Chapter or Secretariat, using templates provided in the training. Global Team members then provided technical input and recommendations on how to improve these plans.

Our Support on Partnership Engagement Efforts

The Global Team assisted each Network with the provision of templates and the review of key partnership documents. For example, relevant memorandum of understanding (MOU) templates for AFROHUN were provided to use for new partnerships, and Global Team members helped review the draft SEAOHUN MOU with the new Taiwan OHUN, TAOHUN. A research grant application (in the form of a concept note) by AFROHUN was also reviewed by the Global Team, helping to strengthen the writing and presentation of details to make it more competitive. This application was submitted in April 2021.



Strategy 3.4 Pilot and Scale Revenue Generating Mechanisms for the University Networks

GL Activity 3.4.1 Implement Pilot Revenue Generating Activities

Revenue Generation Plans

The Global Team also worked with each Secretariat to prioritize the key revenue generating activities to pursue for their Networks as part of their business plans. These included activities under the umbrella of the One Health Workforce Academy, membership fees, and the upcoming SEAOHUN 10th anniversary conference. The Global Team will support each Network to implement these plans in Year 3.

Revenue Generation Pilots

The Objective 3 team worked with each Network to define a priority revenue-generating activity to pilot. Each Network selected to pilot an online, fee-based course offering to in-service professionals in their regions. Under the leadership of Objective 1, these training courses are under development and will be completed in Year 3.

Revenue Generation Brainstorming

To brainstorm revenue-generating opportunities for the upcoming SEAOHUN 10th anniversary conference, the Global Team held a meeting with SEAOHUN Secretariat staff. The discussion resulted in the identification of many practical options for revenue generation, such as adjacent fee-based trainings and registration for special dinners or experiences. The group discussed the feasibility and next steps of these options, and the Global Team will continue to provide close support to ensure the conference is a successful model of revenue generation for SEAOHUN.

GENDER EMPOWERMENT

The AFROHUN Board of Directors has made gender empowerment a feature of its reform and reorganization efforts. Since 2011, the AFROHUN Executive Board added only one female member, who was able to participate fully for only a relatively brief time. Over the course of Year 1, the AFROHUN Board engaged the Objective 3 team in a series of conversations about their composition and encouraged a greater expansion in gender

diversity. In Year 2, the Board Secretary, working in collaboration with the CEO and Secretariat, drafted a plan to address the gender disparity of the AFROHUN Board. The draft plan included expanding the number of directors from six to eleven members and expanding gender diversity of newly recruited Board members. The plan also gave the current Board the authority to nominate at least two female candidates.

LESSONS LEARNED

Finding the Revenue Generating Potential in Conferences

In a recent revenue generation discussion with SEAOHUN, we learned that the Network held the understanding that they were prohibited from generating revenue from conferences conducted with support of USAID funds. After some consulting, the Global Team clarified that revenue could, in fact, be generated from conferences, but that these funds must be re-invested in the OHW-NG program (i.e. supporting activities broadly in the SEAOHUN OHW-NG work plan). We conveyed this learning to SEAOHUN, which is now planning its upcoming 10th anniversary conference. This is an important discovery, as now SEAOHUN can work to ensure this conference is a substantial source of revenue, in line with how many U.S. association business models function.

Onboarding New Projects and the Need for Systematic Project Management

During Year 2, each Network onboarded a new project, USAID STOP Spillover, and SEAOHUN also onboarded a project in collaboration with Chevron. Both Networks had some standardized project planning or project management procedures they could draw from to assist in the onboarding of these projects, but some gaps still remained. Notably, with support from the Global Team, SEAOHUN has incorporated standard project definition, project governance, and budgeting techniques into the management of the two projects through use of a standard project manual. Early in Year 3, AFROHUN will develop a project management manual to document standard project management practices, with support of the Global Team.

NEXT STEPS

Supporting the Transition

In Year 3, we will focus on conducting all necessary steps for each Network to successfully be awarded direct USAID transition awards by October 2022. We will provide ongoing technical support to remedy any remaining organizational capacity issues that may impede the Networks' ability to successfully manage direct transition awards. With this support, it is our aim that each Network achieves a successful assessment of the USAID NUPAS survey in Year 3. We will also work with USAID to support any other requirements necessary for the achievement of these awards.

Revenue Generation

The key next steps we plan to take are to work concertedly with Objectives 1 and 2 to project the costs of all major OHW-NG activities, and to support the Networks in the generation of additional external and internal sources of revenue for these activities, to the extent possible, over the next three years of the initiative. Initial gains in Year 2 were meaningful, but more revenue will need to be generated to secure each Network's organizational sustainability.

Success Story

A New Vision for Development

Readying the Networks for Direct USAID Funding to Support Lasting Capacity

“We must make aid more accessible.

We must make aid more equitable.

We must make aid more responsive.”

–USAID
Administrator
Samantha Power

Over the past decade, just six percent of USAID assistance was awarded to locally-based partners. Though often considered risky, challenging, and time consuming, the value of partnering directly with locally-based organizations and institutions, those on the frontlines of their own development challenges, can far surpass these administrative obstacles and reap major rewards.

Aligned with USAID’s renewed commitment to provide at least a quarter of agency funds directly to local partners within the next four years (**Administrator Power, 2021**). The OHW-NG project is supporting AFROHUN and SEAOHUN in their organizational sustainability efforts through successful recipient and management of direct USAID funding.

“Around the start of Year 3, AFROHUN and SEAOHUN will be able to pass an international audit, successfully complete a USAID pre-award survey, and meet a set of pre-determined benchmarks that will be agreed upon

in advance, thereby demonstrating sufficient capacity to become direct recipients of USAID funding via transition awards.”

–USAID One Health Workforce – Next Generation Project Cooperative Agreement

In Year 2 (2020-2021), both AFROHUN and SEAOHUN accelerated progress towards these goals. As of Sept 30, 2021, both Networks had three consecutive years of clean audits conducted by an international firm. Both Networks had improved their capacity such that all major criteria on benchmarking using the USAID Non U.S. Organization Pre-award Survey (NUPAS) tool scored a “3” or higher, representing a low risk profile for USAID direct awards. Lastly, AFROHUN completed all pre-determined benchmarks to start the transition process, and SEAOHUN completed all but three benchmarks, which will be completed in early Year 3 (Figures 1 and 2).

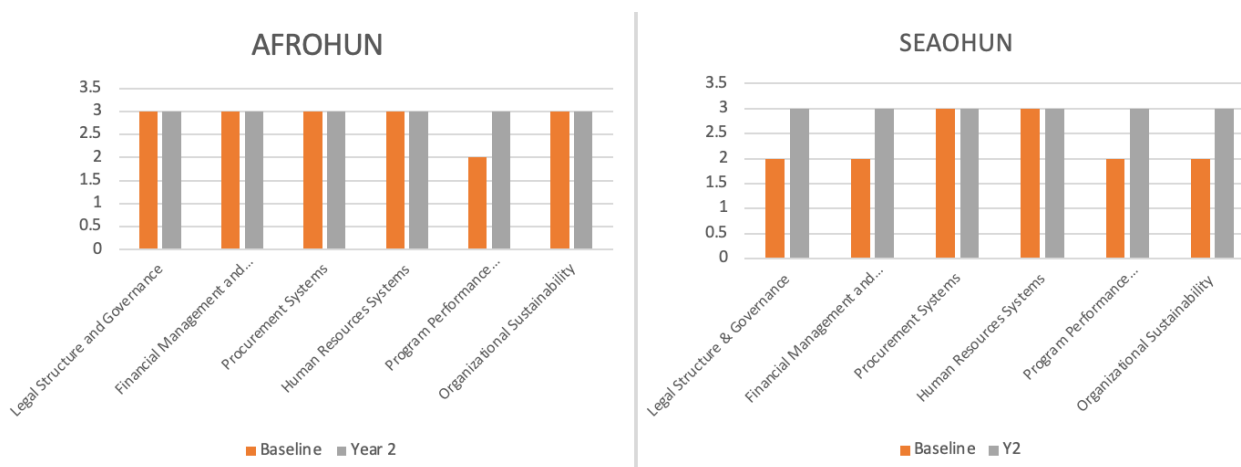


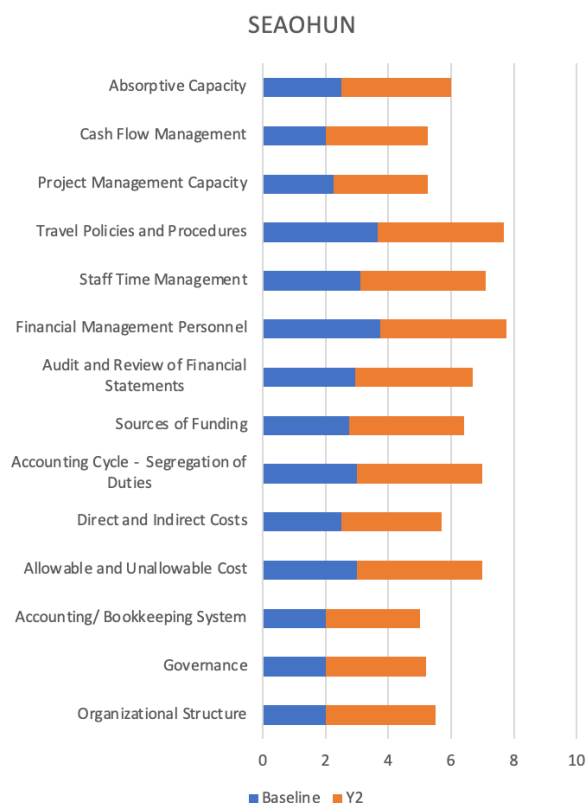
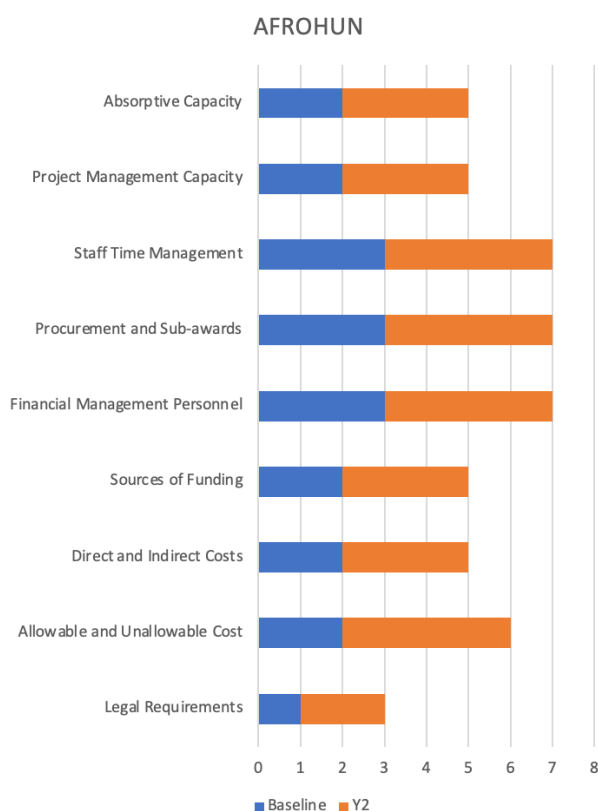
Figure 1. Overall improvements to major capacities as defined in the USAID NUPAS, 2019-2021

These capacity changes have lasting impacts on each Network’s organizational sustainability. For example, strengthening each Network’s capabilities under the NUPAS Criteria of “Governance and Legal Registration” resulted in new or improved Executive Board Bylaws and other Board governance materials, which expanded the membership and diversity of the Boards, codified best practices, and improved committee functioning. This improved the Board’s strategic oversight and resource mobilization roles and improved the visibility of the Networks. Work under the NUPAS Criteria of “Procurement Systems” resulted in each Network creating the first-ever sub-awards, developing their first sub-award management manuals, and receiving ongoing mentorship on how to conduct effective sub-recipient monitoring. This work not only facilitated the work of OHW-NG Project, it also provided the Networks with an important capability that they can make available for other funders and partners, as evidenced by the recent development of USAID STOP-Spillover and Chevron partnerships, where sub-awards are now being used to perform the work.

Under the NUPAS Criteria “Financial Management and Internal Control”, the Networks shored up key areas of deficiency, including by establishing variance analysis and cash flow budgeting procedures for the first time, upgrading financial

accounting software, enhancing staff capacity on allowable and unallowable costs and developing plans for appropriate documentation of indirect costs across multiple projects. Further, the Networks were mentored on improving financial expenditure reporting, and tracking and responding to audit findings in a timely manner, and to institutionalize new procedures in their Finance Manuals. These practices are ensuring both Networks continue to manage donor funds responsibly and with consistency, beyond the life of the OHW-NG Project.

A major focus on strengthening human resources for both Networks also yielded lasting results. SEAOHUN recruited two program managers and a dedicated manager of resource mobilization, which expanded their capability for future activities, while AFROHUN recruited an advisor and several librarians to manage knowledge management activities. SEAOHUN also established an automated, cloud-based payroll system, while AFROHUN adopted a new tracking software that manages timesheets and leave, both ensuring more scale-able models of efficient, accurate human resource record-keeping. Both Networks also strengthened their labor activity systems to be capable of appropriately repurposing and accounting for the level of effort of their staff on different funded awards. AFROHUN for example,



further developed a comprehensive staffing plan for the scale-up of funds under the OHW-NG; this methodology can now be used to plan for any new activity or funds.

“It is thrilling to everyone here to see the positive progress made and indeed this can be attributed to our partnership under Objective 3 in the OHW-NG.”

—AFROHUN Senior Official

Finally, network investments in strengthening work planning, project management and use of monitoring and evaluation data, all encouraged under NUPAS Criteria Program Management, are helping these institutions more effectively plan, manage and evaluate projects for multiple funders. AFROHUN adopted a new project management and indicator tracking software, which is scalable for new projects, while SEAOHUN undertook an intensive project management training across the Network and designed a new project management manual to systemize best practices. Both Networks exercised more independent work planning and reporting this year as well, learning best practices that will extend to future initiatives.

Figure 2. Improvements that resulted in a full stage increase in capacity on the USAID NUPAS, 2019-2021





Business Plan

ACTIVITIES & HIGHLIGHTS

The first version of AFROHUN and SEAOHUN's business plans was developed during Year 1 of the OHW-NG Project. The business plans, comprised also of a capacity-building plan and a partner engagement strategy, were recently updated and complemented with new strategies and priorities adapted to their long-term goals in terms of financial sustainability.

The organizations enriched their business plans with a cost analysis that helps understand each regional network's cost structure and gives insights into how the organizations can become more adaptable in case of future unstable donor environments. The organizations also set their main priorities in terms of revenue generation models for Year 3, which should soon start being analyzed, developed, and piloted. AFROHUN additionally started creating their framework for membership models in terms of services, countries, and institutions/members, similar to what SEAOHUN has thought through in recent years.

The Global Team supported each Network in conducting an analysis of their business model in a lean versus robust funding scenario. The lean scenario was one where no OHW-NG funds were available, while the robust model was their plan for Years 3-5 of the OHW-NG initiative. Both Secretariats identified the core staff and activities that these lean and robust operational models would entail, and the Global Team helped in the

costing of these models. Both Networks scaled their business model to less than half of operational costs of their models today, which helped refine their value proposition and provided a minimum resource mobilization goal to ensure sustainability.

During Year 2, the Networks successfully implemented their capacity-building plans. Capacity-building for Year 2 focused mainly on the areas of Governance and Legal Structure, Financial Management, Procurement Systems, Human Resources, Project Management, Culture and Gender, and Partnerships. For Year 3, besides the areas already mentioned, the new capacity-building plan includes also activities related to revenue-generation, as well as additional activities to support the transition triggers of the networks.

The Networks made considerable efforts to advance their partner engagement strategy and the results are notable. In Year 2, both SEAOHUN and AFROHUN achieved the targets set a year ago in terms of new partners, as well as funding streams - the organizations launched the 5-year STOP Spillover Project (funded by USAID), and established new technical partnerships in both regions. To this end, SEAOHUN engaged Chevron as a new partner to strengthen One Health education in Southeast Asia, and AFROHUN is in the engagement process with different potential partners.



LESSONS LEARNED

SEAOHUN and AFROHUN continue making progress on their path towards organizational development and financial sustainability. In a global health security context that is complex and unprecedented due to COVID-19, we have seen both Regional Networks make significant efforts in areas such as capacity-building, partner engagement, and business planning. The Networks' engagement and hard work have led to impressive achievements over the first two years of the project, and underscore the true commitment of the Networks to a One Health approach that fosters global health security and creates a pipeline of health professionals on the job market.

Communication between each Regional Network and the Global Team has become more efficient in Objective 3, allowing for more effective implementation of activities. As a result of a more efficient planning and organization of activities, there has been an increase in the interest and enthusiasm on the part of Secretariat members who participate in the activities related to business planning.

In an effort to add value across project activities, the Global Team has increased its capacity to collaborate with cross-objective activities, such as course development and the envisioned revenue-generating models related to the AFROHUN/SEAOHUN One Health Workforce Academies.

NEXT STEPS

SEAOHUN and AFROHUN identified the revenue-generating models they want to prioritize in the short-term and will soon start more detailed implementation planning. These models will contribute to the objective of revenue diversification and long-term financial sustainability of the organizations by providing more flexible revenue streams that can contribute to financing their core activities.

Both Networks will explore the feasibility of a membership model with premium services, as well as their One Health Workforce Academies (SEAOHUN/AFROHUN OHWA) as a learning engine for the organizations. SEAOHUN will also organize its 10-year commemorative international conference in Thailand, an event that represents a great opportunity to implement activities that will contribute to the organization's income generation (cost recovery).

GENDER ACTION PLAN

A successful and sustainable One Health Network will have the capacity to address gender norms, gender-related barriers/ constraints, gender roles, and gender relations, and will embed gender mainstreaming, gender equity, and fair treatment for all genders throughout its systems, operations and institutional structures. Given the centrality of gender to One Health, AFROHUN and SEAOHUN must be able to expertly integrate gender considerations at every level, including planning, policy development, program implementation, and program evaluation.

Mainstreaming gender competencies throughout the Networks will be critical to their success in building a transdisciplinary workforce that can integrate efforts across sectors with the knowledge, perspective, respect, and skills required to rapidly respond to emerging events and effectively collaborate in order to sustainably manage health systems. To this end, we developed a Gender Action Plan (GAP) to support explicit project, Network, and activity-level institutional commitments to gender integration as a core competency.



HIGHLIGHTS

Drafting the Gender Policy & Implementation Strategy for AFROHUN

This initiative supports the Networks with beginning the process of developing gender strategies and policies, a key component of the GAP. The objectives of the AFROHUN gender strategy are:

1. To promote a gender-responsive organizational culture
2. To mainstream gender across AFROHUN network and its work
3. To engender the university level curriculums and training
4. To promote a workforce that recognizes gender related vulnerabilities in addressing complex health challenges using a One Health approach and empowering them to address such vulnerabilities
5. To build capacity of the Network to address gender related challenges
6. To conduct gender assessments

Tracer Study of Gender Trainers from AFROHUN

This study assessed the impact of gender training offered to AFROHUN. Specifically, we assessed: i) the usefulness of the gender competencies learned; ii) the challenges and opportunities to transfer knowledge acquired by other trainees; and iii) the progress thus far with application of the gender training content. We also collected recommendations for improvements in training content. Findings from this study helped tailor the content of the gender trainings for AFROHUN and provided insights to the opportunities and challenges to apply and or teach gender concepts, including the need for more specific training on gender analyses and gender integration into programs.



Senegal SOHIC Gender Training

We conducted gender and emerging infectious disease training with the SOHIC in Senegal reaching 75 students (37 males and 38 females). Content included the role of gender in emerging infectious disease surveillance and dynamics; the importance of gender in understanding disease surveillance and response and controlling disease transmission; recognizing the importance of gender roles in disease prevention; identifying opportunities to capitalize on gender roles in disease prevention; the importance of gender analysis; and One Health gender competency.

Lecture on Gender for Faculty at the Kinshasa School of Public Health

We reached 50 faculty members at the Kinshasa School of Public Health (31 males and 19 females) through lectures and discussion on topics such as: recognizing the importance of incorporating gender into One Health training and programming; identifying opportunities to discuss gender perspectives in One Health training topics; discussing strategies to embed gender in One Health training topics; and selecting the best way to share resources that can support instructors.

Gender Training for MyOHUN & VOHUN

We developed and launched a webinar series on gender and zoonotic diseases reaching over 230 students and faculty members in Malaysia at the request of MyOHUN. The webinars were originally designed with a fieldwork component, but due to the COVID-19 pandemic, fieldwork was postponed. Participants were overall satisfied with the training and found it important, and as a result, requested further training on gender.

Finally, we held a two-day workshop on gender perspectives and One Health for over 430 students (>70% female) from 22 universities in Viet Nam at the request of VOHUN (for more details see ***Success Story - Gender Champions for Viet Nam's Next Generation of One Health Professionals***).

LESSONS LEARNED

More awareness creation around the importance of gender in One Health is necessary, especially within the SEAOHUN Network. Due to staff turnover at the SEAOHUN Secretariat, there is a need to facilitate activities and better integrate the new OHUNs into gender working group discussions. OHUNs in this Network are at different stages of gender integration and training. To overcome this challenge, our Year 3 activities will be adjusted to better integrate the most recent OHUNs into gender working group activities with specific workshops on gender awareness and activities that will identify Gender Champions.

Strategies to embed gender into teaching One Health topics can be implemented and do not require a gender expert. By identifying strategies that integrate a gender lens in One Health education topics and an approach that does not require gender experts for raising gender awareness, we made it easier for faculty to collaborate and use tools and templates prepared by the Global Team.

NEXT STEPS

1. Prepare an online course on gender to feature in the One Health Workforce Academy
2. Prepare and conduct training of trainers from AFROHUN on gender analysis and gender integration
3. Continue activities on gender sensitization with SEAOHUN and identify Gender Champions in each OHUN



SUCCESS STORY

Gender Champions for Viet Nam's Next Generation of One Health Professionals

“It is important for students to understand the importance of One Health and gender, they are our future workforce that will prevent pandemics and other infectious disease outbreaks.”

—Hien Nguyen

The Vietnam One Health University Network (VOHUN) consists of 24 Vietnamese universities working together to prepare the next generation of professionals with the knowledge and skills to put the One Health approach in practice. Central to success, is equipping these professionals with an understanding of the importance of gender in health. Due to gendered differences in our societies, women and men often have different levels of exposure to pathogens that cause disease. For example, if the majority of women in a community are the primary caretakers of livestock such as poultry or pigs, then these women may have higher levels of exposure to zoonotic diseases from these animals. Impactful training and outreach strategies must

acknowledge these gendered difference in their design and implementation.

To address this challenge, VOHUN planned and executed a two-day webinar series on gender and One Health including how to conduct a gender analysis. The webinar series was planned by Hien Nguyen, VOHUN's monitoring, evaluation, and learning officer. The webinar included presentations by OHW-NG's Gender Lead Dr. Ndola Prata and VOHUN's Gender Specialist, Kavitha Sriparamanathan. Hien and Kavitha expressed that when surveyed, students reported great interest in gender trainings. As proof, this gender webinar had the highest number of registrations of all the webinars VOHUN has ever organized.

WHAT IS A GENDER ANALYSIS?

An approach to explore how gender and gender relations impact people's lives, their livelihoods, and society.

The webinar series was attended by 434 students and lecturers from the 24 VOHUN member universities including some that are not officially part of the Network. During the webinars, many students expressed that they believed gender was important but did not have the knowledge to analyze gendered differences in practice. To check attendees' understanding of concepts, the organizers used apps like, Mentimeter allowing immediate feedback from attendees. In addition, they students joined in break-out rooms and worked in groups to apply concepts they learned. Students were also assigned a case study to develop a gender analysis for the poultry food value chain so they could apply their skills in a real-world context.

Following the webinars, students rated both sessions highly, above nine out of 10 (Figure 1). They also requested additional gender trainings, with greater focus on applying knowledge and skills to real-world scenarios they may encounter in their future professions.

These trainings have the potential to make a big difference for local communities in Viet Nam as students take what they learn and apply it in their work. Due to the interdisciplinary nature of One Health, many of the students come from diverse backgrounds such as environmental science and animal science and health. By bringing them together as a One Health cohort, these future professionals destined for different industries in Viet Nam, will have a shared perspective on the importance of understanding gender along with the skills to conduct a gender analysis.

Going forward, VOHUN plans to host trainings, specifically for university lecturers on how they can incorporate gender in their curriculum. Hien expressed that teachers are the key individuals

for spreading gender awareness to students. In addition, VOHUN hopes to work more closely with professionals serving their communities by providing them with the tools to use gendered approaches in their work. Lastly, they plan to provide these trainings in Vietnamese to enable further knowledge transfer to individuals of all educational levels.

Xin vui lòng đánh giá Buổi tập huấn trên thang điểm 1-10?

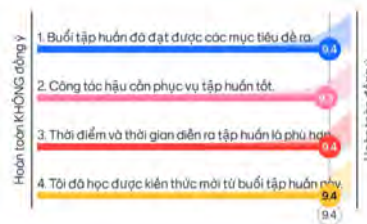


Figure 1. Mentimeter results of student evaluations for the webinar

Đối với bạn, khía cạnh Giới trong Một sức khỏe quan trọng như thế nào?

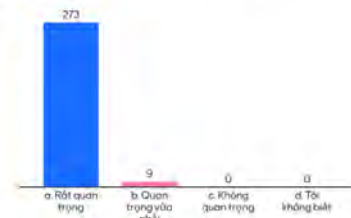


Figure 2. Mentimeter quiz

Gender is a sensitive topic and when it is shared in their native language there is a level of comfort that comes with it.”

—Kavitha Sriparamanathan

Figure 1 Translation: Please rate the webinar quality based on the following criteria on a scale from 1-10 points:

1. The webinar has achieved its objectives.
2. The logistics preparation for webinar is good.
3. Time and duration of the webinar is appropriate.
4. I have learned new knowledge from this webinar.

Figure 2 Translation: How important to you are gender perspectives in One Health?

- a. Very important
- b. Somewhat important
- c. Not Important
- d. Don't know

PROJECT MANAGEMENT & COMMUNICATIONS

The OHW-NG Global Consortium consists of world-renowned partners based across North America, Africa, and Southeast Asia. Regional training is implemented using a hub and spokes model in which the AFROHUN Secretariat links out to Country Chapters and the SEAOHUN Secretariat links out to Country One Health University Networks (OHUNs). The regional University Networks are supported by the Global Team, a highly collaborative group of US-based organizations with complementary missions and extensive experience working in the current AFROHUN and SEAOHUN countries, as well as in countries proposed for Network expansion over time.



HIGHLIGHTS

- The Global Team participated in the AFROHUN and SEAOHUN Year 2 (2019-2020) showcase events in which the Networks highlighted achievements and engaged with stakeholders on current and future activities. Several activities targeting COVID-19 awareness and risk communication and community engagement (RCCE) were presented, and the events were attended by USAID Washington and respective field offices and country Missions, Secretariat and Board members, as well as representatives from country Networks and Chapters.
- Due to the ongoing COVID-19 pandemic and disbursement of emergency supplemental funding for associated activities, USAID implemented additional

COVID-19 specific M&E indicators as well as monthly voluntary reporting. To enable effective reporting, we created a database in Airtable to store monthly COVID-19 associated data for the SEAOHUN Network and streamline the data collection process by using Airtable online forms. Report generation from this database was in-turn automated using the R programming software. A video outlining this process was made and presented to interested parties at USAID. This system continued to be refined to collect data on the evolving COVID-19 indicators and has now been expanded to collect data on OHW-NG Project indicators, thus furthering the knowledge management system of the SEAOHUN Secretariat.

ACTIVITIES

GL Activity PMC 1.2 Responsive Communications & Reporting

- We successfully developed and received approval for the project's annual work plan (2021-2022) as well as the annual GHSA work plan for alignment with JEE 2.0, GHSA action packages and indicators, and the WHO benchmarks tool for International Health Regulations (IHR) capacities.
- The Global Team consulted with AFROHUN and SEAOHUN on the OHW-NG Marking and Branding plan to ensure alignment across the project. In addition, workshops targeting stakeholder communication were held to expand the reach and visibility of the Networks, improve strategic communication capacity, and integrate communications with resource mobilization goals and the Networks' strategic plans.
- Throughout the year, the Global Team continued to virtually meet with USAID to discuss project implementation, workplan strategy, and MEL progress.
- We continued to provide guidance to implementing partners on how to most appropriately manage USAID funds to ensure compliance with the terms and conditions of their subawards and increase capacity for the Networks to receive transition awards in future project years.
- The Global Team conducted a communications workshop for the SEAOHUN Secretariat and OHUNs, helping train the Networks on effective and strategic communications. Each Network received personalized feedback on a communications item of their choosing, many of which were success stories that are now featured in this annual report.

GL Activity PMC 1.3 Monitoring Performance & Showcasing Impact

- The Global Team revisited all Standard Operating Procedures (SOPs) and Best Practice resources to better monitor and track activity completion at the global, regional, and country levels. Specifically, the activity tracker was moved to an online platform for SEAOHUN for real-time reporting. As well, the activity trackers for AFROHUN and SEAOHUN were revised to better align with M&E requirements, such as tracking trained individuals and products developed.
- The M&E indicators, MEL plan, and PIRS were revised to better track performance and adjust targets based on Year 1 (2019-2020) baseline data and assessments of this current year's data as we move into the third year of implementation.

NEXT STEPS

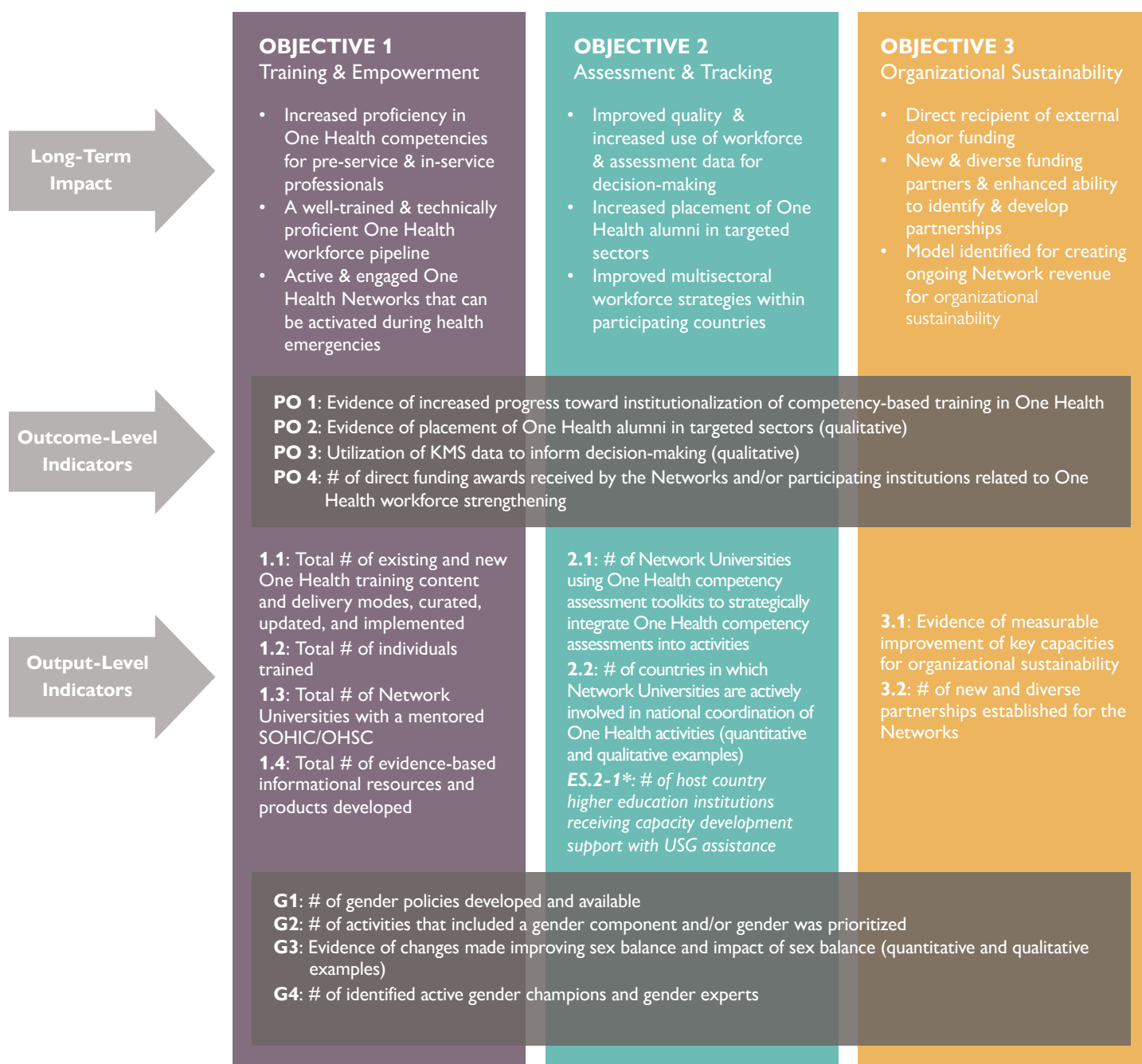
- A similar strategic communications workshop is planned to be held for AFROHUN in Year 3, helping the Network to build their strategic communications skills, expand their reach and visibility, and create effective communications products.
- The Global Team will continue to work with both Networks to secure successful transition awards, enabling them both to be direct recipients of USAID funding and showcasing their ability to effectively manage project operations and ensure project performance.



PERFORMANCE DATA

OHW-NG MEL FRAMEWORK

GOAL Empower One Health University Networks to sustainably develop and deliver world-leading model programs for equipping professionals with transdisciplinary skills to address complex global health issues.



*OHW-NG contributes to this USAID Standard Higher Education Indicator

The goal of the OHW-NG Project is to empower One Health University Networks to sustainably develop and deliver world-leading model programs for equipping professionals with transdisciplinary skills to address complex global health issues. Our Monitoring Evaluation and Learning (MEL) framework, plan, and working group were developed to measure progress towards achieving this goal. MEL indicators capture consistent metrics that tell the collective “story” of the project, capture partner impact, and illustrate the project’s contributions and achievements over time.

Our MEL plan is designed for performance monitoring and to support decision making. The plan was also designed to support AFROHUN and SEAOHUN Network partners in developing methods for assessing the overall impact of OHW-NG investments on national and global health security and workforce performance, and for measuring improvements in workforce capabilities for disease prevention, detection, and response. Throughout the year, the MEL working group met virtually on a regular basis through regional meetings to allow for consideration of time-zones of the AFROHUN and SEAOHUN Networks.

MONITORING & EVALUATION

This year, the MEL working group completed a detailed review of both the data and the data collection process from the 2019-2020 annual report to refine and improve our plan and procedures for the remainder of the project.

- The Performance Indicator Reference Sheets (PIRS) were updated, indicator disaggregates were reviewed and clarified, and targets were re-assessed to ensure they aligned with baseline data and progress (see Learning section below for more information).
- We revised the activity tracker to better facilitate the M&E data collection and validation process.
- All reporting SOPs and protocols were revised to address the complexity of capturing M&E data through virtual trainings, a difficulty that

was identified in the Year 1 (2019-2020) reporting process.

- A MEL glossary and FAQ sheet were developed and shared with the Global Consortium.
- Due to the ongoing COVID-19 pandemic, OHW-NG activities continue to address critical gaps in response capacity in Network member countries. To align with USAID reporting requirements, we report on COVID-19 indicators in the Result Areas of Risk Communication and Community Engagement; Surveillance, Case Finding, Rapid Response Teams, Case Investigation, and Contact Tracing; Laboratory Systems; Case Management; Infection Prevention and Control; and Coordination and Operations.

Innovations in Pandemic Performance Monitoring

To facilitate the ongoing COVID-19 reporting responsibilities and increase the capacity of the Networks to both collect and analyze the data, the Global MEL Team developed an online database and form-based reporting system using Airtable which captures all COVID-19 indicator data relevant to the OHW-NG Project. To automate the process of generating reports in Word document format from the database, a script was written using R programming software that can be used to generate reports in seconds. These reports contain both narrative descriptions of progress made in each

activity, as well as summary tables that track progress made toward each COVID-19 indicator during a designated reporting period and cumulatively since the OHW-NG response was initiated. Additionally, reports can be generated at various levels: for individual OHUNs/Country Chapters, for the Secretariats, for the entire regional Network, and at the OHW-NG Project level. Currently, SEAOHUN has been trained on the use of this reporting platform and we are exploring expansion to AFROHUN and country-level OHUNs.

LEARNING

In order to monitor performance and support decision-making, the OHW-NG Global Consortium must learn from its activity progress and data. Review of indicator data as well as the data collection process was an ongoing activity. Specifically within this reporting period, we reviewed indicators and targets focusing on how indicator disaggregates either contributed or did not contribute to the overall output/outcome of the indicator and sought to refine definitions where appropriate to ensure consistent reporting. We used the results of these analyses to refine the MEL framework and PIRS to better capture project impact. For example, within this reporting period, we:

- Linked all project indicators to JEE 2.0 and WHO benchmarks as appropriate.
- Revised Indicator G3 (Evidence of changes made improving sex balance and impact of sex balance) to remove tracking data related to decision-making positions, as they overlapped with leadership positions.
- No longer track individual Student One Health Innovation Club (SOHIC) participation hours, as we found it extremely difficult to accurately collect this data and this information did not contribute towards defining the impact of OHW-NG Project investments to SOHICs (Indicator 1.3).

- Added additional aspects within Indicator 1.2 (# of individuals trained) to track the number of scholarships and grants awarded by the Networks to students, faculty, and other professionals.

With a large proportion of activities continuing to be held virtually due to the COVID-19 pandemic, we realized over the first year of the OHW-NG Project that there was a need to revisit the methodology for collecting information on training participants. OHW-NG participant information that is collected for all activities includes contact information, gender, institution, position/job title, type of participant, age range, and discipline. Collecting all of these disaggregates in a virtual format is difficult and often requires complex registration set-up. In addition, multiple individuals could attend events using one registration link, making identification of training numbers and de-duplicative numbers difficult to determine. We worked with the Secretariats and country chapters/OHUNs to improve the approach and process for virtual activity registration and data collection with training sessions held for both Networks and the Global Team.

STATUS UPDATE

This year, we set baselines and targets for project indicators and the PIRS was reviewed and iteratively updated by the MEL working group to ensure that the project is on track to achieve all targets and deliverables. The current

version of the PIRS (version 10) includes these updates and will be further revised in Year 3 to address continually evolving aspects such as indicators, their targets, and disaggregation levels.

We have not yet completed a thorough baseline assessment for Indicator 2.2 (# of countries in which Network Universities are actively involved in national coordination of One Health activities). Working closely with the Objective 1 team, we addressed the need to capture CLASS Score data (Calibrated, Lifelong, Adaptive, Scalable, and Sustainable) at the institutional level, rather than country level. This change will enable a better analysis of improved organizational capacity and the development, delivery, and institutionalization of training and educational offerings at the university level. As well, adjustments were made to project indicators in the PIRS, helping to simplify and streamline reporting against these Objective 1-related indicators (see Learning section above for some examples).

Significant progress was also made with regards to Objective 2 assessment and tracking activities. The Global Team presented the competency framework and assessment tools to the Secretariats and Country Chapters/OHUNs. A survey tool was also developed to assess and understand the proportion of member universities using the One Health competencies, and this tool was implemented in the second half of the year. One Health competency framework and assessment tools for five One Health education domains were also developed and shared with the Secretariats and Country Chapters/OHUNs. In addition, webinars and workshops were conducted this year to sensitize and support

universities and country teams in utilizing One Health competency framework and assessment tools. The survey tool was merged with the Delphi panel survey from Objective 1 activities so that both surveys could be administered jointly and collect evidence on the proportion of member universities using One Health competency assessments.

With respect to organizational sustainability, the Objective 3 team continued to implement activities and provide guidance to the Networks to ensure their sustainability moving forward. Much of this is oriented toward achieving adequate NUPAS and OCA scores, signaling the Networks' capacity to directly receive USAID funding, effectively manage project operations, and comply with M&E mandates and deliverables.

Finally, with regard to our cross-cutting gender theme, support from the Global Team's gender working group continued to be provided to the Networks, helping to identify, promote, and integrate gender components into activities. Joint Gender-MEL calls occurred monthly for the SEAOHUN Network which served as a helpful platform to discuss the project's gender indicators and share OHUN progress toward the gender action plan.

Based on review of the available data, we are confident that the project is on track towards achieving the targets for all MEL indicators.

NEXT STEPS

- Continued refinement of the MEL plan in close coordination with USAID and the Networks.
- The MEL working group will continue to meet virtually (in a regional format) as needed to review data and targets.
- Creation of country and Secretariat-level MEL dashboards to help assess progress toward project indicators and established targets and to identify areas for growth and improvement.
- Exploring the capability and potential of tracking the number of de-duplicative trained individuals.
- Introduce the Secretariats to the DDL and DEC, preparing them to upload OHW-NG products and datasets in subsequent years.

PERFORMANCE DATA

October 2020 - September 2021 | Cumulative life of project data is provided where indicated

Progress Toward Institutionalization of Competency-Based One Health Training

Network	Year 2 CLASS Score*
AFROHUN Secretariat	63
AFROHUN Cameroon	49
AFROHUN Côte d'Ivoire	N/A
AFROHUN DRC	65
AFROHUN Ethiopia	71
AFROHUN Kenya	88
AFROHUN Rwanda	75
AFROHUN Senegal	53
AFROHUN Tanzania	73
AFROHUN Uganda	69
SEAOHUN Secretariat	N/A
CAMBOHUN	N/A
INDOHUN	52
LAOHUN	N/A
MyOHUN	40
MMOHUN	N/A
PhilOHUN	N/A
THOHUN	54
VOHUN	61

Indicator PO 1: Evidence of increased progress toward institutionalization of competency-based training in One Health. The Networks are implementing training and empowerment activities through a learning plan based on an approach that incorporates the CLASS score (Calibrated, Lifelong, Adaptive, Scalable, and Sustainable). Scores are presented at the national-level, which are averages of country-level member University scores. N/A indicates that CLASS scores have not yet been assessed for these countries and their member Universities, or that CLASS scores are not applicable (for the SEAOHUN Secretariat).

* One Health CLASS is characterized by progressive learning activities designed for trainees at various stages of academic and professional development and can capture increasing proficiency in One Health competencies. The "CLASS Score" which ranges from 0 to 100, is a composite measure of progress on ten distinct categories. See pages 23, 76, 85-87, and 92 to learn more about CLASS approach.

126

AFROHUN

2

SEAOHUN

128

YEAR 2 TOTAL

245

CUMULATIVE TOTAL

PLACEMENT OF
ONE HEALTH
ALUMNI IN
TARGETED
SECTORS

1

SEAOHUN SECRETARIAT

3

THOHUN

4

YEAR 2 TOTAL

8

CUMULATIVE TOTAL

DIRECT FUNDING
AWARDS
RECEIVED

Indicator PO 1: Evidence of increased progress toward institutionalization of competency-based training in One Health

Indicator PO 2: Evidence of placement of One Health alumni in targeted sectors

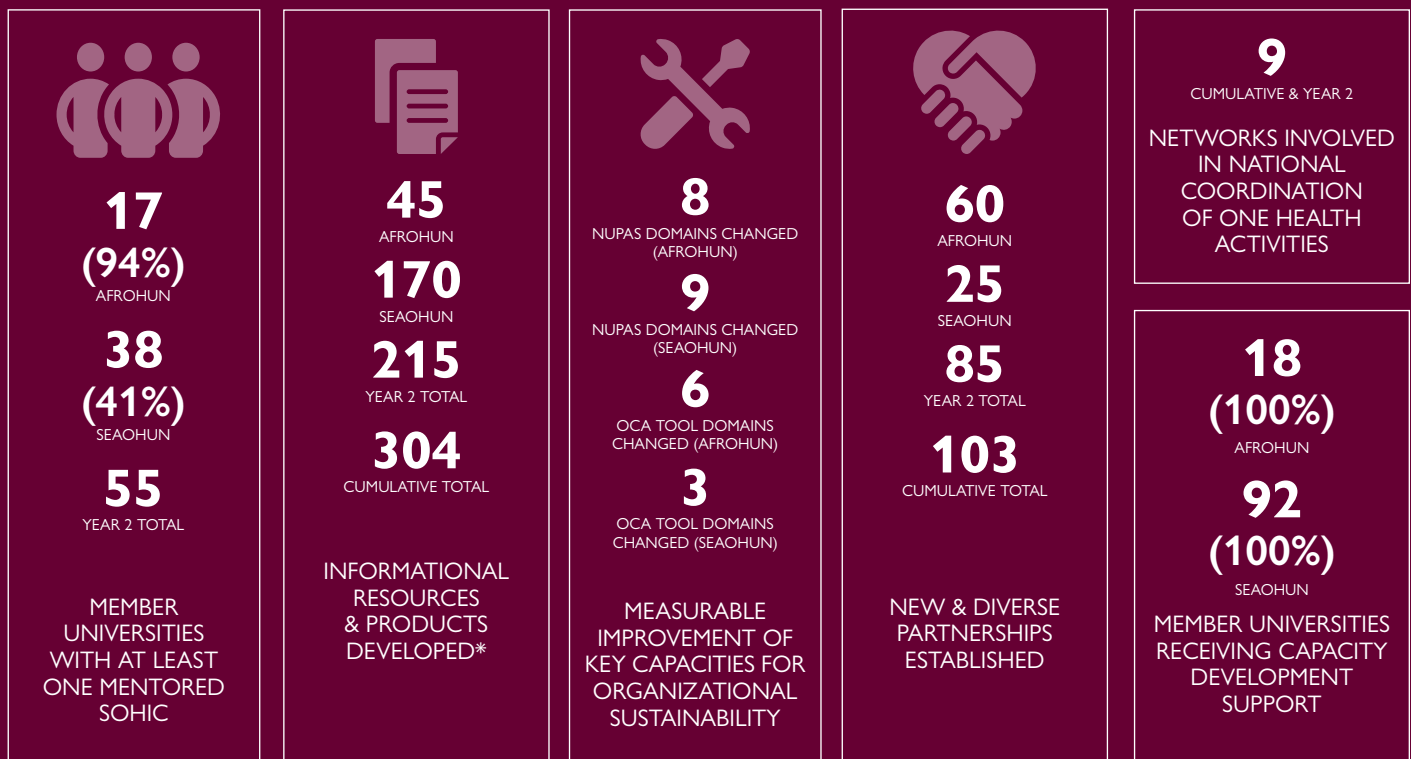
Indicator PO 4: Direct funding awards received by the Networks

PERFORMANCE DATA

October 2020 - September 2021 | Cumulative life of project data is provided where indicated

Existing, Updated, and Newly Developed One Health Training Content				
Network	Cumulative Total	Year 2 Total	Updated	New
AFROHUN Secretariat	5			
AFROHUN Cameroon	51	3	2	1
AFROHUN Côte d'Ivoire				
AFROHUN DRC	17	3	2	1
AFROHUN Ethiopia	42			
AFROHUN Kenya	81	4	1	3
AFROHUN Rwanda	57			
AFROHUN Senegal	45	2		2
AFROHUN Tanzania	40	3	2	1
AFROHUN Uganda	43	4	2	2
SEAOHUN Secretariat	45	31		31
CAMBOHUN	2	2		2
INDOHUN	79	21		21
LAOHUN	1	1		1
MyOHUN	51	27	1	26
MMOHUN				
PhilOHUN	1	1		1
THOHUN	26	17	5	12
VOHUN	81	95	79	16
Global Team	11	10		10
AFROHUN Total	381	19	9	10
SEAOHUN Total	286	195	85	110
Global Consortium Total	678	224	94	130

Indicator 1.1: Total # of existing and new One Health training content and delivery modes curated, updated, and implemented. Cumulative Total: cumulative sum of existing, updated, and newly developed education and training programs; Year 2 Total: education and training programs updated and newly developed during the reporting period (Year 2); Updated: production of a current up-to-date version of specific training activities based on previous versions to now include new information generated by research or other forms of new knowledge during the reporting period (Year 2); New: education and training programs newly developed during the reporting period (Year 2).



INDICATOR 1.3: # of Member Universities with at Least One Mentored SOHIC

INDICATOR 1.4: Total # of Evidence-Based Informational Resources & Products Developed

INDICATOR 2.2: # of Countries in Which Network Universities are Actively Involved in National Coordination of One Health Activities

*Includes "peer reviewed pubs, policy briefs, situational reports, risk assessments, grant submissions, and awards

INDICATOR 3.1: Evidence of Measurable Improvement of Key Capacities for Organizational Sustainability

INDICATOR 3.2: # of New & Diverse Partnerships Established for the Networks

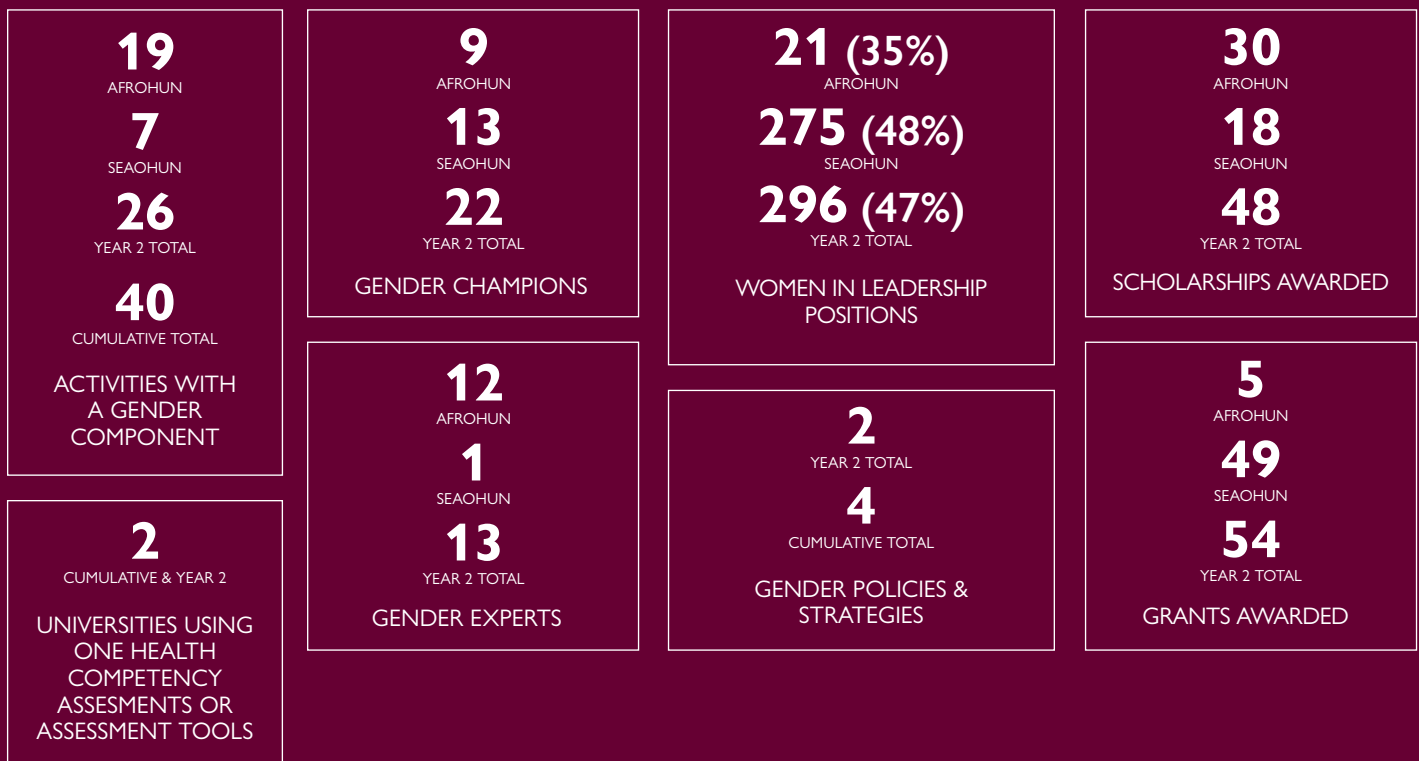
INDICATOR ES.2-1: # of Host Country Higher Education Institutions Receiving Capacity Development Support

PERFORMANCE DATA

October 2020 - September 2021 | Cumulative life of project data is provided where indicated

Number of Individuals Trained																
Network	Cumulative Total	Year 2 Total	Gender				Participant Type									
			Female	Male	Other	Unknown	Professional (govt)	Professional (private sector)	Faculty	Student (undergraduate)	Student (graduate)	Student (other)	NGO staff	Community member	Other	Unknown
AFROHUN Secretariat	382	336	56	71		209			119	110	6		37			64
AFROHUN Cameroon	1,117	1,049	603	444		2	3	2	243	775			4	22		
AFROHUN Côte d'Ivoire																
AFROHUN DRC	305	194	69	125			41	18	80	11	40		4			
AFROHUN Ethiopia	349	239	69	170			48		68	58	65					
AFROHUN Kenya	439	340	131	197		12	59	26	33	91	64	5	9	3	17	33
AFROHUN Rwanda	260	158	73	85					10	118	30					
AFROHUN Senegal	287	190	92	98			3	2	5	36	129		7	8		
AFROHUN Tanzania	220	89	38	51			9		30	49	1					
AFROHUN Uganda	679	190	62	128			20		45	119	6					
SEAOHUN Secretariat	750	747	228	152	7	360	172		141		1		36	7	60	330
CAMBOHUN	18	15	3	12			6		9							
INDOHUN	9,002	8,874	3,693	1,752		3,429	713	242	405	1,416	207	2,505	37	117	41	3,191
LAOHUN	143															
MyOHUN	5,751	3,177	1,642	922		613	381	45	98	79	73	19	20	10	122	2,330
MMOHUN																
PhilOHUN	1,597	957	164	58		735										957
THOHUN	662	486	350	136			3		11	5	16					451
VOHUN	19,375	1,734	943	593	3	195	273		229	1,027	10					195
Global Team	8															
AFROHUN Total	4,038	2,785	1,193	1,369	0	223	183	48	633	1,367	341	5	61	33	17	97
SEAOHUN Total	37,298	15,990	7,023	3,625	10	5,332	1,548	287	893	2,527	307	2,524	93	134	223	7,454
Global Consortium Total	41,344	18,775	8,216	4,994	10	5,555	1,731	335	1,526	3,894	648	2,529	154	167	240	7,551

Indicator 1.2: Total number of individuals trained. Disaggregate data is provided for Year 2 only. The cumulative total and Year 2 total do not uniformly account for duplicative individuals trained, but was addressed when possible.



INDICATOR G1: # of Gender Policies Developed and Available

INDICATOR G2: # of Activities that Included a Gender Component

INDICATOR G3: Evidence of Changes Made Improving Sex Balance & Impact of Sex Balance

INDICATOR G4: # of Identified Active Gender Champions & Gender Experts

INDICATOR 2.1: # of Network Universities using One Health Competency Assessment Toolkits to Strategically Integrate One Health Competency Assessments into Activities

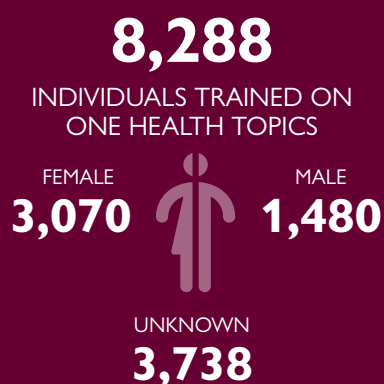
INDICATOR 1.2 # of Individuals Trained and Scholarships and Grants Awarded



Supplemental Funding

The One Health Workforce - Next Generation (OHW-NG) Global Consortium has been active for two years working towards building scalable and sustainable systems that train and empower human resources to combat complex and dynamic global health threats in the world's most vulnerable areas for disease emergence. With the support of USAID, AFROHUN and SEAOHUN have forged University Networks to train and equip the health workforce with the One Health skills needed to prevent, detect, and respond to health threats such as emerging infectious diseases and antimicrobial resistance. Through additional, supplemental funding awarded to several country

partners, these efforts were magnified during Year 2 (2020-2021) and countries were empowered to respond to the COVID-19 pandemic nationally, to strengthen their risk communication and community engagement and university e-learning platforms, and to support students seeking advanced degrees in One Health. The impact of these supplemental funding sources is summarized below, highlighting the progress made toward training and building capacity of the current and future One Health workforce to raising awareness among community members on COVID-19 and other zoonotic disease risks.



Cameroon	
RCCE Trained	930
RCCE Reached	10,189
Improved E-Learning System & Pedagogic Platform	2 Universities
RCCE Materials Developed & Distributed	20,030

CAMEROON:
*Strengthening e-learning
and RCCE capacity of
faculty, staff, and students*



DR Congo	
Masters Scholarships Awarded	30
Faculty Trained in One Health	50

DR CONGO:
*Empowering in-service professionals
to advance their One Health education*

INDOHUN	
RCCE Trained	126
Surveillance Trained	4,791
Lab Systems Trained	87
IPC Trained	167
COVID RCCE Reached	2,381
Guidelines Developed	7
Facilities Supported	49

MyOHUN	
RCCE Trained	786
Surveillance Trained	3
Lab Systems Trained	287
IPC Trained	372
COVID RCCE & WASH Reached	26,115,537
Samples Tested	3,580
Guidelines Developed	4
Facilities Supported	8

THOHUN	
RCCE Trained	49
Surveillance Trained	293
Lab Systems Trained	15
IPC Trained	109
COVID RCCE Reached	17,128
Samples Tested	1,656
Facilities Supported	7

VOHUN	
RCCE Trained	218
Lab Systems Trained	70
IPC Trained	70
COVID RCCE Reached	1,599
Guidelines Developed	2



SEAOHUN NETWORK:
*Responding to COVID-19
to ensure global health
security*

*Data reported toward this indicator estimates local populations reached by COVID-19 risk communication and community engagement, primarily as a result of publishing magazine articles, web articles, and newspaper articles, as well as through the distribution of flyers, making public announcements through radio and megaphone, and by posting material to social media. The data reported is supported by publically available sources such as website clicks (e.g. estimated through similarweb.com), magazine and newspaper estimated audience numbers, the number of 'views' and 'likes' received on social media posts, and through estimation of individuals visiting market settings where announcements were being made. For MyOHUN, the data estimated from website clicks is associated with visits to the parent webpage, not the specific article webpage. Data was collected and is reported for each unique activity, thus it was ensured that the indicator data did not exceed the total population living in the geographic area where media messaging was being used.

KEY

- RCCE** Risk Communication & Community Engagement
- IPC** Infection Prevention & Control
- WASH** Water, Sanitation, & Hygiene

APPENDICES



Knowledge Management & Learning

Knowledge Management (KM) is an integrated system of accumulating, compiling, archiving, and sharing knowledge within an organization. Through the process of creating, assimilating, and applying knowledge, KM initiatives help organizations embed knowledge into their processes for improved learning and outcomes. Under the umbrella of the OHW-NG Project, successful KM and learning works to enhance effective multisectoral learning and planning, helping to strengthen the One Health workforce pipeline and ensuring that countries have the needed mix and distribution of One Health expertise and skills – the right people, with the right skills, in the right place, at the right time. The desired long-term impacts of the OHW-NG KM strategy will contribute towards: 1) improving the quality and use of workforce and assessment data for decision making and learning; 2) increasing the placement and tracking of One Health graduates in targeted sectors, as well as creating opportunities for their engagement in One Health activities; and 3) improving multi-sectoral workforce strategies, utilizing best practices and lessons learned.

Given these ambitious aims and the breadth, depth, and diversity of relevant information and data, the SEAOHUN and AFROHUN Secretariats have developed KM and learning strategies and tools to collect, generate and disseminate information of high interest to

University Network members, stakeholders, donors, and the wider universe of One Health partners. KM strategies enable each Secretariat to prioritize KM goals and objectives, dedicate staff to KM, and select KM systems that best advance this agenda. Recognizing that the Secretariats may have different approaches to KM, and understanding the importance of collaborative design, utility, and sustainability, OHW-NG will implement a phased approach to the development, implementation, and evaluation of the KM and learning interventions.

Intersection of Knowledge Management & Monitoring, Evaluation & Learning (MEL)

Knowledge Management and MEL are two technical areas that complement each other. MEL relies on the people, processes, and systems that KM puts into place. OHW-NG will use the KM systems to strengthen current and future Network MEL practices. There are many ways that this may materialize across the Networks, including using Airtable to track indicators, reporting documents, and KM & MEL workshops. In addition, better coordinating and reporting data through a systemic and holistic approach to KM and MEL practices will increase awareness, knowledge, and capacity across the project's lifecycle.

ACTIVITIES & HIGHLIGHTS

Throughout Year 2, both Networks have made progress on their Knowledge Management and Learning activities.

AFROHUN

Identification of KM strengths, weaknesses, opportunities, and threats (SWOT) was a priority for the AFROHUN Secretariat to move their organizational and programmatic KM strategy forward. During Year 2, the Secretariat hired a Knowledge Management consultant to lead this initiative. Through the facilitation of a series of KM workshops, AFROHUN's KM needs, gaps, and opportunities, as well as a vision and mission for KM with the Network, were documented. The participants of these workshops included Country Managers, Country Administrators, Thematic Leads, and Secretariat staff. In addition to the workshops, a survey was sent to stakeholders to solicit input around AFROHUN's current KM state. The information and data collected from the workshops and survey were synthesized into a KM Strategy and Learning Plan, which will work as the guiding framework for the Secretariat to view all their knowledge points through a unified and strategic lens moving forward. This strategy aims to look across all KM activities and systematically set a roadmap for the next few years. In addition, AFROHUN's Smart Library (based in the Airtable platform) has been built out, Librarians have been trained, and the Secretariat has taken ownership.

SEAOHUN

The Global Team and SEAOHUN Secretariat coordinated KM and MEL efforts to assist in the collection, organization, and management of project data. In Year 2, this effort was co-managed by the Secretariat and Global Team but will be transitioned to Secretariat ownership and management in Year 3. This KM tool collects activity reports and associated data on project indicators such as updated and newly developed training content, individuals trained, and products developed. It is enabling efficient storage, summary, and retrieval of data and project documents at the university, country, and regional levels.

Knowledge Management/MEL has also been prioritized within VOHUN. VOHUN conducted an M&E workshop that incorporated the introduction of KM, sample tools, and an overview of KM trends across the Network. This workshop was key in providing foundation training around KM for VOHUN to build on the trends and tools moving forward. During the workshop, participants were exposed to a variety of KM tools. Moving forward, the Global Team will support VOHUN in sharing its KM initiatives with other One Health University Networks (OHUNs) and will provide technical assistance on KM to other OHUNs.

Learning Plan: Monitoring Institutional & Accreditation of One Health Training & Empowerment - CLASS Scoring System

The University Networks are institutionalizing One Health training and empowerment activities in a Learning Plan that is Calibrated, Lifelong, Adaptive, Scalable, and Sustainable (CLASS) within and across the participating institutions. We define institutionalization and accreditation as the processes through which a set of strategic activities in One Health training and empowerment becomes an integral and sustainable part of a university's official catalogue, or a University Network's standard operating procedures for quality assurance at country or regional levels. Institutionalization and accreditation of educational programs inspires confidence in potential pre-service trainees to embark on career paths that require One Health technical and implementation skills, while also inspiring confidence in in-service trainees and employers that maintaining

currency in the skills will continue to be meaningful for career advancement and effective in addressing emergent challenges to global health security.

To monitor progress, we devised a Training and Empowerment Accreditation and Institutionalization Scoring System (CLASS Scores), based on assessment of ten proximate outcomes evaluated on a scale of 0 to 10 to produce a total maximum score of 100 for each University in the Networks, and for the role of Network Secretariats in supporting regional and international accreditation initiatives. These scores are recorded annually through a self-assessment process, and independently verifiable by Global Consortium partners to evaluate progress. Ideally, the CLASS Scores provide rich data for annual work planning, prioritization of activities to fill gaps, responsibilities to maintain excellence, and opportunities for knowledge sharing and dissemination of best practices.

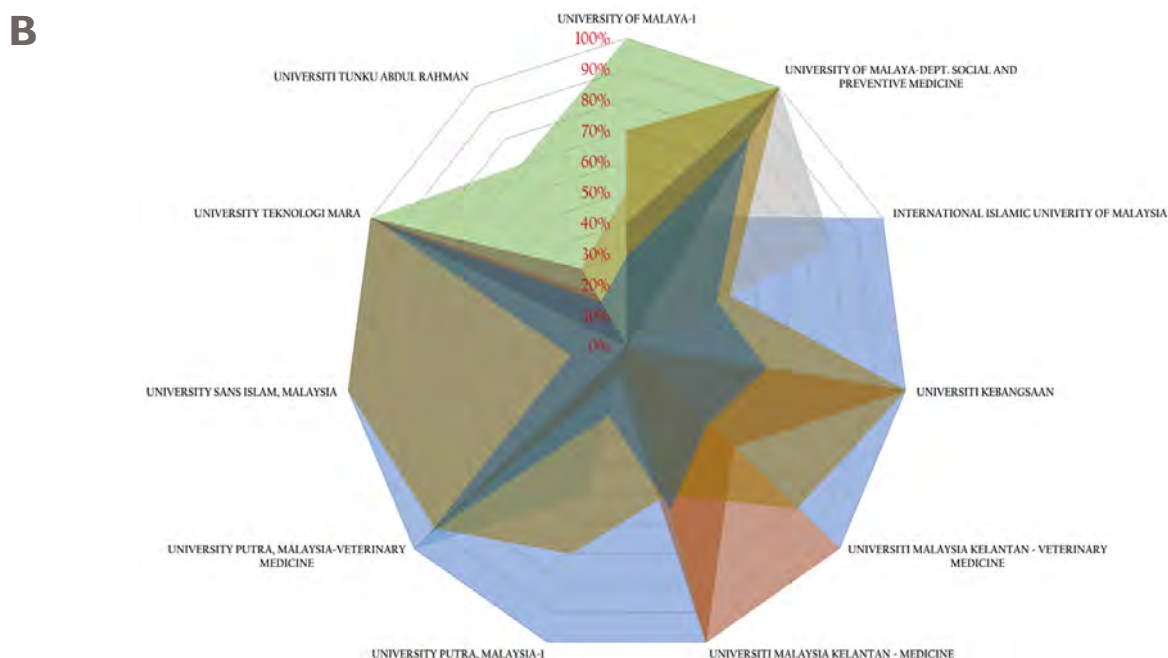
ACTIVITIES & HIGHLIGHTS

Network Universities completed the self-assessment CLASS Score profile. The data revealed areas of strength, for example the preponderance of One Health student clubs;

and opportunities for growth and collaboration among participating Universities, for example, in offering continuing professional development training programs (Figure 1).

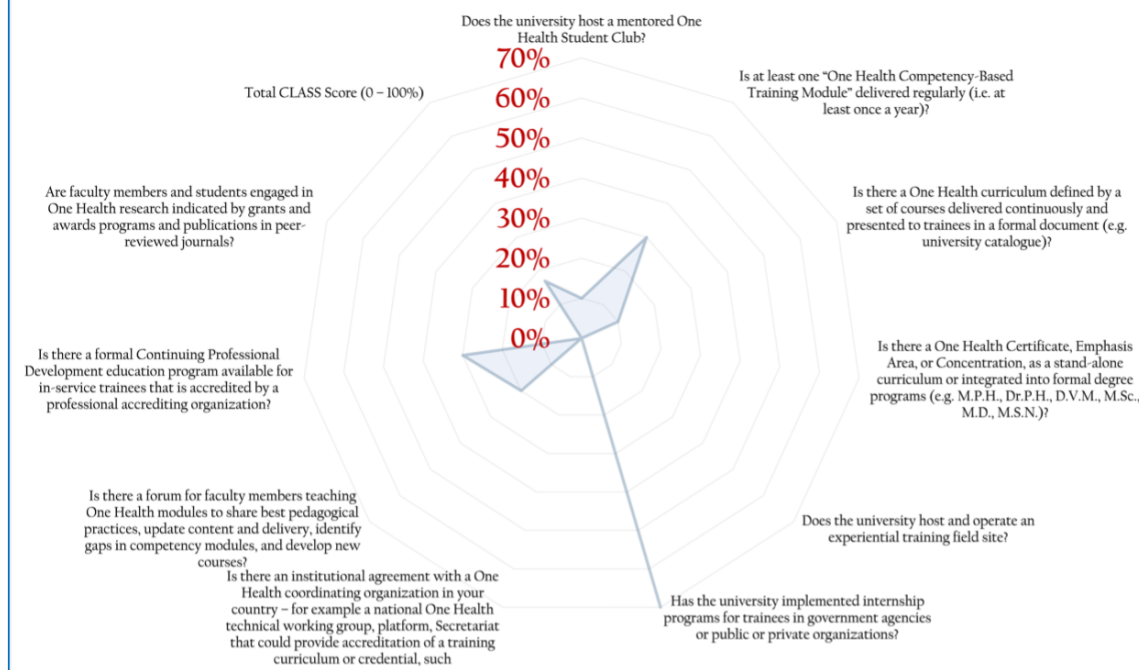
Figure 1. CLASS Score questions answered by the participating member Universities (A); example of a CLASS Score profile, revealing differences and areas of strength and deficiencies across MyOHUN member universities (B); and comparison of two MyOHUN member Universities with many differences that could promote opportunities for collaboration and best practices (C & D).

- A**
- Does the university host a mentored One Health Student Club?
 - Is at least one “One Health Competency-Based Training Module” delivered regularly (i.e. at least once a year)?
 - Is there a One Health curriculum defined by a set of courses delivered continuously and presented to trainees in a formal document (e.g. university catalogue)?
 - Is there a One Health Certificate, Emphasis Area, or Concentration, as a stand-alone curriculum or integrated into formal degree programs (e.g. M.P.H., Dr.P.H., D.V.M., M.Sc., M.D., M.S.N.)?
 - Does the university host and operate an experiential training field site?
 - Has the university implemented internship programs for trainees in government agencies or public or private organizations?
 - Is there an institutional agreement with a One Health coordinating organization in your country – for example a national One Health technical working group, platform, Secretariat that could provide accreditation of a training curriculum or credential, such as a One Health Certificate?
 - Is there a forum for faculty members teaching One Health modules to share best pedagogical practices, update content and delivery, identify gaps in competency modules, and develop new courses?
 - Is there a formal Continuing Professional Development education program available for in-service trainees that is accredited by a professional accrediting organization?
 - Are faculty members and students engaged in One Health research indicated by grants and awards programs and publications in peer-reviewed journals?



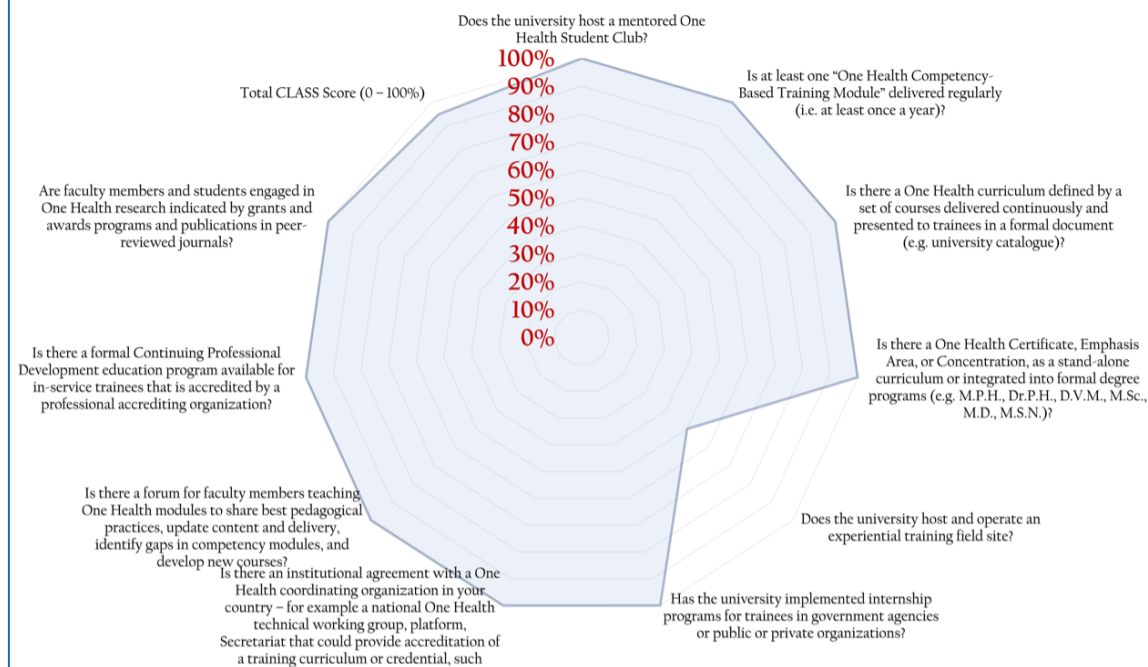
C

UNIVERSITI TUNKU ABDUL RAHMAN



D

UNIVERSITY TEKNOLOGI MARA



We implemented the Curriculum Curation Management System in the **One Health Workforce Academies website** as an important step toward standardizing and systematizing procedures for quality assurance and the guarantee of excellence in training content and delivery toward a One Health Certificate credential.

Eighty international experts participated in a Delphi Panel to review and update core competencies for One Health. The outcome will be definitive in providing support for the international mandate of the One Health Workforce Academy to align high quality training with prioritized competencies and skills. The protocol for the Delphi Panel was approved by the Institutional Review Board, and we expect broad dissemination of the outcome, including presentations at the IMED 2021 conference, and the 2022 conference of the Consortium of Universities for Global Health. The eDelphi Panel was set up on the web-based platform **www.edelphi.org**. Panelists responded to queries and ranking exercises in 20 categories. The foundational round of the eDelphi was designed for panelists to sort and rank One Health major knowledge domains, sub-domains, core competencies, and skills. The eDelphi platform supported comments, argumentation, and debate with the ultimate goal of identifying consensus for the top ten core competencies and skills. Eighty panelists among 250 invitees completed all questions and exercises. Highlights of results of the foundational round include:

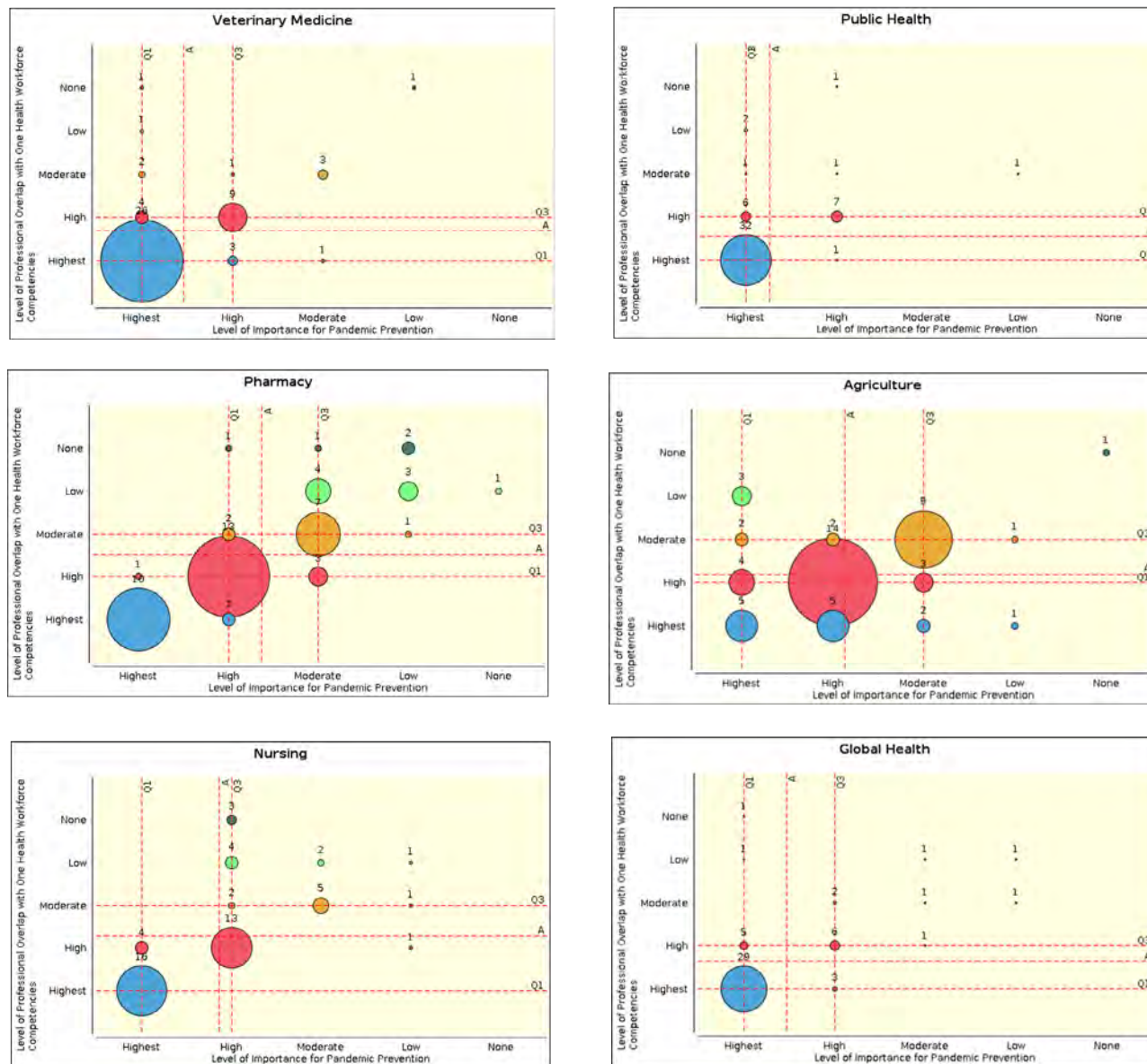
- Panel respondents are 40% female, median age group 40-50 years, 78% earned an academic or professional doctoral degree, **50% have more than 20 years of work experience in fields related to One Health**, and 25% have earned a credential in One Health.
- Respondents ranked **animal science and health sciences among the top two**

of 18 major knowledge domains, whereas public policy was ranked low.

- Surprisingly, the **ranking of pharmacy was mixed** considering the significance of One Health topics such as antibiotic resistance (Figure 2).
- Emerging interdisciplinary domains such as **implementation science, sustainability science, and translational science were ranked in the middle, with comments indicating less familiarity with these domains**, in comparison to microbial science, environmental science, and ecology. Economics, international studies, and the science of team science were nominated by few panelists as not relevant to the One Health framework.
- **Training in disease outbreak prevention; community engagement; and interaction among humans, animals, plants, and environment were identified as the most important sub-domains.** The ranks of advocacy coalition and gender context of One Health were mixed. Integrative toxicology was not generally ranked high. These divergent perspectives will be explored further in Round 2 (Figure 2).

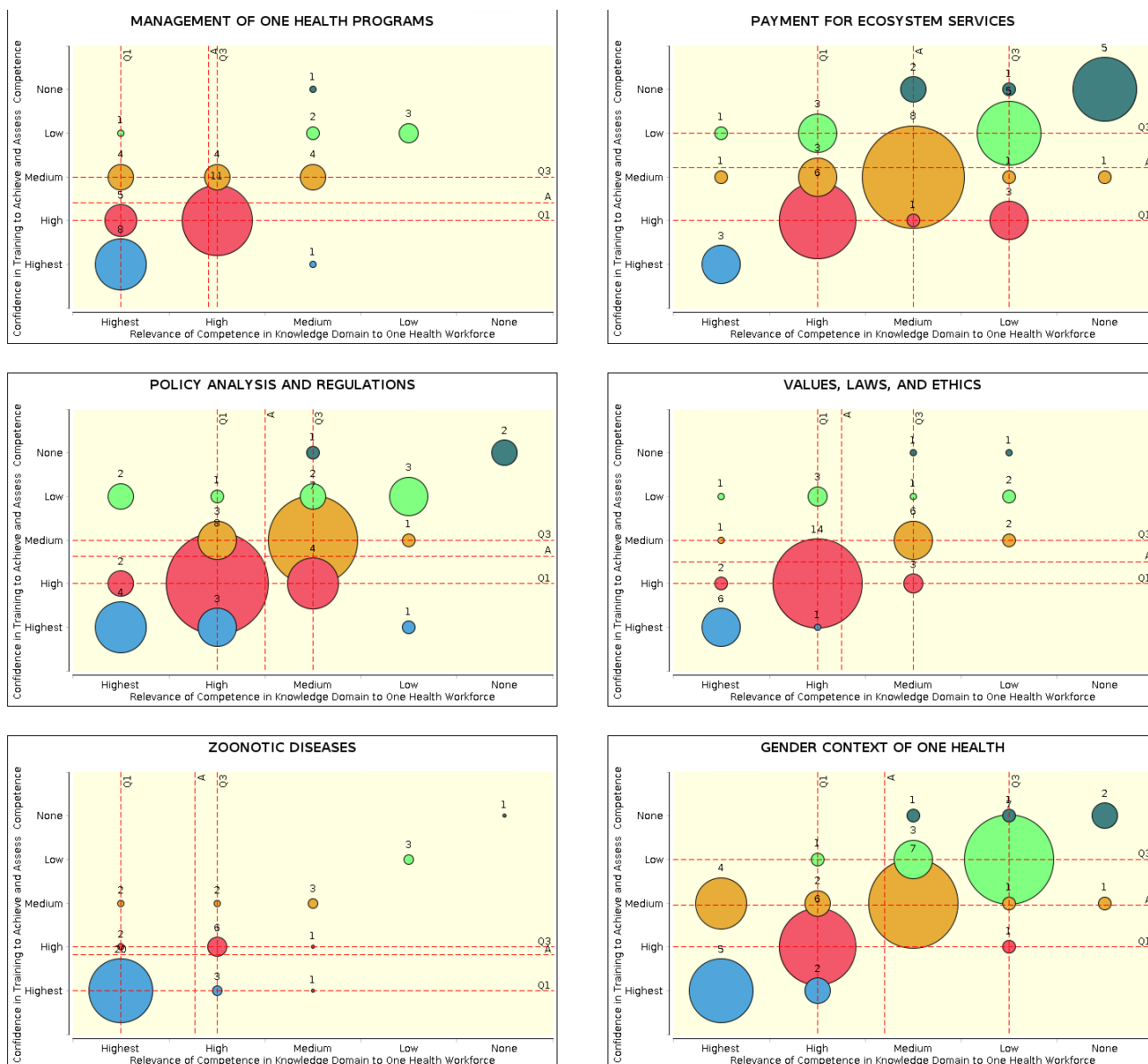
The eDelphi panel process proved to be effective in reviewing and mapping diversity of perspectives and generating consensus on One Health domains, core competencies, and essential skills for the next generation of the One Health workforce. **The outcome supports the initiative for One Health Workforce Academies with prioritized competency-based training and assessment for an internationally accreditable Certificate in One Health.**

Figure 2. Examples of panelists diverse and convergent perspectives on the relevance of One Health-related professional competencies and pandemic prevention (A). The outcome of foundational panel responses highlight topics with wide-ranging perspectives to be probed further, and topics where there was relatively quick consensus (B). Circle color indicates panelists' affiliations (AFROHUN = teal, SEAOHUN = light green, International multilateral agency = orange, Global academic institutions (other than AFROHUN or SEAOHUN) = red, Other = light blue). Circle size represents the number of responses received, with larger circles indicating more agreement.



A

B

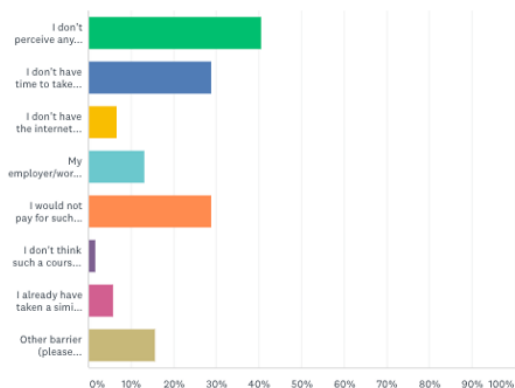


To ensure that the institutionalized One Health Workforce Academy provides the best quality resources and fulfills the needs of stakeholders including employers, faculty members, pre-service students, and in-service professionals, we launched a full One Health Workforce Academy Stakeholder Survey in May 2021. The protocol for the survey was approved by the Institutional Review Board, and we expect broad dissemination of the outcome, including presentation at the 2022 conference of the Consortium of Universities for Global Health. So far, results from respondents (N=247) from 18

countries show a wide range of perspectives on the relative importance of One Health competency domains, with respect to employment type and expectations for preventing pathogen spillover events. More than 90% of the respondents would seek to acquire a competency-based Certificate in One Health if available through OHWA. However, ~60% of respondents expect that such a credential will be adequately rewarded by employers. Among potential barriers, time and money were the most cited (Figure 3).

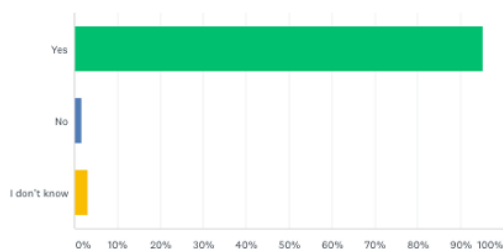
If a competency-based One Health Certificate course was offered, what barriers would you expect in participating in such a course? Select all that apply.

Answered: 121 Skipped: 126



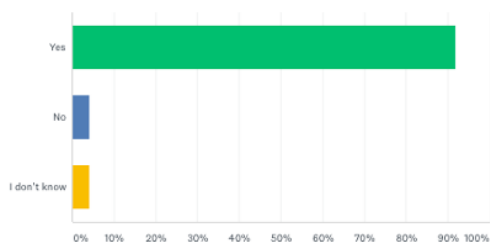
Do you expect that a competency-based One Health Certificate acquired through training and testing will be beneficial for the workforce?

Answered: 124 Skipped: 123



Are you personally interested in training toward earning a Certificate in One Health?

Answered: 122 Skipped: 125



Do you expect that your organization will reward personnel with a credential such as a Certificate in One Health, through established merits and promotion procedures?

Answered: 123 Skipped: 124

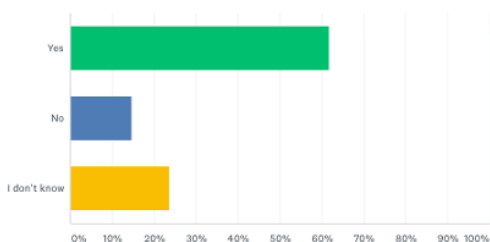


Figure 3. Highlights from the results of the stakeholder survey for the One Health Workforce Academy.

LESSONS LEARNED

One of the crucial interventions that amplified AFROHUN's KM progress during Year 2 has been the hiring of a KM Consultant who provided the expertise and hands-on support needed to facilitate the Secretariat's KM vision through developing a KMS. The specialized capacity support from the subject matter expert allowed the Network to gain a better understanding of the interconnectedness of KM and Learning activities, as well as foster a new appreciation for the importance of strong KM practices in order to advance their organizational goals.

One of the core components of KM is to identify the right combination of resources to meet the needs of an organization, institution, or University. The key component of successful Knowledge Management and Learning is the capacity of an individual, or group of individuals, to devote the time and effort needed to design, create, implement, and maintain the knowledge and learning systematically across an organization, leading to long-term sustainability. OHW-NG is devoted to building the capacity and supporting the individuals, processes, and systems AFROHUN and SEAOHUN have identified and will advocate for their role within the teams beyond the length of this project to ensure long-term success and sustainability.

There are many opportunities for innovation in training and empowerment, which leads to the temptation to add new activities in training and empowerment annually. However, institutionalization and accreditation must balance innovation and conservation based on quality assured activities that takes more than a year to mature. Therefore, we have made concerted efforts to avoid one-off activities except for truly innovative experimental activities. The CLASS Scoring System is focused on long-term sustainability of the One Health workforce personnel development pipeline and requires institutionalization of training activities within universities. Thus, institutionalization is a higher stage beyond one-off training activities such as workshops and tutorials that were prominent during the early stages of the development of the One Health framework. Tracking progress on the pathway toward institutionalization allows learning across the hierarchy of categories involved in One Health training and career development. Participation of the AFROHUN and SEAOHUN Networks in the self-assessment component of the CLASS scoring process remained strong in Year 2. However, the timing of the assessment needs to precede the work planning, which will enable identification of gaps and opportunities for reinforcement of strengths.

NEXT STEPS

During Year 3, the team will continue to support the advancement of Knowledge Management and Learning activities across the AFROHUN and SEAOHUN Networks, as well as across the OHW-NG objectives. Within the Networks, prioritizing staff capacity around KM will help ensure that it is institutionalized and codified for sustainability beyond the OHW-NG Project. Capacity building and training

workshops and the socialization of the KM strategy and Learning Plan will be the focus for the AFROHUN Network. In addition, the Global Team will engage with the SEAOHUN Network around KM, helping to identify how KM will play a role in supporting the ongoing activities for the region, especially through a south-to-south learning exchange among OHUNs.

Empowerment of employees charged with the responsibility to implement One Health-based solutions to global health problems demands the establishment of a credential through assessment and examination-based certification that is updated with continuing professional development credit. Therefore, we established the International Board of One Health Examiners (IBOHE) consisting of subject matter experts and faculty members who have implemented core competency-based training. IBOHE's ongoing responsibilities include:

1. Drafting and reviewing questions based on One Health core competency domains for the certification examination.
2. Establishing eligibility criteria for trainees seeking to sit for the One Health Certification Examination, including, for example, previously passing a mentored experiential learning activity coordinated through a practicum course or internship project, and experiences that can only be attested through direct observation.
3. Establishing pass/fail thresholds for performance in the certification examination.
4. Sensitizing accrediting bodies, professional organizations, and potential employers of pre-service trainees and supervisors of in-service trainees; and convening authors to submit a proposal for a Study Guide for One Health Certificate examination.

Accreditation is the public recognition awarded to training programs that satisfy established educational standards. Accreditation assures that teaching, student achievement, competency-based curricula, and assessment procedures meet specified levels of quality. At buildout,

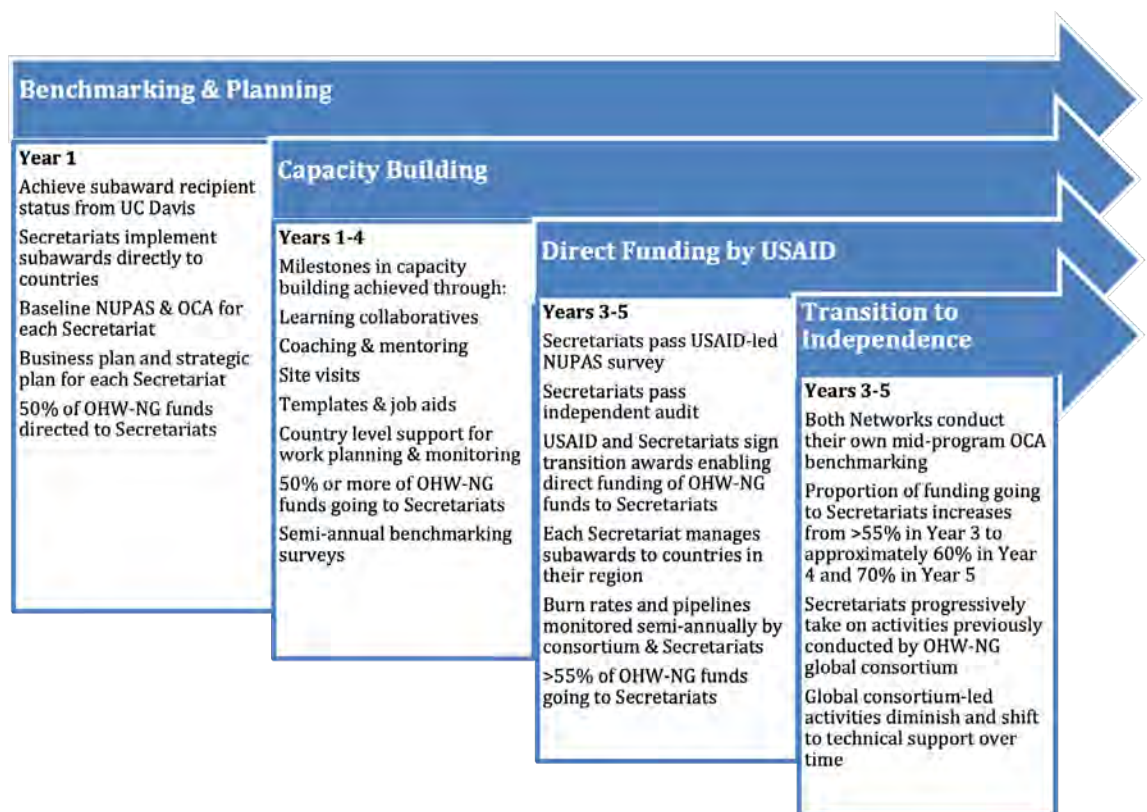
the Academies are the portal to accredited One Health credential. The United Nations Educational, Scientific and Cultural Organization (UNESCO) published the "Guidelines for Quality Provision in Cross-border Higher Education" which is relevant to the operations of international networks of Universities such as AFROHUN, and provides a framework for pursuing accreditation of One Health credential hosted by the Academy. Also relevant is UNESCO's "Revised Convention on the Recognition of Studies, Certificates, Diplomas, Degrees, and Other Academic Qualifications in Higher Education in African States" (Addis Convention) which is bound for implementation at the national level by ratifying State Parties, including some AFROHUN chapter countries. The Addis Convention builds on UNESCO's "Global Convention on the Recognition of Qualifications concerning Higher Education" which is designed to facilitate international academic mobility and the recognition of qualifications.

In parallel with the IBOHE's process to establish criteria for the Academy's One Health Certificate, we will encourage the AFROHUN and SEAOHUN Secretariats to request consultation from and apply for membership in the Council for Higher Education Accreditation (CHEA) and join its International Quality Group (CIQG). In addition, we will encourage the Secretariats to seek consultation and membership in the Institute for Credentialing Excellence (ICE), which is a professional association that provides education, networking, and other resources for organizations; a leading developer of standards for both certification and certificate programs; and a provider of assessment-based certificate programs.



Transition Plan

The transition plan outlines the activities and milestones involved in the Networks entering into direct awards with USAID on or near Year 3, and taking on increasing funding and activities in Year 3 onward, in support of the goal of organizational sustainability enshrined in Objective 3 of the OHW-NG cooperative agreement.



ACTIVITIES

Stage 1: Subawards, Benchmarking, & Planning

Milestone 1: Secretariats achieve subaward recipient status from UC Davis

This was achieved previously during OHW-NG Year 1.

Milestone 2: Secretariats Implement Subawards Directly to Countries

The AFROHUN regional network has been managing its first ever subaward with Kinshasa School of Public Health, in Democratic Republic of Congo (DRC). To continue capacity building work related to issuing and managing subawards, the Global Team created and delivered four customized trainings with each Secretariat: one each in U.S. government regulation and policy interpretation for grantees; financial reporting; subaward management; and cost allocation, indirect costs, and negotiated indirect cost rate agreements (NICRA). Additionally, the Global Team provided a training in supporting documentation and variance analysis for the SEAOHUN region. The Global Team also shared tools and templates with both Secretariats to enable development of subaward management policies and procedures, and both Secretariats submitted draft policy outlines for review by the Global Team. With mentorship and feedback provided by the Global Team, AFROHUN finalized the development of their subaward management manual, which outlines all practices required for all phases of subaward management, from pre-award, award, monitoring, and close-out. This milestone is met.

Milestone 3: Baseline NUPAS & OCA for Each Secretariat

In Year 2, the Global Team worked with the Secretariats to produce a second annual benchmarking of each Secretariat on the NUPAS

and OCA tools. Each Network was scored an average of 3 or higher on its major NUPAS criteria. This is a significant improvement from the baseline scores and represents a key milestone towards direct funding by USAID, as this score represents a low risk profile. The Global Team then worked with each Secretariat through a priority-setting workshop to agree on priority items for capacity building in Year 3. These priorities will be updated in the Year 3 OHW-NG Capacity Plans for each Network.

Milestone 4: Completed Business Plan & Strategic Plan for Each Secretariat

At the end of Year 2, the Global Team submitted each Network's updated business plan. The process in Year 2 included the integration of new, external funding partners and activities (i.e. STOP Spillover and Chevron) into the business plan, and a cost structure analysis of each Network, which identified how to adapt the cost structure for a more variable funding environment (i.e. shifting more fixed to variable costs). The updates also included revised partnership development strategies, new Year 3 OHW-NG Capacity Plans, and, in the case of AFROHUN, an expansion plan which will evolve into a membership model framework in subsequent years. As part of the planning process this year, the Global Team facilitated each Network completing scenario planning for their business model, identifying a "lean" business model with no continued OHW-NG funding and a "robust" business model with current funding expanded as planned under OHW-NG. This practice resulted in two operational models, to which the Global Team helped to assign costs, and which helped the organizations understand their minimum resource mobilization goals, as well as prepare for the risk of diminished funding.

Milestone 5: 50% of OHW-NG Funds Directed to Secretariats

In Year 2, at least 50% of funds received by the project to benefit each region were directed to their respective Secretariats for administration. In Year 3, we plan to continue this ongoing transition of funding to the two Networks, guided by the schedule in the OHW-NG notice of funding opportunity.

Stage 2: Capacity Building

In Year 2, areas of capacity-building included: 1) finalization of subaward management manuals for both Networks, development of site visit protocols and mentorship for routine sub-recipient monitoring; 2) production of new bylaws, board governance manual, and conflict of interest letters for the SEAOHUN region and a draft of these materials for the AFROHUN region; 3) human resources fundamentals through an asynchronous training, provision of sample staffing examples, and development of an AFROHUN staffing plan for transition; 4) project management training of Secretariats and country staff, including production of the first ever project management manual for the SEAOHUN region; 5) cash-flow budgeting and variance analysis procedures for the SEAOHUN region; 6) communications workshops on effectively developing donor pitches and other communication strategies (both regions) and writing success stories (SEAOHUN region); 7) resource mobilization, donor communications, and partnership development through an eight month training series for the AFROHUN region and twinning mentorship for SEAOHUN; 8) training in representations and certifications required of prime recipients, and support for re-registration in the System for Award Management (SAM) for AFROHUN; and 9) independent work planning & semi-annual and annual reporting to USAID.

Stage 3: Transition to Direct USAID Funding

Developing & Achieving Transition Milestones

Year 2 was an instrumental year in advancing key activities supporting the transition to direct USAID funding of the Secretariats. First, the OHW-NG Global Consortium established “transition triggers” for each Network, or the essential capabilities that need to be in place to start the transition award process. These triggers were established jointly and included SMART (specific, measurable, appropriate, realistic, time-bound) indicators to measure progress. The Global Team then supported routine review of progress on these triggers at biweekly meetings and in semi-annual reporting. To support this monitoring, the Global Team developed a dashboard as an internal tool to help maintain visibility for the triggers and show progress. Further, the Global Team developed a transition trigger evaluation report that documents the achievement of each trigger and the substantiating information used to measure this achievement.

Both Networks are achieving their milestones in the envisioned timeframes: AFROHUN achieved its milestones by the end of Year 2, and SEAOHUN has achieved all but a few of its milestones, which it will accomplish by the end of Quarter 1 of Year 3. See Figure 1 for the dashboard that displays all the AFROHUN milestones completed as an example. SEAOHUN's milestone completion will be outlined in the Year 3 semi-annual report. See Figure 2 for a snapshot of the transition trigger evaluation report.

CONSOLIDATED METRICS FOR AFROHUN TRANSITION TRIGGERS / MILESTONES



Figure 1. AFROHUN Transition Milestone (“Triggers”) Dashboard.

Transition Trigger	Consensus Metric	Status	Date Confirmed	Evidence of Achievement
Evidence of effective sub-award management	Pre-Award Phase			
	1. Is there a final sub-award management manual in place and is it comprehensive and of adequate quality?	Achieved	09/20/2021	Final document obtained. Now awaiting Board discussion and endorsement
	2. Were Network staff trained in the sub-award management manual procedures and policies?	Achieved	5/30/2020	Documentation of participation in sessions and training record
	3. Were risk assessment procedures performed adequately?	Achieved	05/30/2020	Reviewed Subrecipient Risk Assessment and Mini Audit forms completed pre award
	Award Phase			
	4. Are all sub-award agreements compliant with USAID regulations & policy, and have strong explicit language around audit authority?	Achieved	09/20/2021	Sub-award agreements were developed with Global Team review & guidance
	5. Are sub-award agreements made appropriately to the scope of work for country chapters?	Achieved	09/20/2021	Reviewed agreements, and perceive they were appropriate to the role of each sub-recipient
	6. Are sub-award agreements executed in the appropriate time frame?	Achieved	09/20/2021	Routine monitoring reveals sub-awards and amendments continue to be executed in a timely manner

Figure 2. Snapshot of Transition Milestone (“Triggers”) Evaluation Report

Developing the AFROHUN Transition Approach

Working in concert with USAID processes, the Global Team developed the Letter for Transition to USAID Direct Award, a required step that can trigger an eligibility evaluation and application process that may result in direct funding awards for each regional Network. This letter outlined the major capabilities that made AFROHUN eligible for transition evaluation, the specific milestones for transition that AFROHUN had achieved, and guidance on the transition award approach. For example, the Global Team recommended an approach to the transition awards that aligns their project cycles to coincide with other typical federal award timelines: October 1- September 30, so as to streamline typical administration procedures for the Networks. For this reason, it was proposed that the transition awards start on October 1, 2022, in Year 4 of the OHW-NG initiative. A similar letter is planned to be submitted by the Global Team to USAID for the SEAOHUN region by end of Quarter 1, Year 3. We believe this time frame should be ample for the transition awards to start October 1, 2022.

Program-Specific Audits of Member Countries

Additionally, the Global Team reviewed the audit history of each Network and its country members, and proposed where a program-specific audit could be implemented, in Year 3, among one country member of each Network as part of the transition process. The Global Team sensitized each Secretariat and received concurrence for this Year 3 activity. These audits are planned for Quarter 2 of Year 3 in each region. To further reinforce this close country-

level oversight, the Global Team introduced a “site visit checklist and protocol” which provides guidance to each Secretariat on how to conduct close review of financial management and internal control procedures during routine annual site visits to each country subrecipient.

Stage 4: Transition to Independence (“The Programmatic Transition”)

The last stage of the OHW-NG transition plan can be deemed the “programmatic transition”. It comprises the planning and activities related to moving the implementation of key OHW-NG Global Consortium-wide activities to direct implementation by the Networks themselves. In Year 2, the Global Team sensitized each Network to the needs for this programmatic transition and conducted organized, Objective-specific discussions on key activities that were priorities for this transition. We then created a planning tool entitled the “OHW-NG Programmatic Transition Plan” shown in Figure 3, which captures: 1) key activities that the Global Consortium agrees may transition to full Network leadership over time, 2) subtasks related to these activities, 3) target transition year; 4) any Year 3 work plan implications, such as specific costs or activities that should be included in the Year 3 work plan for the Networks; and 5) progress status updates and notes. The Objective leads from each Network and the Global Team discussed and populated this plan with their consensus agreements. This process will be undertaken each year as part of work planning, to guide the development of annual work plans and budgets.

Early Warning System

An early warning system has been established to review the progress of each Network across these milestones and to create real-time opportunities for problem-solving. First, for the milestones related to transition to direct USAID funding, the Global Team has established a system to review transition triggers during biweekly Network-specific meetings. In Year 2, the team created a dashboard that they use as an internal job aid for each Network to help bring visibility to the triggers and to show progress. Second, internally, the Objective 3 lead reviews progress against Network Capacity Plans as shown in Figure 4, as part of weekly meetings with the Global Team, and flags areas where an activity is delayed or needs assistance with the team. Third, the Global Team also produces a semi-annual review process at the project year midpoint. Here, the Global Team reflects internally, and

then with each Network, on progress achieved in the first two quarters and challenges faced, and they produce revised capacity plans for the remaining two quarters of the year. Fourth, the Global Team documents achievement of transition triggers and capacity plan activities in the annual work plan submitted each year. In Year 3, the Global Team will add the review of Network progress along the plan for the transition of programmatic activities (“OHW-NG programmatic transition plan”) on a quarterly basis, as part of its routine Executive Board meetings. We are exploring the use of the transition trigger dashboards to help in this review. Where items are found to be delayed or facing challenges, a remediation plan will be suggested and then brought to the relevant Network for discussion at a subsequent Objective 3 call.

Transition Plan Activity Table Tool: OHW-NG Activities to Transition to Regional Networks					
Obj.	Activity	Target Year	Tasks Involved in Activity	Approaches for Network Consideration in Year 3 Planning	Considerations for Beyond Y3
1	Curriculum Curation Management System (CCMS)	Y3	Routine content call to all members	Assign staff time of Curriculum Content manager and analyst	“Customer Service” staff support for public-facing search interface of CCMS. Comprehensive reviews take place every two years; real-time data cleaning.
1	International Board of Examiners	Y5	Nominees start meeting to adopt competencies, and assessment methods	Nominees start meeting to adopt core competencies, and assessment methods; and setting questions for certification examination	Negotiate international accreditation of One Health Certificate
1	Annual CLASS scoring	Y4	Annual update of CLASS Scores for each university and Secretariat	Establish self-study procedure within a job description for activity leads at the University level	Publication of CLASS Score model as a sustainable Learning Plan

Figure 3. Snapshot of OHW-NG Programmatic Transition Plan

LESSONS LEARNED

Reinforcing Cascade Training as a Means to Improve Network-Wide Sustainability

Objective 3 of the USAID OHW-NG cooperative agreement calls for a focus on capacity building efforts for the Secretariats. However, the capacity of the country Networks is a critical factor in the overall sustainability of SEAOHUN and AFROHUN. In Year 2, the Networks displayed a helpful strategy for accomplishing both. First, a subject matter expert from the Global Team provided a two hour customized training course in U.S. government financial management and reporting for each Network. Then, without needing further support, each Network continued on to deliver this training to their subrecipients to improve subrecipient reporting and accountability. In this way, they “cascaded” the capacity building to the country-level in their Networks. In the future, our Global Team will encourage additional cascade training efforts. We will consider developing “training of trainers” tools, such as facilitator’s guides and notes. In this way, we can amplify the effects of our capacity building investments across the Networks, and support the sustainability of the regional Networks as a whole. These activities were conducted amidst ongoing COVID-related operational realities that required work as virtual teams, all adapting to the frequent changes and challenges that are part of a pandemic.

Learning Best Practice Approaches to Designing Transition Awards

As part of working towards transition awards that are an admirable opportunity for the Networks to develop a track record as a direct

recipient of USG funding, a number of best practices are being developed. One key lesson learned in this process was how to design specific and measurable transition capacity “triggers”, or milestones that the Networks should achieve before a transition letter was submitted. Many organizations approaching transition awards simply have to pass the NUPAS (U.S. Non-U.S. organization Pre-Award Survey) to be eligible, so the design of specific measures to initiate the transition letter as part of a more tailored approach to support the regional Networks was conducted within this OHW-NG Project. These measures are related to the NUPAS and also included non-NUPAS related topics, such as issues management, donor and stakeholder relations, and more. To support a strong early warning system, we also developed dashboards to help monitor progress along these milestones. Also unique to our initiative, we needed to design a programmatic transition plan, that guided the shift of implementation of key activities from the Global Team to the Networks over time, whether supported within a transition award or the core cooperative agreement. This was to support the requirements of the initiative that funds and activities move proportionately towards the Networks over time, according to a specific schedule. Lastly, we also learned that when designing transition awards within the context of a larger initiative, careful attention must be paid to ensuring the activities and resources spent on transition award activities are wholly distinct from and have no interaction with the activities that are occurring under the initial award.

NEXT STEPS

Year 3 includes activities across all stages of the transition plan, from benchmarking each Network on the NUPAS and OCA (stage 1), to building capabilities for organizational sustainability (stage 2), to moving forward the transition awards for direct USAID award (stage 3), to supporting the gradual transition of select OHW-NG Global Consortium activities to Network implementation (stage 4).

Under Stage 1, the Global Team will monitor each Network achievement of their updated business plans through biweekly meetings and conduct a benchmarking of each Network at the end of Year 3. The Global Team will also support each Secretariat to update their business plans as required at the end of Year 3.

Under Stage 2, the Global Team will work on priority areas of organizational capacity identified in each Network's Year 3 Capacity Plans, which may include: governance and legal registration, human resources (with a focus on staffing for the transition), project management, and partnership development. A major focus in Year 3 will be imparting the essential practices and soft skills related to being a prime partner of a USAID cooperative agreement. The Global Team will offer trainings and workshops, peer-collaboration between SEAOHUN and AFROHUN, and one-on-one mentorship. The team will meet biweekly with each Network to monitor progress and troubleshoot. The goal is for each Network to achieve adequate scores (~3) on the official USAID-led NUPAS and to be fully prepared to manage USAID direct transition awards effectively starting in Year 4.

Under Stage 3, the Global Team will work closely with USAID and the Networks to undertake steps required to support the implementation of the process for developing and executing USAID transition awards for each Network around the end of Year 3. This includes submitting the SEAOHUN 'transition letter' to USAID in Year 3, Quarter 1, to start the transition process, and ensuring each Network completes a program-specific audit of one country chapter/ OHUN in Year 3. The Global Team is poised to support any transition-related need requested by USAID, such as any remediation of any issues that emerge from the international audits or USAID-led NUPAS assessment. The goal is to have each Network apply for transition awards by end of Year 3. However, it is recognized that this time-frame must ultimately be agreed upon by each Network Secretariat, and contingency plans will be developed should a delay be requested or be unavoidable due to administrative processes.

Under Stage 4, the Global Team across all objectives will work with the Network staff to implement the OHW-NG programmatic transition plan. We will work routinely to review progress during quarterly OHW-NG Executive Board meetings.

Areas of Improvement	Y2				Status	Progress Notes
Financial Management	Q1	Q2	Q3	Q4		
Workshop on cost allocation principles (including cost sharing across multiple projects), indirect cost assessment, and NICRA requirements	x				Complete	
Workshop on acceptable supporting documentation and variance analysis	x				Complete	
Workshops on federal regulations (including allowable/unallowable costs) & policy interpretation	x				Complete	
Institution of training courses for staff at all levels on SEAOHUN policies and procedures, COL, and ethics to verify understanding of core concepts	x	x			Not yet started	Moved to Year 3
Provide training in variance analysis & review variance procedure			x		Complete	Training conducted, new procedure documented in NUPAS Y2
Project Management Capacity						
Deliver workshops on: Project Definition, Project planning, change management and quality metrics/ monitoring/ reporting		x	x		Complete	Training conducted
Mentorship activities - develop project manual				x	Complete	Project manual developed, MEL mentorship provided
Organizational Sustainability						
Recruit Program Officer and resource mobilization officer					Complete	SEAOHUN recruited two program officers & a manager, donor relations & resource mobilization officer
Support and guidance in to increase the number of strategic members in the network			x		Complete	Provided guidance on TAOHUN MOU and membership definitions for new members; Support to AFROHUN on expansion plan framework
Determine how other networks operate and what can be learned from them	x				Complete	Sustainability Case Studies & Presentation
Orient SEAOHUN on Cash Flow Budgets & Provide Template				x	Complete	Training conducted, SEAOHUN adopted cash flow budgeting procedure
Assist partnership development officer with virtual partnership engagement given COVID	x	x	x	x	Early Progress	Identified virtual partnering training opportunity and sent to SEAOHUN

Figure 4. Snapshot of SEAOHUN OHW-NG Capacity Plan

AFRICA ONE HEALTH
UNIVERSITY NETWORK
REPORTS



USAID
FROM THE AMERICAN PEOPLE

AFRICA ONE HEALTH UNIVERSITY NETWORK (AFROHUN)

One Health Workforce - Next Generation
YEAR 2 ANNUAL REPORT
2020-2021



AFROHUN
Advancing One Health

AFROHUN NETWORK

- Secretariat
- Cameroon
- Côte d'Ivoire
- DRC (Congo)
- Ethiopia
- Kenya
- Rwanda
- Senegal
- Tanzania
- Uganda

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AFROHUN SECRETARIAT

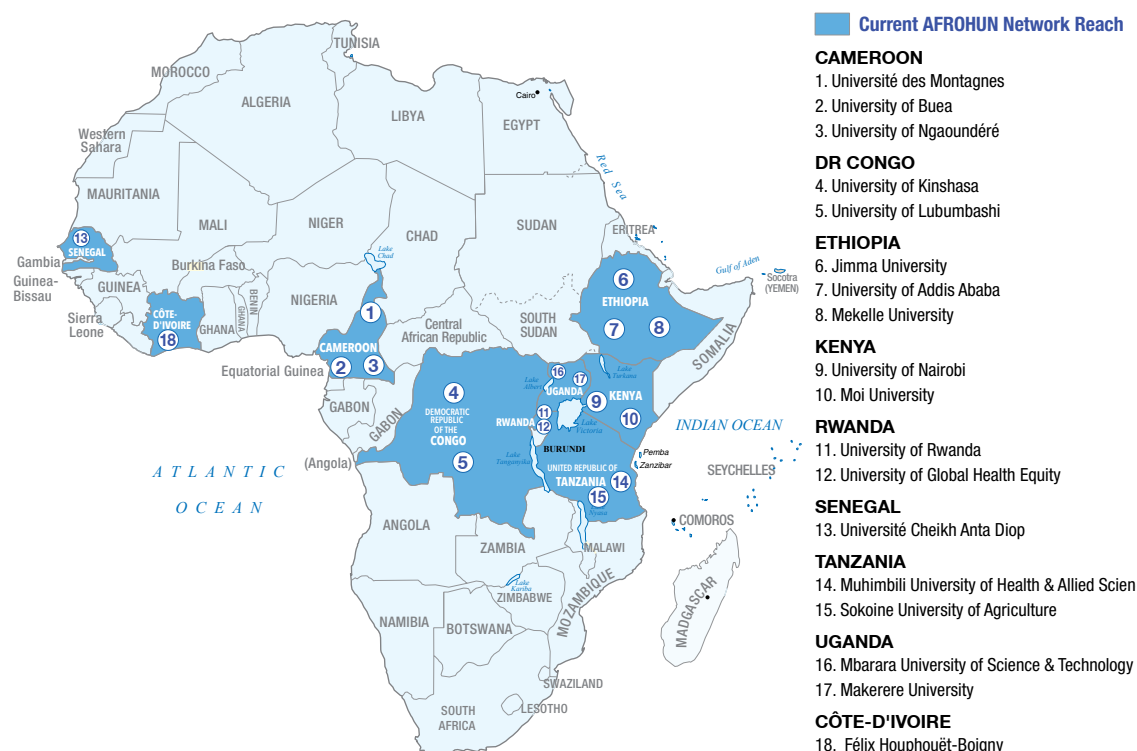
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CONTENT

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In particular, we would like to extend special thanks to the Global Team and AFROHUN member institutions as shown in the map below.



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Contents

AFR-7 **ACRONYMS & ABBREVIATIONS**

AFR-13 **AFROHUN Regional Secretariat**

- AFR-15 ACTIVITIES
- AFR-15 OBJECTIVE 1
- AFR-17 OBJECTIVE 2
- AFR-18 OBJECTIVE 3
- AFR-22 ONE HEALTH CHAMPIONS
- AFR-23 SUCCESS STORY

AFR-25 **CAMEROON**

- AFR-26 ACTIVITIES
- AFR-26 OBJECTIVE 1
- AFR-27 OBJECTIVE 2
- AFR-27 OBJECTIVE 3
- AFR-29 ONE HEALTH CHAMPION
- AFR-30 SUCCESS STORY
- AFR-31 SUPPLEMENTAL FUNDING

AFR-37 **CÔTE D'IVOIRE**

- AFR-38 ACTIVITIES
- AFR-38 OBJECTIVE 1
- AFR-39 OBJECTIVE 2
- AFR-40 OBJECTIVE 3
- AFR-42 ONE HEALTH CHAMPION
- AFR-43 SUCCESS STORY

AFR-45 **DRC**

- AFR-47 ACTIVITIES
- AFR-47 OBJECTIVE 1
- AFR-49 OBJECTIVE 3

AFR-51 ONE HEALTH CHAMPION
AFR-52 SUCCESS STORY
AFR-53 SUPPLEMENTAL FUNDING

AFR-57 ETHIOPIA

AFR-59 ACTIVITIES
AFR-59 OBJECTIVE 1
AFR-60 OBJECTIVE 3
AFR-62 ONE HEALTH CHAMPION
AFR-63 SUCCESS STORY

AFR-65 KENYA

AFR-67 ACTIVITIES
AFR-67 OBJECTIVE 1
AFR-69 OBJECTIVE 2
AFR-69 OBJECTIVE 3
AFR-71 ONE HEALTH CHAMPION
AFR-72 SUCCESS STORY

AFR-75 RWANDA

AFR-77 ACTIVITIES
AFR-77 OBJECTIVE 1
AFR-78 OBJECTIVE 2
AFR-78 OBJECTIVE 3
AFR-80 ONE HEALTH CHAMPION
AFR-81 SUCCESS STORY

AFR-83 SENEGAL

AFR-85 ACTIVITIES
AFR-85 OBJECTIVE 1
AFR-86 OBJECTIVE 3
AFR-88 ONE HEALTH CHAMPION
AFR-89 SUCCESS STORY

AFR-93 TANZANIA

AFR-95 ACTIVITIES
AFR-95 OBJECTIVE 1
AFR-96 OBJECTIVE 2
AFR-97 OBJECTIVE 3
AFR-99 ONE HEALTH CHAMPION
AFR-100 SUCCESS STORY

AFR-103 UGANDA

AFR-105 ACTIVITIES
AFR-105 OBJECTIVE 1
AFR-106 OBJECTIVE 3
AFR-108 ONE HEALTH CHAMPION
AFR-109 SUCCESS STORY

ACRONYMS & ABBREVIATIONS

Africa One Health University Network	AFROHUN
Antimicrobial Resistance	AMR
AFROHUN One Health Workforce Academy	AOHWA
Business Technical Vocational Education and Training	BTVET
Continuing Professional Development	CPD
Community Based Education, Research and Service	COBERS
Consortium of Universities of Global Health	CUGH
Communities of Practice	COP
Democratic Republic of Congo	DRC
East African Community	EAC
Extension for Community Healthcare Outcomes	ECHO
Emergency Centre for Transboundary Animal Diseases	ECTAD
Environment Institute of Kenya	EIK
Emerging Pandemic Threats	EPT
Food and Agriculture Organization	FAO
Focus Group Discussion	FGD
Global Health Case Competition	GHCC
Deutsche Gesellschaft für Internationale Zusammenarbeit	GIZ
Global Health Security Agenda	GHSA
Higher Education Institutions	HEI
Human Resources for Health 2030	HRH2030
Infectious Diseases in Global Health	IDGH
Infectious Disease Institute	IDI
Infectious Disease Management	IDM
International Development Research Centre	IDRC
Integrated Disease Surveillance and Response	IDSR
Information, Education and Communication	IEC
International Federation of Red Cross	IFRC
Ifakara Health Institute	IHI
International Health Regulations	IHR
International Livestock Research Institute	ILRI
Institut de formation des Agents de Santé	INFAS

Infection Prevention and Control	IPC
Integrated Regional Polytechnic Center	IPRC
Institute of Primate Research	IPR
Joint External Evaluation	JEE
Kilimanjaro Christian Medical University College	KCMC
Kampala International University	KIU
Kinshasa School of Public Health	KSPH
Lira University	LU
Learning Management System	LMS
Members of County Assembly	MCA
Ministry of Higher Education	MINESUP
Ministry of Health Community Development Gender Elderly and Children	MOHCDGEC
Ministry of Health Epidemiology and Surveillance Division	ESD
Ministry of Livestock and Fisheries	MOLF
Memorandum of Association	MoA
Memorandum of Understanding	MoU
Master of Public Health	MPH
Medicines, Technologies and Pharmaceutical Services	MTAPS
Moi University	MU
Muhimbili University of Health and Allied Sciences	MUHAS
Mbarara University of Science and Technology	MUST
National One Health Platform	NOHP
Notice Of Funding Opportunity	NOFO
Non-US Organization Pre-Award Survey	NUPAS
One Health	OH
One Health Coordinating Desk	OHCD
One Health Institute	OHI
One Health Workforce	OHW
One Health Workforce Next Generation Project	OHW-NG
World Organization for Animal Health	OIE
Pandemic Preparedness	PanPred
Planetary Health Annual Meeting	PHAM
Prime Minister's Office	PMO

National Program for Control of Emerging and Re-emerging Zoonosis	PNLZER
President's Office Regional Administration and Local Government	PO-RALG
Professional Regulatory Councils	PRC
President's Initiative on Epidemics	PRESIDE
Payment Vouchers	PV
Risk Communication and Community Engagement	RCCE
Students One Health Innovations Club	SOHIC
Standard Operating Procedures	SOP
State Party Self-Assessment Annual Report	SPAR
Strategies to Prevent Spillover	STOPs
Sokoine University of Agriculture	SUA
Technical Advisory Committee	TAC
The One Health Field Experiential Learning	TOHFEL
Training of trainers	TOT
The Partnering Initiative	TPI
Technical Working Group	TWG
Uganda Christian University	UCU
Université des Montagnes	UdM
University of Dodoma	UDOM
Université Félix Houphouët-Boigny	UFHB
Unité de formation et de Recherche	UFR
University of Global Health Equity	UGHE
University of Nairobi	UoN
University of Rwanda	UR
United States Agency for International Development	USAID
virtual Community of Practice	vCOP



Graduate students interacting with community women. Photo source: AFROHUN Kenya



Our Vision


A global leader in One Health approaches to sustainable health, for healthy, productive animals, prosperous communities and productive ecosystems.

Our Mission

To drive transformational change for continuous improvement of health and well-being of humans, animals, and environment through OH principles and approach to research, training and community service.

Our Core Values

Innovation, Multidisciplinary teamwork, Mutuality and Respect, Strategic Partnerships, Inclusiveness, Collective decision-making, Accountability and Transparency.



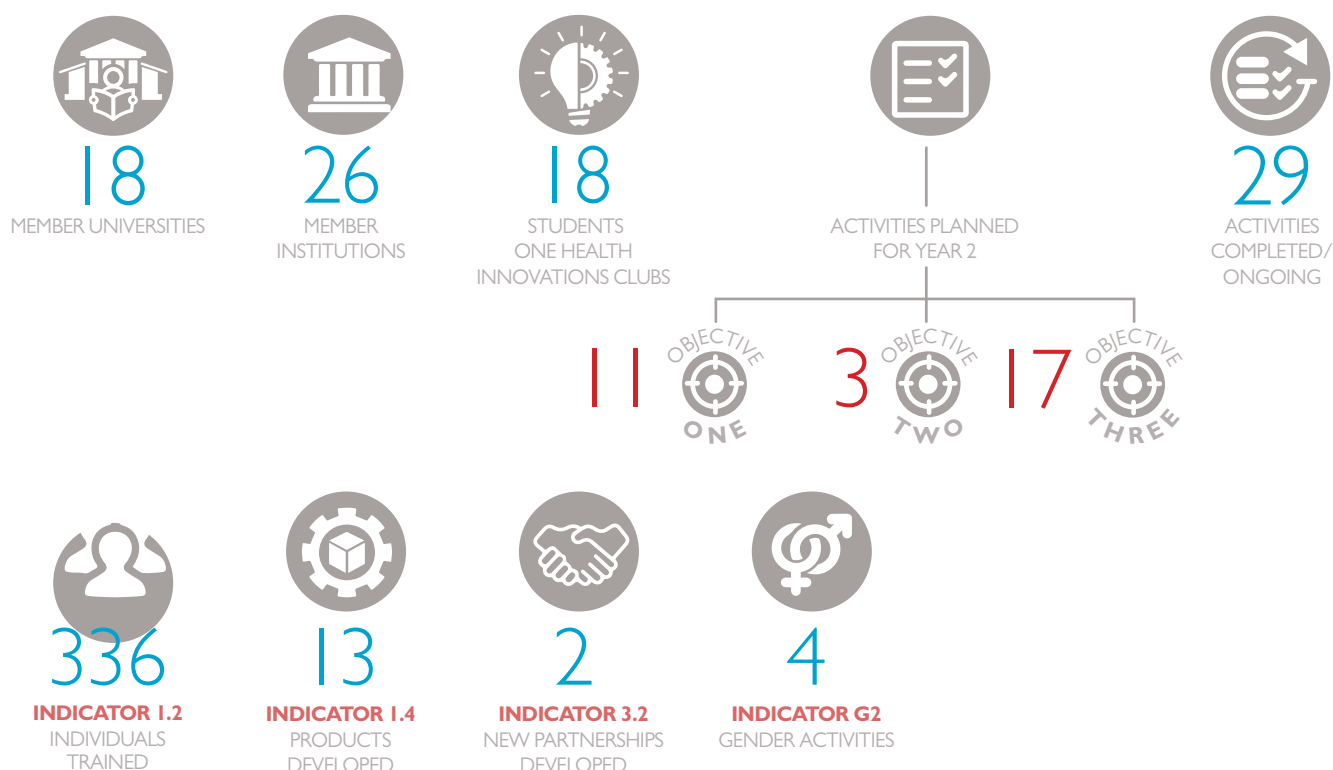
Migrating birds flying over Lake Victoria. Photo source: AFROHUN Uganda



AFR SEC 1: White water rafting on River Nile, Uganda. Photo source: [huffingtonpost.com](https://www.huffingtonpost.com)

AFROHUN Regional Secretariat

Dashboard Overview of Year 2



Highlights

- Refined AFROHUN's Gender Strategy, Gender Policy, and Roadmap (June 2021).
- Finalized AFROHUN's 5-year business plan which was approved by AFROHUN's Board of Directors; providing good reference for targeted funds mobilization notwithstanding COVID-19 challenges.
- Sixty-four (64) teaching and non-teaching university faculty staff (41 male, 23 female) participated in 3 Extension for Community Healthcare Outcomes (ECHO) sessions on e-learning to enhance their knowledge and skills amidst the increasing demand for e-learning, during the COVID-19 pandemic (July – September 2021).
- Built capacity of 66 faculty and AFROHUN country and Secretariat staff on competency-based education and One Health (OH) Competency Framework (August-September 2021).
- Oriented 38 faculty (AFROHUN Thematic Leads and Activity Leads) and AFROHUN staff at country and regional level, on The One Health Field Experiential Learning (TOHFEL) facilitator guide (May – June 2021).

- Supported faculty from Uganda to finalize two manuscripts which were submitted to *BMC Medical Education* journal for publication (September 2021).
- Organized a regional Global Health Case Competition (GHCC), directly benefitting 20 multidisciplinary students from four countries (October 2020).
- Organized a regional students' OH hackathon where 28 teams of three students per team participated in the first round with the second round having the 5 best teams (August 2021).
- Trained 18 AFROHUN staff members (10 country staff and eight from the regional Secretariat) in partnership development, resource mobilization fundamentals and strategic communications; gaining knowledge that was used to update the Network's partnership strategy and other partnership processes (January – September 2021).



AFR SEC 2: Elephants in Queen Elizabeth National Park . Photo source: ugandatourismcenter.com

ACTIVITIES



OBJECTIVE I

TRAINING AND EMPOWERMENT

AFROHUN has continued developing the AFROHUN One Health Workforce Academy (AOHWA). Under AFR Activity 1.2.4, the AFROHUN Secretariat oriented the Technical Advisory Committee (TAC) on the Network's vision of setting up the academy and on the training and empowerment strategy of the One Health Workforce Next Generation Project (OHW-NG). A Technical Working Group (TWG) was assembled for each of the AOHWA's five pillars (Research and Ethics, Communities Of Practice (COP), Accredited Training Programs, Students One Health Innovations Clubs (SOHIC), and Field Experiential Learning and Demonstration Site Management) and developed roadmaps for four pillars. These efforts have already yielded positive results with the establishment of a virtual community of practice (vCOP) on remote learning, based on the ECHO model. Additional information on the vCOP on remote learning can be found in our success story on page AFR-23. We conducted a desk review to assess the OH competency gaps in outbreak response and control in Africa (AFR Activity 1.1.6). This assessment sought to respond to the specific training needs of the frontline workers and managers and to contribute towards increasing Joint External Evaluation (JEE) capacity levels, linking to the World Health Organization (WHO) Benchmarks for International Health Regulations (IHR) capacities. The results of the desk review and the curation, together with the stakeholder and surveys on a panel of experts will inform the development of the AFROHUN Academy accredited training programs. In collaboration with the OHW-NG Global Team, we trained 66 university faculty and AFROHUN staff on what competency-based education is and how it can be applied in curriculum development. They were also introduced to the OH competency framework and guided on how to design different types of evaluation strategies and tools that are linked to competencies. This is an initial process of building robust competency-based education and OH assessment methods within AFROHUN member universities. A survey will be administered to solicit participant feedback on the training and to identify gaps and support needs to integrate OH competencies and assessments in their courses and to institutionalise competency-based education and training in the member institutions.

In a 3-part series, 38 Thematic Leads and Activity Leads at country and regional level were introduced to the TOHFEL Facilitator Guide (AFR Activity 1.4.2). The guide spells out the OH competency-based curriculum process for student field attachment and demonstration sites, incorporating regional commonalities at the OH interface.

As part of supporting publication of our work, we organized a writeshop for seven faculty from Uganda who had authored manuscripts that needed support for completion (AFR Activity 1.2.7). Consequently, two manuscripts were finalized and submitted to *BMC Medical Education* journal.



AFR SEC 3: Manuscript writing workshop participants. Photo source: AFROHUN Uganda.

We conducted a regional GHCC as part of the OHW-NG Year 1 showcase, targeting countries that had participated in a similar competition previously (AFR Activity 1.4.3). Participating countries included Kenya, Cameroon, Rwanda, and Uganda with each country fielding a team of five students. The case was developed jointly by AFROHUN Secretariat Thematic Leads and the Global Consortium team and made use of existing case material. GHCC is one of the strategies employed by AFROHUN to build students' competencies in OH.

The AFROHUN Secretariat organized a OH students' hackathon (AFR Activity 1.4.4) attracting 71 teams of students representing four AFROHUN countries (Uganda, Tanzania, DRC, and Rwanda) and over 40 different disciplines. Students learned how to develop a project, refine their pitching skills and convince a jury that their product is worth winning. The winning teams were 1) Team Dawa Zetu (Our Drugs- *Rural Community Access to Information on Antimicrobial Resistance (AMR)*) of Tanzania; 2) Team Peer-to-Peer Technocrats of Uganda (Mbarara University of Science and Technology -*Using Medical Inventory Software with Peer-to-Peer Technology to Combat AMR*); and 3) Team FITS of Uganda (Makerere University - *Food value-chain Information-management Tracking Systems*). The hackathon was preceded by some capacity building events targeting the competing students. Areas covered included: OH approach and emerging pandemic threats; public speaking and pitching skills. Participants in the hackathon have been linked to the Resilient Africa Network – a USAID-supported initiative in the region hosted by Makerere University School of Public Health – to take advantage of the innovation spaces provided to students, like Innovation Garage, where innovative ideas are supported to grow.

Gender Policy and Strategy

AFROHUN aims to ensure that gender issues are mainstreamed in all its OH work and Network operations. During the OHW Project, we drafted a gender strategy in addition to training gender champions from all member countries. In the OHW-NG Project, we continued with our efforts towards gender mainstreaming by refining the gender strategy, conducting a tracer study targeting the OH champions (AFR Activity 1.5.3), and drafting a gender policy and roadmap. The gender policy and roadmap will be presented to the AFROHUN Board of Directors and Leadership Summit for review and approval.



OBJECTIVE 2

Developing a Knowledge Management System

AFROHUN had two separate engagements with AFROHUN Board Members and Deans (AFR Activity 2.1.8), which yielded invaluable input in the Knowledge Management assessment process. AFROHUN hired the Knowledge Management Technical Advisor, who worked with AFROHUN and OHW-NG Global Team to develop the Knowledge Management Strategy and an implementation plan which will be reviewed in Year 3 (2021 – 2022). Working under the guidance of the OHW-NG Global Team, we developed a Smart Library – a digital information centre where the Network's information products and other resources can be accessed. In addition, the Secretariat was engaged in three days of developing a learning plan which has several questions that will guide the Network's learning agenda.

National OH Coordination Bodies

The Secretariat and the OHW-NG Global Team worked together to better understand the process, stakeholders and extent of Country Chapter university member engagement with national OH Coordinating bodies. A key step in this process was conducting a survey to learn about OH workforce planning needs in each country and to identify how workforce planning efforts can best reinforce national OH coordination efforts (AFR Activity 2.3.3). The survey was conducted in six countries (Cameroon, Ethiopia, Kenya, Uganda, Rwanda and Tanzania). In Year 3 (2021 – 2022), we shall finalize the assessment by conducting virtual Focus Group Discussions (FGD) with selected survey participants, which will help extract richer information around key emerging themes, and also identify and build workstreams from this work.

Tracking OH Alumni

Realizing that a number of countries were interested in alumni tracking, AFROHUN worked with the OHW-NG Global Team to standardize this process (AFR Activity 2.1.9). AFROHUN, supported by the Global Team, developed a set of alumni tracking tools which were successfully piloted and subsequently deployed in Kenya and Rwanda. An alumni tracking survey will be conducted in Tanzania, Ethiopia, DRC, Senegal, and Cameroon during Year 3 (2021 – 2022).



OBJECTIVE 3

Organizational Sustainability

AFROHUN finalized a 5-year Business Plan which was subsequently approved by the Board of Directors. The plan provides the Network's future strategic direction. It was developed following a tailored 'AFROHUN model canvas' with 10 components namely; beneficiaries/customers, value proposition, deployment/ channels, buy-in/ customer relations, key activities, key resources, key partners, cost structure, mission achievement, and financial sustainability.

We drafted a partnership development strategy that provides clear actions for institutional sustainability. The strategy provides AFROHUN targets, strategies, tactics and metrics to monitor achievement. AFROHUN continued to collaborate with East African Community (EAC) under the Pandemic Preparedness (PanPrep) project. We discussed with EAC, the potential of AFROHUN engagement in the regional training curriculum on pandemic preparedness in collaboration with other partners who piloted the curriculum.

Focus on Partnership

AFROHUN is a recognized international partner in the area of OH at the EAC where we utilized our expertise and knowledge to support the regional body institutionalize OH.

Through the partnership engagement with the EAC and GIZ-Panprep project, AFROHUN was included on the EAC Expert Working Group for the EAC regional OH strategy development, and specifically contributed to the capacity building objective of the strategy.

AFROHUN country teams are encouraged to pursue local and regional partnerships. For example, AFROHUN Senegal and Ethiopia are currently pursuing partnerships with FAO-Emergency Center for Transboundary Animal Diseases (ECTAD). Organizational capacity assessments conducted during Year 1 (2019-2020) identified areas in need of strengthening. During the reporting period, a capacity building plan was developed based on the assessments results.

A series of trainings have been conducted as part of this capacity building plan and facilitated by the OHW-NG Global Team (AFR Activity 3.2.4). Eighteen (18) individuals comprised of AFROHUN Secretariat Staff, Country Managers, and faculty from partner institutions have been trained on resource mobilization, strategic communication, grant writing, and partnership development. Other capacity development workshops were conducted in cloud based quick books, sub-award management and risk management, cost allocation and sharing of costs across projects. These trainings led to development of strategy documents, policies like the sub-award and cost allocation policies, guides, and tools (AFR Activity 3.2.5), all of which have enhanced organizational capacity.

Improved operational capacity

AFROHUN has registered improved operational capacity. It has stronger financial management system at the regional Secretariat which was enabled through a system upgrade (moving to cloud based QuickBooks accounting system), which is more efficient. The developed policies and procedures and financial management skills built among Finance and Administration staff at the Secretariat and country level is improving efficiency. For example, the periodic check in calls with Kinshasa School of Public Health, show improved understanding and compliance to the sub-award requirements and USAID rules.

AFROHUN is part of a consortium that won USAID's Strategies to Prevent Spillover (STOPs) Project with funding level of 3 million dollars (in personnel and operational costs only). In addition, under AFR Activity 3.3.3, we developed and submitted two grant proposals to the International Development Research Centre (IDRC). Our proposals were written by adopting several writing strategies including a 5-day grant writing retreat. Although not awarded, our proposals are very solid and we plan to continue improving them while looking for funding and identifying opportunities for submission.

AFROHUN Network visibility

Three editions of the AFROHUN newsletter (AFR Activity 3.3.5) were produced. These have been uploaded on the AFROHUN website and shared within the Network. This year, Uganda, Kenya and Rwanda were able to bring on board professional writers that supported a few activities and generated well-written articles. The articles have boosted the newsletter variety of stories and the country pages on the website.

AFROHUN showcased Year 1 (2019-2020) successes to over 160 participants from Africa, Asia, and America. Held online for 2 days, the event presented an opportunity for each of the countries and the Secretariat to showcase some of their impactful interventions to a wide range of stakeholders.



AFR SEC 3: A Screenshot of the AFROHUN Year 1 showcase event and participants. Photo source: AFROHUN Secretariat.



LESSONS LEARNED

AFROHUN adjusting its partnership strategy

As a result of the training and knowledge gained in partnership development, AFROHUN realized that the partnership portfolio within the Network had been previously underestimated and not adequately planned and resourced. AFROHUN upgraded its partnership strategy and started positioning staffing arrangements aiming to boost Network partnering and engagements.

Virtual activity implementation: longer time and change of scope may be inevitable

COVID-19 continued to put a strain on in-person activities in Year 2 (2020 – 2021), especially those that originally involved leveraging existing partners' events for increased visibility of the Network and potential funders' engagement. Therefore, partnership engagement for Network visibility and for resource mobilization was greatly affected, as these rely so much on in-person interactions. Virtual implementation worked best for internal activities like staff capacity building. However, it necessitated spreading a single activity over a long period of time with short sessions each lasting a maximum of 2 hours. While this enabled work to progress, the process was strenuous and since most activities were reformatted for virtual implementation, demand for more virtual hours of staff was inevitable thus difficult to sustain participants involvement throughout the implementation process. Virtual work requires a long period of time and should be planned accordingly. For some specific activities, adjustments in original design may be inevitable and may call for adjustments in the scope of work and deliverables.

Tailored trainings are effective in capacity building

To ensure the minimum capabilities in the different Non-US Organization Pre-Awards Survey (NUPAS) domains, the Network successfully adopted a mixed method approach for capacity building. This consisted of a blended approach of tailored trainings and experiential sharing sessions organized by the OHW- NG Global Team and delivered to the Secretariat key personnel. Realizing this has necessitated dedicated Secretariat teams that provide leadership and continuous engagement of the bigger team. Enthusiasm, passion, an open mind to learn and ability to coordinate with others are attributes behind such leadership teams.



NEXT STEPS

Year 3 (2021-2022) will build on lessons learned from the e-learning vCOP ECHO sessions and the planned survey for faculty and institutional leads on remote learning to inform the scope and content of the vCOP e-learning sessions. The AFROHUN research agenda will be developed under the leadership of the Research and Ethics Technical Working Group. The accreditation process of the AFROHUN Academy and development of accredited training programs shall continue in Year 3 (2021-2022). The training programs shall be informed by the results of the Delphi panel survey, stakeholder survey, the desk review assessment, and curation conducted in Year 2 (2020- 2021). Resource mobilization for operationalization of the AOHWA developed roadmaps shall be undertaken.

Some students that participated in the hackathon formed a writer's group mainly focused on AMR. They are engaged in organizing activities for OH Day and World AMR Awareness Week. The Secretariat will support the students to implement these activities. In the mid-year review of Year 3 workplan implementation, some of the most feasible hackathon ideas will be considered for funding.

We shall implement the gender roadmap once the gender policy and associated documents are approved by AFROHUN leadership. These will include a gender audit, gender awareness sessions of AFROHUN key implementing partners, gender refresher course for training of trainers (TOT), and development of tools that will support gender analysis and gender integration into the Network and program activities. AFROHUN will leverage the capacity built in the Network for delivery on strategic plans in Year 3 (2021 – 2022), these include readiness to be a USAID Prime recipient of an award.



ONE HEALTH CHAMPIONS



AFR SEC 4: Photo source:
AFROHUN Uganda

WINNIE BIKAAKO

Job Title

Head Training and
Research

Professional Credentials

MPAM

Role within the OHW-NG Project

Coordinates the training
and research project
activities of the Network

*“Creating innovative platforms
that foster solutions derived from
collaborative deliberations and actions
of multidisciplinary professionals is key
to successful global health programs.”*

Winnie Bikaako

*“In the context of real need few people
will withhold their knowledge. Sharing
of knowledge across multidisciplinary
teams can foster vision in others and
strengthen professional ties.”* **Christine
Muhumuza**

Winnie Bikaako and **Christine**

Muhumuza have been at the forefront
of the design and implementation of the
eLearning vCOP using the ECHO model
connecting OH practitioners through
a platform for sharing and discussing
challenges, successes, experiences and
best practices related to eLearning
implementation across the AFROHUN
member universities. This platform has
enabled several OH practitioners to
effectively utilize eLearning in their duties
and within their respective universities
and countries.



AFR SEC 5: Photo source:
AFROHUN Uganda

CHRISTINE MUHUMUZA

Job Title

Coordinator,
AFROHUN One
Health Workforce
Academy

Professional Credentials

MHSR, PhD
(Candidate)

Role within the OHW-NG Project

Coordinates the
establishment of the
AFROHUN One
Health Workforce
Academy



SUCCESS STORY

Building e-learning capacity using a virtual community of practice

With support from USAID's OHW-NG Project, AFROHUN is developing a AOHWA based on the following pillars: Accredited Training Programs; COP; SOHIC; OH Experiential Learning Models; and Research & Ethics. Arising from the COVID-19 pandemic, many organizations have increased their adoption of online communication tools. Education institutions have adopted e-learning using different Learning Management Systems (LMS) to enable learning to continue. AFROHUN prioritized the vCOP for e-learning which is part of the academy. The regional vCOP was launched in July 2021 targeting AFROHUN institutions' faculty and IT staff. Three monthly vCOP sessions have been delivered using the ECHO model and were attended by 64 participants (23 female, 41 male) that included students (3), IT personnel (11), faculty (34) and others (16).

"The ECHO model is a 'low-dose, high-frequency' approach to training participants at their local posts in this case virtually. It is pragmatic, need-based, and combines many beneficial components into one comprehensive mentorship package which is flexible and uses case-based learning and collaborative learning strategies to engage in multidirectional knowledge sharing under ECHO's "all teach, all learn" philosophy." – **Ms Christine Muhumuza** explaining the value of using the ECHO model.

This vCOP is important in addressing the region's limited skills in designing and delivering online learning using virtual LMS and other technologies. It also provides a platform across the AFROHUN Network, for supporting practitioners and experts to share knowledge amongst themselves and with the community. This is in addition to meeting the need for provision of peer support in e-learning. The vCOP has greatly benefitted from AFROHUN's access to technical expertise from within the Network and the Global Team, that can be efficiently mobilized to support capacity building in e-learning and other thematic areas.

Implementation of e-learning has a number of challenges which the community of practice is continuing to find ways of addressing. Such challenges include limited internet access, low bandwidth in many countries in Africa, lack of equipment including computers, and limited skills for online delivery.

The launch of the e-learning vCOP was very timely in improving capacity for virtual learning in the region.

"I was able to learn a lot from the presentations, questions, the modes of learning, and way forward to implement effective modes that are suitable to the African context" – **vCOP ECHO session participant** Makerere University Uganda, student.

The vCOP brings together multidisciplinary participants from African universities giving them an opportunity to share their knowledge and skills not only in e-learning, but also in other areas that advance OH in the region. A faculty member from Cameroon observed "All African countries are facing similar issues" having listened to experiences of participants from different countries.



CRN 1: The Lobe Waterfalls, Kribi, Cameroon. Photo source: Wikimedia

CAMEROON



COUNTRY CHAPTER



Highlights

- ➔ Developed and validated a two-year Post Graduate diploma program in Antimicrobial Resistance (AMR) (August 2021).
- ➔ Conducted a students' Global Health Case Competition (GHCC) benefitting 60 students from six private and public universities (August 2021).
- ➔ Awarded small grants to three multidisciplinary research teams (May to September 2021).
- ➔ Twenty eight (28) faculty from 14 universities in Cameroon were trained on problem-based instructional design and One Health concepts (August 2021).
- ➔ Trained 22 rural women on Risk Communication and Community Engagement (RCCE) to sensitize their communities on AMR and COVID-19 (March to August 2021).
- ➔ Mapped OH resources to effectively prevent, detect, and respond to epidemics in Cameroon (September 2021).

ACTIVITIES



OBJECTIVE 1

In Year 2 (2020 – 2021), with the support of the Global Team and the Secretariat, AFROHUN Cameroon implemented five activities under Objective 1.

First, AFROHUN Cameroon developed and validated a two-year Masters program in AMR with three areas of focus: AMR Diagnostics, AMR Surveillance, and AMR Stewardship (CRN Activity 1.1.6). The review and validation workshop was attended by 20 participants, including faculty from four universities, five sectors of ministries, private sector, and the National Programme for the Control of Emerging and Re-emerging Zoonoses (PNLZER). The developed Masters program is expected to start running in 2023.

Second, in an effort to build students' OH research skills, AFROHUN Cameroon awarded three small grants to multidisciplinary students teams (CRN Activity 1.2.6). The selected research topics were:

- Consumer exposure assessment to antimicrobial resistant bacteria and antimicrobial residues from the local fish farming system in Cameroon.
- Genetic diversity of *Cryptosporidium* species in children, neonatal calves and environmental water sources in the southwest region of Cameroon: a prospective study.
- Assessing the risk of bacterial population and resistance traits spread from animals: case study in the Bangangte urban council slaughter house.

Third, AFROHUN Cameroon organized a GHCC as one of the strategies to improve students' knowledge and skills in OH (CRN Activity 1.2.4). This competition attracted 12 teams of students from six universities, specifically University of Buea, University of Bamenda, University of Ngaoundéré, University of Maroua, Université des Montagnes (UdM), and Biaka University Institute. Using case studies revolving around COVID-19, students came up with simple innovations for conducting COVID-19 RCCE.

Fourth, building on activities implemented during the OHW Project, AFROHUN Cameroon trained 22 rural women, based in Yakadouma, on AMR and COVID-19 RCCE (CRN Activity 1.3.5). As part of the OHW Project, these women were involved in sensitization campaigns educating farmers, veterinarians, and nurses on AMR and antimicrobial stewardship. AFROHUN Cameroon provided Information, Education and Communication (IEC) messages on AMR and COVID-19 that were aired on community radio for five months. Additional information on this activity can be got from our success story on page AFR-30.

Finally, AFROHUN Cameroon strengthened the capacities of 28 faculty from 14 Cameroon universities on problem-based instructional design and OH concepts (CRN Activity 1.3.3). The training followed a blended approach with three webinar sessions and one face-to-face meeting. Through this activity, we supported building robust competency assessment methods within Cameroon universities, ensuring that the future workforce has the knowledge and appropriate skills to address current and emerging OH challenges.



OBJECTIVE 2

In collaboration with the Prime Minister's office, AFROHUN Cameroon carried out a mapping of OH resources to effectively detect, prevent and respond to future epidemics. This resource was validated in collaboration with PNLZER. The next step will be the appropriation/ownership of the tool by PNLZER. The report will be publicly available on the Cameroon National One Health Platform (NOHP) website and AFROHUN website.



OBJECTIVE 3

AFROHUN Cameroon participated in multiple stakeholder meetings and activities, thus fostering visibility of AFROHUN and the OHW-NG Project in Cameroon. In addition, with the admission of University of Ngaoundéré as the third university member of AFROHUN, there were orientation and capacity building sessions for faculty, administrators, and students regarding the Network, OH concepts and Students One Health Innovations Clubs (SOHICs). AFROHUN Cameroon team and partners worked on the development of the Year 3 (2021 – 2022) activities in order to preserve the achievements and optimize the activities aimed at reducing the gaps observed during the Joint External Evaluation (JEE).



LESSONS LEARNED

Stakeholder engagement promotes uptake of students' innovations

AFROHUN Cameroon is currently facing a third wave of COVID-19 following the relaxation by the population in observing the COVID-19 Standard Operating Procedures (SOPs), coupled with the population's reluctance to be vaccinated. Faced with this scenario, we organized a GHCC aimed at improving students' knowledge and skills in OH, and also to support the students to develop innovations around COVID-19 RCCE. AFROHUN Cameroon was interested in ensuring that some of the students' innovations are supported for further development and scale-up. We engaged various stakeholders from academia and government during the implementation of this activity. The innovations developed by the students have attracted the attention of the permanent secretary of the PNLZER, who has committed to integrate them into the strategic plan of governmental responses against COVID-19. Engagement of key stakeholders during planning, implementation, and post-implementation of activities can be one of the strategies for mobilizing resources to support AFROHUN activities. The approach has been taken on by the PNLZER.

E-learning systems can be effectively used in the fight against COVID-19

With adequate training of faculty on online pedagogy and COVID-19 RCCE, it is possible to effectively train and sensitize the university communities on COVID-19 and other infectious diseases using e-learning systems. AFROHUN Cameroon received supplemental funding from the USAID Mission to strengthen capacities of universities in RCCE and training using e-learning systems while introducing OH concepts. We implemented various capacity building activities under this funding that included training of trainers in COVID-19 RCCE and OH approach, and e-learning and teleconferencing. Using a cascade model, those trained in turn trained others, thereby benefitting more faculty and students. A common denominator for all the trainings was the use of e-learning and training on COVID-19 RCCE. Additional information on activities implemented under the supplemental funding can be got from the supplemental funding report for Cameroon on page AFR-31. Following the COVID-19 pandemic, there has been an upsurge in the use of e-learning and this trend is likely to continue.



NEXT STEPS

The AMR Master's program developed in Year 2 (2020 – 2021) of the OHW-NG Project will be funded by AFROHUN member universities in the country and by the Ministry of Higher Education in Year 3 (2021 – 2022) with a view to the effective launch of an AMR Master's program in at least one of the AFROHUN partner universities in 2023. From the grants awarded in Year 2 (2020 – 2021) to multidisciplinary teams of students, we plan to develop manuscripts for publication. In Year 3 (2021 – 2022), AFROHUN Cameroon will preserve the achievements and especially in the framework of the supplemental funding project, contribute to COVID-19 RCCE by highlighting aspects related to vaccination against the disease and especially how to manage misinformation and infodemic; within the university community, we will move to the intermediate level via distance learning.



ONE HEALTH CHAMPION



“Human behavior is at the center of global changes in environmental conditions and modifications in the interactions between human and animal populations, which affects health. Recent crises, such as the COVID-19 pandemic, have highlighted the causal linkages and interdependencies between public, veterinary and ecosystem health. There is a need to address these issues in a holistic manner, integrating social, economic and cultural factors.”

CRN 2: Photo source: AFROHUN Cameroon

AROUNA NJAYOU NGAPAGNA

Job Title

Country Manager and Professor of Epidemiology

Professional Credentials

DVM – MDPH - PhD

Role within the OHW-NG Project

Country Manager

Affiliation

AFROHUN Cameroon

Arouna Njyou Ngapagna is a founding member of the association: Epidemiology- Sante Publique - Veterinaire. This association has played a role in the implementation of the OH concept in Cameroon. He is among the leaders who spearheaded the admission of Cameroon to AFROHUN. He is a member of the working group on risk communication and community engagement within the PNLZER in Cameroon which acts as the NOHP. As a resource person, he is regularly consulted on issues related to the implementation of OH in Cameroon.



SUCCESS STORY

Engaging rural women in the fight against Antimicrobial Resistance and COVID-19

The theme for the International Women's Day 2021 (March 8) in Cameroon was: **"Women in leadership: Achieving an equal future in a COVID-19 world on the way to the Generation Equality Forum."** As part of the International Women's Day 2021, AFROHUN Cameroon trained 22 rural women leaders on RCCE focusing on COVID-19, and best practices for AMR. These women leaders included nurses, teachers, farmers, traders, and students from Yokadoma, a remote area located in the eastern region of Cameroon. IEC materials were provided to participants to enable them to carry out sensitization activities in their respective communities. Participants appreciated the training and committed to use the knowledge gained to educate their respective household members, associations, meeting groups, colleagues and neighbors, as indicated in the quotes below:

Municipal Councilor: *"I am a municipal councilor in Gari-gombo, a focal point of the health area in Gribi and also the president of an association. I thank you for this opportunity to learn and be able to relay what I have learned here to my fellow village women. The women in my area are wondering why there won't be a march on International Women's Day, I will explain to them that the reason is due to COVID-19 disease and the need to respect barrier measures."*

Health care worker: *"I am a health personnel in my health centre and I usually work with women on Mondays and Fridays in antenatal consultation. On Mondays we have vaccination of babies from 0-11 months and on Fridays we have antenatal consultation for pregnant women. This is where I can target a great number of women. I will seize this opportunity to sensitize these women about the COVID-19 barrier measures and ask them in turn to relay to their children, spouses and even neighbours, especially by showing them a good example."*

Agricultural products trader: *"I am an agricultural saleswoman; I understood today why it is important to have the advice of a health specialist. From now on I will always take advice before using a medicine."*

Primary school teacher: *"I am a teacher in a primary school. I will teach my pupils about the good use of drugs, I will also teach them what the COVID-19 barrier measures are and how to respect them, especially how to properly wash hands."*

Member of a women's association: *"Thank you for this opportunity. I have been in Yokadoma for about 2 weeks now. I come from a remote area where we do not have access to this information. When I return, I will inform my fellow sisters in my association what I have learned about COVID-19, especially as my sisters do not think COVID-19 is real: they think they are protected by the trees that surround the locality."*

Company Manager: *"I am a company manager; I thank AFROHUN who was kind enough to bring us together during this World Women's Day to raise awareness about AMR. Once again we thank you for holding this day."*



Supplemental Funding: Tranche-3 (Cameroon E-Learning)

Strengthening capacities of universities in RCCE and training using e-learning systems

AFROHUN Cameroon benefited from a USAID Mission supplemental fund contribution to respond to COVID-19 through RCCE in Cameroon. The funding was also intended to strengthen e-learning capacity of universities in Cameroon since implementation of physical restriction measures requires that students and faculty are ready for a shift from face-to-face training to distance education. AFROHUN Cameroon, the AFROHUN Secretariat based in Kampala, and members of the OHW-NG Global Consortium provided technical and administrative support during the implementation of activities which primarily targeted university communities and surrounding populations. Trainings on e-learning, teleconferencing and improving knowledge in RCCE for COVID-19 were held for university teaching staff, IT experts and students accordingly. The e-learning training has been beneficial for academic institutions that have continued with teaching despite the persistence of COVID-19. This project was a collaboration between AFROHUN and the OHW-NG Global Consortium, the Ministry of Higher Education, the NOHP, Cameroon universities/institutions, and the USAID Mission.



CRN 3: RCCE TOT for teaching staff and IT experts at Yaounde. Photo source: AFROHUN Cameroon

Highlights

- ➔ Strengthened preparedness of four universities through COVID-19 RCCE campaigns.
- ➔ Raised COVID-19 awareness in AFROHUN campuses through radio stations and social media reaching an estimate of 10,000 students, faculty and staff..
- ➔ Developed and distributed 20,030 COVID-19 RCCE materials namely flyers, posters and banners.
- ➔ Conducted a training of trainers (TOT) for 41 faculty on COVID-19 RCCE and the OH approach to outbreak and disease control using e-learning. These faculty in turn trained students and other faculty on RCCE using e-learning.
- ➔ Revamped e-learning system and pedagogic platform for two universities.
- ➔ Trained 69 university teaching staff and IT experts as TOTs of e-learning and teleconferencing and improved their knowledge on the COVID-19 outbreak.
- ➔ IT experts and faculty TOTs trained 120 faculty of 14 universities in e-learning also sensitized them on COVID-19 RCCE.



CRN 4: Participants at the TOT for teaching staff and IT experts - Ngaoundere. Photo source: AFROHUN Cameroon



Success Story

Cameroon, like many countries, was hit by the COVID-19 pandemic which led to closure of educational institutions. However, with the reopening of these institutions and universities, implementation of COVID-19 precautionary measures was a challenge especially in overcrowded classrooms. To appropriately implement physical restriction measures, it was imperative that students and faculty be ready for a shift from face-to-face to distance education.

Together with AFROHUN Secretariat and the OHW-NG Global Consortium, we organized a TOT workshop on e-learning and teleconferencing, and sensitization on the COVID-19 outbreak which benefitted 69 faculty and IT managers from 14 public and private universities in Cameroon. These then trained 120 faculty in their respective universities. The training workshops consisted of five webinar sessions via Zoom® with training materials shared through Moodle™. This training, which was practical, enabled teachers to each, set up one of their courses online using the Moodle platform. Three face-to-face capacity building technopedagogy training workshops to develop and finalize the trainer's guide in distance teaching were also held in Ngaoundere, Yaounde and Douala Universities. These training sessions supported the development of e-learning champions who were positioned to support more colleagues in the adaptation of e-learning in Cameroon universities. At the end of the 3 face-to-face training sessions, development of a training guide was finalized. This guide is being used by the champions in supporting capacity building for their colleagues.

The trainings were hailed by the participants who acknowledged that it will shape their careers.

"The training received is a unique opportunity for me to progress in my career. This technopedagogy is an inevitable path for any teacher. I will certainly take advantage of this training to improve my pedagogical approach. I thank AFROHUN Cameroon for the initiative and my rector for allowing me to benefit from it", Prof. Watio Pierre, Beneficiary - University of Dshang.

"Thank you very much to the organizers, trainers and especially to my rector who allowed me to attend this training. We learnt a lot about distance education; and I will personally invest myself in making all this useful", Dr. Kouengoua K. Armelle Prudence, participant from UdM.



SUPPLEMENTAL FUNDING DASHBOARD



2

UNIVERSITIES' E-LEARNING SYSTEM AND PEDAGOGIC PLATFORMS REVAMPED



41

FACULTY TRAINED AS TRAINERS FOR COVID-19 RCCE



FEMALES

13



MALES

28



69

UNIVERSITY TEACHING STAFF AND IT EXPERTS TRAINED AS TRAINERS FOR E-LEARNING AND TELECONFERENCING AND SENSITIZED ON COVID-19.



FEMALES

23



MALES

46



700

STUDENTS TRAINED ON COVID-19 RCCE USING E-LEARNING



FEMALES

450



MALES

250



120

FACULTY TRAINED IN E-LEARNING AND SENSITIZED ON COVID-19 RCCE



FEMALES

48



MALES

70



UNKNOWN

2



1

E-LEARNING TRAINERS' GUIDE DEVELOPED



20,030

COVID-19 RCCE MATERIALS (FLYERS, POSTERS, BANNERS) PRODUCED AND DISTRIBUTED



10,000

PEOPLE REACHED WITH COVID-19 RISK COMMUNICATION MESSAGES



RADIO

5,000



SOCIAL NETWORKING

5,000



CRN 5: Limbe down beach, Cameroon. Photo source: Wikimedia.

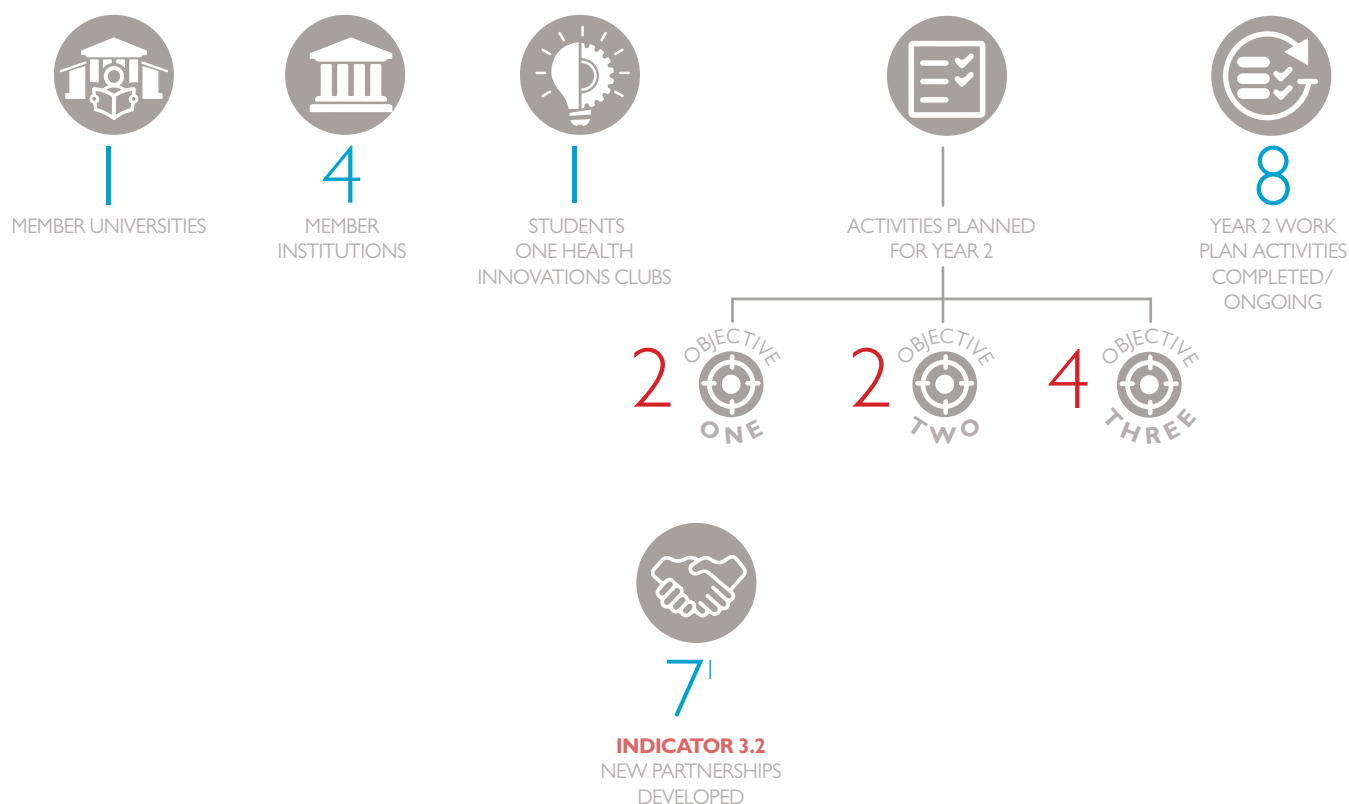


CDI 1: Waterfall, in Man, Côte d'Ivoire. Photo source: Maplogs.com

CÔTE D'IVOIRE



COUNTRY CHAPTER



Highlights

- Held a stakeholder engagement meeting during which we identified AFROHUN Côte d'Ivoire's priority activities under the OHW-NG Project (April 2021).
- Conducted a situation analysis of One Health related training, generating information on OH training and application of OH approaches (September 2021).
- Established a working group for OH human resources mapping which selected a consultant and also validated the mapping tool (September 2021).

I. 3 with gov't & 4 with academic institutions

ACTIVITIES



OBJECTIVE 1

AFROHUN Côte d'Ivoire developed a tool for situational analysis of training related to OH (CDI Activity 1.1.1). The tool was used to assess the different types of training that exist in the country (CDI Activity 1.1.2). In addition, the tool was used to assess the application of the OH approach as a result of the trainings offered. A total of 17 training and research units referred to as 'Unité de Formation et de Recherche' (UFR) were the focus of the assessment. Preliminary findings were presented to stakeholders and showed that although all the institutions visited indicated that they offered OH training, the content and competencies addressed differ from one sector to another and are very different from what is provided by the AFROHUN OH training modules. Moreover, very few institutions offer accredited academic and/or continuing education. These preliminary results show that the OH approach has not yet made a mark in the higher education sector. Results will be validated during Year 3 (2021 – 2022) of the OHW-NG Project.



CDI 2: CDI stakeholder engagement. Photo source: AFROHUN Côte d'Ivoire.



OBJECTIVE 2

AFROHUN Côte d'Ivoire implemented 2 activities under assessment and tracking. Under CDI Activity 2.3.1, AFROHUN Côte d'Ivoire established a working group for OH human resources mapping. The working group is composed of representatives from key line ministries related to OH and the Université Félix Houphouët-Boigny (UFHB). Beyond supporting the OH human resources mapping, it was decided that this group will function as an organ of the National One Health Platform (NOHP) to advise on the monitoring of OH human resources. Under the guidance of the working group, we conducted a national OH human resources mapping (CDI Activity 2.3.2). Data for this mapping were collected from 7 key ministries and included staffing at different levels. The draft report shows that the total number of human resources listed for all the key ministries is 49,645 with 75% of these being human health professionals. The report will be validated during Year 3 (2021 – 2022) of the OHW-NG Project. The validated reports for the OH human resources mapping, together with that for the assessment of the situational analysis (CDI Activity 1.1.2), will eventually inform integration of OH components into the training curricula.



CDI 3: OH human resources mapping meeting. Photo source: AFROHUN Côte d'Ivoire.



OBJECTIVE 3

As Cote d'Ivoire is a new member of AFROHUN, one of the priority activities for Year 2 (2020 - 2021) was setting-up the country office. This involved recruitment and onboarding of the country staff, as well as equipping the country office. More information on establishing the country office is provided under our success story on page AFR-43. Following the successful set-up, we held a stakeholder engagement meeting where we identified the country's priority activities under the OHW-NG Project (CDI Activity 3.2.6). The workshop was attended by faculty of UFHB, Allasane Ouattara de Bouaké and Nangui Abrogoua Universities, Institut de formation des Agents de Santé (INFAS), Medicines, Technologies and Pharmaceutical Services (MTAPs), the NOHP, as well as members representing the key ministries, AFROHUN Côte d'Ivoire team, and representative from USAID.



CDI 4: CDI country office. Photo source: AFROHUN Côte d'Ivoire.



LESSONS LEARNED

An AFROHUN consulting associate professor: humility pays off

One of AFROHUN Côte d'Ivoire's priority activities was evaluation of the university's OH training offerings. At the university level, there are some subjects that should not be touched on the curricula and the UFHB was no exception. The team took the opportunity of recruiting a university professor to interview his or her peers, but we were confronted with the challenge of the university's low consultancy rates. Thus, an associate professor was recruited. The Dean designated the professor with a chair in public health service, insisting on the link between health and the OH approach to conduct the activity. During the survey, it was very difficult to obtain appointments with the various Deans of the UFRs, but the consultant employed his humility and self-sacrifice to meet with about 90% of the Deans. At the end of each interview, he noted, *"I waited in the waiting room and after the interview I was escorted to my car and from the 30 minutes I was given, it took me 2 hours."*

A history of information sharing

During Year 2 (2020 – 2021), a human resources working group was established to work together on OH human resources activities. Arising from discussions held during the first meeting, the human resources managers of different organizations appreciated the amount of information shared and expressed the need to have a framework for information sharing for better management of OH human resources. Thus, it was recommended to establish a technical working group on OH human resources with a defined mandate for information sharing in the framework of the OH approach.



NEXT STEPS

AFROHUN Côte d'Ivoire will continue to better integrate into the UFHB by relying on the Dean of UFR of Medical Sciences, who is at the helm of AFROHUN Côte d'Ivoire, to create dynamism around the OH approach within the university. The training of the faculty on OH and the validation of the report on the analysis of the training offered in Year 3 (2021 – 2022) will contribute towards achieving this objective.

AFROHUN Côte d'Ivoire will rely on the relationships established with the different ministries, especially the ministry in charge of state employees, to finalize the mapping of OH human resources in Year 3 (2021 – 2022), which will serve as a basis for the monitoring and development of human resources for an efficient management of the International Health Regulations (IHR). The validation of the mapping report will be done in collaboration with the human resources managers of the ministries for better appreciation of the results and taking into account the recommendations which will result from it. Activities with the student clubs will also allow the sensitization of the university community on OH.



CDI 5: Photo source: AFROHUN Côte d'Ivoire.

PROF. NANDJUI MANSE BEATRICE

Job Title

Dean Université Félix Houphouët-Boigny - Faculty of Medical Sciences

Professional Credentials

Full Professor in Physical Medicine and Rehabilitation (DVM, PhD)

Role within the OHW-NG Project

Dean

Affiliation

University Félix Houphouët Boigny

“Thanks to the activities that have been carried out by AFROHUN, we recognized that One Health improves primary health care in our country. This concept will enable us to make programs that will touch several sectors at once, not only the human, but also animal health and the environment.”

Prof. Nandjui is a dynamic leader who has, through training and sensitization, rallied many key stakeholders to champion the OH approach. Prof. Nandjui has engaged top leadership of University Félix Houphouët Boigny that include the President and Deans of different Training and Research Units. Prof. Nandjui met with the cabinet directors of the Ministries in charge of Higher Education, State Employees, Human and Animal Health to present the OHW-NG Project and the OH approach. For the years to come, she plans to integrate OH throughout the university system.



SUCCESS STORY

Welcoming the 26th member to AFROHUN: establishing a country office in Côte d'Ivoire

Côte d'Ivoire's Faculty of Medical Sciences at UFHB is the newest member of AFROHUN. It joined the Network towards the end of Year 1 (2019 – 2020). During Year 2 (2020 – 2021), we focused on setting-up the AFROHUN Côte d'Ivoire country office. AFROHUN being a university network, it is very important that its country offices are anchored within the member universities. Through advocacy with UFHB, the university readily accepted to host the country office. We renovated the office and provided the necessary supplies.

"The office is spacious and well lit which allows us to work in a friendly atmosphere" - **Monique Kouassi N'GUESSAN**, AFROHUN Côte d'Ivoire Country Manager.

Working closely with the university leadership, we recruited and on-boarded the Country Manager and Country Administrator. The country team was oriented on the administrative, financial, and technical issues necessary for their duties under the USAID's OHW-NG Project. The country office is now fully functional and has coordinated the various AFROHUN activities implemented in the country in addition to developing partnerships and collaborations with various stakeholders from government, academia, and private sectors.

This year's success has been working with other Universities to fortify and enlarge the AFROHUN Côte d'Ivoire network, growing OH efforts across CDI. Through a human resource mapping activity and a stakeholder engagement meeting involving multiple University partners and ministry representatives, AFROHUN Côte d'Ivoire was able to gain a broader vision of OH resources across the country and better understand strengths and gaps that will be arenas of focus in Year 3 (2021 – 2022). With expanded engagement



CDI 6: Dr. Monique the Country Manager for Cote d'Ivoire.
Photo source: AFROHUN Côte d'Ivoire.

Monique Kouassi N'GUESSAN – AFROHUN Country Manager

Dr. **Monique Kouassi** N'GUESSAN is an Ivorian Veterinary doctor with 30 years of experience in project management and veterinary practice. She previously worked as COVID-19 Technical Coordinator for the HRH2030 Project. Dr Kouassi has long experience as a consultant with the FAO Emergency Centre for Transboundary Animal Diseases (ECTAD) in Côte d'Ivoire where she worked on programs for control of tick-borne diseases and emerging pandemic threats including the highly pathogenic avian influenza. Her experience includes heading the Latrille Veterinary Clinic at Veterinarian for mixed private clients in Abidjan.

of other universities, such as Allasane Ouattara de Bouaké and Nangui Abrogoua Universities, Institut de formation des Agents de Santé (INFAS), and Medicines, Technologies, and Pharmaceutical Services (MTAPs), AFROHUN Côte d'Ivoire is fertilizing the OH terrain, preparing it for growth in the years to come.



*CDI 7: Renovation of office space given to AFROHUN Côte d'Ivoire.
Photo source: AFROHUN Côte d'Ivoire.*



*CDI 8: Section of AFROHUN Côte d'Ivoire Country Office.
Photo source: AFROHUN Côte d'Ivoire.*



COUNTRY CHAPTER



Highlights

- ➔ Trained 30 health journalists from the public and private sectors on Risk Communication and Community Engagement (RCCE) on infectious diseases focusing on COVID-19 (February 2021).
- ➔ Trained 40 faculty from Kinshasa School of Public Health (KSPH) on One Health core competencies and how to integrate OH in their respective training modules (March to May 2021).

- Partnerships were developed with WHO, FAO, International Federation of Red Cross (IFRC), National disease surveillance units for animal and human health for development of a community-based surveillance module and Breakthrough Action for development of the National OH Strategic Plan. Other partnerships included the USAID Mission for the MPH Scholarship program.
- Gender components were included in the following training events: 1) training of faculty on OH integration; 2) field demonstration site; 3) training of Territory Administrators; 4) training of journalists on RCCE; and 5) gender-informed guidelines were developed and used to select MPH students for scholarships while ensuring gender equality.

- ➡ Trained 30 faculty coming from four Higher Education Institutions in grant writing to improve member institutions' capacity to mobilize resources (May-June 2021).
- ➡ Supported the National OH Platform to develop and validate the OH Strategic Plan (February and August 2021).
- ➡ Trained 32 Territorial Administrators and their technical staff in leadership in Infectious Disease Management (IDM) (May 2021).
- ➡ Attached 52 pre-service learners to OH field demonstration sites, enabling them to gain hands-on skills in identification, prioritization, and responding to OH challenges (August 2021).
- ➡ Supported the Disease Surveillance Division of the National Public Health Institutes of human health and animal health to develop the first community-based surveillance module used in DRC (June 2021).
- ➡ Awarded 30 scholarships to government employees coming from the human and animal health sectors to complete Masters in Public Health (20 for the Community Health track and 10 for Health Economics track) (February 2021).

ACTIVITIES



OBJECTIVE 1

During Year 2 (2020 – 2021), AFROHUN DRC successfully implemented a number of training and empowerment activities. For instance, the DRC team supported both animal and human national disease surveillance units to develop a community-based surveillance module in alignment with the Integrated Disease Surveillance and Response (IDSR) 3rd edition. The module improves coordination and information sharing using a OH approach. This module will be used to train community health workers to support surveillance for Ebola and other zoonotic diseases at the community level (CDI Activity 1.1.6). In addition, we trained 32 territory administrators (local leaders) and their technical staff in leadership in IDM. All territory administrators of Mbandaka (Equateur province), along with their technical staff including health district director, animal health inspector, Red Cross team members, and agriculture and environmental officers, were part of this training. Conducted in collaboration with the Ministry of the Interior, this activity helped to build capacity of local leaders in OH competencies to improve their management of infectious disease outbreaks using the OH approach (CDI Activity 1.3.6).



DRC 1: Territorial Administrators training at Mbandaka. Photo source: AFROHUN DRC.

To strengthen the pipeline of OH professionals in DRC, AFROHUN DRC developed a partnership between KSPH, the USAID Mission, and the OHW-NG Global Consortium to administer the scholarship program (DC Activity 1.1.8). This helped refine the selection criteria to promote gender equity. Subsequently, 30 students were awarded the scholarships: 20 from the Community

Health track and IO from Health Economics. AFROHUN DRC received support for programmatic management of the MPH scholarship program in areas such as monitoring and evaluation, reporting, and financial management. OH core competencies were incorporated in the training curricula at the school after curriculum curation and faculty training in OH (CDI Activity 1.1.8). AFROHUN DRC continued promoting OH experiential learning for the next OH workforce. We held a one week OH field demonstration site training for 52 students coming from the health, veterinary medicine, environmental sciences, communication, and nursing schools (CDI Activity 1.4.2). Students acquired field experience on how to solve real life OH challenges.

AFROHUN DRC trained 30 journalists from public and private media outlets in RCCE with field exercises and interaction with community members. This training offered an opportunity to introduce the participants to the OH concepts and improve their understanding of infectious disease outbreaks (CDI Activity 1.3.4). This training was conducted in collaboration with the National Health Communication program from the Ministry of Media and Communication, the COVID-19 response communication unit, and the KSPH faculty. As an outcome of this training, the National Health Communication program designated a team of trained journalists to be mobilized when needed to support RCCE activities.



DRC 2: Journalists undergoing training. Photo source: AFROHUN DRC.

In another activity, AFROHUN DRC built strategic partnerships and collaboration to support the development of the national OH Strategic Plan (CDI Activity 1.5.3). The partnership brought together experts from the human, animal, and environmental health sectors to develop a strategic plan that highlights the vision, mission and strategic activities toward OH institutionalization in the country. Partners such as FAO, Breakthrough Action, and WHO regional and country offices provided substantial support in the development of this plan. For example, FAO improved the zoonotic disease surveillance and control component, while Breakthrough Action improved the RCCE component. Experts coming from line ministries were involved from the planning to the implementation of this activity.

Under CDI Activity 1.3.5, AFROHUN DRC trained 30 faculty from four Higher Education Institutions in grant writing and grant management. The aim of this training was to improve faculty capacity to respond to grants calls.



OBJECTIVE 3

AFROHUN DRC conducted a three-day workshop to draft the Year 3 work plan. A Board member, Deans, Activity Leads, and Thematic Leads were involved in this activity. The draft work plan was refined during a regional work planning meeting before presenting it to the AFROHUN Board and for subsequent approval by USAID.



DRC 3: DRC Year 3 work plan meeting. Photo source: AFROHUN DRC.



LESSONS LEARNED

Meeting participants' internet connection costs promotes participation

The COVID-19 pandemic challenged activity implementation in 2021. Counter measures taken to stop the spread of the virus reduced the mobility and the ability to conduct in-person activities. To overcome this, virtual technologies such as Zoom® were used to support activity implementation. However, we found that participants were reluctant to engage in online activities due to the associated connection costs. Through meeting participants' internet connection costs during online events, we managed to overcome this challenge and maintain high participation in virtual activities.

Deans' support improves activity implementation

AFROHUN DRC has two member institutions: KSPH and University of Lubumbashi - School of Veterinary Medicine. The year 2 (2020 – 2021) of the OHW-NG Project witnessed increased involvement of Deans of the two institutions in planning and implementation of activities. In addition to providing guidance during work planning meeting, Deans provided support in the selection and supervision of Thematic Leads, Activity Leads, and consultants engaged by AFROHUN DRC. They also provided advice during the quarterly performance review meetings to improve activity implementation. The leadership provided by the Deans in planning and implementation of activities was very helpful in ensuring that we successfully implement the planned activities.



NEXT STEPS

In Year 3 (2021 – 2022), AFROHUN DRC will support the launch of the national OH Strategic Plan developed in Year 2 (2020 – 2021). In addition, we will support capacity building activities under this plan.

Territory administrators and pre-service students training modules will be revised and updated during Year 3. Revised modules will then be used to train the next cohorts of learners.



ONE HEALTH CHAMPION



“Alone we go fast, together we go far”. The One Health approach is precisely the second part of this wise saying; it allows us to go far by considering all the health components.”

DRC 4: Photo source: AFROHUN DRC.

SALVIUS BAKARI AMURI

Job Title

Professor of Pharmacology

Professional Credentials

MSc, PhD

Role within the OHW-NG Project

Chair of SOHIC Technical Working Group and AFROHUN DRC Activity Lead

Affiliation

University of Lubumbashi

Salvius Bakari is one of the facilitators who has participated in the training of more than 300 students on a OH approach. He has been deeply involved in setting up and revitalizing the DRC Students One Health Innovations Club (SOHIC) and designing the activities of these clubs in interventions affecting the lives of needy communities. His contributions have been significant in the sensitization and mobilization of students for the OH approach.



SUCCESS STORY

Leveraging partnership and collaboration to develop the National OH Strategic Plan

With support from AFROHUN, DRC developed a National One Health Platform (NOHP) in 2011 with representatives from different sectors such as Public Health, Animal Health and Environment. The NOHP is a government coordination body for OH implementation at the country level. Since 2012, the need to develop a OH Strategic Plan has been well-articulated. In 2020, NOHP requested AFROHUN's support to restart the OH Strategic Plan development process. AFROHUN collaborated with

The One Health strategic plan is a key document which highlights the vision, the objectives, and key activities for successful implementation of OH in the country.

various partners for the successful implementation of this activity in 2021. With the NOHP providing leadership and oversight, AFROHUN DRC identified and engaged consultants who drafted the plan after collecting information from ministries and partners. FAO reviewed the draft plan and improved the zoonotic disease surveillance and control component, while Breakthrough Action reviewed the document and improved the risk communication and community engagement component. Both FAO and Breakthrough Action are Global Health Security Agenda (GHSA) partners. The developed plan provides the vision and key activities to be implemented from 2021-2026 to promote multisectoral collaboration during preparedness, surveillance and response to emerging and re-emerging infectious diseases. The plan will be launched during the first quarter of Year 3 (2021 – 2022).

As exemplified by some of the quotes from partners, the developed National OH Strategic Plan was hailed as a key component in the implementation of a OH approach in the country.

"This is a key document to leverage multisectoral collaboration for successful implementation of International Health Regulations in the country." --**Dr Dedé Ndungi**, National IHR Focal point.

"This is a key achievement. This plan will support institutionalization of OH in DRC." --**Serge Nzietchueng**, FAO Regional Africa OH Coordinator.

"This plan will guide for the 5 coming years the implementation of OH in the country and improve multisectoral collaboration. During this process, all the stakeholders working at the human-animal-environmental interface were involved. Thanks to all the partners for supporting this process." --**Professor Nadege Ngombe**, Coordinator of the NOHP.



Supplemental Funding: DRC KSPH MPH Scholarships

Strengthening the pipeline of DRC OH professionals

During Year 2 (2020 - 2021), the USAID health office in DRC engaged AFROHUN and the OHW-NG Global Consortium to assist KSPH, an AFROHUN member institution, with administration of their scholarship program and integration of OH into the program's curriculum. The objective of this program is to strengthen the pipeline of OH Professionals in DRC. Under this program targeting in-service professionals working within the Ministry of Health & Ministry of Animal Health, 60 students will receive full scholarships for their MPH studies at KSPH over a period of three years. The DRC AFROHUN country office worked closely with KSPH's leadership and supported the program's administration to recruit the first cohort of 30 scholarship recipients and will continue to provide support through graduation. AFROHUN is providing technical assistance and supervision in financial management and will ensure compliance with rules and regulations. In addition, AFROHUN provided training to faculty of KSPH that focused on effective integration of OH into the training curriculum. Following the training, a standalone 'Introduction to OH Module' was integrated into the MPH curriculum and faculty are working to revise their modules to integrate OH competencies.

Highlights

- ➔ Partnership between KSPH, AFROHUN, and the OHW-NG Global Consortium to administer the scholarship program was established, with agreed upon roles and responsibilities.
- ➔ AFROHUN DRC, the regional Secretariat, OHW-NG Global Consortium, USAID Mission, and KSPH reviewed and refined MPH scholarship selection criteria and promoted gender balance and diversity in the program.
- ➔ During Year 2, AFROHUN DRC assisted with recruitment of the first cohort of 30 students (20 for the Community Health track and 10 for the Health Economics track) for the MPH scholarship program.
- ➔ Ongoing assistance on programmatic management of the MPH scholarship program, including monitoring and evaluation, reporting, and financial management, is being provided to KSPH.



Success Story

DRC is facing several global health security challenges in the context of poverty and political instability. The country has experienced multiple disease outbreaks, including Ebola, measles, yellow fever, and Marburg, many of which occur in rural areas and congested urban settlements. The ongoing Ebola outbreak in the eastern part of the country and the COVID-19 pandemic highlight the need for a more comprehensive health system and a skilled workforce to prepare for, detect, and respond to current and future public health emergencies.

During Year 2 (2020 - 2021), KSPH received funding from USAID to provide scholarships to 60 students for a period of 3 years. For the first cohort, 30 students were awarded scholarships to support their MPH studies at KSPH. The selection process lasted close to 2 months. Prior to the selection process, AFROHUN DRC, the regional Secretariat, the OHW-NG Global Consortium, the USAID Mission, and KSPH held meetings to review the selection criteria to meet the competitive merit-based program's goal of recruiting high-caliber students while promoting diversity and gender equity. About 350 candidates applied for the MPH program. After pre-selection, 280 shortlisted candidates from 26 provinces of the country participated in a selection test. Out of these, 65 students who passed the test were selected for the Community Health track, while 30 were selected for the Health Economics track. Those who met the selection criteria were awarded scholarships. The selection criteria included: a pass mark of 70% and above, individuals are employed by the Ministry of Health or the Ministry of Animal Health, and targeting 30% females. Priority is given to candidates coming from rural areas.

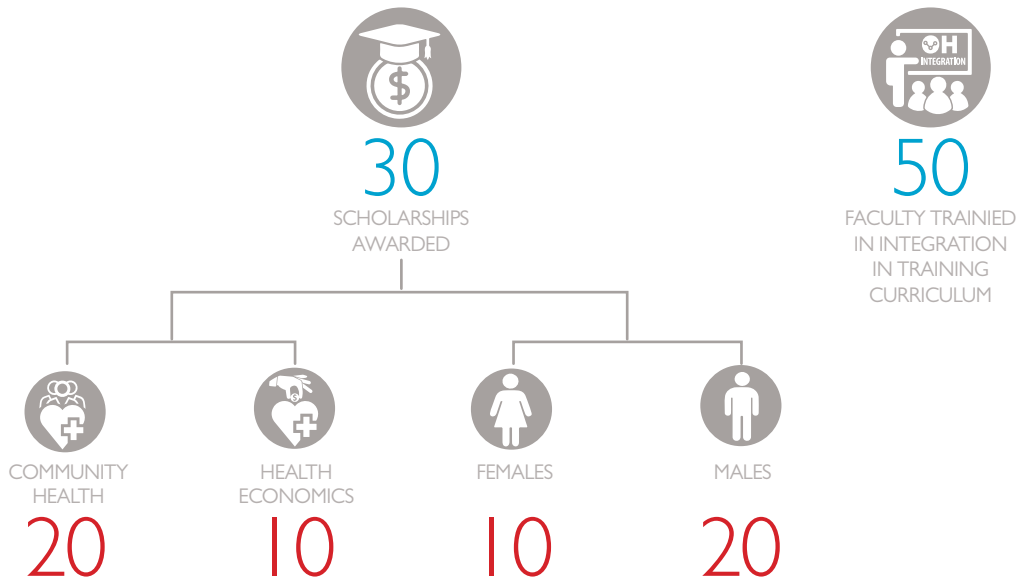
AFROHUN and the OHW-NG Global Consortium assisted the KSPH with managing the MPH scholarship program for the first cohort, including monitoring and evaluation, reporting, and financial administration.

"This scholarship is a unique opportunity for me to grow in my career. With my background in biology, I will certainly benefit from this program to become a public health expert who is able to work in a multidisciplinary team. I encourage other women to participate in the next cohort." —**Rosie Mubindukila**, scholarship awardee.

"It was my biggest dream to study at the School of Public Health. Coming from a rural health zone where I've been working for more than 10 years, having this opportunity will help me to acquire new knowledge and contribute to strengthening the health system." —**Dr. Jean Paul Kasongo**, scholarship awardee.



SUPPLEMENTAL FUNDING DASHBOARD





ET I: Bale Mountains National Park, Ethiopia. Photo source: Wikimedia.

ETHIOPIA



COUNTRY CHAPTER



Highlights

- ➔ Trained 30 nurses and other health professionals working in Addis Ababa University health facilities on COVID-19 Risk Communication and Community Engagement (RCCE) and Infection Prevention and Control (IPC) measures (October 2020).
- ➔ Conducted community sensitization on COVID-19 reaching an estimated 500,000 people via radio programs (October 2020).
- ➔ Trained 58 students (36 male and 22 female) from 11 disciplines on Infectious Disease Management (IDM) (April 2021).
- ➔ Conducted risk analysis training benefitting 56 faculty and in-service professionals from zonal and district level (May 2021).
- ➔ Built capacity of 65 multidisciplinary Masters and PhD students in proposal, grant and manuscript writing (July 2021).

- Trained 30 multidisciplinary faculty of Jimma University on online course management and virtual class delivery (May 2021).
- Through social media, articles and news updates related to One Health (OH) have been shared (October 2020 to September 2021).
- Held 2 performance review meetings to assess progress of implementation of activities and draw lessons to inform Year 3 (2021 – 2022) work planning (Feb 2021 & June 2021).



ET 2: Walia Ibex in the Simien mountains, Ethiopia. Photo source: travellocal.com

ACTIVITIES



OBJECTIVE I

AFROHUN Ethiopia trained 58 final year students on IDM using the OH approach (ET Activity 1.1.6). The training was geared towards producing a graduate that is able to identify and manage infectious diseases from the OH perspective. Participants were exposed to various modules such as Introduction to OH; Basic Epidemiology; Systems Thinking; OH Leadership; Risk Communication and Characterization; Gender, Culture, and Infectious Disease. The training included the use of role playing and tabletop simulations using cases selected from the national priority zoonotic diseases, to enhance students' knowledge and skills and better prepare them for field practice in managing various infectious diseases of national and international importance.

We trained 56 multisectoral in-service professionals and faculty from Tigray and Oromia regions on risk analysis (ET Activity 1.3.3). The training equipped participants with knowledge and skills on risk communication, assessment, and management, with a focus on human and animal health. Additionally, this training helped participants acquire knowledge on different risk assessment methods and equipped them with the necessary skills to conduct multidisciplinary research.



ET 3: Group discussion during risk analysis training. Photo source: AFROHUN Ethiopia.



ET 4: Participants at the risk analysis training. Photo source: AFROHUN Ethiopia.

Aware of the challenges students face in writing proposals and scientific manuscripts, we trained 65 multidisciplinary Masters and PhD students on proposal, grant and manuscript writing (ET Activity 1.3.6). This training benefited students from AFROHUN member institutions and was aimed at enabling participants to gain knowledge and skills to prepare good research proposals and publish their research outputs. The COVID-19 pandemic has highlighted the need for virtual learning. However, some university faculty lack the necessary skills for virtual training delivery. AFROHUN Ethiopia trained 30 multidisciplinary faculty of Jimma University on online course management and virtual class delivery (ET Activity 1.3.5). The training was aimed at improving faculty's capacity in e-learning so as to promote a blended approach for learning in Jimma University.



ET 5: Section of participants at the proposal, grant, and manuscript writing workshop. Photo source: AFROHUN Ethiopia.

During Year 1 (2019-2020), AFROHUN Ethiopia initiated a number of activities to address the COVID-19 pandemic. The activities included conducting public mobilization and awareness creation campaigns on COVID-19 in Addis Ababa, Jimma, and Mekelle. We continued implementing these activities in Year 2 (2020- 2021), reaching an estimated 500,000 individuals in Jimma via radio with messages on reducing COVID-19 risk. In addition, we conducted a training on IPC and RCCE measures for COVID-19 benefitting 30 nurses, clinicians, and laboratory technicians working in health facilities at Addis Ababa University. Training participants worked in high-risk settings including screening and treating suspect cases of COVID-19. In addition to RCCE, the training also focused on standard and transmission-based precautions, occupational health, injection safety, healthcare waste management during COVID-19, environmental decontamination, and water and food safety.



OBJECTIVE 3

AFROHUN Ethiopia conducted a virtual meeting to review Year 2 (2020 – 2021) performance and discuss the Year 3 (2021 – 2022) work plan of the OHW-NG Project. Participants included Deans, Thematic Leads, Activity Leads, Country Manager, and the Country Administrator. During the meeting, members discussed how to continue implementing activities in light of the COVID-19 pandemic and security situation in the Tigray region. Following the review meeting, AFROHUN Ethiopia held the Year 3 (2021 – 2022) work plan meeting which was attended by faculty, officials from line ministries, and other stakeholders. A key deliverable from this meeting was the draft Year 3 work plan with input from key stakeholders.



LESSONS LEARNED

Political Tension in Tigray region: circumventing internet disruptions

All AFROHUN Ethiopia financial accountability documents including receipts and Payment Vouchers (PV) are supposed to be sent to the country coordination office in Mekelle and subsequently sent to AFROHUN Secretariat centrally. This requires internet connection since scanned copies of the financial documents are sent via email. The political tensions in Tigray region have disrupted internet services in the region making it hard to communicate using internet. As a mitigation measure, the AFROHUN office at Jimma printed PV pads, which enabled us to send accountability documents directly from Jimma University and Akililu Lemma Institute of Pathobiology to the Secretariat.

Continuation of implementation of country activities during the political instability in Ethiopia

Political instability was taking place in Ethiopia during the AFROHUN Year 2 (2020 – 2021) showcase and also when winding up implementation of Year 2 activities. To address this problem, the country leadership in collaboration with the AFROHUN regional level management, quickly developed solutions such as reaching out to Dr. Hailu Degefu - one of the most experienced Thematic Leads and former Dean, to support AFROHUN Ethiopia. In addition, it was decided that Jimma University would act as the coordinating office while the Dean of Jimma University Faculty of Public Health would represent AFROHUN Ethiopia on all matters of agreement with partners and endorse financial documents. These measures ensured that AFROHUN Ethiopia operations continued despite the turmoil in Ethiopia.



NEXT STEPS

AFROHUN Ethiopia supported the establishment of a national Students One Health Innovations Club (SOHIC) during Year I (2019-2020) of the OHW-NG Project. The national SOHIC has generated a lot of interest from non-AFROHUN member institutions to form SOHICs in their universities. We are engaging with the universities on strategies for supporting the students in establishing the clubs. Supporting students in establishing the SOHICs will enhance the visibility of AFROHUN and amplify efforts to develop the future OH workforce. Student clubs provide innovative and critical opportunities for pre-service training and engagement, developing skills and a cadre of future professionals entering the animal, environment, and human health sectors.



ONE HEALTH CHAMPION



"Today, the convergence and interactions of people, animals and the environment has created new dynamics in which the health of each group is inextricably interconnected. The challenges associated with this dynamic are demanding and profound, which requires multisectoral and multidisciplinary collaborations. New opportunities have also emerged to protect and promote health in the rapidly changing human, animal and environment interface. The key strategy to better understand and address the contemporary health issues created by the convergence of human, animal, and environmental interface is adopting the mind-set and requisite actions that underpin the concept of One Health."

ET 6: Photo source: AFROHUN Ethiopia.

YIMESGEN TAREKEGN

Job Title

Animal Welfare Coordinator

Professional Credentials

DVM

Role within the OHW-NG Project

Chairperson at AFROHUN Ethiopian SOHIC

Affiliation

Elnet Foundation and AFROHUN Ethiopia Country Office

Yimesgen is a young Ethiopian leader that is very engaged in promoting the OH approach and is a founding member of the Ethiopian SOHIC with AFROHUN Ethiopia county office. He is actively taking part and developing veterinary journalism in Ethiopia with interests in OH and animal welfare.

He is also the founder of "Beyond Student for Change", an initiative started in 2014 that aims to empower the young generation to fulfill their dreams in the livestock sector. He is leading 'The Blue Vet' social media platform, which is one of the portfolios of the "Beyond Student for Change" initiative [Vet Sustain](#) and the Global Alliance for Rabies Control ([GARC](#)).



SUCCESS STORY

Building Ethiopia's Capacity in Risk Analysis

Assessments conducted in Ethiopia during the Emerging Pandemic Threat (EPT) 1 & 2, showed that Ethiopia had limited capacity in risk analysis.

Indeed, the National Disaster Management Commission emphasized the need for development of risk analysis capacity in the country. AFROHUN Ethiopia, with funding from USAID's Emerging Pandemic Threats (EPT) Program, developed a risk analysis training module followed by a regional training of trainers workshop. Using a cascade model, trainees went on to train individuals at national and sub-national levels, benefitting in-service professionals from Ministry of Agriculture, Ministry of Health, Ministry of Education, Wildlife Authority, research institutes, disaster and risk management offices, and academia.

In 2021, AFROHUN Ethiopia trained 56 in-service professionals from zonal and district levels in Jimma and Mekelle. The training was impactful with participants reporting applying the knowledge gained at their workplaces. For instance, some participants reported changing policies in their laboratory work through the institution of biorisk management measures. Some trainers applied risk analysis concepts and module materials to their work in health offices at the community level.

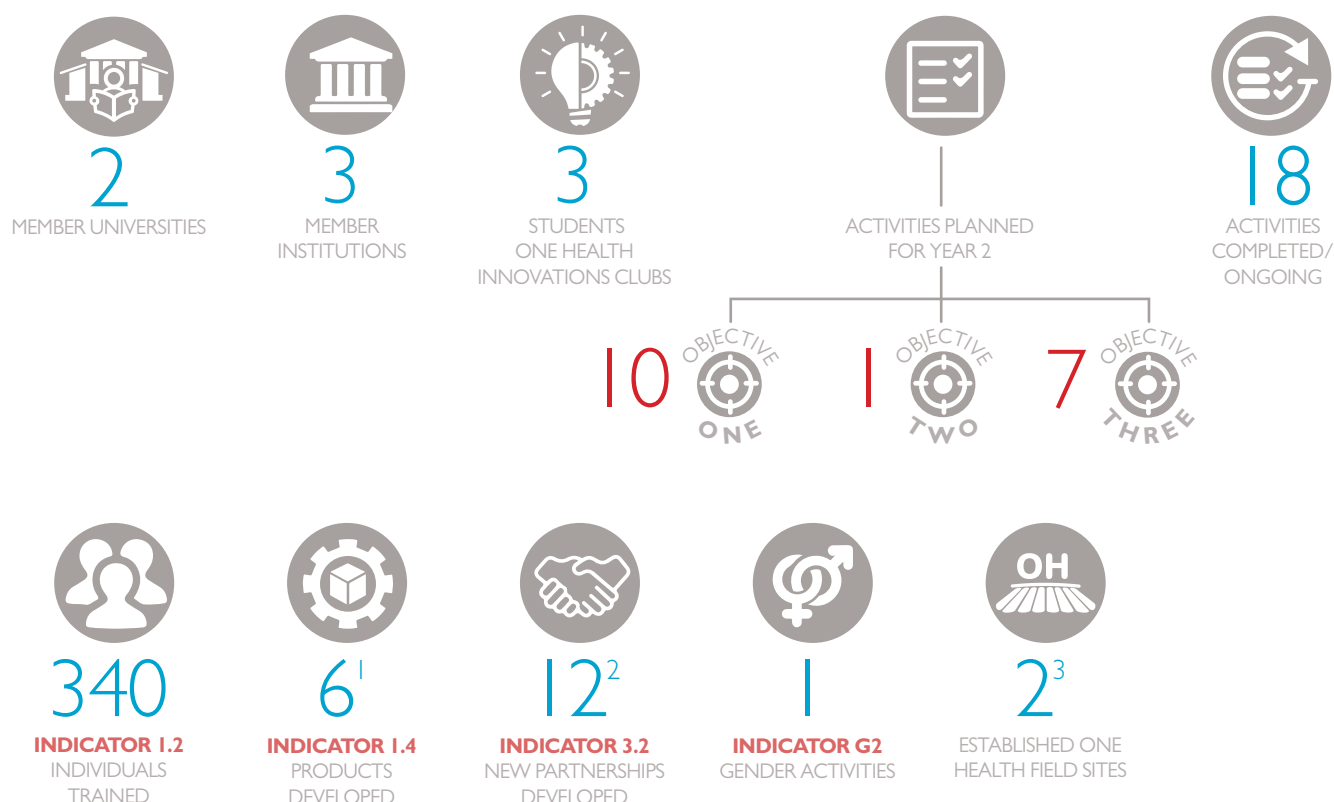
Since 2016 when risk analysis training was initiated, AFROHUN Ethiopia has supported training of 256 in-service professionals and faculty. However, the need for training more in-service professionals in the country is still great and calls for more partners to join this effort.



KY 1: Picture of the second highest mountain in Africa, Mount Kenya. Photo source: Wikimedia.



COUNTRY CHAPTER



Highlights

- Four (4) faculty (two male and two female) from the two AFROHUN member universities coordinated the development and launch of the AFROHUN Kenya One Health (OH) Extension for Community Healthcare Outcomes (ECHO) ECHO program with three sessions implemented by end of Year 2(2020 – 2021) and benefitting 116 participants (July – September 2021).

- Products include: Short course for frontline workers on pandemic preparedness and response; Concept note for MoUs/MoAs; Training Needs Assessment for Middle Level Colleges and the Notice Of Funding Opportunity (NOFO) on Advancing Public Health Research in Kenya submitted to CDC; Posters(2) presented at the Consortium of Universities of Global Health (CUGH), and the Planetary Health Annual Meeting (PHAM) conference.
- Partners and collaborations included: Government: 1) Kenya Veterinary Board; 2) Siaya County Assembly identified priority OH action areas and securing leadership commitment for action; 3) The Kenya Forest Service; 4) Loitokitok Sub-County- Kajiado County; 5) Institute of Primate Research (IPR) and 6) Kenyatta University Teaching Research and Referral Hospital - A Level 6 referral hospital developed a short course on pandemic preparedness and response for frontline workers

Academia/Research: 1) Maasai Mara University; 2) Mpala Research Center; 3) International Livestock Research Institute (ILRI)

NGO: 1) The Millennial Environmentalist; 2) Kenya Environmental Action Network - engaged with the Students One Health Innovations Clubs (SOHICs) on tree planting during the World Environment Day outreach activity; 3) OIE Kenya Country Office.

Kenya did, in addition, receive a formal Expression of Interest to join the Network from a second public university (the first having been received in Y1)

3. With two (2) additional ones identified for consideration.

- ➔ Moi University (MU) senate approved the MSc of Infectious Diseases in Global Health (IDGH) curriculum which AFROHUN has supported since the OHW Project phase (September 2021).
- ➔ Developed a short course on pandemic preparedness and response taking into consideration lessons learned during COVID-19 response (July 2021).
- ➔ Built capacity of 35 undergraduate, graduate and pre-university students in identifying OH challenges and the development of intervention strategies through attachment to a OH demonstration site (July – August 2021).
- ➔ AFROHUN Kenya is conducting a survey to track OH alumni (October 2020 – September 2021).
- ➔ Held a OH stakeholders' meeting to showcase AFROHUN Kenya to public and private institutions (September 2021).
- ➔ Used a synthesized curriculum to train 72 multidisciplinary professionals on Antimicrobial Resistance (AMR) (September 2021).
- ➔ Trained 105 professionals and students on risk analysis (September 2021).
- ➔ Trained 12 Siaya Members of County Assembly on OH (June 2021).

ACTIVITIES



OBJECTIVE 1

Following the development of the MSc of IDGH curriculum, AFROHUN Kenya facilitated a joint sensitization session for faculty board members from the University of Nairobi (UoN) and MU (KY Activity 1.1.6). Feedback from the faculty board was used to refine the document that was later reviewed and approved by the MU senate in September 2021. AFROHUN Kenya developed and launched an ECHO program with the first session focusing on AMR using a OH approach (KY Activity 1.2.4). By the end of Year 2 (2020 – 2021), we had organized three ECHO sessions attracting a total of 116 registered participants that included students, faculty, and in-service professionals. This ECHO program will contribute towards equipping the workforce with knowledge and skills required to fight against AMR. Partnering with the Environment Institute of Kenya (EIK), AFROHUN Kenya secured five Continuous Professional Development (CPD) points per session for members of EIK. Building up on the Training Needs Assessment for frontline workers conducted in Year 1 (2019 – 2020), AFROHUN Kenya held a workshop where findings and gaps identified from the assessment were presented (KY Activity 1.2.5). The workshop was attended by participants representing 18 health facilities and research institutions. At the end of the workshop, a short course on pandemic preparedness and response was developed, taking into consideration observations made during the COVID-19 pandemic response. Members of the Kenya Veterinary Board that participated in the workshop were awarded five CPD points. Building on the AMR curriculum customized in Year 1 (2019 – 2020), AFROHUN Kenya trained 30 multidisciplinary professionals on AMR (KY Activity 1.3.4). This was a virtual training which involved collecting views from participants that were used in enriching the course.

AFROHUN Kenya trained 105 participants on risk analysis (KY Activity 1.3.5). The training targeted multidisciplinary in-service and pre-service professionals and was aimed at giving participants an understanding of, and equipping them with, requisite skills for conducting risk assessments, risk management and risk communication, made more applicable with the COVID-19 pandemic.

Continuing with building capacity of pre-service OH workforce, we attached 35 multidisciplinary pre-university (three), undergraduate (17) and graduate (15) students to a OH field demonstration site (KY Activity 1.4.2). The attachment was designed to build the capacity of the future OH workforce in the identification and prioritization of OH challenges and the development of strategies



KY 2: Challenges of environmental degradation identified by students in Laikipia - Kenya. Photo source: AFROHUN Kenya.

and interventions while working with the community. Four (4) students were from the community with one of them being female; a key achievement in a community that historically has worked to overcome the challenges towards education for female children. The incorporation of students from the community will ensure sustained momentum in implementation of the proposed interventions leading to sustainability.

AFROHUN Kenya implemented other activities under objective 2. These include KY Activity 1.2.6 where the constitution for the national SOHIC was revised and quarterly meetings were held. This is in addition to SOHIC community outreach activities. We held a workshop to present a report on the frontline workers needs assessment and also developed a short course to address gaps identified (KY Activity 1.2.5). We also made poster presentations at the Consortium of Universities of Global Health (CUGH) and the Planetary Health Annual Meeting (PHAM) conferences (KY activity 1.3.3). We drafted a OH policy brief and a OH policy review paper KY Activity 1.5.3.



KY 3: Graduate students interacting with community women (separate session from men as per the culture) during identification and prioritization of OH challenges. Photo source: AFROHUN Kenya.



KY 4: A Community Health Volunteer outlining a resource map, including indications of the flow of the Ewaso Nyiro River in the background and environmental changes over time, to faculty and students. Photo source: AFROHUN Kenya.



OBJECTIVE 2

Working with AFROHUN regional staff and the OHW-NG Global Team, AFROHUN Kenya participated in the development of survey tools for OH alumni tracking (KY Activity 2.1.8). The tools were piloted, and the survey later administered. The survey was still on-going by the end of Year 2 (2020 - 2021) of OHW-NG. The database generated from the survey will facilitate the development of alumni engagement strategies, in addition to informing future training needs.



OBJECTIVE 3

AFROHUN Kenya held meetings on a quarterly basis where the country's implementation progress was reviewed. In addition, implementation challenges were discussed and actions to address them were identified (KY Activity 3.2.5). With the involvement of Deans, Activity Leads and Thematic Leads, we developed a draft Year 3 (2021 – 2022) work plan (KY Activity 3.2.4). This draft was reviewed at a regional planning workshop before presentation to AFROHUN Board and subsequent submission to USAID for approval. To determine OH gaps, we conducted a Training Needs Assessment for Middle Level (KY Activity 3.3.2) with some of the findings incorporated in the concept paper that was discussed in the stakeholders meeting (KY Activity 3.3.3). In addition, we held a OH stakeholders' meeting to showcase AFROHUN Kenya to public and private institutions (KY Activity 3.3.3). The meeting was attended by 37 participants drawn from various institutions and discussed potential areas of collaboration between AFROHUN Kenya and the different stakeholders.

Following the approval of the utilization of the Year 1 (2019 – 2020) unspent funds, AFROHUN Kenya successfully implemented a change of name from OHCEA to AFROHUN. In addition, we trained 12 Siaya Members of County Assembly (MCAs) on OH.



LESSONS LEARNED

Nurturing government relationships for successful activity implementation

Following the conclusion of the planning for the OH demonstration site, AFROHUN Kenya commenced student orientation sessions on July 26th, 2021. These were virtual sessions held over a 5-day period. The orientation sessions went well, and the students were ready for the field activities which were scheduled to commence with travel on August 1st, 2021. Unfortunately, on the last day of the training (July 30th, 2021), the Government of the Republic of Kenya announced enhanced restrictions for prevention of the COVID-19 pandemic, including a ban on physical and in-person meetings among others, which had the potential to derail the field activity. Having formed cordial relationships with various government officials, offices and agencies, AFROHUN Kenya was directed to the relevant office in the Ministry of Health and was granted approval to continue with the activities as planned, following the government approved COVID-19 guidelines. Find additional information on this activity from our success story on page AFR-72.

Know your audience: a date with legislators and policy makers

Having secured approval for utilization of Year 1 (2019 - 2020) unspent funds, AFROHUN Kenya commenced planning for the capacity building activity for members of the Health Services Committee of one of the County Assemblies in Kenya that had reached out for possible partnership and collaboration. As political gatekeepers for their communities and key legislators, policy makers in their county, it was observed that the training would be a key first step in securing good will and commitment, geared towards implementation of OH actions and possible sustainability of the same. Securing dates for the training was the first challenge encountered, as there was a push for some constitutional amendments that was going on in the country where the county assembly members were involved as people's representatives. Working around their schedules ensured commitment of this target audience. To ensure maximum participation, AFROHUN Kenya team working with the County Assembly organizing team ensured a conducive venue to the participants. At the end of the training, the chairperson of the committee signed a leadership commitment on implementation of OH for identified priority action areas, following their appreciation of what they learnt.



NEXT STEPS

AFROHUN Kenya will build on the partnership created with the County Assembly of Siaya in Year 2 (2020-2021), to continue with the capacity building efforts that are geared towards promoting sustainability of OH activities through building a Memorandum of Understanding (MoU) with the County. This will contribute to the advancement of the OH approach in Kenya through the OHW-NG Project.

Subsequent to the stakeholders meeting with private and public institutions, AFROHUN Kenya will follow up with institutions that expressed interest to partner and collaborate, having highlighted, and identified potential areas of collaboration. These institutions include Kenya Agriculture and Livestock Organization, Kenya Bureau of Standards, Kenyatta University, Masinde Muliro University of Science and Technology, International Livestock Research Institute, Brooke East Africa, and Washington State University. This will promote AFROHUN Kenya's brand visibility as well as contribute to organizational and Network strengthening.



ONE HEALTH CHAMPION



KY 5: Photo source: AFROHUN Kenya.

“My inspiration to champion One Health is drawn from multidisciplinary engagements and collaboration with various stakeholders, as well as the great advances happening in the One Health space. An example is the pre-service training in One Health, which equips graduates with essential knowledge that enables them understand the concept of One Health and its importance in addressing global issues, and gain skills and competencies essential for improved service delivery.”

FAITH HILDA YEGO

Job Title

Senior Lecturer

Professional Credentials

PhD Gender and Health

Role within the OHW-NG Project

Activity Lead

Affiliation

Moi University

Faith Yego has supported country and regional OH activities since inception of the OHW-NG Project. During the past two years, she has served as Activity Lead for various activities including curriculum curation, and has supported development of a pilot course for frontline workers. She facilitated the OH ECHO which has been an instrumental knowledge sharing platform during the pandemic. She has also served as a Subject Matter Expert for various AFROHUN tasks and supported student activities including celebrating the OH Day.

She continues to champion OH and to promote multidisciplinary approaches to providing evidence-based solutions to global health problems.



SUCCESS STORY

Lived experiences: the 2021 AFROHUN Kenya OH demonstration site.

"Kenya's health minister said on Friday the government had suspended all in-person meetings and public gatherings to try and contain COVID-19, whose spread in the country he now attributes to the more infectious Delta variant."

This is how Reuters captured the news on July 30th, 2021, the last day of the student orientation in preparation for the OH demonstration site activity in the field.

With this announcement, our demonstration site attachment, whose planning had taken six (6) months, was bound to flop. This in-person activity aimed at equipping the students with key skills for engaging with the community and identifying complex OH challenges, subsequently proposing and co-developing interventions with the community.



KY 6: Students from different postgraduate disciplines worked together in groups to identify problems and think through solutions. Photo source: AFROHUN Kenya.

We held meetings with government officials and discussed the effect of this pronouncement on our planned activity. In addition, we outlined biosafety, prevention and infection control strategies to be observed during the field attachment. These engagements bore fruit and we received government approval to continue with our plans at the field site. Consequently, 35 students (20 undergraduate¹ and 15 graduate) from UoN, MU and Maasai Mara University participated in the 2021 demonstration site attachment. The undergraduate and graduate students had their attachment at Loitokitok (Amboseli ecosystem) and Laikipia (Mpala Research Centre) respectively. This experiential learning activity was greatly appreciated by

¹ This includes 3 pre-university students (qualified for university but have not yet university education) were identified from the community where the demonstration site is located. One of the undergraduate students was also from this community.

both the students and community members and it is evident from some of their voices:

*"I came into this demonstration site very low on community-based research. After this experience, I have truly been equipped with relevant One Health skills and I am confident that I can now comfortably participate in community-based research. It gave me great joy to transform a community and it gives me greater joy to know that I had a lasting impact on the community. Without this demonstration site I probably wouldn't have learnt vital life skills such as working with a team and working under pressure yet being consistent and producing excellent results. I was glad to be part of this training as I received invaluable mentorship from the faculty mentors as well as my peers, I would highly recommend this training to any young individual looking to set themselves apart professionally as well as in the society. Thank you AFROHUN Kenya!" - **Esther Akoth**, Moi University, Bachelor of Science Environmental Health student.*

*"Working with the community closely to identify One Health problems and come up with solutions proved to be beneficial to us and the community. The community embracing the interventions was very encouraging. For instance, in the case of coenurosis which was one of the problems identified, one of the community members said: "we will contribute and buy dewormers for our dogs and also spread word to other manyattas in order to curb the disease."- **Jemimah Njihia**, Maasai Mara University, Animal Health & Production student.*

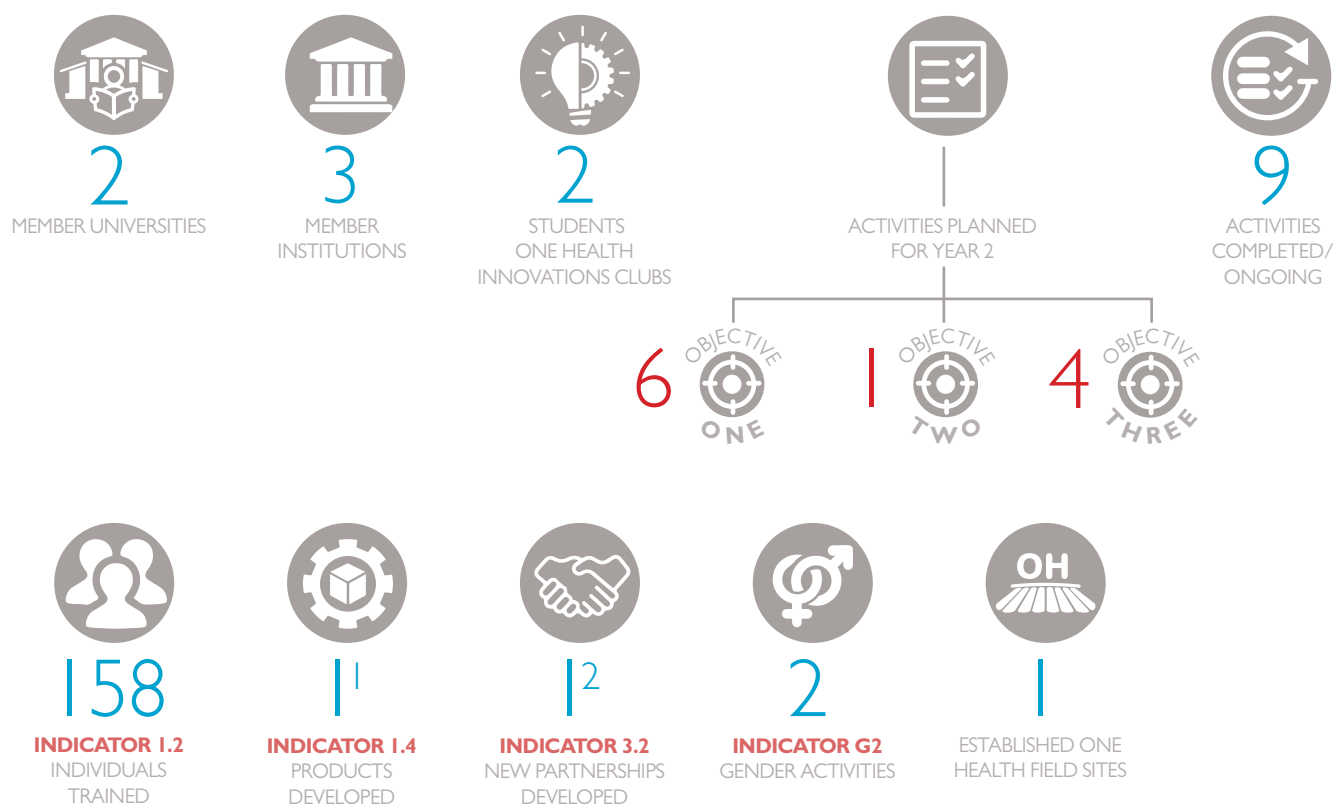


RW 1: wild life in Akagera National Park, Rwanda. Photo source: Safaris Rwanda.

RWANDA



COUNTRY CHAPTER



Highlights

- Forty-six (46) multidisciplinary students from University of Rwanda built skills in Risk Communication and Community Engagement (RCCE) for COVID-19 through a community outreach event, reaching approximately 14,000 community members (March 2021).
- Thirty-five (35) multidisciplinary students completed a 14-day field attachment at a One Health (OH) demonstration site, thereby building their skills in identifying, prioritizing, and addressing OH challenges related to livestock, agriculture and the environment (May 2021).
- Built skills for 46 students in addressing zoonotic diseases using OH case scenarios and tabletop simulations (September 2021).

1. The product was a sensitization poster on Antimicrobial Resistance (AMR)
2. Partnership was with Integrated Polytechnic Regional Center which we supported to start a Students One Health Innovations Club (SOHIC).

- ➡ Twenty-one (21) members of SOHIC from University of Rwanda (UR) conducted a sensitization of students and teachers of primary and secondary schools about AMR, reaching over 6,000 school children and 127 teachers (June 2021).
- ➡ Established a new SOHIC at the Integrated Polytechnic Regional Center (IPRC) - Huye, expanding opportunities for OH learning to academic institutions at diploma level (March 2021).
- ➡ Ten (10) faculty trained in research grant writing which enhanced their capacity to mobilize resources for AFROHUN Network (August 2021).

Focus on Gender

Owing to the role gender plays in terms of exposure to and treatment of infectious diseases, gender components were included in the training of 35 students attached to the OH demonstration site, as well as 45 students trained on Infectious Disease Management (IDM). Selection of participants for all implemented activities took gender equity into consideration.



RW 2: view of Lake Kivu in Karongi. Photo source: Wikimedia

ACTIVITIES



OBJECTIVE 1

AFROHUN Rwanda implemented various activities under training and empowerment which contributed to improving OH knowledge and skills of the intended beneficiaries. Under RW Activity 1.4.2, AFROHUN Rwanda oriented 35 multidisciplinary students in preparation for attaching them to a OH demonstration site. Following the completion of the theoretical orientation, AFROHUN Rwanda, in collaboration with Kayonza district authorities, assigned students to OH demonstration sites that improved their OH competencies through experiential learning (RW Activity 1.4.3). Under the mentorship of multidisciplinary faculty, students gained knowledge and skills in communication, collaboration, teamwork, gender roles in disease management, disease investigation and reporting. In addition, we used OH case scenarios and tabletop simulations to build skills of 46 students in addressing zoonotic diseases (RW Activity 1.4.4). Drawn from the two AFROHUN member universities, students were exposed to different OH related modules including foundations and preparedness for infectious diseases and their management; system thinking; disease surveillance in Rwanda (human, livestock and wildlife); risk assessment and communication; influence of culture, gender and social issues on disease outbreak, management and control. This training also covered lessons learnt from responding to the COVID-19 pandemic in Rwanda.



RW 3: Section of participants during the IDM training. Photo source: AFROHUN Rwanda.

Using a service-learning model, we supported 21 members of UR's SOHIC to conduct AMR sensitization targeting students and teachers of primary and secondary schools in Nyagatare district (RW Activity 1.4.6). Through this activity, we sensitized an estimated 6,000 school children and 127 teachers on AMR. Those sensitized were in turn expected to sensitize members of the communities where they live.

In line with AFROHUN's plan of expanding beyond universities, AFROHUN Rwanda supported IPRC at Huye to establish a SOHIC (RW Activity 1.2.4) where 75 students joined the club upon its establishment. This is a key milestone in AFROHUN's expansion to diploma level training institutions.



RW 4: A faculty mentor leading students during a demonstration site field attachment in 2021. Photo source: AFROHUN Rwanda.



RW 5: Section of demonstration site field attachment participants. Photo source: AFROHUN Rwanda.



OBJECTIVE 2

Working with AFROHUN regional staff and the OHW-NG Global Team, AFROHUN Rwanda participated in the development of survey tools for OH alumni tracking. The tools were piloted, and the survey later administered electronically to 628 alumni (RW Activity 2.1.8). The survey was still underway at the end of Year 2 (2020-2021). Results from the survey will facilitate the development of alumni engagement strategies, in addition to informing future training needs.



OBJECTIVE 3

AFROHUN Rwanda participated in various activities that contribute towards organizational sustainability. Under RW Activity 3.4.2, we trained 10 faculty from UR and University of Global Health Equity (UGHE) in research grant writing. This training built the faculty's capacity to mobilize resources. As part of the training, participants developed four draft proposals and are proactively looking for grant funding opportunities.

The country team participated in a series of short courses designed to improve their knowledge and skills in different areas relevant to institutional strengthening. Courses included training on Extension for Community Healthcare Outcomes (ECHO) program, how to establish an ECHO chapter at country level; and partnership development.



LESSONS LEARNED

Implementation of activities beyond the COVID-19 outbreak

AFROHUN Rwanda planned to implement some of its Year 2 (2020 – 2021) activities in-person. These activities mainly involved student community outreach as well as activities that required hands-on training. There were concerns on safety of participants at the in-person events due to the COVID-19 pandemic. To minimize the likelihood of infection, we required that each participant test negative for COVID-19; strictly observe the recommended social distancing; properly wear face masks all times; and use hand sanitizer. In addition, COVID-19 risk communication messages were relayed to the participants a couple of times on each day. These measures were very helpful in ensuring safety of the participants and there was no recorded case of COVID-19 during the events we organized.

The value of collaboration with district administrations

During this year's implementation cycle, AFROHUN Rwanda collaborated with district stakeholders in a number of key activities, such as the field experiential learning in the demonstration site and the AMR and COVID-19 RCCE. Students were mentored by district representatives, who were very instrumental in the achievement of the activities' deliverables; students were introduced to and well accepted by the communities. This made interactions much smoother and conversations more forthcoming. Secondly, it was also an opportunity for local leaders to appreciate what students were doing in the community. Cooperation among students and leaders always offers opportunities to students to enhance the impact of their interventions, and offers to district leaders a useful contribution to their planning strategy. This is a vital partnership for future successful activity implementation.



NEXT STEPS

During Year 3 (2021 – 2022), AFROHUN Rwanda shall focus on three key areas: training, partnership development, and organizational sustainability. We shall build on our past achievements in the three targeted areas. We shall continue to: a) engage with Professional Regulatory Councils (PRC) regarding Continuing Professional Development (CPD). This initiative will achieve two results: training of in-service workforce and creating a long term partnership with PRC in the training of OH professionals. We shall continue providing field experiential learning opportunities to pre-service OH workers and improve approaches to demonstration sites; b) we shall target institutions of higher learning, the private sector where possible, engage key government departments and continue to reach out to vocational training institutions; and c) we shall concentrate on resource mobilization through grant writing.



ONE HEALTH CHAMPION



RW 6: Photo source: AFROHUN Rwanda.



"No single person or single discipline or sector alone can effectively address the many health challenges that we face today and in the future. To save the world, we all need collaborative investment in One Health and the time for action is NOW."

ALICE NYIRAZIGAMA

Job Title

Lecturer in Infectious Diseases and Leadership

Professional Credentials

BSc Nursing, MSsN, PhD Candidate

Role within the OHW-NG Project

SOHIC Mentor

Affiliation

University of Rwanda

Alice is a SOHIC mentor and faculty member at the University of Rwanda, School of Nursing. She has initiated and participated in many OH activities that have had a positive and long-lasting impact on students she regularly mentors and also on the community with which she engages. She participated in a OH Fellowship in the USA in 2019. The knowledge she gained from the fellowship raised her professional profile as a OH Champion, and she also passed on her enthusiasm for OH to the student community she mentors. Alice is also a Gender Champion and her combined expertise in these areas is a unique asset for the student community, as well as AFROHUN.



SUCCESS STORY

Going the extra mile to improve community health and livelihoods: University of Rwanda students working together at the Akagera National Park OH demonstration site

AFROHUN Rwanda has for a number of years enabled students' attachments to a OH demonstration site as a strategy for providing OH field experiential learning. The demonstration site, located at Akagera National Park witnesses substantial human, domestic animal and wildlife interaction. In addition, this area experiences environmental degradation linked to agriculture production and pastoralism, which makes it a suitable location for students to practice identifying OH challenges. OH learning is outlined in a Field Experiential Learning Guide (TOHFEL) that the students work through. As well, students work with community members to prioritize OH challenges and develop effective interventions to address these challenges, and then implement interventions using a OH approach. These activities built students' competencies in leadership, communication, and community entry.

A OH demonstration site provides an opportunity for capacity building, outreach, and applied research in OH where the student, faculty, community and government work together to address joint complex health problems in long-term research, training and outreach at the human-animal-environmental interface. These sites are viewed as a centre of attachment for multidisciplinary sets of students from different institutions working together with communities to identify and resolve community-based OH-related challenges.

In May 2021, 35 multidisciplinary students (20 male, 15 female) were assigned to the Akagera National Park OH demonstration site. In addition to the standard curriculum, students identified families in the community with greatest economic need, and applied OH oriented interventions, including improvements to dwellings and provision of livestock to strengthen livelihoods and nutrition. This students' initiative was intended to improve the health of the communities as they embraced the WHO definition of health: *"Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity."*

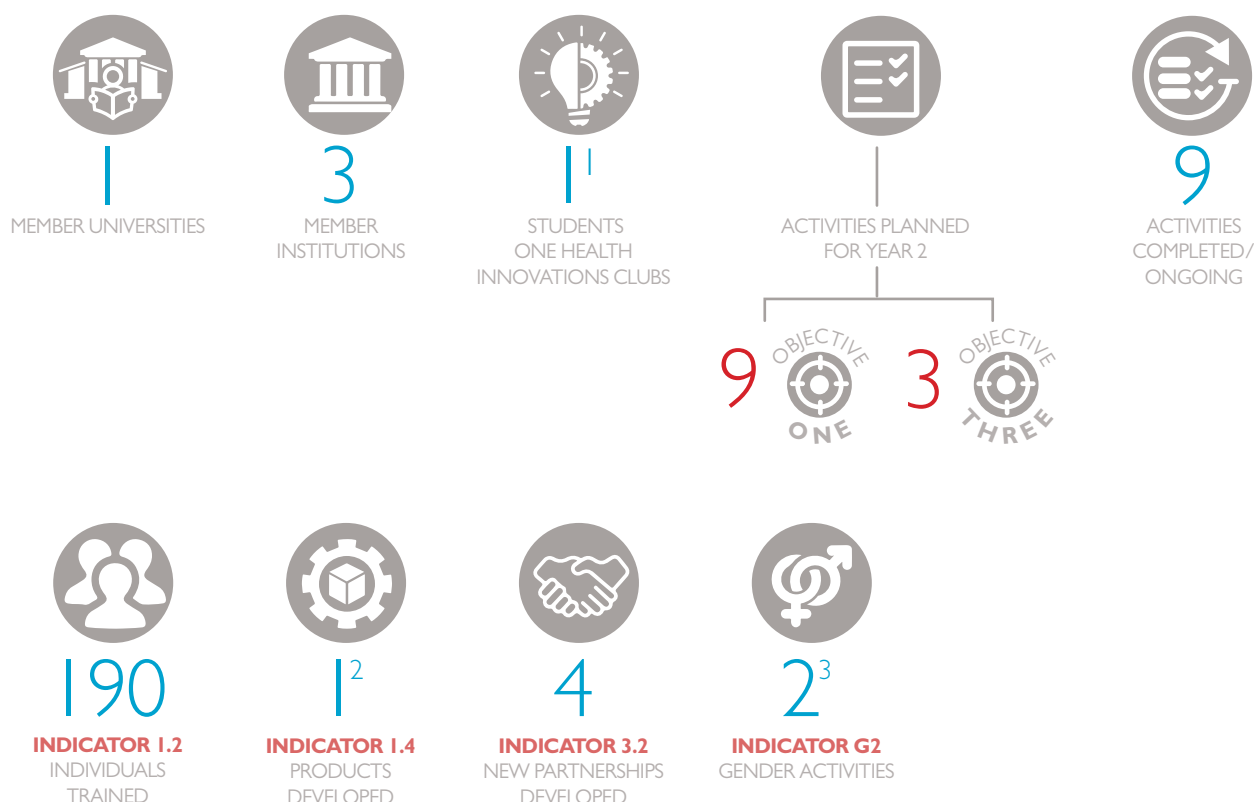


SN 1: Mangrove aerial view of Saloum River in Senegal. Photo source: UNESCO.

SENEGAL



COUNTRY CHAPTER



Highlights

- ➔ Trained 75 students including leaders of Students One Health Innovations Club (SOHIC) from multiple disciplines on One Health (OH), leadership and gender, thereby building their knowledge, as well as building key OH competencies (April-May 2021).
- ➔ Awarded small grants to two multidisciplinary teams of early career researchers (March to September 2021).
- ➔ Trained early career scientists on methodology for multidisciplinary research (10 participants⁴) and on scientific research (14 participants) (August 2021).
- ➔ Published a paper in a peer reviewed journal on results from research undertaken as part of the small grants program (September 2021).
- ➔ Produced and validated a situational assessment report of OH Continuing Professional Development (CPD) offerings and needs (September 2021).
- ➔ Trained 99 faculty and students on topical issues around COVID-19 (August 2021).

1. There are 2 additional SOHICS in 2 non-member universities.
2. The developed product is the article published arising from work done by one of the teams that received a small OH grant.
3. A topic on Gender and Infectious Diseases was included in the training of SOHIC members on OH core competencies. Gender balancing was one of the key considerations in the selection of beneficiaries for the small grants, as well as those for the training of SOHIC members on OH core competencies.
4. The 10 participants who attended the training on multidisciplinary research also attended training on scientific writing.



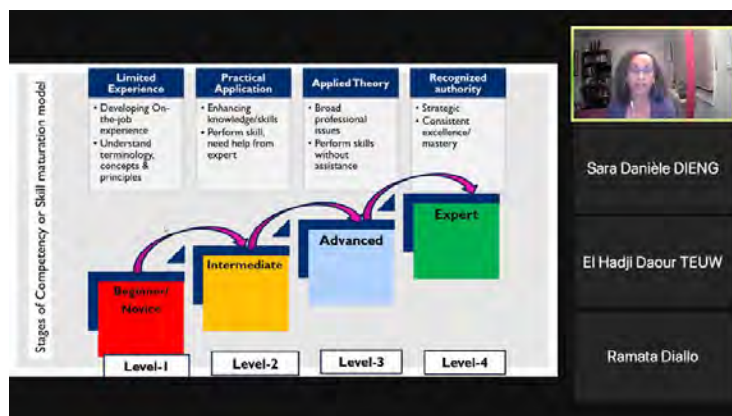
SN 2: In-person training session on gender teamwork May 2021. Photo source: AFROHUN Senegal.

ACTIVITIES

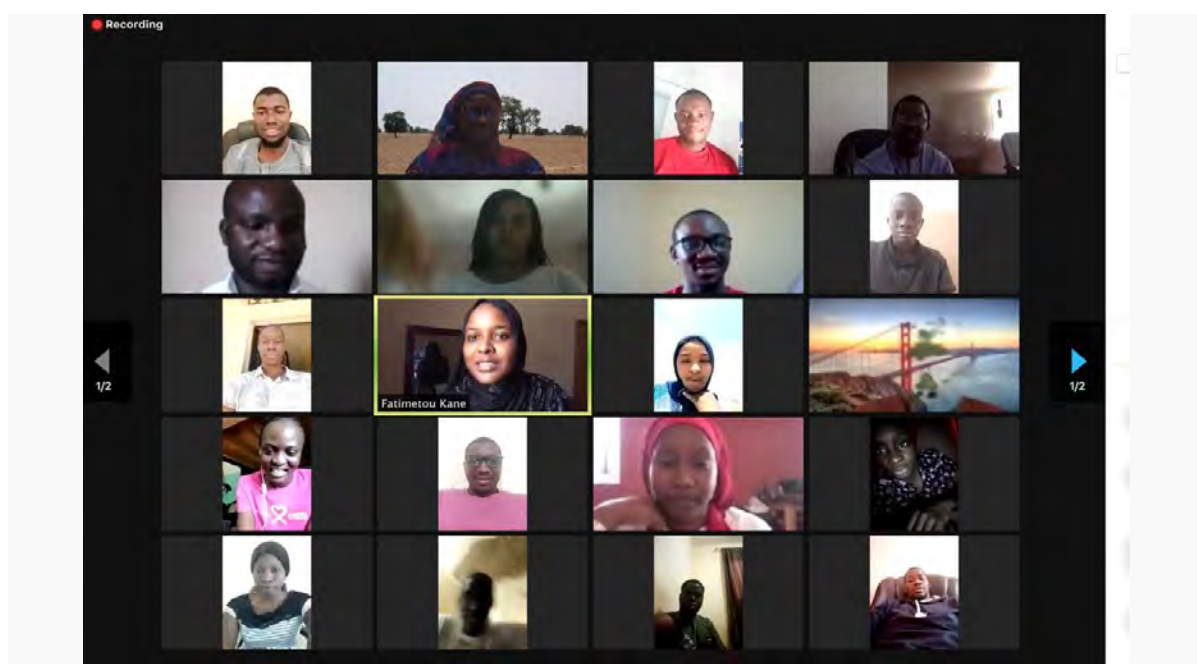


OBJECTIVE I

AFROHUN Senegal worked jointly with the AFROHUN regional Secretariat and the OHW-NG Global Team to adapt two sets of training materials developed under the OHW Project. Taking into account the COVID-19 pandemic, AFROHUN Senegal organized multiple trainings (online and in-person) for 75 students who were primarily SOHIC members from 3 universities (SN Activity 1.2.6). During these sessions, the use of case studies allowed participants to work closely and in multidisciplinary and cross-university teams. The training covered modules in OH, gender, and leadership. SOHIC leaders are expected to use and share the knowledge and skills gained with their peers. The Year 1 (2019 – 2020) activity that rolled over to Year 2 (SN Activity 1.4.2_Y1) was organized with 18 members of the 3 SOHICs. Case studies on current public health issues were given to students in relation to what they had learnt and an online meeting was organized to present and discuss potential solutions. This activity enabled students to strengthen their communication skills in addition to OH competencies included in the case study.



SN 3: A screenshot of online training of SOHIC members that included components on gender. Photo source: AFROHUN Senegal.



SN 4: A screenshot of participants of the online IDM training. Photo source: AFROHUN Senegal.

In Year 2 (2020 – 2021), AFROHUN Senegal implemented the second edition of the Small OH grants program and awarded grants to two multidisciplinary teams of early career researchers (SN Activity 1.2.4). Before the grant recipients started conducting their studies, their proposals were subjected to ethical review. The recipients also received online training on methodology and multidisciplinary research. In August, we organized a second training session on scientific writing which benefitted 14 participants that included recipients of Year 1 (2019 – 2020) and Year 2 (2020 – 2021) small grant programs, as well as beneficiaries of the AFROHUN scholarships during the OHW Project. A paper has been published in the *Pathogens* journal under the title “Knowledge, Attitudes and Practices on Rabies among Human and Animal Health Professionals in Senegal”. Findings from this paper suggest that improving health professionals’ knowledge about rabies is essential in order to influence their attitudes and practices against rabies.

To strengthen in-service training in the country, we mapped CPD training programs in priority OH related domains at the national level (SN Activity 1.1.6). Additionally, we identified CPD training needs and gaps (SN Activity 1.1.7). The two activities on CPD were implemented in close collaboration with FAO-Emergency Center for Transboundary Animal Diseases (ECTAD), Human Resources for Health 2030 (HRH2030) - a USAID program. A report combining information from two activities (Identify and document CPD training programs in priority OH related domains at national level; and Identification of CPD training needs and gaps) was submitted to a team of experts for external review ahead of the validation of the assessment reports (SN Activity 1.1.8). The experts shared their comments during a validation workshop that was conducted online. These assessments will help AFROHUN Senegal to develop CPD training based on needs, in addition to contributing to the AFROHUN One Health Workforce Academy (AOHWA).



OBJECTIVE 3

AFROHUN Senegal organized a Year 3 (2021 – 2022) country work planning exercise, involving online and offline tasks. The offline component consisted of individual work where participants worked on their thematic workstreams and came up with potential priority areas for AFROHUN Senegal. During online meetings, information was shared, polls organized to come up with priority areas, and discussions were held for participants to gain consensus on some issues. The workplan was reviewed and refined during the AFROHUN regional meeting in Mombasa, Kenya. This inclusive way of working aims at ensuring effective participation of all the team members right from the planning stage.

AFROHUN Senegal also participated in partners’ activities, especially those organized by the National One Health Platform (NOHP) (working thematic group activities); FAO-ECTAD, and USAID implementing partners. AFROHUN Senegal’s achievements were also presented during the board meeting for the Veterinary School at University of Dakar. The Veterinary School hosts AFROHUN Senegal’s country office.



LESSONS LEARNED

Partnering for CPD development is important but requires time and strong skills in partnership development

One of the most important lessons learned is to start activities early to allow more time for data collection and analysis. The Partnering Initiative (TPI) training sessions were very instrumental in preparing the team for partnership development.

Including mixed methods in training design to adapt to unexpected situations and to ensure teamwork

Teamwork sessions were well appreciated during the SOHIC training. Lessons learned from this activity are the importance of strong commitment of students during training sessions, interdisciplinarity that allowed for great discussion with different points of view, and enhancement of collaboration among the 3 SOHICs involved. Although in-person training was preferred, students started a WhatsApp group to continue working remotely.



NEXT STEPS

AFROHUN Senegal will recruit a third cohort of recipients of the small grants program and encourage previous beneficiaries, as well as those who benefitted from previous scholarships, to publish their findings. In addition, we plan to track AFROHUN scholarships and training recipients in order to build a platform of alumni and to continue capacity building for SOHIC on OH competencies. AFROHUN Senegal will also develop collaborations around training to strengthen the impact of such activities.



ONE HEALTH CHAMPION



“Global health is the concern of each and every one of us, and One Health is the basis for it.”

SN 5: Photo source: AFROHUN Senegal.

Yalacé Yamba KABORET

Job Title

General Director of EISMV (Ecole Inter-Etats de Sciences et Médecine Vétérinaires)

Professional Credentials

Professor of Veterinary Sciences & Medicine

Role within the OHW-NG Project

Dean

Affiliation

EISMV

Professor Kaboret has actively contributed to the establishment of AFROHUN in Senegal. His strategic guidance is very valuable for promoting OH in Senegal among pre-service, in-service and faculty. For example, he led the creation of a Masters program in Wildlife Management and Surveillance at Ecole Inter-Etats des Sciences et Medecine Vétérinaires (EISVM) as well as the introduction of OH modules in initial curricula. Professor Kaboret supports day-to-day implementation of AFROHUN and OHW-NG activities.



SUCCESS STORY

Building competencies of the next-generation OH workers

Creating SOHIC helps students build skills that will enable them to be more impactful in their current and future activities. In April and May 2021, AFROHUN Senegal, with support of a trainer, regional Secretariat staff, and the Global Team adapted two training modules developed during the USAID OHW Project (2014 - 2019) and trained SOHIC members from the following universities: Université Cheikh Anta Diop de Dakar (UCAD), Université Gaston Berger de Saint-Louis (UGB), and Université Assane Seck de Ziguinchor (UASZ). This training focused on gender and Infectious Disease Management (IDM); and leadership and OH. Due to the COVID-19 pandemic and in order to train a large number of participants, the workshop was held both in person and remotely.

SOHICs represent a student-led strategy to promote experiential learning and break down disciplinary silos among health students expected to make up Africa's future OH workforce. University of Rwanda became AFROHUN's first SOHIC in May 2013. Informed by experiences from other AFROHUN institutions, UCAD formed its SOHIC in 2017.

The training enabled 75 (38 female and 37 male) participants from three universities and different academic disciplines to work closely in multidisciplinary teams to gain OH skills using case studies. To nurture these new student networks, a WhatsApp group was established to enable participants to continue working together on case studies beyond training hours. The WhatsApp group was also helpful for the students to continue networking during and after the training. Both the in-person and online sessions were well appreciated by students although their preference was in-person training to allow more social interactions.

La formation a été très intéressante, les formateurs avec ont été très pertinents et ont esayer de répondre toutes nos questions dans la

mesure du possible. Le travail d'équipe aussi on apprécie. Cette nous a permis de comprendre la

Dans l'ensemble, la formation était intéressante. Le contenu et les échanges sont fondateurs. La logistique et les supports ont été d'une utilisation simple et accessible.

Concernant la formation et toute l'équipe initiatrice, nous remercions les plus concernés, nous nous sommes vraiment promis de bénéficier d'une session de qualité et merci encore pour tous les efforts consentis.

Merci à tous surtout à Dr Nicolas Diouf et à Mme Dieng car depuis le début de la formation ils ont été là avec nous. Merci infiniment.

→ Très relaxant

L'approche que SOHIC nous a permis de mieux porter le combat sur le genre. À l'avenir, je pourrai aider plusieurs personnes à prendre conscience sur beaucoup de domaines.

J'ai beaucoup appris sur la formation. Avant je connaissais pas la notion de genre mais maintenant j'en ai une idée claire.

SN 6: Quotes made by students who participated in in-person training provide an overview of participants' point of view on knowledge acquired and on the training in general. Photo source: AFROHUN Senegal.

To assess knowledge acquired from these trainings, each SOHIC (represented by a team comprised of five to seven members) participated in a national OH case competition. The teams were provided a COVID-19 case study and were asked to use knowledge gained during the training sessions to address the questions. This competition was well received and appreciated, as it allowed the teams to put newly acquired technical and social skills into practice and provided a platform for public speaking and communication.



SN 7: Niokolo-Koba National Park, Senegal. Photo source: Wikimedia.

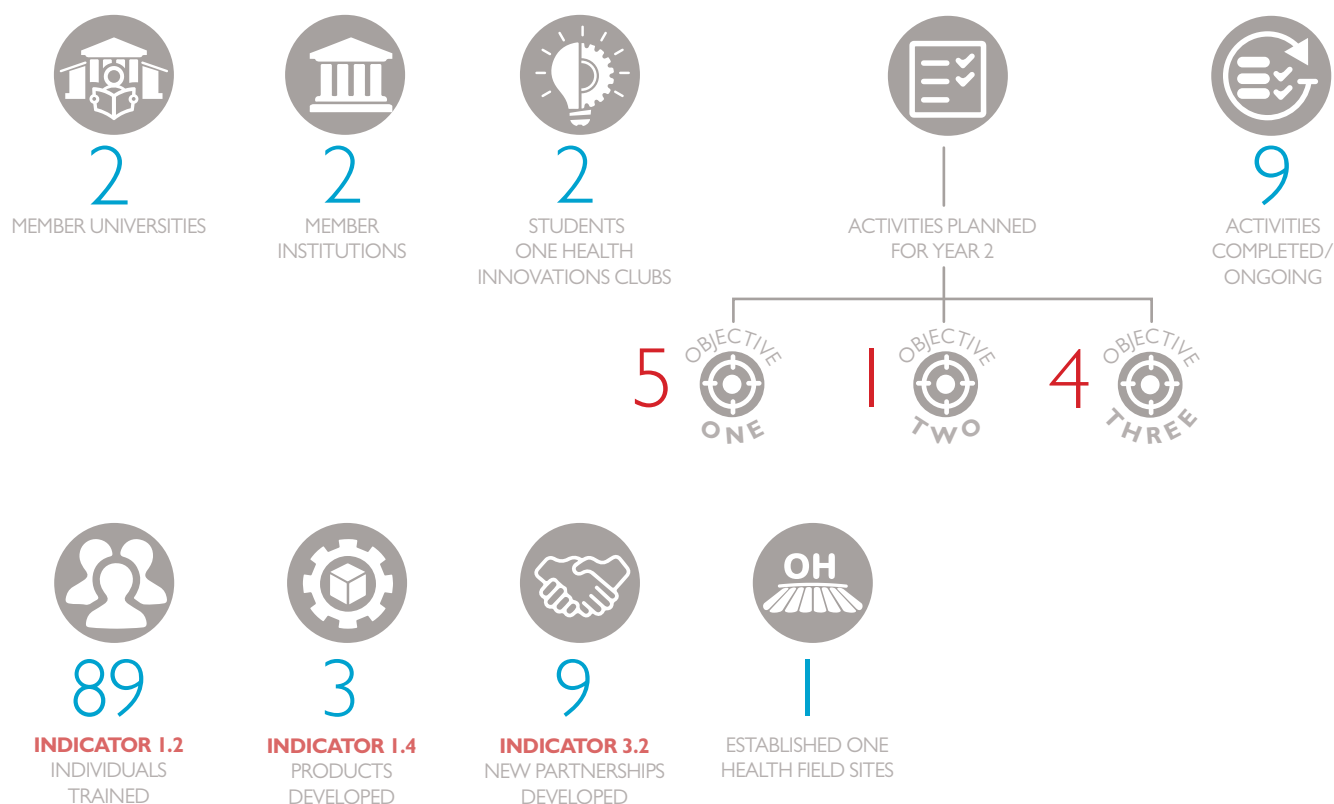


TZ 1: Wildebeest Migration in Serengeti National Park, Tanzania. Photo source: Wikimedia.

TANZANIA



COUNTRY CHAPTER



Highlights

- ➔ Eight (8) Higher Education Institutions (HEIs) across Tanzania agreed to integrate One Health (OH) competencies in their undergraduate courses (February 2021).
- ➔ Integrated OH competencies in 2 curricula for diploma and certificate level for agriculture and environmental health programs (January 2021).
- ➔ Sensitized stakeholders about the importance of engaging students in rabies eradication campaigns and other priority zoonotic diseases in Tanzania (April 2021).
- ➔ Fifty (50) students supported by 15 faculty conducted a rabies awareness campaign in Kisarawe district where 1,558 dogs and cats were vaccinated (May 2021).
- ➔ Trained 30 (14 female, 16 male) faculty from diploma and certificate level colleges in Tanzania thereby developing their capacity to deliver OH integrated curricula to their students (June 2021). These colleges train students in livestock, health and allied sciences, pharmacy, and marine health.

- Engaged nine members of five professional councils to co-develop a stand-alone OH Continuing Professional Development (CPD) curriculum for the councils (August – September 2021).
- Sensitized 23 OH focal persons from Ministries of Health, Livestock, Agriculture, Environment and public Universities and research institutions, on the OH approach for solving complex health problems (February 2021).



TZ 2: Aerial view of Mnemba Island, Tanzania. Photo source: naturalworldsafaris.com

ACTIVITIES



OBJECTIVE 1

As one of the strategies to expand OH training beyond AFROHUN member institutions, AFROHUN Tanzania held a meeting with 30 faculty from 8 HEIs to identify institutions and curricula to prioritize for integration of OH competencies (TZ Activity 1.1.6). All 8 institutions agreed to integrate OH competencies in their undergraduate courses in Year 3 (2021 – 2022). The institutions include the Ardhi University, State University of Zanzibar, University of Dar es Salaam- Mbeya College of Health and Allied Sciences, Muhimbili University of Health and allied Sciences (MUHAS), Sokoine University of Agriculture (SUA), Kampala International University (KIU), University of Dodoma (UDOM) and the Kilimanjaro Christian Medical University College (KCMC). The targeted courses within those universities will include medical, nursing, and environmental. AFROHUN Tanzania also supported 2 certificate and diploma level training institutions to integrate OH competencies in their curricula (TZ Activity 1.1.7). The enriched training curricula were for agriculture, and environmental health courses. In addition, the team reviewed and refined curricula for 6 certificate and diploma level courses which were enriched with OH competencies during the OHW Project and the first year of the OHW-NG Project (2019 - 2020). We currently have 8 curricula at certificate and diploma level where OH competencies have been integrated. The 8 curricula in which OH content was incorporated include those for diploma and certificate level training for Nursing, Clinical Officers, Livestock, Wildlife, Laboratory, Pharmacy, Agriculture, and Environmental Health. We developed print ready copies of all the relevant curricula at the diploma and certificate levels. These print-ready curricula were submitted to the relevant ministries by the Prime Minister's Office which is coordinating this activity for approval. Once approved, the revised curricula will be rolled out nationally. These efforts are expected to institutionalize OH training in colleges for certificate and diploma level students. This will go a long way in ensuring sustainable training of the future OH workforce. In Tanzania, the bulk of the frontline health workers are certificate and diploma holders.

AFROHUN Tanzania attaches great importance to partnerships as a strategy to promote OH capacity building. Taking advantage of the country's plan to eliminate rabies by 2030, we engaged partners through a workshop to raise awareness about the importance of engaging students in campaigns for eliminating rabies and other priority zoonotic diseases in the country (TZ Activity 1.2.4). Attended by 17 officials and 5 facilitators, the workshop also enabled participants to gain knowledge on emerging pandemic threats and the OH approach. Participants were drawn from Ifakara Health Institute, Ministry of Health, Ministry of Livestock and Fisheries, Prime Minister's Office, Kisarawe District, and AFROHUN Tanzania member institutions. The workshop was aimed at soliciting future support for the students' field experiential learning activity in terms of finances and material support, allowing students to participate and to provide support during field activities. Following the workshop, a total of 50 students supported by 15 faculty conducted a rabies awareness campaign, vaccinating 1,558 dogs and cats in Kisarawe district (TZ Activity 1.2.5). The students were from Veterinary, Human Medicine, Nursing, Environment, and Laboratory Sciences disciplines at Sokoine University of Agriculture (SUA), and Muhimbili University of Health and Allied Sciences (MUHAS). This activity provided students with field experiential learning opportunities through campaigns of vaccinating animals and sensitizing communities on the control / elimination of rabies and other priority zoonotic diseases. Approximately 3,000

community members were reached by the campaign. This activity was organized in collaboration with the Ministry of Livestock and Fisheries (MoLF), Ministry of Health Community Development Gender Elderly and Children (MOHCDGEC), Kisarawe district Council, MUHAS, Ifakara Health Institute (IHI), SUA, Food and Agriculture Organization (FAO), and World Health Organization (WHO).

AFROHUN Tanzania has plans of expanding OH training to additional HEIs in Tanzania. This year, we initiated the process of curriculum review in other HEIs that train human health, animal health and environmental health professionals. This was kick-started by organizing a training workshop which benefitted 30 (14 female, 16 male) faculty from diploma and certificate level colleges in Tanzania.



TZ 3: Participants at a workshop to engage students in rabies campaigns. Photo source: AFROHUN Tanzania.

The workshop enabled participants to develop their capacity to deliver OH integrated curricula for their students. This workshop, which focused on customized OH modules, provided participants with the knowledge and skills for imparting soft and technical skills in OH approaches to the diploma and certificate level students, using competency-based teaching methodologies. It targeted participants from the following academic programs: Livestock, Agriculture, Wildlife, Medicine, Nursing, Pharmacy, Environment, and Laboratory Sciences. The training was in anticipation that the reviewed curricula, which have integrated OH content, will soon be rolled out for implementation in all diploma and certificate training institutions in Tanzania.



OBJECTIVE 2

During Year 1 (2019 – 2020), AFROHUN Tanzania identified gaps in OH competencies in existing CPD short courses. The next step was to review the curricula in detail and address the identified gaps (TZ Activity 2.3.3). Two (2) subject matter experts from the 5 discipline areas i.e., Medical, Veterinary, Environmental, Nursing and Midwifery, and Pharmacy, attended the workshop to review the curricula and address gaps while at the same time they co-developed a OH CPD curriculum. Nine members representing the various professional health councils (Medical, Nursing & Midwifery, Veterinary, Pharmacy, and Environmental) participated in a training workshop to co-develop a multidisciplinary OH CPD curriculum. During the workshop, participants reviewed and addressed OH module gaps previously observed in CPDs and professional development courses and came up with a stand-alone CPD curriculum for pilot in Year 3 (2021 – 2022).



TZ 4: CPD course development workshop participants. Photo source: AFROHUN Tanzania.



OBJECTIVE 3

The Tanzania Country Manager represented AFROHUN in all the monthly Global Health Security Agenda (GHS) meetings where he presented progress reports and received updates from the other partners (TZ Activity 3.2.5). He also attended other OH related national level meetings and conferences such as meetings to develop the OH second 5-year Strategic Plan and a meeting to assess progress in International Health Regulations (IHR) using the State Party Self-Assessment Annual Report (SPAR) tool. He also attended the conference on Health Promotion where he gave a keynote address on Emerging Pandemic Threats and the OH approach.

The One Health Coordination Desk (OHCD) in the Prime Minister's Office appointed Focal Persons from all key ministries and other institutions to be responsible for coordinating OH activities in their respective institutions. Despite being recruited in January 2019, the Focal Persons had never received any orientation on emerging pandemic threats and the OH approach.

During the reporting period, we held a OH sensitization workshop benefitting 23 OH Focal Persons (TZ Activity 3.3.2). The workshop also served as a forum where participants shared their experiences in implementing the OH approach at their workplaces.



TZ 5: Group work during the OH Focal Persons sensitization workshop. Photo source: AFROHUN Tanzania.

AFROHUN Tanzania held a virtual workshop to develop a draft Year 3 (2021 – 2022) work plan and budget (TZ Activity 3.2.4). This also included a performance review session which informed the drafted work plan. The draft work plan and budget were reviewed and refined during a regional work planning meeting held in Mombasa, Kenya.



LESSONS LEARNED

Student service and learning model

AFROHUN Tanzania has been fully recognized by the Prime Minister's Office (PMO) which houses the OHCD under the Department of Disaster Management. This recognition is long-term and has earned AFROHUN Tanzania high visibility nationally. One of the lessons learned is importance of using students in rabies vaccination campaigns to eliminate the disease in Tanzania, which is increasingly supported by many stakeholders. This move is designed to provide field experiential learning to students to gain competencies thus building the future OH workforce while at the same time providing valuable service to communities. There is always insufficient human resources in the districts to vaccinate animals thus students can always provide an ever-ready human resource especially during their vacations. Students are always excited to participate and offer voluntary services during such campaigns as opposed to regular employees. Challenges encountered include inadequate financial resources to support student participation and to procure rabies vaccines for the campaigns. This challenge has been partially solved through collaboration with FAO to procure vaccines and the fact that Tanzania will soon produce rabies vaccine which will be readily available for free. Negotiations are ongoing with the President's Office Regional Administration and Local Government (PO-RALG) and MOLF to provide financial support to students as well as transportation to the field on a regular basis through internally generated funds.

Ensuring ownership of OH CPD course: the Tanzania example

During Year 1 (2019 – 2020) of the OHW-NG Project, AFROHUN Tanzania worked with representatives of 5 professional councils to review CPD programs and identified several gaps including the lack of CPD courses in some councils and lack of standardized CPD credit scores across the councils. Working with the 5 professional councils, we co-developed one CPD course that cuts across the different professions. This course has received support from all the professional councils which have pledged to mobilize their members to enroll and earn credit points. Involvement of the professional bodies whose members are the targeted beneficiaries, by identifying the gaps and development of the course, has promoted ownership of the course by the councils.



NEXT STEPS

AFROHUN Tanzania is planning to continuously engage the Students One Health Innovations Club (SOHIC) in experiential learning exercises in which they will learn how to control priority zoonotic diseases in Tanzania such as rabies while at the same time they will participate in practical field attachments to conduct campaigns for vaccinating dogs against rabies. The goal will be to eliminate rabies and other immunizable zoonotic diseases in Tanzania. In addition, we will follow up with the HEIs and colleges to integrate OH content into existing curricula.

The other key next step is that AFROHUN Tanzania is planning to pilot a OH CPD short course for professional councils in Year 3 (2021 – 2022) of the OHW-NG Project. This pilot has been conceived after creating a stand-alone OH CPD curriculum designed for members of professional councils. These members will be encouraged to enroll into such a course to gain CPD credits which they need for professional licensure. At the same time their participation will constitute an income generating activity for the university hosting the course.



ONE HEALTH CHAMPION



“One Health “goes without saying”. While many things also “go without saying”, how often do we check ourselves to see if our collaboration, communication and coordination are still going on without saying?”

TZ 6: Photo source: AFROHUN Tanzania.

DR. DEODATUS KAKOKO

Job Title

Associate Professor of Behavioural Sciences

Professional Credentials

Dip. Educ., B. Educ., MA Applied Psychology, PhD

Role within the OHW-NG Project

Activity Lead, Thematic Lead, National level OH Focal Person

Affiliation

Muhimbili University of Health and Allied Sciences

Deodatus plays multiple roles in OH in Tanzania. These include leading activity implementation in AFROHUN Tanzania, coordinating OH activities at the university level, and linking them to national-level OH activities with the OH coordination Desk (OHCD) at the Prime Minister's Office.



SUCCESS STORY

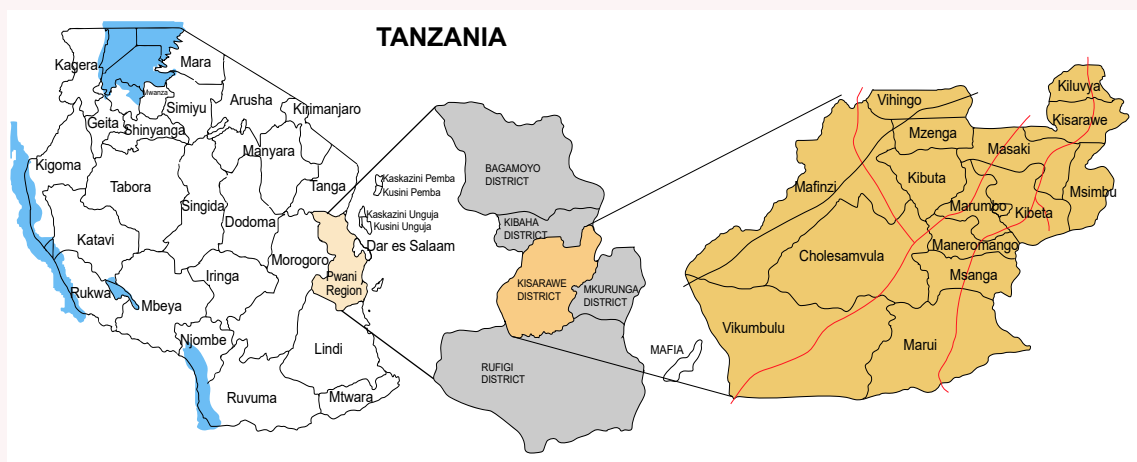
Addressing shortage of human resources for rabies elimination through a student service-learning model

The Government of Tanzania supports the global strategic plan of eliminating dog-mediated rabies by 2030. It is estimated that more than 1,500 people die every year in Tanzania from rabies, a disease that is preventable by high (over 70%) animal vaccination coverage. However, one of the challenges to meeting this target is the unavailability of human resources to conduct rabies sensitization and vaccination campaigns.

*"Livestock officers are not available to provide vaccination services for our animals even if you call them by phone, because they are few and would be busy providing services in other villages." – **Community member** from Kisarawe district*

Using a service-learning model, AFROHUN Tanzania has been supporting students' engagement in rabies vaccination campaigns since 2013. In May 2021, 50 students from SUA and MUHAS were supported by 15 faculty to conduct a rabies awareness and vaccination campaign in Kisarawe district. Kisarawe district is considered to be among the hotspots for rabies as it borders the Nyerere National Park, the largest national park in Tanzania and also one of the world's largest wildlife sanctuaries, according to the Director of Veterinary Services in the Ministry of Livestock and Fisheries Development, Prof Herzon Nonga. During the campaign the students vaccinated 1,558 dogs and cats and reached approximately 3,000 community members with rabies sensitization messages.

Our SUA and MUHAS team collaborated with various partners, including MOLF, MOHCDGEC, the Kisarawe District Council, IHI, FAO, and WHO. During the campaign the ministries provided approvals, technical support as well as transport for the students. The Kisarawe District Council provided space and facilities for the campaign launch while the District commissioner gave the launching speech. The District Council also helped to inform ward and village leadership as well as residents to prepare them



TZ 7: Map showing a zoomed-in Kisarawe District, where the rabies campaign took place. Photo source: AFROHUN Tanzania.

for the campaign. IHI provided technical support for the field studies which accompanied the campaign. FAO provided technical support, required doses of the rabies vaccines and related materials while WHO provided protective gear for participants, technical support and transportation for supervisors and facilitators.

Beyond the immediate community health impact provided by the vaccination campaign, participating students also benefitted by gaining valuable experiences through hands-on learning, including collaboration in multidisciplinary teams, communication, and community engagement to address complex health problems using a OH approach. Through this campaign, students were also exposed to the overall workforce shortage for conducting rabies vaccination campaigns, and hence were inspired to continue addressing these gaps if similar opportunities arise in future.

“The time you need a veterinary officer to vaccinate or treat your animal the officer is not available. You need to call them and sometimes they just tell you that they are far from your area and so find another officer who might be closer to you” – Dog owner 2 – Kisarawe district.

“We are very few and, in my department, we are only 60 livestock officers while we have about 157 villages in our district, all of which we need to serve”.- District Veterinary Officer.

“If you provide us with a bus with booming sound we will join you for the rabies vaccination campaign”.- Environmental Science student from MUHAS.

Next steps: The campaign strengthened bonds and partnerships and the prospects for sustainability of future OH interventions addressing rabies and other priority zoonotic diseases are bright. For instance, FAO has committed to procuring the required rabies vaccines for future campaigns, while at the national level, Tanzania is in the process of establishing manufacturing capability for rabies vaccines, which are expected to be available next year (2022). With these commitments, alongside continued efforts to train and strengthen the current and future OH workforce, Tanzania is building the resilient systems needed to eliminate rabies and tackle other known and emerging health security threats.



UG 1: Ugandan Kob female and calf, Semliki Wildlife Reserve. Photo source: Wikimedia.

UGANDA



COUNTRY CHAPTER



Highlights

- Twenty (20) field / community supervisors and 16 faculty from Mbarara University of Science and Technology (MUST) trained in One Health (OH) in order to fully institutionalize OH training from the lecture room to the field (January 2021).
- Six (6) graduate and 52 undergraduate students from Lira University (LU), Uganda Christian University (UCU) and Makerere University trained in Infectious Disease Management (IDM). 15 faculty were trained in on-line pedagogy ahead of the training in IDM (June - August 2021).
- Fourteen (14) faculty trained to use The One Health Field Experiential Learning (TOHFEL) (August 2021).

1. A component on gender was included in the following training events: training of 36 MUST Community Based Education, Research and Service community supervisors and faculty on OH, 57 MUST Students One Health Innovations Club (SOHIC) members during training on climate change and COVID-19, and 52 students of Makerere University during training on IDM
2. Established 6 OH sites in Northern Region, 1 in Eastern, 2 in Western, 39 in the Central Region.

- Sixty-seven (67) SOHIC members sensitized on climate change and the control/prevention of COVID-19 (July - September 2021).
- Fifty-two (52) community projects implemented in Eastern, Western, Central and Northern Uganda by undergraduate students during their field attachment (July - August 2021).
- Six (6) graduate fellows mentored in IDM following a OH approach. These fellows, completed a two months fellow placement at partner organizations such as Infectious Diseases Institute (IDI), PRESIDE, AFROHUN Uganda, National One Health Platform (NOHP) and Ministry of Health - Epidemiology and Surveillance Division (MOH-ESD) (August - September 2021).
- New partnerships established, bringing on board universities and institutions such as LU, UCU, and the President's Initiative on Epidemics (PRESIDE) (May - September 2021).
- Developed a road map for institutionalization of OH training in Makerere University which shows how OH has evolved over the years at the university, in existing curriculum, in the various OH short courses offered, and how these can be institutionalized within the university. (May - September 2021).



UG 2: Engaging City Officials and residents during a community awareness event on waste management, which was part of undergraduate students field attachment. Photo source: AFROHUN Uganda.

ACTIVITIES



OBJECTIVE 1

AFROHUN Uganda reviewed and updated the curriculum of the One Health Institute (OHI) IDM course developed five years ago (UG Activity 1.1.6). This involved revising intended learning outcomes to meet the current demands of COVID-19 and on-line learning. This activity was implemented in collaboration with the College of Education and External studies, Makerere University. In addition, AFROHUN Uganda developed a curriculum for the OH graduate fellowship program.

Through SOHIC-MUST, we conducted an on-line OH symposium, reaching over 300 students from various universities, aimed at showcasing the role of medical students in the fight against COVID-19 (UG Activity 1.2.4). SOHIC members also implemented climate change activities and held a campaign against COVID-19. We collaborated with LU, UCU, and trained 14 faculty on TOHFEL Guide, completed 52 community projects in Uganda under the field experiential learning – OH Institute.



UG 3: Section of residents attending community awareness event on waste management during the undergraduate students' attachment. Photo source: AFROHUN Uganda.

We trained 20 field/community supervisors and 16 faculty in order to fully institutionalize OH training from the lecture room to the field. Additionally, we revised and updated a student evaluation tool developed by MUST in 2010.

We collaborated with the Ministry of Education and Sports and the Ministry of Health to conduct a school based COVID-19 surveillance and pre-testing of the COVID-19 standard operating procedures (SOPs) for reopening schools. This exercise was held under the theme “A students’ experience of strengthening school-based surveillance in institutions across the country” and covered 54 schools (primary, secondary, tertiary, and Business Technical Vocational Education and Training (BTVETs) institutions). We collaborated with the NOHP, Private Sector Foundation, Uganda Manufacturers’ Association and conducted advisory guidance to factories in Jinja, Mukono, Buikwe and Wakiso districts on adherence to COVID-19 Standard Operating Procedures (SOP) and strengthening inspection. This exercise covered 39 factories reaching over 400 factory workers.



UG 4: Fellows who were part of the factory advisory team. Photo source: AFROHUN Uganda.

We supported faculty and line-ministries to develop a strategy defining a OH worker in Uganda. This is aimed at streamlining pre and in-service workforce development. The strategy will be reviewed and validated in Year 3 (2021 – 2022).



OBJECTIVE 3

AFROHUN Uganda supported the development of a university framework which provides the conceptual structure and process that includes: identifying core competencies that are relevant for OH training, developing training modules / curricula aligned with these competencies, in-service government and private sector (stakeholder training) training including professional development programs (UG Activity 3.2.4). In addition, experiential learning activities i.e., OHI and joint field attachments were added to the road map of the university framework.

Arising from the activities implemented by AFROHUN Uganda, we developed 10 products. These include Curriculum for OHI-Graduate Fellowship, OH University Framework, OH strategy defining a OH worker, and six situational reports for graduate fellows.



LESSONS LEARNED

Building faculty capacity in online delivery of training is necessary for successful training

The COVID-19 pandemic has necessitated changing learning from purely in-person to either online or blended. This happened at a period when many faculty did not have sufficient capacity for delivery of training online. In 2021, AFROHUN Uganda implemented various training activities using a blended model, with a few in-person sessions and dominated by on-line sessions. To ensure efficient delivery of blended training, we organized training on online pedagogy for participating faculty. The blended training was successfully implemented because of the training offered to faculty and encouraging students to embrace online learning. We have learnt from this experience that for successful implementation of blended training, we need to invest in building capacity of faculty in online delivery, and also encourage students to embrace online learning.

Offering OH training beyond AFROHUN member universities

AFROHUN Uganda has only two member universities; Makerere University and MUST. Due to limited resources, AFROHUN may not be able to expand its membership to include all institutions of higher learning in the country that are involved in OH related training. However, the need for OH training goes beyond the AFROHUN member institutions. In Year 2 (2020 – 2021) we engaged LU and UCU who appreciated the approach and how relevant it was in addressing community challenges. We built capacity of faculty of the 2 universities in OH and online pedagogy, and also had their students participate in training events such as IDM. From this engagement and partnership, we have learned that it is possible to efficiently extend OH training beyond AFROHUN member universities and we do not have to wait for institutions to join the Network before benefitting from our work.



NEXT STEPS

Building on several success stories in Year 1 (2019 – 2020) and Year 2 (2020 – 2021), AFROHUN Uganda will conduct more OH capacity building training among field / community / faculty supervisors from 10 sites in Mbarara with a target of covering 50 sites at Year 5 (2023 – 2024). We will strengthen our collaborations and partnerships with private sector, academia, government to review and validate a strategy defining a OH worker in Uganda, prepare grant proposals and complete them collaboratively.

We will work with Global Health Security Agenda (GHSa) partners to address knowledge gaps in three OH district teams, with a target of training 60 OH district members. A training of trainers will be conducted to enable facilitators to harmonize training materials which will be followed by a series of training covering modules such as gender, bio-risk management, outbreak investigations and response, budgeting, communication during epidemic, epidemiology and leadership in infectious disease management.

We look forward to strengthening our partnership with LU and UCU during the implementation of the OHI-IDM course, field experiential learning and graduate fellowship program. This partnership will enable capacity building in OH through training and field experiential learning to other universities, reaching a wider audience and implementing innovative projects at community level.

We are building on previous collaborations with similar organizations to strengthen COVID-19 surveillance in schools in Northern and Central Uganda.



ONE HEALTH CHAMPION



“Eight years ago when I joined the SOHIC as an undergraduate, I could only see individuals from disciplines like Veterinary Medicine, Public Health, Epidemiology, Environmental Sciences, and Human Medicine participating in One Health activities but now it delights me to see more disciplines like journalism, social sciences, engineering and Information technologies among others, joining One Health activities. This is a tremendous achievement by organizations like AFROHUN who are striving to prepare the next generation of the One Health workforce that is able to deal with Global Health challenges in this era of epidemics and pandemics.”

UG 5: Photo source: AFROHUN Uganda.

ADRIEN EMILE NTWARI

Job Title

Student

Professional Credentials

Wildlife Veterinarian

Role within the OHW-NG Project

OH Graduate Fellow

Affiliation

Makerere University

Adrien is a University of Rwanda SOHIC alumni. He has a high passion for OH and is very active in OH student activities. He was one of the 2021 AFROHUN Graduate Fellows. He represented AFROHUN during the ongoing preparation of East Africa OH strategy for the region. This strategy will not only strengthen the capacity of our countries to effectively collaborate in the preparedness, control, and prevention of epidemics and pandemics in the region but will also prevent the region from becoming the hotspot of the next pandemic.



SUCCESS STORY

A blended graduate fellowship successfully implemented by AFROHUN Uganda and partners

Six Makerere University graduate students coming from diverse academic backgrounds (epidemiology and biostatistics, pharmacy, veterinary medicine, molecular biology, and computer science) underwent an IDM on-line training for a month. The course introduced students to new concepts such as the importance of gender in infectious diseases management, Bio-risk management, Antimicrobial Resistance (AMR), leadership in infectious disease management, OH concepts, community entry and community engagement, and outbreak investigation. This was successfully completed using the Makerere University e-learning platform.

Following the on-line training completion, fellows underwent a blended placement for 2 months at various partner institutions such as the IDI - GHSA Project, the PRESIDE, the NOHP, and the Ministry of Health Division of Integrated Disease Surveillance at the department of Veterinary Public Health. Fellows applied the knowledge and skills gained during the theoretical training. More specifically, fellows developed situational analysis reports based on the sites they were placed, participated in planning for activities at the host sites, investigated outbreaks which occurred at the time of their placement. Fellows also took part in conducting factory advisory visits in Jinja, Buikwe, Mukono and Wakiso districts to assess the extent of adherence to the COVID-19 SOPs.

The graduate fellowship program has expanded its reach and brought on board more partners where fellows will be hosted in the future. These include the Strategies to Prevent Spillover (STOPS) Project, PRESIDE and the NOHP.

*"My engagement with AFROHUN is heading to success. Having completed the theoretical modules and with one month through Fellowship, I feel I am already there: – A One Health Champion. The theoretical 1 month's training was very resourceful. It provided a firm foundation for my Fellowship, equipping me with essential field skills. What I am practicing currently in the Fellowship is part and parcel of the theoretical modules." – **Naluwuge Annet**, Graduate Fellow attached to Infectious Disease Institute.*

*"I was delighted to participate in the One Health support supervision for the Fleming Fund AMR sites in the Western region of Uganda... I have put to use all the competencies and skills gained during the theoretical principles training." – **Dickson Ntungire**, Graduate Fellow hosted at the NOHP.*





UG 6: Sipi Falls, main drop, Uganda. Photo credit_Wikimedia



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SOUTHEAST ASIA ONE HEALTH
UNIVERSITY NETWORK
REPORTS



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ONE HEALTH GLOBAL WORKFORCE NEXT GENERATION: SOUTHEAST ASIA

YEAR 2 ANNUAL REPORT
October 2020 - September 2021



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(Cover page) Photo credit: Tan Cheng Siang/MyOHUN

TABLE OF CONTENTS

SEA - 3	INTRODUCTION
SEA - 7	SOUTHEAST ASIA ONE HEALTH UNIVERSITY NETWORK
SEA - 20	CAMBODIA ONE HEALTH UNIVERSITY NETWORK
SEA - 26	INDONESIA ONE HEALTH UNIVERSITY NETWORK
SEA - 36	LAO ONE HEALTH UNIVERSITY NETWORK
SEA - 42	MALAYSIA ONE HEALTH UNIVERSITY NETWORK
SEA - 52	MYANMAR ONE HEALTH UNIVERSITY NETWORK
SEA - 56	PHILIPPINE ONE HEALTH UNIVERSITY NETWORK
SEA - 60	THAILAND ONE HEALTH UNIVERSITY NETWORK
SEA - 68	VIETNAM ONE HEALTH UNIVERSITY NETWORK
SEA - 80	ONE HEALTH CHAMPIONS FOR SOUTHEAST ASIA

ACRONYMS

AMR	Antimicrobial resistance
ASEAN	Association of Southeast Asian Nations
ASEAN+3 FETN	ASEAN Plus 3 Field Epidemiology Training Network
CAMBOHUN	Cambodia One Health University Network
COVID-19	Coronavirus Disease 2019
FAO	Food and Agriculture Organization of the United Nations
GHSA	Global Health Security Agenda
INDOHUN	Indonesia One Health University Network
IPC	Infection Prevention and Control
LAOHUN	Lao One Health University Network
MEL	Monitoring, Evaluation, and Learning
MMOHUN	Myanmar One Health University Network
MyOHUN	Malaysia One Health University Network
NCO	National Coordinating Office
OH	One Health
OHCCs	One Health Coordinating Centers
OHSC	One Health Student Club
OHUN	One Health University Network
OHW-NG	One Health Workforce - Next Generation
PhilOHUN	Philippine One Health University Network
RCCE	Risk Communication and Community Engagement
SARS-CoV-2	Severe Acute Respiratory Syndrome Coronavirus 2
SEAMEO	Southeast Asian Ministers of Education Organization
SEAMEO STEM-ED	SEAMEO Regional Centre for STEM Education
SEAMEO TROPMED	SEAMEO Tropical Medicine and Public Health Network
SEAOHUN	Southeast Asia One Health University Network
THOHUN	Thailand One Health University Network
USAID	United States Agency for International Development
VOHUN	Vietnam One Health University Network
WHO	World Health Organization

INTRODUCTION

With the social distancing policies during the COVID-19 pandemic, higher education institutions have been under pressure to transform in-person courses to online educational offerings, while maintaining the same quality of tertiary-level education and continuing professional development programs. The Southeast Asian Ministers of Education Organization Congress 2021, “Transforming Southeast Asian Education, Science, and Culture in the Digital Age,” emphasized how to utilize online learning as a strategy to both delivering tertiary education during disruptions and ensure that learners are adaptable, flexible and prepared for lifelong learning requirements of the 21st century. This strategy is difficult to implement if curricula, courses, learning modalities, and assessment schemes are designed to be delivered in person, and lecturers and students alike are not yet trained in online teaching and learning.

The USAID One Health Workforce - Next Generation (OHW-NG) Project has faced the same challenges, as SEAOHUN and its implementing partners have had to overcome limits to movement and a sudden conversion of project activities into online delivery whenever possible. The OHW-NG Project supports the capacity building of the health workforce to prevent, detect and respond to infectious diseases and contributes to improving global health and health security through One Health University Networks in Africa (AFROHUN) and Southeast Asia (SEAOHUN). The project is led by the One Health Institute of the University of California, Davis and draws upon the expertise of a Global Consortium of partners active in human, animal and environmental health.

The project has turned the crisis into opportunities to review which skills and competencies had to be delivered experientially, and which could benefit from online delivery. We saw examples such as the virtual parliament for students in Indonesia to debate on public health crises, the application by Thai university lecturers of design-thinking principles to create innovative product concepts for protection against the spread of COVID-19, the development of guidelines on risk and crisis communications for Malaysian higher education institutions, and the training of Vietnamese public health and veterinary health professionals in emergency risk communication. This report captures these and other major achievements of the project in Southeast Asia for the period 1 October 2020 to 30 September 2021, to achieve the following:



- ◉ **Promote training and empowerment** (Objective 1) to increase capacities in One Health technical skills and competencies of both pre-service and in-service professionals. This objective also seeks to establish a well-trained and technically proficient workforce pipeline, and to support the engagement and contribution of the Networks to their respective countries' health emergencies response.
- ◉ **Strengthen assessment and tracking** (Objective 2) of the workforce we have trained and their subsequent placement, performance and impact in organizations.
- ◉ **Increase organizational sustainability** (Objective 3) of the regional One Health University Networks (AFROHUN and SEAOHUN) to acquire and directly manage donor funding.
- ◉ **Support national responses to the COVID-19 crisis** (Emergency COVID-19 response funding from USAID) to improve infection prevention and control, help improve laboratory standards and systems to support testing, raise capacities in disease surveillance and contact tracing, and assist in the responsible dissemination of COVID-19 risk information to the public.

The achievements of SEAOHUN would not be possible without the unflagging commitment and determination of the member Universities of CAMBOHUN (Cambodia), INDOHUN (Indonesia), LAOHUN (Lao PDR), MyOHUN (Malaysia), MMOHUN (Myanmar), PhilOHUN (the Philippines), THOHUN (Thailand), and VOHUN (Viet Nam) as they continue to integrate One Health into their curricula and research, and innovate during this pandemic and its challenges. Our members are active in promoting effective and responsive teaching of One Health skills and competencies, mentoring early career professionals, research in One Health topics, and in advocacy for the One Health approach.

SEAOHUN thanks the Global Team of OHW-NG who have been providing us with invaluable assistance towards shaping the project's interventions to raise capacities of the One Health workforce in the region. We also thank all our partners who support our programs at regional and country levels.

We especially thank the United States Agency for International Development for its continued support for strengthening One Health workforce and institutionalizing One Health as a valuable component of tertiary-level education and skills development in Southeast Asia.

Vipat Kuruchittham
Executive Director, SEAOHUN

One Health Workforce - Next Generation Project:

Achievements for Year 2



Image credit: Canva.com

SEAOHUN

SOUTHEAST ASIA ONE HEALTH UNIVERSITY NETWORK

ABOUT SEAOHUN

- Cambodia (CAMBOHUN), Indonesia (INDOHUN), Lao PDR (LAOHUN), Malaysia (MyOHUN), Myanmar (MMOHUN), the Philippines (PhilOHUN), Thailand (THOHUN), and Viet Nam (VOHUN) are the countries with University Networks that compose SEAOHUN.
- **Vision:** A regional Network of universities in Southeast Asia generating social and intellectual excellence on One Health.
- **Mission:** To develop a resilient and competent One Health workforce by leveraging education, research, and training excellence provided by member Universities in Southeast Asia.
- The SEAOHUN Secretariat represents the Network at regional meetings to advocate for the role of universities to help solve complex One Health challenges by building the capacity of professionals across sectors, conducting research for evidence-based decision making, and assisting governments with public health surge capacity. The Secretariat coordinates the endeavors of Network members, manages project sub-awards, and fosters expansion of membership.
- Flagship programs focus the efforts for sustaining capacity building in One Health: 1) SEAOHUN Fellowships, 2) SEAOHUN Scholarships, 3) SEAOHUN Small Grants, and 4) Regional Students' Engagement.
- With support from USAID, SEAOHUN was established in 2011 by ten universities in Indonesia, Malaysia, Thailand and Viet Nam.
- Visit our website at www.seaohun.org.

NETWORK OVERVIEW



8
Countries



92
Member Universities



33
One Health Student Clubs



15,990
Individuals trained
in One Health topics

Year 2 Highlights

- SEAOHUN Year 1 Small Grant awardees completed their projects and shared their experiences in Issue #3 of the SEAOHUN newsletter.
- Five fellows gained practical One Health experience through placements with partner organizations and the SEAOHUN Secretariat.
- Eleven recipients received scholarships to support Master's studies in One Health disciplines.
- One hundred and eighty students joined the SEAOHUN Regional Students Competition held 20 April 2021 until 12 July 2021.
- Co-organized the Competency-Based Education and the One Health Competency Framework training for 16 SEAOHUN members, June to August 2021.
- Supported the One Health Competency Assessment Tools Review Workshop, 14-15 July 2021.
- Raised the Secretariat's organizational capacity to manage projects from multiple funding sources.
- Diversified SEAOHUN's funding portfolio through new project agreements with Chevron and the USAID STOP Spillover project led by Tufts University.
- Expanded partnerships with:
 - FAO in Lao PDR and the Bureau of Animal Industry (Gov. of the Philippines) as hosts for SEAOHUN fellows;
 - STOP Spillover Consortium members as project partners;
 - ASEAN+3 Field Epidemiology Training Network, and the Regional Field Epidemiology Training Program for Veterinarians via collaborations on global and regional One Health initiatives;
 - National University of Singapore for the One Health Symposium;
 - SEAMEO TROPMED, SEAMEO STEM-ED, and Tropical Disease Research Center of Khon Kaen University as project implementers; and
 - Taiwan One Health University Network as an associate University Network.



7,358

Individuals trained
in COVID-19 related topics



23

Completed activities increasing
capacity to respond to
COVID-19



>26 million

Individuals reached via
COVID-19 related RCCE
activities



14

Gender champions
and gender experts



Activities

Objective I

Catalyzing One Health innovation and capacity building with the SEAOHUN Small Grants Program

SEAOHUN is supporting professionals in One Health-related fields with small grant funds that can be used for research, curriculum development, training, and pilot projects. Applicants who competed for these grants came from member Universities and in-service health and development practitioners from six countries (Cambodia, Malaysia, Myanmar, the Philippines, Thailand, and Viet Nam). Priority is given to proposals that promote cross-sectoral or cross-disciplinary collaboration, promoted OH Core Competencies, raised OH Technical Skills, and for this year proposed novel or innovative ideas for online training delivery.

The small grants have contributed to capacity building in member countries. First launched in 2020, the Year 1 grants were awarded in late September 2020, and implemented their project ideas during Year 2. The results and recounting of the experiences of the recipients were captured in a webinar held on 22 July 2021, "Catalyzing One Health Innovation" and in the SEAOHUN

newsletter issue #3. Some of the awards are featured in this report in the sections for specific University networks (CAMBOHUN, MMOHUN, and PhilOHUN).

This year, the Secretariat partnered with the Association of Southeast Asian Nations Plus Three Field Epidemiology Training Network (ASEAN+3 FETN), Regional Field Epidemiology Training Program for Veterinarians, and Food and Agriculture Organization of the United Nations (FAO) Regional Office for Asia and the Pacific to announce the Small Grants Program and judge applications. The Secretariat explored and obtained their co-funding for grant applications that meet their priorities. In Year 2, a total of 13 grants were selected. As the awards were made in September 2021, the projects would be completed in Year 3. Winning proposals topics are diverse and topical, covering zoonoses risk management, vulnerability of specific social subgroups to parasitic infection, COVID-19 infection in humans and animals, microplastics and the relation to One Health, knowledge transfer and collaboration, the application of design thinking to prevent parasitic infection from helminths, and an awareness-raising campaign on antimicrobial resistance.

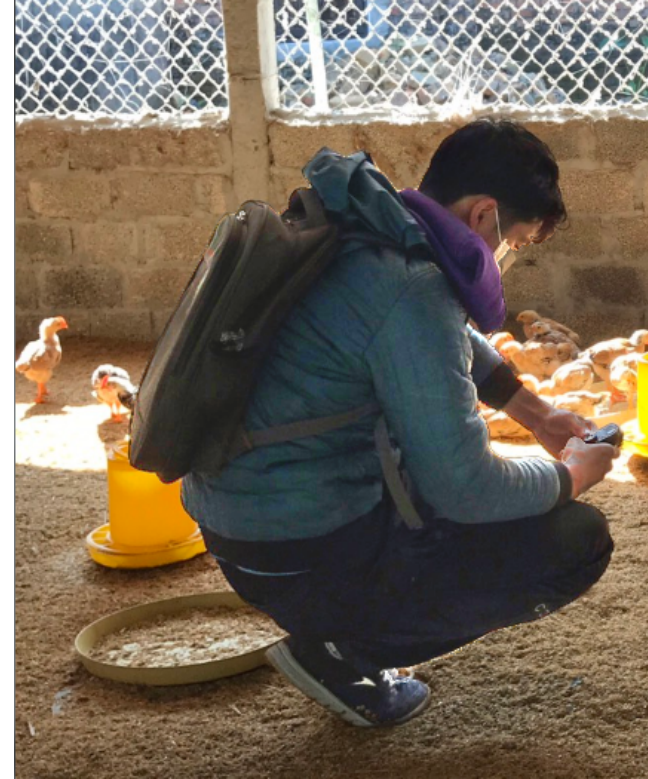
Read more about the Small Grants Program in the success story, “The SEAOHUN Small Grants Program: Towards One Health research and innovation.”

Supporting intra-regional capacity building in One Health

SEAOHUN supports capacity building of the region’s One Health researchers, educators, and practitioners through two tracks: 1) the SEAOHUN Fellowship Program; and 2) the SEAOHUN Scholarship Program.

The SEAOHUN Fellowship Program strives to strengthen One Health workforce by encouraging early to mid-career professionals in human health, animal health, and environmental health to gain practical experience working on One Health issues. The program places fellows for three to five months at leading academic and research institutions, government agencies, international organizations, or international non-governmental organizations in Southeast Asia. It also supports travel and provides a modest stipend. In Year 2, five fellowships were awarded, and host organizations included: the Eijkman Institute for Molecular Biology in Indonesia; the Food and Agriculture Organization Representation in Lao PDR (FAO Lao PDR); the Bureau of Animal Industry (BAI) of the Philippine Department of Environment of Agriculture; the Wildlife Conservation Society in Viet Nam; and the SEAOHUN Secretariat in Thailand.

With United States Agency for International Development (USAID) funding, SEAOHUN has provided financial support to over 35 scholarship recipients since 2016, enabling them to pursue their first Master’s Degree with a One Health focus. In 2021, eleven scholarships were awarded to graduate students from Cambodia, Indonesia, Malaysia, Myanmar, the Philippines, and Viet Nam. These awards will support their career



The SEAOHUN Small Grant Program enabled farmers and students in Viet Nam to learn the benefits to using probiotic bedding for poultry raising.

Image credit: Hoang Thi Thanh Huong / VOHUN

development goals, including becoming researchers, lecturers, and participating in outbreak response efforts. After completing their advanced studies, SEAOHUN scholarship recipients apply their knowledge to advance local and national health developments in academia, government, and human and animal health organizations. With their advanced degrees, they are well-suited to work in multidisciplinary settings to prevent, detect, and respond to infectious disease threats, nationally and regionally.

Fostering Creativity and Risk Communication Skills in Young One Health Professionals

SEAOHUN held the “SEAOHUN 2021 Regional Students’ Competition” for the second year as an opportunity to utilize their creative skills and technical knowledge to create original risk communication products. In this period, the competition was focused on the development of short videos (three to four minutes in length) to communicate the risk of zoonotic diseases. A video could feature



any of three prescribed topics: 1) gender and zoonotic diseases; 2) underserved communities and their interactions with animals; and 3) wildlife and zoonotic diseases. Competitors had from 20 April 2021 until the deadline on 12 July 2021 to form cross-disciplinary groups of four people to register online and then make their submissions; 180 students joined the contest. Those who registered were invited to attend the webinar, “How to make an impact with a short video” held on 28 May 2021 with the purpose of providing tips on how to create engaging videos. Resource persons came from the communications teams of the Global Consortium and Chevron, a co-sponsor of this competition who provided both support and technical expertise. The Secretariat received over 50 submissions from Cambodia, Indonesia, Lao PDR, Malaysia, the Philippines, Thailand, and Viet Nam. Judging was made both by a panel of experts from the SEAOHUN University Networks, and a very successful public selection. This year, the competition yielded so many interesting and well-made entries that SEAOHUN gave one award per country and recognized six runners up.

Objective 2

Promoting Competency-Based Education and the One Health Competency Framework

SEAOHUN co-organized the Global Team’s five-session regional training workshop from June 25 to August 20, 2021 to introduce competency-based education for OH core skills to the newest member University Networks in Cambodia, Lao PDR, Myanmar, and the Philippines. The objectives were to encourage and support the development of competency-based education (CBE) for One Health training courses and content. Participants were guided through a series of workshops that introduced the CBE approach and its tools, and provided opportunities to briefly apply the tools through interactive group exercises.

SEAOHUN organized a regional workshop to review competency assessment tools available for One Health. Twenty-seven participants came from SEAOHUN’s member University Networks in Indonesia, Malaysia, Thailand, and Viet Nam. The participants reviewed One Health competency-based assessment tools, reflected on their experiences and identified good practices for using these tools, and provided feedback on the OH competency toolkit that was being developed by the Global Team.

Taken together, these joint initiatives demonstrate contributions from across the regional and country networks are strengthening the One Health workforce.

Raising capacities to track alumni of SEAOHUN One Health academic and training courses

SEAOHUN Secretariat and country networks with the support of the Objective 2 team developed the alumni tracking survey. The survey questionnaire was reviewed by

the staff of National Coordination Offices (NCOs) and selected faculty members of their respective networks, who also provided input into a statistical analytics package developed by the Objective 2 team. NCO staff also reviewed the translation of the survey questions, and compiled email addresses of training alumni.

Objective 3

Improving organizational management processes

SEAOHUN Secretariat worked closely with the Global Team lead for the Objective 3 component of the OHW-NG, strengthening its financial and managerial capacity to manage projects from multiple funding sources. Over the project year, we were able to raise our NUPAs scores particularly in the areas of governance by improving its Executive Board Manual, including by-laws, conflict of interest statement, and letter of commitment.

SEAOHUN is committed to capacity building in organizational management and project implementation for both the Secretariat and the country University Networks. To this end, the Secretariat co-organized project management training with the OHW-NG Objective 3 team. Four monthly sessions on concepts and tools were held from February through May 2021, benefitting 37 participants from the Secretariat and all country University Networks.

SEAOHUN strengthened the Monitoring, Evaluation, and Learning (MEL) capacities of country networks by improving project reporting processes and MEL data quality. To this end, the Secretariat organized training for relevant NCO staff to create a community of practice to support and learn from each other while implementing the project's reporting tools and observing data quality standards. A peer-to-peer training program was developed and conducted monthly from

May through September 2021; it covered the basics of MEL, reviewed the OHW-NG Performance Indicator Reference Sheets, and had practice sessions on filling out the different reporting tools.

SEAOHUN continues to invest in knowledge management systems to support project monitoring and tracking of project indicators. Together with the Global Team, the Secretariat supported the development, testing and dissemination of online platforms (Google Sheets and Airtable) for activity tracking and activity reporting, as well as the revisions to reporting templates for streamlining and consistency in data collection. The Secretariat has purchased an Airtable license in order to interoperate with the systems maintained by the Global Team.

Expanding SEAOHUN's partner base

The Secretariat has been working towards increasing its partner base among intergovernmental organizations, government agencies, research institutions, and grantmaking private foundations. By leveraging the existing programs funded through the OHW-NG Project, SEAOHUN has attracted partners to provide additional resources into its services for member University Networks. The new partners for Year 2 who contributed to our funding portfolio are:

- **Chevron:** Chevron Corporation through its charitable contribution enabled the creation of a new project, "Strengthening One Health Education in Southeast Asia" which complements the initiatives under the OHW-NG Project. Building upon OH training content and tools already developed in our project, Chevron supports increased public health literacy and an understanding of the One Health approach. SEAOHUN was able to add new organizations as implementing partners for this particular project; these are the

SEAMEO Tropical Medicine and Public Health Network, the SEAMEO Regional Centre for STEM Education, and the Tropical Disease Research Center of Khon Kaen University.

- **STOP Spillover:** Strategies to Prevent (STOP) Spillover is a global consortium funded by USAID and led by Tufts University. The project works in priority countries across Africa and Asia to gain critical knowledge about their spillover ecosystems and refine and use that knowledge effectively, efficiently, and sustainably to reduce the risk of zoonotic viral spillover and spread. With SEAOHUN as the regional partner for Southeast Asia, the Secretariat is managing activities in Viet Nam and Cambodia. Through this project VOHUN and the Secretariat are undergoing capacity building in outcome mapping, participating in workshops identifying where spillover risks are significant, and have access to the 13 other members of the STOP Spillover Consortium. Among the consortium members is AFROHUN as the regional partner for Africa, as well as other wildlife and human disease experts.

SEAOHUN is cultivating partnerships with technical institutes and intergovernmental institutions to engage in policy-relevant dialogue, and participate in regional platforms for knowledge exchange. The Secretariat's participation in these events enable members to observe and engage in region-wide policy debate and dialogue on matters related to health, agriculture, trade, and the environment where the One Health approach is critical to promote sustainability and minimize disease spillover risk. These platforms include the Global Health Security Agenda Meetings, the Asia-Pacific Workshop on Multisectoral Collaboration at the Animal-Human-Ecosystems Interface (tripartite) meetings, the ASEAN+3 FETN and the ASEAN Veterinary Epidemiology Group meetings,

the Greater Mekong Subregion Working Group on Health Cooperation meeting, the World One Health Congress, and the International Meeting on Emerging Diseases and Surveillance conference.

SEAOHUN seeks out international and national organizations in the region working on One Health-related issues to increase opportunities for Southeast Asian early career health professionals to build their work experience and professional networks in One Health. For Year 2, we were able to add the FAO Lao PDR and BAI as institutional hosts to SEAOHUN fellows, sharing their expertise and professional network with mid-career researchers learning how to apply the One Health approach to public health challenges.

The Taiwan One Health University Network is an association of six Universities in Taiwan. It has joined SEAOHUN as an associate University Network.

To continue SEAOHUN's expansion of its funding portfolio and partnership base, the Secretariat is forming a resource mobilization committee with representatives from the member University Networks. The Committee will work to expand the number of partnerships with private companies, and serve as a technical expert pool to support applications of university network members when they apply for upcoming grant opportunities. This committee will undergo capacity building in resource mobilization and proposal development in Year 3.

Increasing visibility of the Network

SEAOHUN published a newsletter to increase visibility of the Network's accomplishments, upcoming events, and OH Champions with current and potential development partners. Three issues have been made so far. SEAOHUN also developed promotional

materials, e.g. a brochure and video, that capture the Network's program thrusts.

SEAOHUN supported capacity building for the Network's members in corporate communications with two training workshops. The first workshop was corporate communications training supported by Pfizer Thailand, held over four sessions from October 5 to November 16, 2020; 19 participants attended from seven country University Networks and the Secretariat.

A second communications workshop was conducted by the Global Team and co-organized with the Secretariat. Two sessions were held in 2021 to first present the basics of communication (August 27), then to hold separate group sessions or "cafes" (September 17) with each University Network that wanted to develop communication pieces that would capture project outputs and impacts. Chevron also supported a Media 101 training for SEAOHUN members, held on 15 September 2021.

COVID-19 RISK COMMUNICATIONS TRAINING FOR SEAOHUN

- COVID-19 risk communication training workshop raised outbreak response capacity for 100 lecturers from Cambodia, Lao PDR, and Myanmar; October to December 2020
- PhilOHUN's webinar series on COVID-19 helped increase understanding of the One Health approach, September to December 2020

Honing valuable risk communication skills to support public health

The Secretariat and the Global Team led online training on risk communication from October to December 2020 for 100 teaching staff of member Universities and partners of CAMBOHUN, LAOHUN, and MMOHUN. The sessions were designed to provide basic concepts, the current social contexts in Southeast Asia that affect the understanding of risk messages and conversion into appropriate behavior, and interactive practice sessions to apply approaches and tools. Resource persons drawn from the Global Consortium, shared valuable experience in designing awareness-raising campaigns from around the world, as well as from government agencies in Southeast Asia. The training event was the subject of a success story in the OHW-NG Year 2 Semi-Annual Report 2020–2021. More details can be found in the respective sections of CAMBOHUN, LAOHUN and MMOHUN.

PhilOHUN developed a series of webinars on "Ensuring quality of public health communication, diagnostics, and infection prevention and control on humans and animals in response to COVID-19." The series of online seminars held from September to December 2020 emphasized a One Health approach to understanding its origin, spread, impact, and management of COVID-19. More information about the series may be found in the PhilOHUN section.



LESSONS LEARNED/ GOOD PRACTICES

Continuous improvement is an important strategy and philosophy for sustaining the work of the network. With every activity, we find value in after-action reviews to determine what went well and what can be improved to continuously improve our outputs and products. Gathering and utilizing partners' feedback has been invaluable in marking progress, especially in the face of the ongoing COVID-19 pandemic.

Building a network is hard work. Be polite, patient and persistent in our approach to strengthen the network. Be polite: everyone is busy with competing demands for time and attention; we will continue to be polite and request for cooperation as we implement our project work plan to achieve our goals for each year. Be patient: not everyone will learn new approaches, new reporting tools, or new technologies the first time we are shown these; we will repeat our messages and training as necessary, especially as we grow our network and bring in institutions who are new to One Health and to the OHW-NG Project. Be persistent: by utilizing multiple reminders, repeating messages, and consistently engaging all country networks who have varying levels of resources and experience with implementing this type of project, we will hit project milestones and ensure project implementation and reporting are done.

Guiding students' creativity. In 2021, the student competition still faced several challenges and barriers, from limited movement, access to technology, to COVID-19. However, comparing the last two years, we saw an improvement of the submitted videos from the last year both quality of production and depth of One Health's information included, and had more active engagement from seven countries. We found that students' skills and competencies have improved when they are provided a good structure. As we look forward to implementing the next competition, we will again utilize a strong framework to guide and challenge students in producing high-quality submissions.

Students hunger for connection. Based on the activity survey, we found that many students craved opportunities for connections with other students in the region. Despite having to be physically distanced, they wanted more opportunities to meet one another, even if it were virtually. This idea was also echoed through student interviews and emails. Implementing opportunities where students can interact further with one another would benefit students' capacity building and network strengthening.



SEAOHUN continues to raise organizational sustainability, aiming to receive a transitional award towards directly managing USAID-funded projects by Year 4.

SEAOHUN will further strengthen the capacities of the Resource Mobilization Committee to apply for a range of relevant grant opportunities. We plan to hold a training in January 2022 together with the OHW-NG Consortium on Resource Mobilization Fundamentals, and a follow-on grant writing workshop a few months later. SEAOHUN Secretariat will engage private companies and philanthropy as well as international aid cooperation agencies to ensure the continuity of our programs.

We will continue improving the regional programs. Specifically, SEAOHUN Secretariat will administer the SEAOHUN 2022 Small Grants Program to support eight innovative projects proposed by faculty members of the SEAOHUN member Universities, and in-service human, animal, and environmental health professionals at government agencies across SEAOHUN member countries. The grants aim to advance One Health through curriculum development, workforce assessment, creation of communities of practice, support

for national antimicrobial resistance strategies, strengthening One Health policy advocacy, and other priority areas identified collaboratively with SEAOHUN partners. The announcement of Year 3 grants will be in February 2022, and recipients will implement projects from April to September 2022. SEAOHUN will work with CAMBOHUN, LAOHUN, and MMOHUN to launch their respective small grant programs in 2022.

The SEAOHUN 2022 Fellowship Program will continue to focus on in-country placement opportunities due to the COVID-19 pandemic, while providing opportunities for fellows to interact with international/national experts and broaden their perspectives in One Health. The project targets to recruit and support eight fellows in 2022. This will be launched in the early months of 2022 after coordination with host organizations.

Finally, we have begun planning for the SEAOHUN International Conference and Partners Meeting scheduled for 6-8 September 2022 in Bangkok. We will form scientific and technical committees from among our University Networks and project partners, and develop sponsorship packages to support the event promotion and resource mobilization efforts.

Important Links

SEAOHUN Annual Report 2020: https://drive.google.com/drive/u/1/folders/11Wi7_8w0tKR02blYvljkCgXtdT05E-oL

OHW-NG Year 2 Semi-Annual Report 2020–2021: https://drive.google.com/drive/folders/12xxzkFw3gt98TPeUj_wkwRpQPnXn4xP7?usp=sharing

SEAOHUN Newsletter issues: <https://www.seaohun.org/newsletter>

SEAOHUN Brochure: <https://drive.google.com/drive/u/1/folders/12S2m7zuh2ce34PSPcki7Kj0PJvzYkaxS>

SEAOHUN Video 2021: <https://www.youtube.com/watch?v=iqCK6Xayg-4>

Playlist of winning videos from the 2021 Regional Student Competition: <https://www.youtube.com/playlist?list=PL-B9ZefyHD4y7cTlwMzSb17Sbva5JXvRb>

Success Story

The SEAOHUN Small Grants Program: Towards One Health research and innovation

The SEAOHUN Small Grants Program contributes to the development of One Health professionals in Southeast Asia through creation of new research ideas, training courses and innovative health projects. These small grants benefit the recipient's home institutions, their country networks, and SEAOHUN, as well as the USAID One Health Workforce - Next Generation Project (OHW-NG) through substantive contributions towards regional and global efforts promoting sustainable development through One Health.



Dr. Chea discussing how to prevent the spread of rabies at a training for village health volunteers in Kean Svay district, Cambodia; 11 August 2021

Photo credit: Be Monineath

Launched in 2020, the first eight grants of up to 10,000 USD were awarded to researchers and practitioners from seven countries to develop the above-mentioned initiatives. The project proposals covered research into antimicrobial resistance, development of One Health courses, awareness training on zoonotic diseases and reduction of environmental pollution in farming. The importance of such programs should be noted, both for the visibility generated by the grants and the utility of project outputs and research findings. Faculty members from member Universities and development practitioners now have the possibility to pursue lines of research they had previously only dreamt of thanks to this funding specifically targeting multi-disciplinary and cross-sectoral One Health approaches.

To provide a few examples, the Small Grant Program allowed for the creation of an antimicrobial stewardship program for veterinarians in Indonesia, trained Southeast Asian researchers on mosquito-borne diseases, helped reduce environment pollution due to poultry farming in Viet Nam, and developed an introductory One Health course suitable for Masters in public health or continuing professional development programs for Philippine health practitioners. The added value of these initiatives to managing public health risks will become more evident over time as the research findings are disseminated across the One Health community, and the knowledge gained is used for advocacy for better living conditions for people, animals, and plants.

SEAOHUN and the OHW-NG Project are at the right spot to tackle some of the major issues in Asia that occur at the nexus of health and the environment. The variety and complexity of submitted proposals allow SEAOHUN to be enthusiastic regarding the future of this program, and has begun to engender additional support such as the contribution from the FAO Regional Office for Asia and the Pacific that increased the available Year 2 awards from eight to thirteen. We expect that the Small Grants Program will be a driving factor to the success of SEAOHUN as a network for One Health capacity building in the region, and look forward to innovative proposals in the years to come.

“**Thanks to the grant provided by SEAOHUN and USAID – One Health Workforce - Next Generation Project, I could implement a zoonotic disease outreach project in Cambodia. My knowledge in communication and facilitation skills have greatly improved throughout the program. Furthermore, I acquired competencies on how to design suitable educational materials which will be applicable even beyond this project. Finally, I learned how to write a proposal and I am more confident when I apply for larger grants.”**

Dr. Bunna Chea, DVM, Lecturer, Faculty of Veterinary Medicine, Royal University of Agriculture



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FROM THE AMERICAN PEOPLE

SOUTHEAST ASIA ONE HEALTH UNIVERSITY NETWORK MEMBERS

LAOHUN

Champasack University
National University of Laos
Savannakhet University
Souphanouvong University
University of Health Sciences, Lao PDR

MMOHUN

University of Medicine 1
University of Public Health
University of Veterinary Science, Yezin

INDOHUN

Airlangga University
Andalas University
Bogor Agriculture University*
Brawijaya University
Cendrawasih University
Diponegoro University
Gadjah Mada University*
Hasanuddin University
Mataram University
Muhammadiyah Hamka University
Mulawarman University
Nusa Cendana University
Padjajaran University
Sam Ratulangi University
Sriwijaya University
Syiah Kuala University
Udayana University
University of Indonesia*
University of North Sumatra
University of West Nusa Tenggara

THOHUN

Burapha University
Chiang Mai University*
Chulabhorn Royal Academy
Chulalongkorn University
Kasetsart University
Khon Kaen University
Maharakham University
Mahidol University*
Prince of Songkla University
Thammasat University
Walailak University

CAMBOHUN

Prek Leap National Institute of Agriculture
Royal University of Agriculture
University of Health Sciences, Cambodia

VOHUN

Bac Giang Agriculture and Forestry University
Buon Ma Thuot University
Can Tho University
Can Tho University of Medicine & Pharmacy
Hai Phong University of Medicine & Pharmacy
Hanoi Medical University*
Hanoi University of Public Health*
Hue University of Agriculture & Forestry
Hue University of Medicine & Pharmacy
Nam Dinh University of Nursing
Nghe An College of Economics
Nong Lam University - Ho Chi Minh City
Phenikaa University
Quy Nhon University
Tay Nguyen University
Thai Binh University of Medicine and Pharmacy
Thai Nguyen University of Agriculture & Forestry
Thai Nguyen University of Medicine & Pharmacy
Tra Vinh University
University of Medicine and Pharmacy at Ho Chi Minh City
University of Medicine and Pharmacy - Vietnam National
University, Hanoi
Vietnam National University of Agriculture*
Vinh Long University of Technology Education
Vinh Medical University

PhilOHUN

Benguet State University
Cavite State University
Central Luzon State University
Central Mindanao University
Pampanga State Agricultural University
University of Eastern Philippines
University of the Philippines Los Baños
University of the Philippines Manila
Visayas State University

MyOHUN

International Islamic University Malaysia
International Medical University
Management and Science University
Royal College of Surgeons in Ireland &
University College Dublin Malaysia Campus
Universiti Kebangsaan Malaysia*
Universiti Malaya
Universiti Malaysia Kelantan
Universiti Malaysia Sabah
Universiti Malaysia Sarawak
Universiti Malaysia Terengganu
Universiti Putra Malaysia*
Universiti Sains Islam Malaysia
Universiti Sains Malaysia
Universiti Sultan Zainal Abidin
Universiti Teknologi MARA
Universiti Tunku Abdul Rahman
University of Cyberjaya

**Founding Universities*



USAID
FROM THE AMERICAN PEOPLE

SEA OHUN
Southeast Asia One Health
University Network

CAMBOHUN
CAMBODIA ONE HEALTH UNIVERSITY NETWORK

CAMBOHUN

CAMBODIA ONE HEALTH UNIVERSITY NETWORK

NETWORK OVERVIEW



3

Member Universities

4

Faculties



15

Individuals trained in One Health topics

ABOUT CAMBOHUN

- CAMBOHUN promotes One Health activities for local and regional visibility.
- **Vision:** A network of universities with multi-disciplinary and cross-sectoral professionals collaborating together to minimize One Health threats in Cambodia.
- **Mission:** To develop a sustainable network of One Health professionals with cross-sectoral expertise to understand and address public health threats.
- Network members comprise four faculties from three universities.
- Established in June 2019.
- Visit our website at www.cambohun.org.

Year 2 Highlights

- Successfully conducted a training on participatory epidemiology for 15 university staff and students, February 2021
- Organized an event for awareness of One Health among faculty members and students of Cambodian universities, September 2021
- Ms. Saran Chhoe and team from the Royal University of Agriculture is a recipient of a SEAOHUN Small Grant to support an awareness-raising project on zoonotic disease transmission
- Mr. Phirum Orn received a SEAOHUN Scholarship to support his studies in a Master of Veterinary Public Health program
- Twenty-seven faculty members take the competency-based education training course to integrate the methodology into university courses, June to August 2021
- Faculty members of CAMBOHUN universities participated in capacity-building activities organized by the SEAOHUN Secretariat and the Global Consortium (project management, finance, and monitoring, evaluation and learning) to support organizational strengthening of University networks.



Activities

Objective 1

CAMBOHUN conducted a participatory epidemiology course from February 22 to 24, 2021. Participatory epidemiology (PE) utilizes approaches and methods that facilitate the empowerment of people to identify and solve their own health needs. The aim of this interdisciplinary training was to provide general concepts and application of PE tools in a real-world setting, enabling participants to later apply it in their own work. The 15 participants were faculty members, lecturers, students and in-service professionals involved in animal, human, and environmental health sectors. CAMBOHUN engaged four faculty members certified as Master Trainers by the Participatory Epidemiology Network for Animal and Public Health through the USAID

funded One Health Workforce project. The Master Trainers developed a participant's handout and training manual that were distributed to all trainees. Read more about it in the success story, "Promoting participatory epidemiology among One Health professionals in Cambodia."

An online webinar to raise awareness about One Health (OH) was held on September 17, 2021 for faculty members, lecturers, and students from five Cambodian universities. The online seminar was organized to promote OH concepts, knowledge, and approaches, as well as to raise awareness of and participation in CAMBOHUN's activities in the country. Participants came from the Royal University of Phnom Penh, Kampong Cham National Institute of Agriculture, Prek Leap National Institute of Agriculture, Royal

University of Agriculture, and University of Health Science.

CAMBOHUN members received a SEAOHUN Small Grant this year, awarded to Ms. Saran Chhoe and her team from the Royal University of Agriculture. They will be raising awareness on zoonotic disease transmission, with an emphasis on rabies, from pets and stray animals found in urban areas of Cambodia. Activities include raising awareness, sterilization, and animal care through deworming, vaccination and grooming. About 54% of the project cost is funded through FAO Letter of Agreement; the remaining cost plus the management of the grant is supported through the One Health Workforce - Next Generation (OHW-NG) Project.

Mr. Phirum Orn is the successful recipient of a SEAOHUN Scholarship for this year. It will support one year of his program, Master of Veterinary Public Health Program at Chiang Mai University, Thailand during the 2021 - 2022 academic year.

Objective 2

Faculty members from CAMBOHUN Universities attended the Global Team-led training on competency-based education. The training event was divided into five online meetings, and a total of 27 individuals from CAMBOHUN participated in the sessions, which were delivered from June 25 to August 20, 2021. Participants were provided with the One Health Competency Framework, competency-based rubric templates, an evaluation toolkit, and other materials to help them integrate and expand the competency-based education methodologies and offerings at their local University settings.

Objective 3

CAMBOHUN faculty and staff were active participants in project management, finance, communications, monitoring, evaluation and learning training events at the regional and global levels. Two participants from CAMBOHUN attended the Project Management training led by the Objective 3 team. The training was divided into four sessions, and held this year 2021 on February 25, March 25, April 29, and May 27. Two participants from CAMBOHUN attended the Finance Training conducted by the SEAOHUN Secretariat on 3 March 2021. One participant from CAMBOHUN attended three out of five sessions of the Monitoring, Evaluation, and Learning Peer-to-Peer Training conducted by the SEAOHUN Secretariat from May to September to be aware of reporting processes and data quality concerns. These courses support CAMBOHUN's efforts for establishing helpful project management

Addressing rabies risk in rural communities

Rabies is considered an important threat in Cambodia, with rural communities possessing limited understanding on the cause, transmission, and risks associated with the disease. A team from the Royal University of Agriculture received a SEAOHUN Small Grant in 2020 to develop a basic course about rabies, and produce a video and other awareness-raising tools (leaflet and brochure).

The team, led by Mr. Bunna Chea, developed the course and piloted it in Saang and Kean Svay districts of Kandal Province in August 2021. The course was intended to be a practical capacity-building exercise for village animal health workers, health volunteers, and other related practitioners working in rural communities. The content included disease transmission, symptoms, first aid measures, and how to report cases to health authorities. Printouts of the training material, leaflets, and brochures were distributed to those who received the training. Pre-test and post-test measures of the participants' knowledge about rabies showed substantial increases in understanding about risks, major symptoms, and first aid. As a result of this grant, the team now has a model training course that can be used to disseminate basic knowledge and skills to community health workers.

practices to ensure the smooth running of project activities, managing human and other resources, and to help keep the project on target.

Two participants from CAMBOHUN attended the Communications Workshop held as two sessions on August 27 and September 17, 2021. Participants were trained on effective communication methods, including aspects such as identifying target audiences, designing visually-appealing communications materials, and crafting stories that are easily digestible, compelling, and character-driven. As well, participants received personalized feedback from Global Team communications experts on a submitted communications item of their choice, helping to identify where and how improvements could be

made in order to develop a more effective communication product. As a result, these CAMBOHUN members were provided with the feedback necessary to improve their rabies risk communication flyer, which will have compounding effects for increasing the visibility of the Network within the community and across professional organizations.

Three representatives from the Network attended the biannual SEAOHUN Executive Board meetings on April 22 and July 8. CAMBOHUN learned very useful updates from the other Networks regarding how to implement the OHW-NG activities despite constraints due to the outbreak of COVID-19 throughout the region. The achievements from each network were motivational to achieve their goals for Year 3.

COVID-19 RISK COMMUNICATIONS TRAINING FOR CAMBOHUN FACULTY

CAMBOHUN co-organized with the SEAOHUN Secretariat and the OHW-NG Global Consortium to deliver the activity “Virtual training on risk communication among faculty members of Cambodia One Health University Network.” This training focused on the foundations of risk communication, approaches, and methods for delivering emergency risk communication. The training was designed to engage participants in group exercises to immediately practice the concepts and skills highlighted in the training. The training attracted 12 lecturers and government officials from Cambodia; seven earned training certificates .



LESSONS LEARNED/ GOOD PRACTICES

Flexibility in training delivery during disruptions. The PE training was initially designed to have a field-based component (transect walk around a rural community) so that participants would be able to engage with people to learn their perspective about illness and disease transmission by using PE

tools. However, COVID-19 pandemic lockdown restrictions were placed in the intended field site, forcing the training team to adjust. Although not conducted in the planned setting, facilitators were able to identify another settlement closer to the training venue, enabling trainees to utilize and

demonstrate their acquired PE skills. This obstacle demonstrated that training design and the training team must be flexible to accommodate unexpected challenges or disruptions during the delivery of courses.

In-person discussion for effective collaboration. Webinars proved to be a valuable tool to raise awareness of One Health, and enabled the implementation of activities when movement is restricted as part of the government's COVID-19 pandemic

response. However, virtual engagements are not as interactive as in-person events, and participants often miss some critical discussion points; further collaboration and follow-up communication are often necessary. This was the case for the two new universities (the Royal University of Phnom Penh and Kampong Cham National Institute of Agriculture) that attended the awareness-raising event in September and who are considering joining the University Network.



NEXT STEPS

To achieve the main objectives for Year 3, we will conduct the CAMBOHUN Board meeting once every six months (first quarter and third quarter) to discuss the Network's governance, organizational structure, and operational issues.

One Health internship opportunities for students will be offered, helping them to become familiar with the One Health approach, and One Health local field trips will be held to increase the capacity of students as pre-service health professionals.

The activity to set up a One Health Student Club (OHSC) in Year 2 has been delayed, and will be implemented and given priority in Year 3 because of its contribution toward providing pre-service experience, offering activities relevant to One Health, and raising awareness of One Health among students, their peers, and communities.

Training on a prioritized, to-be-determined One Health topic for faculty members and in-service professionals will be held.

An advanced refresher training on PE will be conducted in the second quarter of Year 3; the aim is to provide field practice within communities for participants.

In the second quarter of Year 3, we will launch the CAMBOHUN Small Grants Program for faculty members and students to further enable One Health research.

Beside implementing Year 3 work plan, additional activities will be added such as networking with existing and prospective member institutions (the Royal University of Phnom Penh and Kampong Cham National Institute of Agriculture).

Important Links

Article on small grant "Rabies Awareness and Training in Communities in Cambodia," <https://www.seaohun.org/single-post/rabies-awareness-and-training-in-communities-in-cambodia>

Winning video for Cambodia in SEA OHUN's Regional Student Competition: <https://www.youtube.com/watch?v=fCUtQP3b6sw&list=PL-B9ZefyHD4y7cTlwMzSb17Sbva5jXvRb&index=2>

Success Stories

Promoting participatory epidemiology among One Health professionals in Cambodia

Participatory Epidemiology (PE) uses participatory approaches and methods to improve our understanding of the patterns of diseases in populations. It aims to enable public health professionals, veterinarians, government officials and local communities to work together to appraise and analyze situations especially One Health topics related and then to plan programs which are appropriate to their particular regions.

The Cambodia One Health University Network (CAMBOHUN) organized the 2nd PE training course to strengthen pre- and in-service One Health professionals in the sphere of animal and human health. The course was held from 22-24 February 2021 for 15 participants composed of students, health professionals, and faculty members from the Cambodia Applied Veterinary Epidemiology Training program, Royal University of Agriculture, Prek Leap National Institute of Agriculture, Kampong Cham National Institute of Agriculture, and the University of Health Sciences.

The first two days covered nine intensive lectures on PE concepts and approaches, while the last day was for fieldwork practice in local communities. The course was supported by the One Health Workforce - Next Generation project funded by the United States Agency for International Development.



Mr. Prak Kea (wearing the dark shirt), a master trainer of participatory epidemiology, guides trainees in the use of community transect walks to observe the food safety practices.

Photo credit: CAMBOHUN

Post-course surveys and reflections showed most participants found the training very useful for improving their knowledge of and skills. Participants could appreciate application of PE concepts in teaching, research, extension work, and training approach. In the coming project year, CAMBOHUN plans to conduct an applied PE training course focused on field applications.

In a follow-up survey participants shared the following reflections on what they learned and how they apply it to their current work/study:

“ **The training provides me with a new field data collection method for research. I found it useful for my study and I have shared it with my colleagues who are interested in using Participatory Epidemiology for their research master thesis.**”

Ms. Kimeang HEANG, student, Master of Science in Epidemiology at the University of Health Sciences

“ **Participatory Epidemiology provides me with a broad concept in an epidemiological research field study that I have never known before. I think it can be used for faculty and student research projects in animal health. As a result, I have integrated some tools into the final thesis research projects of two of my undergraduate students. Their projects gained recognition of high significance from their evaluation committees.**” Mr. Borin SEAR, lecturer in animal health, Prek Leap National Institute of Agriculture

“ **Participatory Epidemiology helps me a lot in animal disease investigation. I use several tools including mapping, seasonal calendars, timelines, transect walks, and clinical examination for my current job at the provincial department.**” Ms. Dalin, officer at the provincial office of animal health and production; former student of the Cambodia Applied Veterinary Epidemiology Training program



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INDONESIA ONE HEALTH UNIVERSITY NETWORK

NETWORK OVERVIEW



20
Universities
34
Faculties



5
One Health
Student Clubs in
5
One Health
Coordinating
Centers



8,874
Individuals trained
in One Health
topics



5,171
Individuals
trained
in COVID-19
related topics



5
Completed
activities
increasing
capacity to
respond to
COVID-19



2,381
Individuals
reached via
COVID-19 related
RCCE activities



1
Gender
champions
and gender
experts

ABOUT INDOHUN

- A network of Indonesian higher education institutions promoting collaboration in human, animal and environmental health sectors in Indonesia.
- A platform for leading academics, stakeholders, scientists, communities and professionals in Indonesia working together to achieve the best health for everyone.
- Network members comprises 34 faculties from 20 universities, five One Health Collaborating Centers, and 12 laboratories.
- Established in January 2012.
- Visit our website at www.indohun.org.

Year 2 Highlights

- During Year 2, INDOHUN continued to support the implementation of One Health core competencies through the development of health training courses, specifically targeting government health officers. These courses include One Health and Zoonoses Epidemiology training modules, One Health soft skills, One Health Massive Open Online Course, and tools for post-training evaluation.
- INDOHUN mapped out the potential academic or training programs that may utilize the Field Epidemiology Training Program, which was developed in Year 1.
- To engage students of multidisciplinary backgrounds in understanding, learning, and developing professional capacities in One Health, INDOHUN supported One Health Student Clubs in each of the five One Health Coordinating Centers within the country network. The Coordinating Centers organized for club members training events, case study analyses, community visits, and training on project development (October-September 2021).
- With support from the One Health Workforce-Next Generation Global Team, INDOHUN conducted a One Health Tabletop Simulation, which prepared and equipped university students from health and health-related disciplines to conduct discussion-based parliamentary meetings in response to health crisis scenarios (7-9 September 2021).
- INDOHUN published issues six and seven of *Emerging* magazine to build and expand communications with the country network, and to disseminate training and information on One Health activities.



Activities

Objective I

Raising One Health Core Competencies in government health professionals

INDOHUN continued to support the implementation and adoption of One Health core competencies among government health professionals. Together with the Ciloto Health Training Center (BBPK Ciloto), several workshops and training events were conducted in collaboration with INDOHUN member institutions to develop One Health curricula for government health officers. During Year 2, INDOHUN finalized the One Health and Zoonoses Epidemiology training

modules and, along with the module on Health Program Work Planning, INDOHUN now has three in-service training modules completed.

INDOHUN contributed three modules to the Massive Open Online Course (MOOC) learning system by BBPK Ciloto to provide training courses for the continuing professional development of government health officers. The modules are: Sciences in the One Health Approach, One Health Core Competencies, and One Health Applications. The MOOC is a registered training platform with Indonesia's Ministry of Health.

INDOHUN was invited by the Ministry of Health to develop a One Health Post-Training Evaluation Tool. The tool was developed by BBPK Ciloto and Cinagara Animal Health Training Center. Although currently in draft stage, the tool has already been pilot tested with government health officers based in Central Java. Once it is finalized, the evaluation results will be used by the Ministry to improve its One Health training programs.

INDOHUN collaborated with Diponegoro University to plan the conversion of the Field Epidemiology Training Program (FETP) into a Masters in Epidemiology under the Faculty of Public Health. Faculty members and experts from other INDOHUN member Universities held workshops to map out the curricula in existing FETP training courses and FETP degree programs, as well as to identify the existing policy or regulation that supports the demand for government health officers with a degree from such a course.

Investing in Indonesia's Future One Health Workforce

INDOHUN has five One Health Coordinating Centers (OHCCs) across the country that work towards disseminating One Health information, improving access to One Health capacity building programs, and promoting One Health within the professional practice. Each OHCC covers the universities within its geographic region, and hosts a One Health Student Club whose members come from those academic institutions. To encourage the early acceptance of the One Health approach and the practice of its core competencies, the OHCCs held a variety of awareness raising and capacity building activities including One Health webinars, guest lectures, and organized community visits on health, nutrition and hygienic family practices. Over 1000 students took part in what they regarded as very engaging events.

INDOHUN conducted a One Health Tabletop Simulation for university students, which is an experiential online training designed to prepare and equip One Health and health-related undergraduate and newly-graduated students for conducting discussion-based parliamentary meetings in response to health crisis scenarios. The activities within this training included speakers' presentations, discussion sessions, role-playing as high-level officials and other stakeholders, and the tabletop simulation itself of an unfolding health crisis such as a worsening COVID-19 pandemic. Seventy-one students under the age of 25 applied for the opportunity to participate in this unique, highly-complex, and realistic interactive online simulation. Twenty-nine students were ultimately selected based on their interest in health crises, enrollment in a One Health field (such as medicine, veterinary medicine, and public health), a high minimum grade point average (3.0 out of a possible 4.0), completion of at least four semesters of their course work, good communication skills, a strong willingness to collaborate with others, as well as an overall interest in One Health. Read more about this in the success story, "Sharpening One Health core competencies to empower future health crisis managers."

Objective 2

Five faculty members and three BBPK Ciloto health officers participated in the competency assessment workshop held in June 2021 that was organized by the One Health Workforce - Next Generation (OHW-NG) Global Team to review available tools for One Health and provide feedback on the drafted One Health competency toolkit.

INDOHUN supported the OHW-NG alumni tracking survey efforts by collating emails of 2,281 alumni from One Health training courses conducted by its member Universities.



INDOHUN contributed to the discussions of the working group for alumni tracking by sharing their experiences and good practices used when we developed and conducted an alumni tracer survey in 2018 under the Emerging Pandemic Threats 2 project.

Objective 3

INDOHUN has successfully re-established its status as a recognized partner of the Ministry of Education, Culture, Research and Technology (MoECRT). With this status, INDOHUN is now able to reflect and align with the policy priorities of the Ministry for higher education institutions.

Four National Coordinating Office staff attended the project management training organized by the OHW-NG Global Team and the SEAOHUN Secretariat from February to May 2021, helping strengthen INDOHUN's capacities to manage One Health projects and project funding.

To act on INDOHUN's commitment to improve project monitoring and reporting, the Monitoring, Evaluation, and Learning (MEL) officer joined the MEL community of practice, participated in the peer-to-peer training, and served as a peer trainer for MEL by co-leading the session on data quality in August 2021.

Emerging magazine is a digital dissemination platform created by INDOHUN to share information in the form of popular articles related to current One Health concerns. Through this magazine, we share One Health knowledge and practice done by INDOHUN and its network. INDOHUN published issues six and seven of the magazine in this period.



Image credit: INDOHUN

USAID emergency COVID-19 response Tranche-4 funding

- Successfully conducted Health Communication Training from February to March 2021 for three groups of students and university lecturers, training 126 individuals.
- Developed risk communication tools, grounded in local situations and approaches, to increase public awareness of COVID-19 issues.
- Assessed COVID-19 diagnostic and biorisk management capabilities in laboratories of two university hospitals and trained 52 laboratory technicians in biorisk management.
- Improved Infection Prevention and Control for COVID-19 in healthcare and homecare facilities.
- Conducted a training event in Bali Province in July 2021 for 511 students to observe the health protocols compliance by people using public facilities, schools or neighborhood stores, using monitoring tools from the COVID-19 National Taskforce of Indonesia.
- Held the webinar “The Role of University Networks in Handling COVID-19 through Strengthening the Capacity of Health Workers in Indonesia with a One Health Approach” to publicize the COVID-19 training materials and risk communication products produced by INDOHUN and partners (29 July 2021).

Raising experts’ communication skills to improve accessibility of COVID-19 risk information

Through the development of a risk communication package, INDOHUN aimed to increase the ability of experts to communicate public health information, and ultimately raise public awareness of COVID-19 and related health knowledge. The package includes information on COVID-19 that is adapted from the current research and national protocols issued by the government of Indonesia. It consists of eight educational videos and ten infographic posters, and it was disseminated to all 34 faculties of INDOHUN’s member Universities.

INDOHUN conducted three rounds of Health Communication Training for 126 lecturers and students from 49 universities across 21 provinces of Indonesia. This training aimed to improve the participants’ communication skills to assist them in sharing credible information on COVID-19 issues. The packages were rated as very effective by the representatives of the MoECRT that were involved in the training, and this effort was identified by the Ministry as an activity that needs to be replicated in Year 3 of the project. This event was captured in a success story in the OHW-NG Year 2 Semi-Annual Report 2020–2021.

Utilizing social and cultural frames to disseminate health information about COVID-19

To address the fact that COVID-19, which spreads through a wide range of social interactions, can be affected by local cultural practices and beliefs, the INDOHUN’s OHCCs designed and developed risk communication tools based on a grounded understanding of their respective local situations. The tools were used to increase public awareness on COVID-19 issues, and

included comics, engaging videos, and an interactive webinar series on a variety of topics relevant to the pandemic. The tools were developed in various regional languages to enhance understanding of the content.

Policy briefs were developed by the OHCCs regarding the spread of COVID-19 and related risk. The policy briefs will be used by provincial governments as they are developing their COVID-19 containment and prevention strategies, and covered issues such as health protocols for schools, COVID-19 risk communication, and the effectiveness of movement restriction to control the spread of the disease.

Improving diagnostic capabilities of and biorisk management practices by university hospital laboratories

In Indonesia university hospitals are a key resource in the fight to contain the COVID-19 pandemic. They contribute to virus surveillance, testing for COVID-19, provide medical treatment of COVID-19 patients, and strengthen medical research into the disease. In order to sustain and improve these capacities, INDOHUN addressed the gaps of laboratories in university hospitals with respect to biosafety and biosecurity practices by supporting training of 52 laboratory technicians on biorisks and biorisk management. Two laboratories were assessed by biorisk management experts using an online, ISO 35001-compliant biorisk assessment tool developed by the One Health Laboratory Network. One Health Laboratory Network is a resource developed and maintained by INDOHUN with support from the U.S. Biosecurity Engagement Program. Thirty-five laboratory technicians who collect and manage test samples were trained in sampling collection and management standards, out of which 27 were certified to perform COVID-19 PCR diagnostic tests.

Improving Infection Prevention and Control (IPC) for COVID-19 at frontline healthcare facilities

Public health centers (*puskesmas*) and university hospitals contribute to the frontline provision of medical care for COVID-19 patients in hospital and home settings. To improve the containment of the disease, INDOHUN developed separate training modules for *puskesmas* and hospital health professionals on applying the principles of IPC to stop the spread of COVID-19. The modules were utilized in training events that reached 167 health professionals from 35 *puskesmas* in Yogyakarta and 13 educational hospitals from across Indonesia. Guidelines on IPC by *puskesmas* and other healthcare facilities were also developed to help protect patients and healthcare professionals alike.

Improving community-level health services

The COVID-19 pandemic created a significant challenge for Indonesia's public health system and public health workforce to meet the health needs of the population. There was an urgent need to expand the pool of people who could implement public programs for disease surveillance in communities and serve as a bridge to encourage new normal behaviors of social distancing, the use of face masks, and observing hand hygiene. INDOHUN supported the Government of Indonesia's pandemic response by providing contact tracing training to 2,241 young professionals and 1,183 university students from 31 provinces in Indonesia. Data



Image source: RECON

management training was also provided to 52 health officers in anticipation of the surge of COVID-19 epidemiology data.

Through the Bali Health Office, and in partnership with MoECRT and the National Disaster Management Agency (BNPB), 511 students were successfully trained and registered as volunteers to monitor the compliance by the public with COVID-19 health protocols, such as wearing masks and maintaining distance. This activity is part of “*Kuliah Kerja Nyata Tematik (KKN Tematik) Posko Desa Penanganan COVID-19 #BALIKEMBALI*”, a nationwide collaboration project between the MoECRT, the Ministry of Health, the National Taskforce of COVID-19, and other institutions in Indonesia. This was part of ongoing efforts to maintain Bali as a safe tourist destination. This effort is described in the success story, “Building contact tracing capacity to reduce COVID-19 transmission in Indonesia.”

INDOHUN conducted the webinar, “The Role of University Networks in Handling COVID-19 through Strengthening the Capacity of Health Workers in Indonesia with a One Health Approach” to publicize the COVID-19 training materials and risk communication products produced under the project. The event was attended by 92 people who are key partners of the network. They included government officials such as Dr. Paristiyanti Nurwardani, Secretary of the Directorate General of Higher Education (MoECRT); Dr. Prima Yosephine, Acting Director for Surveillance and Health Quarantine of the Ministry of Health; as well as Tim Meinke and Monica Latuihamallo of USAID Indonesia.



LESSONS LEARNED/ GOOD PRACTICES

Moving towards organizational sustainability through a restructure that increases the organizational capacity of our Network partners. Improving internal coordination and administration, including the role of the INDOHUN board, will have a significant positive impact on the Network’s program implementation.

Being agile in the face of changing situations will help adjust the future implementation of the program. The COVID-19 pandemic began in the first project year and continued into the second year, which created challenges such as programmatic delays associated with changes in governmental partners and

uncertain conditions. This process instilled in us an appreciation for the MoECRT who endorsed our activities with relevant university officials from around the country, assuring implementation success.

Strengthening coordination with our government partners is critical for INDOHUN to address national targets and priorities. Maintaining open channels of communication and positive relations with the Government of Indonesia counterparts and other related stakeholders is also key to the effectiveness of our program.



NEXT STEPS

INDOHUN is committed to supporting university networks and to assisting government ministries, particularly the MoECRT, in training the current and future One Health workforce. Furthermore, the OHCCs established in five universities

across Indonesia are one of the keys to achieving success and therefore, INDOHUN plans to continue to support the OHCCs in emphasizing and expanding the value of One Health to the workforce through diverse and interactive activities.

Important Links

Article on small grant “Antimicrobial Stewardship Programs for Veterinarians in Indonesia”: <https://www.seaohun.org/single-post/antimicrobial-stewardship-programs-for-veterinarians-in-indonesia>

Emerging, INDOHUN magazine issue 6: https://issuu.com/indohun/docs/emerging_6_digital_eng_ind_compressed

Emerging, INDOHUN magazine issue 7: https://issuu.com/indohun/docs/emerging_7

Winning video for Indonesia in SEAHOHUN’s Regional Student Competition: <https://www.youtube.com/watch?v=SqyHwY9p-zE&list=PL-B9ZefyHD4y7cTlwMzSb17Sbva5JXvRb&index=5>

Success Stories

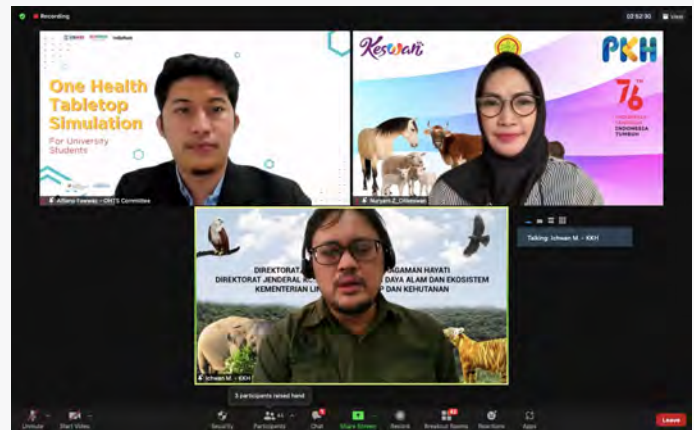
Sharpening One Health core competencies to empower future health crisis managers

In the One Health sector, transdisciplinary collaboration, communication, and coordination are the main core competencies that students need to sharpen before entering the professional workforce. To manage increasingly complex global health problems, adequate creative and critical thinking skills are needed. When we combine all those skills, we enable ourselves to lead health forums and produce strategic problem-solving approaches to combat complex health challenges.

INDOHUN, with the support from the United States Agency for International Development's One Health Workforce - Next Generation Project, held a One Health Tabletop Simulation for students from 7-9 September 2021. This training package was an opportunity for students to develop skills in analyzing a public health crisis scenario, then create a plan of action, policy, prevention method, and other interventions to solve the problem. Thirty participants were selected from 71 students who applied for this opportunity, coming from the disciplines of medicine, dentistry, veterinary medicine, pharmacy, nursing, public health, and other One Health-related majors.

“The organizers and tools used in the training were good and adequate even though the training was conducted online. In addition, the materials designed for this training are also relevant to me. My input, maybe there is some kind of follow-up for participants who have completed the training by being involved in the INDOHUN program because these are interesting.” Akhmad Theo Fani (Mr.)/
Student at Faculty of Public Health Universitas Jember

INDOHUN successfully designed twists to keep participants highly engaged. The course featured presentations by experts from INDOHUN member Universities, speeches by government officials, role playing as public officials at national parliamentary meetings, public health scenarios to solve (e.g. avian influenza, anthrax, typhoid fever, antimicrobial resistance, and COVID-19), and group workshops for students to discuss and develop ideas on how to manage the health crises in each scenario. The key speakers were: Prof. drh. Wiku Adisasmito, M.Sc., PhD - COVID-19 National Task



Dr. Ichwan Muslih (bottom) of the Ministry of Environment and Forestry simulates a government ministry briefing on the role of a One Health approach in handling zoonoses and emerging infectious diseases for university students, 7 September 2021.

Photo credit: INDOHUN

Force Spokesperson and Coordinator of Expert Team; Dr. drh. Didik Budijanto, M.Kes - Director of Prevention and Control of Vector and Zoonotic Infectious Diseases, Ministry of Health; Dr. drh. Nuryani Zainuddin, M.Si - Director of Animal Health, Ministry of Agriculture; and Dr. Ichwan Muslih, S.Si., M.Si - Head of Sub-Directorate for Supervision and Control of Biosafety, Directorate of Biodiversity Conservation Director General of Natural Resources and Ecosystem Conservation, Ministry of Environment and Forestry.

Why create this opportunity for students? INDOHUN recognizes the role of students in implementing the One Health concept, and intended for the simulation to prepare them for real world challenges they will face post-graduation. The participants showed high enthusiasm, commitment to being on time, and active participation in the training from start to finish. Students found that the distance learning methods applied in training sessions added both excitement and realism to their training experience. The virtual format was not a barrier; but a new platform for INDOHUN to continue to provide space for meaningful and active learning about One Health.

Building contact tracing capacity to reduce COVID-19 transmission in Indonesia

“ **The best collaborations create something bigger than the sum of what each person can create on their own.** Anonymous

When it comes to a highly infectious disease, contact tracing capacity is critical to identify individuals at risk of exposure and infection. Identifying individuals at high risk of exposure helps human and animal health officials break the chain of disease transmission, identify how the disease is spread, and find and mitigate potential sources of infection.

The Indonesia One Health University Network (INDOHUN), with support from the Indonesian Ministry of Health and the United States Agency for International Development's One Health Workforce - Next Generation Project, gathered experts from FHI 360, the World Health Organization, and the Food and Agriculture Organization of the United Nations. Together we jointly developed several training modules to prepare both health students from universities throughout Indonesia and health volunteers under the supervision of the Indonesian COVID-19 Task Force to trace close contacts of COVID-19 cases. Training module topics included contact tracing basic concepts, self-isolation and quarantine, COVID-19 stigma, effective communication for behavioral change, confidentiality of patient data, and an introduction to the Silacak Application, a contact tracing reporting system monitored regularly by Indonesian public health centers (*puskesmas*) and related health offices under the Ministry of Health.

Feedback from course participants indicated they found the training useful and exciting to attend. Survey responses indicated the modules were easy to understand, the quizzes helped participants recall the concepts presented, and the materials very helpful for tracers new to the work. Most participants asked for more training to maintain and even increase their knowledge on contact tracing for infectious disease management.

Thanks to the combined efforts of INDOHUN and its partners, 2,683 health volunteers and 1,373 students in health-related disciplines were trained in ten batches, contributing to a significant increase in contact tracing

data collection in Indonesia. From January to August 2021, the number of entries of confirmed COVID-19 infections in the national contact tracing database rose from 261,482 to 694,908. This course is now being used for contact tracing training events held by the Government of Indonesia.

“ **In the material on the basic concept of contact tracing, it is necessary to pay attention to the targets of close contacts, which in fact turn out to be confirmed cases. In addition, the good *silacak* application needs to be improved in terms of the ease of use so that it is even more comfortable to use. And if possible, this already great training can be expanded in scope by providing separate training for cadres and community leaders in terms of 5M. This will certainly help the contact tracer because there is collaboration between us and the local leader.”** Siti Silvia Nurkesi (Ms.)/ Contact Tracer for Bandung City

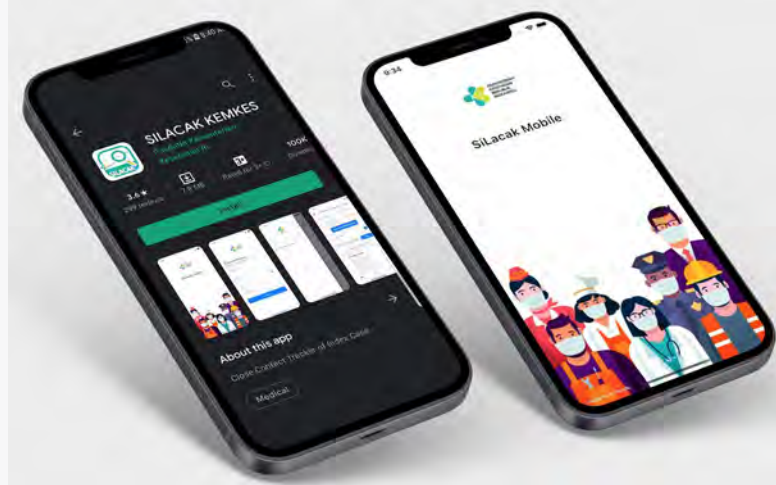


Image source: Emerging #7, INDOHUN



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LAOHUN
Lao One Health University Network

LAOHUN

LAO ONE HEALTH UNIVERSITY NETWORK

NETWORK OVERVIEW



5

Universities

ABOUT LAOHUN

- LAOHUN collaborates with University Members to promote the One Health concept and its core and technical competencies, as well as to expand interdisciplinary collaboration on health care.
- Vision:** A collaborative network of universities fostering multi-sectoral effort for a One Health workforce and policy development.
- Mission:** To develop university network capacity to promote One Health awareness, knowledge, and practice through expansion of universities, network strengthening, and advancement of the One Health workforce.
- LAOHUN has five member Universities and was established in 2018.
- Visit our website at www.laohun.org.

Year 2 Highlights

- Strengthened the Network by inducting Souphanouvong University as the newest formal LAOHUN member in August 2021.
- Increased One Health communication skills by co-organizing a risk communication training for 18 LAOHUN faculty members, December 2020.
- Empowered faculty and staff with training in Project Management, Competency-Based Education and the One Health Competency Framework, June to August 2021.
- Observer at the virtual SEAOHUN Executive Board meetings, April and July 2021.



Activities

Objective 1

LAOHUN is exploring opportunities to expand their University Network beyond Vientiane. A series of one-day introductory meetings was designed for three Universities – Souphanouvong, Champasack, and Savannakhet – to increase the understanding of One Health and why it is important to have a skillful and competent One Health workforce. Due to the rising number of COVID-19 infections, the activity was implemented only at Souphanouvong University on 13 August 2021.

This meeting presented sessions on the One Health concepts and approach, gave an overview of LAOHUN's history and Year 3 plans, discussed how to incorporate activities to build needed One Health skills into the university's teaching, and introduced the One Health Student Club concept. One hundred participants attended

from Souphanouvong University including the University President, deans from various faculties, professionals, and students from its two campuses.

Objective 2

Individual faculty members from LAOHUN Universities were able to attend the Global Team-led training on competency-based education. The training event was divided into five online meetings, and a total of 16 LAOHUN individuals participated in the sessions, which were delivered from June 25 to August 20, 2021. Participants were provided with the One Health Competency Framework, competency-based rubric templates, an evaluation toolkit, and other materials to help them integrate and expand the competency-based education methodologies and offerings at their local University settings.

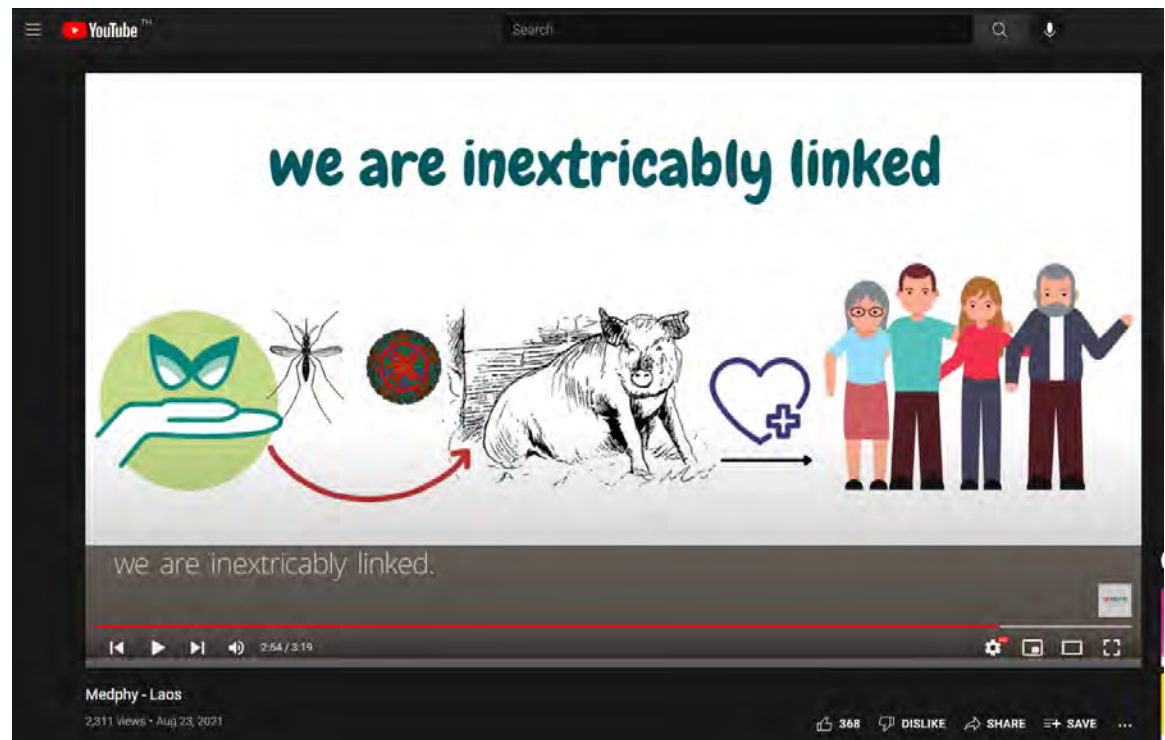
Objective 3

Three participants from LAOHUN attended the Project Management training led by the Objective 3 team. The training was divided into four sessions, and held this year 2021 on 25 February, 25 March, 29 April, and 27 May. For the Network's participants, the training was very useful because it was a good example of how to hold a virtual event.

Representatives from the Network participated in the biannual SEAOHUN Executive Board meetings on April 22 and

July 8. The regular participation in these meetings helps LAOHUN understand the working culture of SEAOHUN and the Global Consortium. Further, it provided an opportunity to meet participants from other networks and gain insight into their experiences and challenges.

LAOHUN nominated three representatives to the SEAOHUN Resource Mobilization Committee to increase its capacity for obtaining additional resources for the Network and its member Universities.



A shot from the video by Medphy, a group of Lao medical students who won in the Regional Student Competition 2021

Image credit: LAOHUN

COVID-19 risk communications training for LAOHUN faculty

LAOHUN co-organized with SEAOHUN Secretariat and the OHW-NG Global Consortium to deliver the activity “Virtual training on risk communication among faculty members of Lao One Health University Network.” This training focused on the foundations of risk communication and approaches and methods for delivering emergency risk communication. The training was designed to engage participants in group exercises to immediately practice the concepts and skills highlighted in the training. The training attracted 18 lecturers from Lao, two of whom earned training certificates for completing a minimum of six sessions.

Awareness-raising campaign on COVID-19 vaccinations

LAOHUN organized an online vaccination awareness campaign for students and faculty members of the National University of Laos (NUOL) and the University of Health Sciences (UHS). Around 400 participants joined the webinar to learn about available vaccines against COVID-19, where to access reliable information on COVID-19 vaccination. Prof. Mayfong Mayxay, Vice Rector of UHS, and Vice Chair of LAOHUN, led the campaign together with Dr. Ketkesone Phrasisombath, Vice Director, Department of Academic Affairs, UHS, and LAOHUN coordinator. Resource persons included officials from the Lao Ministry of Health who oversee COVID-19 prevention and control formed panel discussions. LAOHUN received positive feedback from the participants, as well as from the government officials who supported the activity, that the campaign reduced for them the fear of vaccination and increased trust in the government’s vaccination campaign. Participants even proposed that similar workshops be held on One Health concerns every two to three months.



LESSONS LEARNED/ GOOD PRACTICES

Developing hard and soft skills linked to core competencies through training courses from Network partners. LAOHUN faculty members were able to increase their capacity related to effective Network management and the One Health approach through their collaboration and participation in regional and global OHW-NG events. These included virtual meetings, workshops, and training events such as the competency-based education and project management workshops.

In-person interaction raises interest in and commitment to One Health. LAOHUN has expanded the Network in the country through the organization of an introductory meeting at Souphanouvong University. The meeting was held in person, and it was effective at creating interest and solidifying commitment among participants to join LAOHUN. University officials agreed on One Health actions and are willing to mobilize and insert the concept in relevant programs.



NEXT STEPS

LAOHUN has received the Memorandum of Understanding for Souphanouvong University membership, formalizing on 13 August 2021 its relationship with the Network. LAOHUN will continue to engage with the university to encourage the establishment of a One Health Student Club, identify activities with university representatives to promote One Health in Luang Prabang, and to support the Year 3 work plan.

As soon as possible, meetings will be held with Savannakhet University, Champasak University, and other interested academic institutions to raise One Health awareness and promote formal membership into the Network.

Preparations for an upcoming participatory epidemiology training will be undertaken in the first quarter of Year 3.



MOU signing between LAOHUN and Souphanong University as an institutional Member of the network, 13 August 2021

Image credit: LAOHUN

Important Links

Winning video for Lao PDR in SEAOHUN's Regional Student Competition: <https://www.youtube.com/watch?v=hUWFpFa7ajQ&list=PL-B9ZefyHD4y7cTlwMzSb17Sbva5JXvRb&index=6>

Success Stories

Raising awareness of students and lecturers about vaccination against COVID-19

Vaccination is a strategy to prevent and control the pandemic, especially in Lao PDR where the first COVID-19 death was identified in May 2021. Educating students and university lecturers about vaccination against COVID-19 is very helpful both to raise their awareness and to enhance their perceptions regarding the benefits during this pandemic.

Recognizing the potential of students and faculty members as advocates, Lao One Health University Networks (LAOHUN) organized a two-day virtual online vaccination awareness campaign (25-26 September 2021) to provide information on the science behind the available vaccines against COVID-19 and enhance understanding of the expected benefits to Lao society. It featured Prof. Dr. Mayfong Mayxay and Dr. Ketkesone Phrasisombath from LAOHUN, as well as resource persons from the Ministry of Health who are in charge of COVID-19 prevention and control in Laos: Dr. Rattanaxay Phetsouvanh, Director, Department of Disease control and Prevention, Dr. Phonepasert Ounaphome, Director, Department of Hygiene and Health Promotion, and Dr. Khamsay Dethleuxay, Vice Director, Department of Health Care and Rehabilitation. This activity is supported by the U.S. Agency for International Development through the One Health Workforce – Next Generation Project.

Approximately 380 participants attended the online campaign. They are the students, faculty coordinators and staff from 5 university networks of LAOHUN: University of Health Science, National University of Laos, Souphanouvong, Savannakhet, and Champasak university. The campaign was highly interactive, receiving



A group photo of the panelists in the online COVID-19 vaccination campaign

Image credit: LAOHUN

many questions from students. Moreover, LAOHUN recorded 17,397 views, 230 comments, and 269 shares during the event.

Many of the participants showed interest in the responses, prevention and control strategy of COVID-19 in Laos, the trend of COVID-19 pandemic, the implementation of COVID-19 vaccination in Laos, treatment for infected individual, types of vaccine that are available in Laos, side effect of the vaccine, and the place from where they can obtain the vaccine. There were also suggestions on conducting more online vaccination campaigns every three months and recommendations on having more information on such as vaccination in pregnant women, non-medication prevention strategy, and receiving a third shot of COVID-19 vaccine. With the information gained from the event, the students and lecturers can continue to encourage their family and communities to prevent the infection from COVID-19 by vaccination.



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SEA OHUN

Southeast Asia One Health
University Network



MyOHUN

MALAYSIA ONE HEALTH UNIVERSITY NETWORK

NETWORK OVERVIEW



17
Universities
20
Faculties



8
One Health
Student Clubs



3,177
Individuals trained
in One Health
topics



1,448
Individuals
trained
in COVID-19
related topics



4
Completed
activities
increasing
capacity to
respond to
COVID-19



>26 million
Individuals
reached via
COVID-19 related
RCCE activities



5
Gender
champions
and gender
experts

ABOUT MyOHUN

- This network was built to promote the philosophy and spirit of One Health for working together to respond to new and emerging diseases.
- Vision: A 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 disease.
- Our Network comprises 20 faculties, 17 universities, two Ministries and seven departments/line agencies.
- Established in 2012.
- Visit our website at <https://myohun.com/>.

Year 2 Highlights

- Being the first in the region to conduct gender-related activities, MyOHUN organized two webinars on “Roles and Challenges of Gender in Infectious Diseases” on 8 April and 29 May 2021, with more than 200 attendees in total.
- Organized the World Zoonoses Day Webinar entitled “Preventing the Next Pandemic” on 6 July 2021 in collaboration with the Ministry of Health, Malaysia.
- MyOHUN virtual Field Epidemiology Training from 8-10 September 2021.
- Conducted an internal assessment of key MyOHUN training activities to evaluate the content and structure of MyOHUN activities for further improvement.



Activities

Objective 1

MyOHUN undertook a new, gender-related activity during Year 2. Two webinars were conducted, where local and international speakers were invited to speak about the roles and challenges associated with gender in One Health. These webinars were primarily designed to benefit faculty members from the Network, but these attracted over 150 attendees worldwide. Read more details about the webinars in the success story “The importance of gender in infectious disease management and outbreak response.”

MyOHUN organized a virtual discussion entitled “Preventing the Next Pandemic” in an effort to strengthen preparedness for future emerging disease outbreaks even during the current COVID-19 pandemic. In celebration of World Zoonoses Day on 6 July 2021, over 650 people attended the two-and-a-half-hour discussion with expert speakers, including Director of the Global Health Group Professor Dr. Bruce Wilcox, MyOHUN Coordinator Professor Dr. Latiffah Hassan,

Teresa Yong Sui Mien from the National Institute of Health Malaysia, and Tom Hughes from EcoHealth Alliance.

For the first time, MyOHUN Field Epidemiology Training was conducted virtually through the Webex platform due to the limitations and safety concerns caused by the COVID-19 pandemic. Topics covered included zoonotic diseases and the One Health core competencies as relevant to field epidemiology. Thirty-eight government officers and academicians participated in the virtual training from various backgrounds across human, animal, and environmental health disciplines.

MyOHUN is working to improve anthrax disaster response. A workshop was held on 30 March 2021 to bring together experts from the Department of Veterinary Services, the Ministry of Health, and member Universities. Together, they developed an anthrax disaster simulation exercise for emergency responders. Anthrax is a disease caused by bacteria that are naturally found in Malaysia, and produces toxins that cause serious



Food delivery drivers being taught about safety against COVID-19.

Image Source: MyOHUN

effects in animals and people. Intended participants to the simulation exercise are “frontliners” who are the ones tasked to immediately contain any anthrax found, such as Emergency Response Teams specialized in hazardous materials, biomedical researchers, veterinarians, doctors, policymakers, police officers, and government officials.

MyOHUN sponsored the registration fees of 18 students and 11 academics to attend the International Meeting on Emerging Diseases and Surveillance Conference on 4-6 November 2021. Three academicians, namely Dr. Mohd Faizal Ghazali (“Antibiotic Resistance and Distribution of Virulence Genes in MDRSA Isolated from Clinically Healthy Domestic Animals”), Assoc. Prof. Dr.

Mas Ayu Said (Post-vaccination COVID-19 Among Healthcare Workers in a Tertiary Care Hospital, Malaysia), and Dr. Lee Hai Yen (Application of Stepwise Probabilistic Method for Extrapolation of Seroprevalence Data in Geospatial Modeling: An example using Chagas Disease) will be presenting in the conference. In addition, three students will present their posters at the conference, namely, Amir Muhaimin Bin Akmal Shukri.

To provide examples of potential career paths for students graduating into One Health related fields, Universiti Putra Malaysia (UPM) One Health Student Club (OHSC) organized a One Health Career Talk. They gathered esteemed speakers, including Professor Jeff Bender from the University

of Minnesota, Dr. Karoon Chanachai from USAID's Regional Development Mission Asia, Dr. Jeffrine Rovie Ryan Japning from the Department of Wildlife and National Parks Peninsular Malaysia, and Dr. Fransiska Sulisty from Orangutan Veterinary Advisory Group. Students found the webinar very informative and learned about the importance of making connections to build their careers in One Health.

Close to 180,000 refugees and asylum-seekers are registered with Malaysia's United Nations High Commissioner for Refugees. To reduce potential community transmission, MyOHUN and the Ericson Foundation assisted the Teaching Hospital of UPM in setting up a COVID-19 detection laboratory for SARS-CoV-2 testing to 2000 refugees in need. As a result, the hospital's laboratory was equipped with testing kits and equipment, and 11 laboratory technicians were trained in the laboratory diagnosis of COVID-19.

In celebration of One Health Day, 500 attendees from 25 countries actively participated in a virtual forum entitled "Vilifying Wildlife in the Age of Pandemics: Confronting Fears and Misconceptions," organized by MyOHUN. This webinar was captured in a success story in the OHW-NG Year 2 Semi-Annual Report 2020-2021.

UPM OHSC organized "The Re-emergence of Rabies Posing a Transnational Threat to Public Health" virtual seminar. It was a collaborative effort with MyOHUN and International Veterinary Students' Association to raise awareness about the risk of rabies for students worldwide.

MyOHUN issued a call for volunteers under the Crisis Preparedness and Response Centre within the Ministry of Health. As a result, two hundred fifty health-related personnel answered to help relieve burdens

of healthcare workers with the sudden surge of positive cases in Malaysia.

Objective 2

MyOHUN is working with a human resource development partner at UPM to assess our key training activities, including Table-Top Simulation, One Health Young Leaders and Communicators, One Health Field Epidemiology Training, and Community Education. In addition, online surveys were carried out to collect data among the training participants, and a total of 267 students, 17 staff, and 52 academics responded to the surveys. The results will be used for further improvement of our capacity building activities.

Objective 3

In Year 2, the COVID-19 pandemic and government response to contain the spread of the infection necessitated adaptation to the changing levels of restriction to movement of people, adherence to movement control orders and standard operating procedures issued by government. MyOHUN supported its members to pivot the implementation of the Year 2 work plan activities to maximize virtual or online platforms and tools.

MyOHUN actively promotes and maintains partnerships with technical organizations such as the Defense Threat Reduction Agency and Sandia Labs to increase capacity building opportunities in relevant fields which would otherwise be costly to support directly or inaccessible. In Year 2, MyOHUN helped to identify participants from among its member Universities for the 63rd Annual Biosafety and Biosecurity Virtual Conference from 4-6 November 2020. Six participants received funding from the U.S. Defense Threat Reduction Agency to get places in the conference. A virtual training organized by Sandia, Biorisk Management Assessment

Training, had 68 participants from MyOHUN with multidisciplinary backgrounds from 29 March to 2 April 2021.

MyOHUN helped to identify participants from among its member Universities for a series of virtual workshops on the “Development of a Regional Framework to Strengthen Biosecurity Safeguards and Instill Best Practices for Genome Editing and Toxin Research Knowledge and Sample Sharing in East Asian Pacific Region.” The workshops are organized by the Pacific Northwest National Laboratory in support of the Biosecurity Engagement Program of the U.S. Department of State and was attended by five participants from our Member Universities and Ministries. With such engagements of MyOHUN participants in these capacity building opportunities, it is hoped that it will further open the possibilities of future partnerships with other international

organizations and provide additional funding for the network’s long-term sustainability.

MyOHUN participated in training workshops organized by the SEAOHUN Secretariat to support the growth of the networks. These included: 1) Corporate Communications Training which comprises four sessions from October to November 2020 and covered a range of topics such as organizational communication, social media content, and organization visibility; and 2) the Monitoring, Evaluation, and Learning (MEL) Peer-to-Peer Training which comprises five sessions to train MEL officers about MEL reporting and serves as a platform to share ideas and experiences. Three staff of the MyOHUN National Coordinating Office attended the training, and one staff co-facilitated the session on the OHW-NG Performance Indicator Reference Sheets.

USAID emergency COVID-19 response Tranche-4 funding

- Developed an online training module on laboratory diagnosis of COVID-19.
- Developed three entertaining and very informative videos were made showing how to observe new normal behaviors to keep safe during this COVID-19 pandemic.

23 projects received funding under the MyOHUN COVID-19 Emergency Fund, which can be grouped under 4 main activities:

1. Activity 1.1: Engagement on COVID-19 to animal exposed groups in Malaysia.
2. Activity 1.2: Risk communication through effective learning resources and information technology
3. Activity 2.1: Screening of SARS-CoV-2 and other respiratory pathogens circulating during COVID-19 pandemic among vulnerable populations and frontline workers
4. Activity 2.2: Verification of diagnostic testing for the diagnosis of COVID-19 and improving the competency of laboratory technical workers in handling infectious materials

The projects under the MyOHUN COVID-19 Emergency Fund produced several products, including:

APAKAH COVID-19?



Severe acute respiratory syndrome -corona virus 2, SARS-CoV-2 (COVID-19) merupakan anggota baharu virus corona yang muncul pada akhir tahun 2019 dan telah menyebabkan pandemic.

Cara penularan:

Cara penularan: Melalui titisan dari hidung atau mulut yang tersebar daripada seseorang yang dijangkiti COVID-19

Tiada bukti dilaporkan bahawa haiwan (contoh: kucing) memainkan peranan penting dalam menyebarkan COVID-19 kepada manusia (Centers for Disease Control and Prevention, 2021).



JANGAN RISAU!

Memandangkan TIADA BUKTI bahawa haiwan peliharaan boleh menyebarkan COVID-19 kepada pemilik mereka, jadi tiada sebab untuk anda membuang atau melepaskan haiwan anda jika mereka mempunyai virus ini. Brosur ini bertujuan untuk memberi informasi mengenai peranan pemilik haiwan peliharaan dalam penjagaan haiwan yang positif COVID-19.



For more information, please visit:

Veterinary "SARS-CoV-2 in Animals" – American Medical Association (AVMA)
<https://www.avma.org/resources-tools/animal-health-and-welfare/covid-19/sars-cov-2-animals-including-pets>

"Question and Answers on COVID-19" – The World Organization of Animal Health (OIE)
<https://www.oie.int/scientific-expertise/specific-information-and-answers-on-2019-novel-coronavirus/>

"COVID-19 and Pets: what you and your clients need to know" – World Small Animal Veterinary Association
<https://wsava.org/news/committees/covid-19-and-pets-what-you-and-your-clients-need-to-know/>



Sekiranya anda mempunyai sebarang pertanyaan,

Hubungi kami di talian
013-9467891

atau

Hantarkan e-mel kepada
[covid19cat@gmail.com/](mailto:covid19cat@gmail.com)
farina@upm.edu.my



PEMILIK HAIWAN & PELIHARAAN & COVID-19

BAGAIMANA UNTUK MENGURUS HAIWAN PELIHARAAN ANDA SEKIRANYA MERKA DISAHKAN POSITIF COVID-19?



- "COVILaM: COVID-19 Laboratory Module" online training module developed to have more healthcare workers trained in laboratory diagnostic of COVID-19, consisted of an overview of the disease and preventive measures, biorisk assessment, demonstration on applying the personal protective equipment, and performing molecular testing, as well as results interpretation. More than 1,450 people have logged on to the website, and 36 people have registered for the training.
- A module titled "Komunikasi Risiko & Krisis untuk Kesihatan Awam & Ketahanan Institusi: Modul Panduan untuk Institusi Pendidikan Tinggi" was published and available online. This module addresses One Health's technical competency of risk communication during a disease crisis, highlighting key aspects of working together through effective communication to improve the flow and management of information adapted and tailored to suit any higher learning institutes in Malaysia. Read more about this in our success story "Providing critical risk and crisis communications guidelines for higher learning institutions in Malaysia."

- Training Manual and Video for Risk Management of COVID-19 in Rohingya Community was developed to train community risk managers to spread the knowledge and awareness to the industrial workers and Rohingya community. The manual developed is for the risk managers and trainers, while the video production is intentionally made in multiple languages (English, Malay, Burmese, and Rohingya native spoken language) for the risk managers to efficiently present, communicate, and adapt the manual for other communicable diseases/ outbreaks. Both manual and video are yet to be published.
- A series of three videos (“COVID-19 home quarantine,” “COVID-19 for children,” and “COVID-19 and high-risk individuals”) were made to increase awareness and provide reminders of COVID-19 risk to a specific group of people on how to behave in the new norms. Each video reached more than two thousand views. Since only a few instructional edutainment videos were made related to high-risk individuals, the video got more than five thousand views.

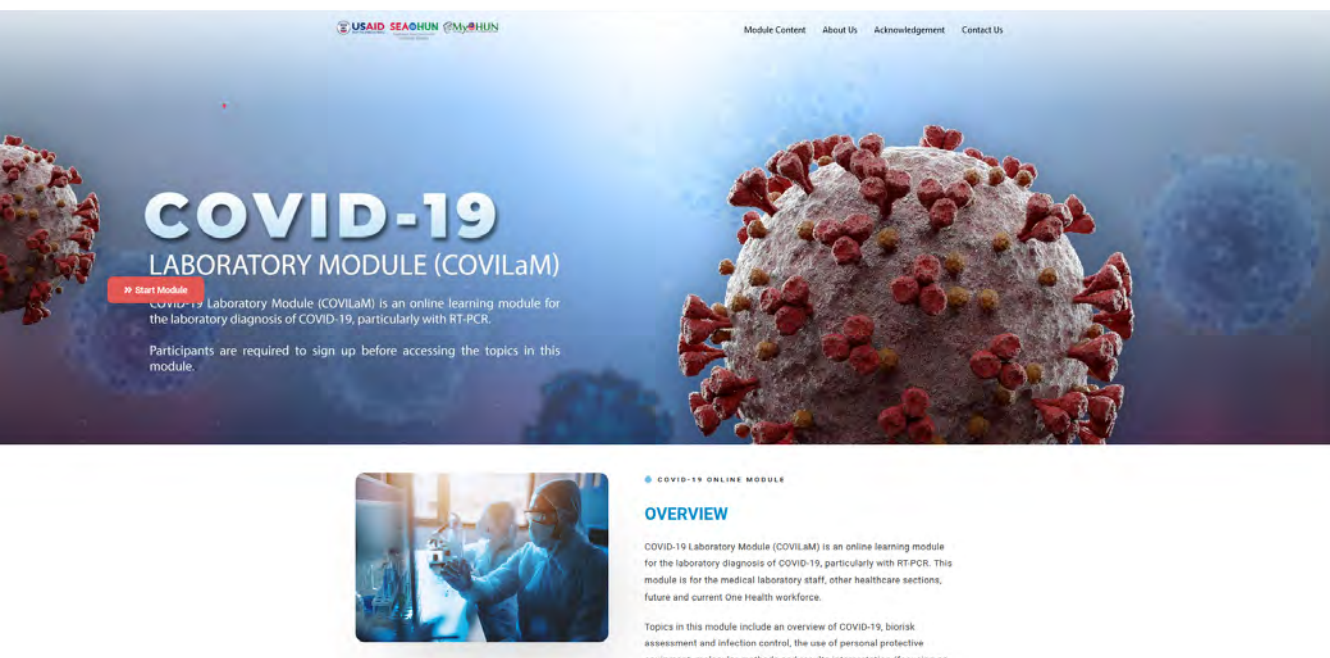


LESSONS LEARNED/ GOOD PRACTICES

Increase MyOHUN visibility through networking and leveraging individual and institutional partnerships. Engaging more participants, speakers, and facilitators, nationally and internationally, in MyOHUN activities has shown a significant positive impact. The pandemic created restrictions, and Standard Operating Procedures enforced by the government in conducting in-person activities have resulted in changes to the way activities are conducted. MyOHUN used this opportunity to create more visibility and highlight the Network’s reputation by shifting to online platforms in this “world without borders” new normal.

Strengthen network sustainability through collaborations and contributions to regional and global One Health initiatives.

MyOHUN has strengthened relationships and connections with ministries through multiple collaborations and is looking to create more networking opportunities with local and international organizations to build a more grounded and strong foundation for a self-reliant organization. MyOHUN has also worked with global partners to explore the One Health Academy as a solution for sustainable training and education in the region.



NEXT STEPS

Building a stronger and better structured MyOHUN. We plan to develop a One Health Workforce - Next Generation strategic plan to create a more straightforward path toward achieving goals and visions specifically tailored for our network. The strategic plan will be discussed in the upcoming Executive Board Meeting scheduled

for January 2022. MyOHUN will develop governance documents such as the by-laws and terms of reference for the Executive Board and Network Members. This will require revisiting the terms for membership, standardizing requirements and defining roles in the Network.

Important Links

COVILaM: COVID-19 Laboratory Module: <https://covid19module.my/>

“Risk and Crisis Communications Guidelines for Higher Learning Institutions”: https://www.upm.edu.my/info/komunikasi_krisis_dan_risiko/

Article on small grant, “Awareness Sessions on Alleviating Rodent-Borne Diseases in Malaysia”: <https://www.seaohun.org/single-post/awareness-sessions-on-alleviating-rodent-borne-diseases-in-malaysia>

Article on small grant, “Into a Cave: Enhancing Surveillance in Malaysia”: <https://www.seaohun.org/single-post/into-a-cave-enhancing-surveillance-in-malaysia>

Winning video for Malaysia in SEA HUN’s Regional Student Competition: <https://www.youtube.com/watch?v=IS632qI8kyE&list=PL-B9ZefyHD4y7cTlwMzSb17Sbva5JXvRb&index=1>

Success Stories

The importance of gender in infectious disease management and outbreak response

“**Understanding gender roles in zoonotic diseases, and to be honest with you, in any infectious diseases is extremely important.**” Prof. Dr. Ndola Prata, University of California Berkeley

To some, gender is a controversial topic of discussion, bordering on the sensitivity of sex (men and women) and culture. It is not a familiar topic for many in the Southeast Asia region, and discussing with others about one's understanding of gender roles seems strange. However, the increase in emerging infections and the role that gender could play necessitate further examination of this topic.

This year, with the support from its members and regional and global colleagues of the One Health Workforce - Next Generation Project, the Malaysia One Health University Network (MyOHUN) took one step forward. Marveling at the novelty of the topic, MyOHUN organized two virtual webinars to address the issue of gender in One Health. Prof. Dato' Dr. Abdul Rashid Khan, the project leader, led a passionate team to create awareness and understanding of gender roles in relation to zoonoses and emerging pandemics.

On 8 April 2021, the first webinar highlighted that gender is socially constructed and can change over time. This virtual discussion was entitled 'Roles and Challenges of Gender in Infectious Diseases' and received more than 150 attendees worldwide. Rather than discussing the gender-based stereotype and bias, the webinar's speakers examined gender roles and its importance in creating a better and highly functioning workforce. Webinar presenters included: Prof. Khan who discussed gender concepts together with Dr. Anisah Baharum from Universiti Putra Malaysia, and Prof. Dr. Ani Amelia Zainuddin from Universiti Kebangsaan Malaysia; Prof. Dr. Ndola Prata from the University of California, Berkeley, and Ms. Siti Nur Afifah Zahari from Universiti Sains Malaysia who presented about gender roles in zoonoses.

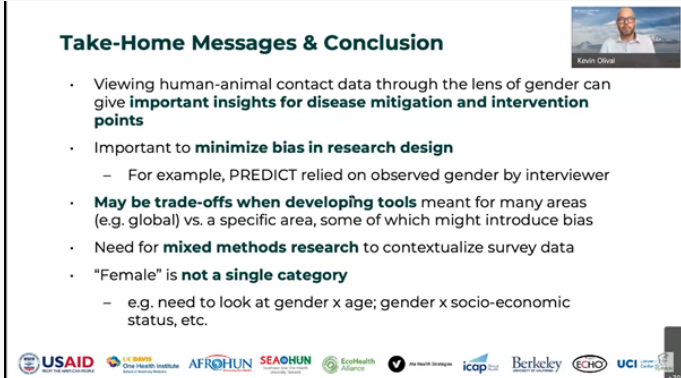
The second webinar held on 29 May 2021 called attention to the integration of gender concerns in the prevention of zoonotic diseases. One of the speakers for this event, Dr. Kevin Olival, Vice President for Research at

EcoHealth Alliance, led a team of his colleagues who gave examples from their projects showing how there are gender differences for disease exposure, access to treatment, seeking out health services, and human-animal interaction.

MyOHUN, which was first among its counterparts in the SEAOHUN region to plan a gender-related One Health activity, is proud to see this effort to address gender in infectious diseases which received positive responses and feedback. Although gender is a controversial topic in Malaysia, 75% of the participants were women.

In feedback following the second webinar, participant Dr. Aida Muhid from the Department of Veterinary Services Malaysia said she is “looking forward to the advancement of discussion on gender and integration of gender topics into the education and research activities.” She further shared that “gender awareness and sensitivities should be included as one of the OH core competencies.”

Though novel in its nature, MyOHUN plans for a follow-on workshop on gender in project Year 3, to highlight gender power and the distribution of labor and roles given the existing cultural norms and values. The network is forging ahead with gender-related capacity building activities to help advocate for including gender in University curricula relevant to One Health and engaging ministries on the subject.



Take-Home Messages & Conclusion

- Viewing human-animal contact data through the lens of gender can give **important insights for disease mitigation and intervention points**
- Important to **minimize bias in research design**
 - For example, PREDICT relied on observed gender by interviewer
- May be trade-offs when developing tools** meant for many areas (e.g. global) vs. a specific area, some of which might introduce bias
- Need for **mixed methods research** to contextualize survey data
- "Female" is **not a single category**
 - e.g. need to look at gender x age; gender x socio-economic status, etc.

Logos: USAID, ECDC, AFROHUN, SEAOHUN, EcoHealth Alliance, One Health Strategy, icap, Berkeley, ECHO, UCI

Dr. Kevin Olival of EcoHealth Alliance emphasizing gender in research projects relevant to One Health; 29 May 2021

Image credit: MyOHUN

Providing critical risk and crisis communications guidelines for higher learning institutions in Malaysia

On 30 September 2021, the Ministry of Higher Education and the Malaysia One Health University Network (MyOHUN) jointly launched a virtual training module entitled “Guidelines Module for Higher Learning Institutions: Risk and Crisis Communications for Public Health and Institutional Resilience.” The ceremony was officiated by none other than Datuk Seri Dr. Noraini Ahmad, Minister of Higher Education.

“The launching of this module is very timely and for good measure as higher learning institutions will be reopened soon,” said Datuk Seri Dr. Noraini Ahmad during her speech. The launch event received coverage in the local news media such as the *News Straits Times* and *Berita Harian*, a testament to the public recognition for universities to have this capacity.

After the launch ceremony, an online webinar, “Risk and Crisis Communication for Public Health and Institutional Resilience,” was conducted by a team from Universiti Putra Malaysia (UPM) who developed a risk communication module, led by Prof. Dr. Azmawani Abd Rahman. The module was developed in collaboration with MyOHUN and the Ministry with support from the United States Agency for International Development’s One Health Workforce - Next Generation Project.



Datuk Seri Dr. Noraini Ahmad, Minister of Higher Education, launching the module “Risk and Crisis Communications for Public Health and Institutional Resilience” on 30 September 2021

Image credit: MyOHUN

The COVID-19 pandemic has created crises unimagined in all aspects of life. The higher education sector was not prepared for the impacts of a global pandemic on teaching and learning activities. Confusion and uncertainty about the pandemic came with inaccurate information, and failures to establish effective risk and crisis communications can deter team coordination, magnify a crisis, and tarnish individual and institutional reputations alike.

MyOHUN effectively responded to calls for action from educators and learners to address the need for risk and crisis communications tools throughout multiple stages of crises for a wide range of institutions in the Malaysian context. Focusing on communication barriers and challenges during disasters and crises, this module highlights an action plan, risk communication strategies, and offers best practices and suggestions for universities and other higher learning institutions throughout the preparedness, response, and recovery phases of infectious disease outbreaks. The module represents meaningful collaboration and contributions from 41 select experts on risk management, workplace occupational safety and health, corporate communications, and university top management.

“Risk communication enables institutions to plan countermeasures and be more prepared in terms of response and recovery. This includes learning from mistakes and considering that disasters and crises should create opportunities for any institution to improve resilience, power future performance, and emerge stronger,” said Prof. Dr. Azmawani when asked about risk communication.

This module addresses One Health technical competency of risk communication during a disease crisis, highlighting key aspects of working together through effective communication in improving flow and management of information at higher learning institutes in Malaysia. MyOHUN envisions this module to be useful for all higher learning institutions in Malaysia, and can be adapted and tailored to suit the needs of any local institution.



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SEAOHUN
Southeast Asia One Health
University Network

MMOHUN
Myanmar One Health University Network

MMOHUN

MYANMAR ONE HEALTH UNIVERSITY NETWORK

NETWORK OVERVIEW



3

Universities

8

Faculties

ABOUT MMOHUN

- MMOHUN promotes the development of One Health professionals and facilitates the exchange of knowledge and ideas among human, animal, and environmental health professionals in Myanmar.
- Mission:** As a fledgling network, MMOHUN shares the mission with SEAOHUN – to develop a resilient and competent One Health workforce by leveraging education, research, and training excellence provided by member Universities.
- Make MMOHUN members comprise eight faculties across three universities.
- MMOHUN was established in 2019 and members comprise eight faculties across three universities.
- Visit our website at www.seaohun.org/m mohun.

Year 2 Highlights

- Co-organization of a risk communication training for 70 MMOHUN faculty members, December 2020.
- Awarded two SEAOHUN Small Grants to study leptospirosis among abattoir workers and conduct a COVID-19 serological survey in companion animals to researchers from the University of Public Health and the University of Veterinary Science.
- Graduate students from MMOHUN, Mr. Kyaw Min Htun and Ms. Maw Rain, received SEAOHUN Scholarships to pursue their Master's in Public Health.
- Eighteen faculty members from Myanmar universities participated in the Global Team's Training on Competency-Based Education and the One Health Competency Framework, June to August 2021.
- Two participants from MMOHUN joined in organizational capacity building activities organized by the SEAOHUN Secretariat and the Global Consortium, specifically for project management and communications.



Activities

Objective 1

In Year 2, MMOHUN had a lone activity under this objective, "Conduct two workshops on prioritized One Health topics." The country has been under difficult times with the ongoing COVID-19 pandemic and civil unrest. Activity implementation was therefore suspended for the year, but that did not stifle their engagement in other activities.

MMOHUN researchers received two SEAOHUN Small Grants in late September this year to support One Health-relevant knowledge development in Myanmar and encourage researchers to pursue One Health as a field. One grant was awarded to Dr. Aye Sandar Mon from the University of Public Health to study seropositivity for leptospirosis among abattoir workers who slaughter animals and prepare them for butchering. The second grant was awarded to Dr. Ye Htut Aung of the University of Veterinary Science to support a

serological survey of SARS-CoV-2 infection in cats and dogs in Nay Pyi Taw City.

Mr. Kyaw Min Htun was the successful recipient of a SEAOHUN Scholarship for this year. It will enable him to pursue the Master of Public Health Program at Mahidol University, Thailand during the 2021 - 2022 academic year.

A young One Health professional, Ms. Maw Rain successfully competed for a SEAOHUN Scholarship in Year 1 to support her pursuit of the Master of Public Health (Global Health) at the Thammasat University in Thailand. Her independent study is entitled "Women of Myanmar Made Vulnerable by COVID-19: Documentary Review in Assessing Health, Livelihood and Domestic Violence Implications." She graduated with her Master's, and successfully received a SEAOHUN Fellowship that will enable her to work at SEAOHUN Secretariat.

Antimicrobial resistance of bacteria in wastewater of Yangon Region

Antimicrobial resistance (AMR) is a public health problem that occurs when bacteria, viruses, fungi, and parasites evolve over time, making them immune to the medicines (antimicrobials) used to fight them. This makes infections harder to treat and increases the risk of spread of disease, severe illness, and death.

Researchers from the University of Public Health in Yangon received a SEAOHUN Small Grant in 2020 to conduct a study of AMR in the wastewater of facilities that regularly handle and dispose of biohazardous waste into the region's sewerage system. By collecting wastewater samples from randomly selected poultry farms, aquaculture farms, community drains, and hospital drains, they were able to isolate 160 different bacteria and identified two (*Escherichia coli* and *Klebsiella pneumoniae*) that produced enzymes responsible for most antibiotic resistance.

This study entitled “Antimicrobial resistance in wastewater of Yangon Region from One Health perspective” was conducted by Dr. Mya Thandar (team leader), Prof. Hla Hla Win, Prof. Khin May Oo, Dr. Moh Moh Kyi, and Dr. Myat Su Khiaing. To avoid severe consequences for human health, the team recommended that hospitals, poultry farms, and aquaculture farms pre-treat wastewater to eliminate the presence of biohazardous components such as microbiological pathogens and antibiotic residues.

Objective 2

Individual faculty members from MMOHUN Universities were able to attend the training on competency-based education. The training event was divided into five online meetings, and a total of 18 individuals participated in the sessions delivered beginning from June 25 and ended on August 20. Participants were provided with the One Health Competency Framework, competency-based rubric templates, an evaluation toolkit, and other materials to help them integrate and expand the competency-based education methodologies and offerings at their local University settings.

Objective 3

MMOHUN faculty and staff were active participants in project management, finance, communications, monitoring, evaluation and learning training events at the regional and global levels. Two participants from MMOHUN attended the Project Management

training led by the Objective 3 team. The training was divided into four sessions, and held this year 2021 on February 25, March 25, April 29, and May 27.

One participant from MMOHUN attended the Communications Workshop held as two sessions on August 27 and September 17. Trainers discussed effective communication tools such as visually-appealing communication materials and stories that are easily digestible, compelling, and character-driven.

MMOHUN developed an official logo for their Network which will help to promote local and international recognition of the Network.

A representative from the Network attended the biannual SEAOHUN Executive Board meeting on July 8 as observer. The meeting allowed for understanding the regional challenges, limitations and innovations in One Health, which can later be adapted for implementation and advocacy in Myanmar.

COVID-19 risk communications training for MMOHUN faculty

MMOHUN co-organized with the SEAOHUN Secretariat and the OHW-NG Global Consortium to deliver the activity “Virtual training on risk communication among faculty members of Myanmar One Health University Network.” This training focused on the foundations of risk communication and approaches and methods for emergency risk communications, and engaged participants in group exercises to practice concepts and skills. The training attracted 70 lecturers and government officials working in public health, medicine and veterinary sciences across Myanmar; 58 earned certificates for completing a minimum of six sessions.



LESSONS LEARNED/ GOOD PRACTICES

Empowering use of the One Health approach among MMOHUN members.

Through the collaborative workshop conducted between MMOHUN and the SEAOHUN Secretariat, MMOHUN strengthened their use of the One Health approach across faculty and different departments within the Ministry of Health. As a result, MMOHUN members were able to apply One Health technical knowledge in University teaching, especially for undergraduate and postgraduate students. Due to the COVID-19 pandemic and ongoing political crisis, MMOHUN faces many challenges in promoting the One Health

approach in Myanmar, but is nonetheless resilient in their efforts to successfully adopt the One Health approach nationally.

Addressing a major public health threat through the One Health perspective.

A MMOHUN member University, UPH, can contribute to filling major gaps in public health with financial support from SEAOHUN. As AMR is becoming a major public health threat in Myanmar, the small grant-funded project contributed to finding a solution for AMR in wastewater and will have a positive impact in the coming future.



NEXT STEPS

With two crises still present in the country, Year 3 will be focused on establishing MMOHUN as an entity formally recognized by the government and working towards their

institutionalization as an academic network for One Health. As well, MMOHUN will continue to contribute to and participate in regional and global work plan activities.

Important Link

Article on small grant “Antimicrobial resistance in wastewater of Yangon area” : <https://www.seaohun.org/single-post/antimicrobial-resistance-in-wastewater-of-yangon-area>



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PHILOHUN
Philippine One Health University Network

PhilOHUN

PHILIPPINE ONE HEALTH UNIVERSITY NETWORK

NETWORK OVERVIEW



9
Universities
19
Faculties



957
Individuals reached via COVID-19 related RCCE activities

ABOUT PhilOHUN

- PhilOHUN is a network for generating socially-relevant, academic excellence on One Health by leveraging education, research, and training developed in collaboration with university networks in Southeast Asia, particularly in the Philippines.
- Vision:** A platform for academicians working towards a future with minimal threat from preventable diseases through the One Health approach.
- Mission:** PhilOHUN aims to develop the next generation of a skilled and competent One Health workforce.
- Its members comprise 19 faculties across nine universities.
- PhilOHUN was established in December 2019.

Year 2 Highlights

- Empowered the country COVID-19's response using One Health approach by organizing the PhilOHUN Webinar Series: "Ensuring quality of public health communication, diagnostics, and infection prevention and control on humans and animals in response to COVID-19", September to December 2020.
- Awarded two SEAOHUN Small Grants to increase awareness of antimicrobial resistance and study food-borne diseases to researchers from the University of the Philippines.
- Mr. Ric Millicent Carolasan is the SEAOHUN Scholarship recipient from PhilOHUN.
- Participated in virtual training on Competency-Based Education and the One Health Competency Framework, June to August 2021.
- Participated in regional capacity-building activities organized by the SEAOHUN Secretariat and the Global Consortium.



Activities

Objective 1

PhilOHUN members received two SEAOHUN Small Grants this year. One grant was awarded to Dr. Regine Berba from the Philippine General Hospital of the University of the Philippines-Manila for a nationwide awareness-raising campaign on antimicrobial resistance, in support of the country's observance of the World Antimicrobial Awareness Week from 18-24 November 2021. Dr. Berba's project is largely funded by the Food and Agriculture Organization of the United Nations. The second grant was awarded to a team led by Dr. Vicente Belizario, Jr., of the University of the Philippines-Manila for a spatial analysis of food-borne helminthiasis and identification of socio-cultural factors affecting food safety.

Mr. Ric Millicent Carolasan was the successful recipient of a SEAOHUN Scholarship for this year. It will enable him to pursue the Master of Public Health Program at Chulalongkorn

University in Thailand during the 2021 - 2022 academic year.

Objective 2

Individual faculty members from PhilOHUN Universities were able to attend the Global Team-led training on competency-based education. The training event was divided into five online meetings, and a total of nine individuals participated in the sessions delivered from June 25 and ended on August 20. Participants were provided with the One Health Competency Framework, competency-based rubric templates, an evaluation toolkit, and other materials to help them integrate and expand the competency-based education methodologies and offerings at their local University settings.

Objective 3

PhilOHUN faculty participated in global and regional training events on project management and communications to grow

Capacity building for One Health professionals

Despite limited interdisciplinary capacity-building activities on One Health in the Philippines, a team of experts from the University of the Philippines was drawn from different fields (including parasitology, environmental science, and anthropology) to develop two courses promoting advanced training and education on prioritized One Health core competencies and technical skills. The team received a SEAOHUN Small Grant in 2020. They were led by Dr. Vicente Belizario, Jr. (project leader) from the University of the Philippines Manila - College of Public Health. The College is a SEAMEO TROPED Regional Centre for Public Health, Hospital Administration, Environmental and Occupational Health.

The team developed a syllabus for an elective course entitled “Fundamentals of One Health” for integration into the curriculum of the Master of Public Health and other graduate programs in relevant disciplines. The introductory course covers foundational concepts, applications, challenges, and opportunities for applying the One Health approach to achieve better public health outcomes.

The team held a three-day course entitled “Introduction to One Health.” This course was designed to be integrated in Continuing Professional Development programs for practitioners of health, allied health, and other relevant disciplines working in government agencies and non-government organizations. The course was piloted in May 2021 with 136 participants from around the country representing a broad range of disciplines including allied health, veterinary medicine, and the social sciences.

the Network and successfully implement future project activities. Three participants from PhilOHUN Universities attended the Project Management training led by the Objective 3 team. The training was divided into four sessions, and held this year 2021 on 25 February, 25 March, 29 April, and 27 May. Three participants from PhilOHUN Universities attended the first session of the Communications Workshop held on 27 August 2021. Participants learned effective communication methods, including aspects such as identifying target

audiences, designing visually-appealing communications materials, and crafting stories that are easily digestible, compelling, and character-driven.

Three representatives from the Network participated in the biannual SEAOHUN Executive Board meeting on April 22, and two representatives participated in the July 8 meeting. These allowed us to align our efforts towards regional goals in One Health. It served as a venue for us to contribute ideas on our common advocacies.

COVID-19 awareness raising efforts by PhilOHUN

PhilOHUN organized a series of webinars from September through December 2020, with two sessions in each month. The purpose of the webinar series was to raise awareness about the risks presented by the COVID-19 pandemic. The series of events attracted close to 1,500 attendees. The webinar was the subject of a success story in the OHW-NG Year 2 Semi-Annual Report 2020–2021.



LESSONS LEARNED/ GOOD PRACTICES

Commitment to One Health will help overcome challenges. Connection and coordination are possible even in conditions of strict community quarantine when travel is severely restricted. As long as people share the same goals for One Health, PhilOHUN members can coordinate with each other to implement a common work plan, and communicate with the SEAOHUN Secretariat to participate in regional activities as well as to raise awareness of the Project in the country.

Leverage existing resources to increase project impact. Despite minimal funds from the project, PhilOHUN members are able to further support collaboration on One Health activities by pooling existing university resources. As well, PhilOHUN secured a grant from Chevron to support the work plan for Year 3, further supplementing One Health activities in the Philippines. It is possible to optimize both grants so that the respective outputs are complementary, and there is efficient use of the time and effort.



NEXT STEPS

PhilOHUN will implement an activity to raise awareness about One Health in the community via radio programs. Organizers will identify potential local-language radio programs with a target number of listeners, prioritize the specific One Health topics

to deliver on these programs, and match topics to speakers. Potential topics include antimicrobial resistance, prudent use of antimicrobials, and zoonotic and viral diseases.

Important Links

Article on small grant “Development of One Health Courses in the Philippines”: <https://www.seaohun.org/single-post/development-of-onehealth-courses-in-the-philippines>

Winning video for the Philippines in SEAOHUN’s Regional Student Competition: <https://www.youtube.com/watch?v=vQibAM4NiHQ&list=PL-B9ZefyHD4y7cTlwMzSb17Sbva5JXvRb&index=6>



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Thailand One Health
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THAILAND ONE HEALTH UNIVERSITY NETWORK

NETWORK OVERVIEW



11

Universities

67

Faculties



3

One Health
Student Clubs



486

Individuals trained
in One Health
topics



451

Individuals
trained
in COVID-19
related topics



7

Completed
activities
increasing
capacity to
respond to
COVID-19



17,128

Individuals
reached via
COVID-19 related
RCCE activities



1

Gender
champions
and gender
experts

ABOUT THOHUN

- Collaborates across sectors using the One Health approach, offering pre-service training for future and current members of the workforce to prevent and protect against emerging/re-emerging diseases in Thailand.
- Vision:** Strong, recognized, and sustainable One Health University Network throughout Thailand by 2025, with sustained engagement and partnerships, regional integration, and empowerment.
- Mission:**
 - 4 Build, develop, and expand One Health University Network of Thailand.
 - 4 Develop and exchange skilled One Health professionals between universities and involved agencies.
 - 4 Support trans-disciplinary collaboration within and between universities and involved agencies.
 - 4 Promote research employing One Health approach to promote the health of humans, animals and environment.
 - 4 Coordinate with other related One Health Networks in Southeast Asia.
- Established in August 2012.
- Visit our website at www.thohun.org.

Year 2 Highlights

- Established two additional Thai One Health Student Clubs at Faculty of Education, Kasetsart University and Faculty of Veterinary Medicine and Applied Zoology, Princess Chulabhorn College of Medical Science.
- Supported three faculty members from THOHUN member Universities to present on One Health education and research at the “Eighth International Meeting on Emerging Diseases and Surveillance, IMED 2021.”
- Created operational plans for multi-sectoral coordination and risk communication for two scenarios: 1) a rabies outbreak, and 2) a rabies outbreak during COVID-19 pandemic.
- Developed antimicrobial resistance/antimicrobial stewardship (AMR/AMS) training modules to integrate both technical skills and One Health core competencies to align with the AMR/AMS needs and the national strategies of Thailand.
- Successfully developed biorisk management curricula addressing the needs of THOHUN target groups; undergraduate and graduate students, biorisk managers.
- Transformed advanced field-based training and One Health capacity strengthening activities to an interactive hybrid platform, enabling field-based learning even during pandemics.
- Initiated and developed complete facilitator’s guides for training courses for village health volunteers on responding to COVID-19 and newly emerging infectious diseases.
- THOHUN is in the review process for registration as a foundation to have a legal identity and be eligible for funding in the future.



Activities

Objective 1

Two new One Health Student Clubs (OHSCs) were established to integrate One Health into the student-centered activities led by THOHUN One Health Ambassadors, who served as leaders and trainers. Founding members of the clubs are students from three or more THOHUN member Universities. OHSCs aim to adapt One Health Camp training platforms and One Health approach to engage and address health problems such as emerging infectious diseases and AMR.

Three scholarships were awarded to faculty members to participate in the “Eighth International Meeting on Emerging Diseases and Surveillance; IMED 2021,” expanding THOHUN’s partnership to a global scale and strengthening their teaching and research capability. These are: 1) Prof. Aulia Rahmi Pawestri, Lecturer from Faculty of Medicine, Brawijaya University; 2) Asst. Prof. Raktham Mektrirat, lecturer from Faculty of Veterinary Science, Chiangmai University; and 3) Asst. Prof. Ronald Enrique Morales Vargus, lecturer

from Faculty of Tropical Medicine, Mahidol University.

Five detailed operational plans were successfully developed for two scenarios: a rabies outbreak and a rabies outbreak with COVID-19 pandemic. Plans included multi-sectoral coordination and risk communication among seven Thai ministries and the Red Cross Society. Plan areas include: a) management and operation during rabies emergencies; b) patient care/ referral, prevention and infection control in hospitals; c) surveillance, prevention and disease control of in community level/ disease prevention and control in animals; d) preparation of necessary medical supplies, materials and equipment; and e) public relations and risk communication.

THOHUN collaborated with Pfizer (Thailand) Ltd., the US Defense Threat Reduction Agency, and Sandia National Laboratories to develop AMR/AMS training modules and biorisk management curricula for these

three target groups specifically tailored to needs in Thailand. Through THOHUN, the AMR/AMS project makes Thailand one of three countries that received the Global Hospital Business Unit Medical Achievement Award 2021 selected from 37 implementing countries by Pfizer (Global).

THOHUN transformed the advanced field-based learning and One Health courses for delivery on an online blended learning platform to support One Health capacity-building activities despite travel restrictions because of the COVID-19 pandemic. Known as THOHUN-TELI, the courses were adapted from the Tufts Environmental Literacy Institute (TELI) and consisted of fundamentals delivered as an online course, followed by a 2-week field-based project to apply knowledge and skills learned. The online platform will help THOHUN maximize learning outcomes of the learners, while enabling the activities to continue during COVID-19 or future emerging infectious disease outbreaks or other logistic disruptions.

The Training of Trainers program supports One Health implementation in communities to respond to newly emerging infectious diseases through the support of Village Health Volunteers. It was adapted into virtual format, and delivered to 29 facilitators of different disciplines with the principles and techniques on community engagement and advocacy to respond to newly emerging infectious diseases using participatory approaches. The workshop resulted in the development of facilitator's guides and content for the educational modules that seek to engage various levels of community on infection prevention and control.



Imagecredit: THOHUN

Objective 2

THOHUN supported the OHW-NG Objective 2 team in the validation of the alumni tracking survey and subsequent circulation to THOHUN alumni.

THOHUN supported the Global Team and mobilized six faculty members from member Universities to review and finalize the One Health competency assessment toolkit during the workshop on June 14 and 15.

Objective 3

THOHUN is moving forward toward self-reliance and sustainability. The Network has applied to be registered as THOHUN Foundation, to have a legal identity and be eligible for funding in the future. The registration review process is currently underway by Thailand's Ministry of Interior.

A THOHUN Working Committee was formed with the purpose of integrating One Health Core Competencies into the educational system of member Universities. It comprises faculty members who initiated this training for the Network in 2018.

THOHUN collaborates with the private sector in more dimensions of One Health-related areas, such as with Pfizer (Thailand) Ltd. to develop AMR/AMS training modules, as well as media engagement related to COVID-19 vaccination in Thai society.

THOHUN nominated three representatives to the SEAOHUN Resource Mobilization Committee to participate in efforts for funding portfolio diversification.

USAID emergency COVID-19 response Tranche-4 funding

- Organized monthly talk shows or debates as part of the “One Health in the Park” virtual series.
- Developed ten innovative prototypes of COVID-19 Infection, Prevention and Control products through design thinking.
- Established a training platform and network of participatory epidemiology facilitators and practitioners.
- Developed guidelines on the management and practices behind multisector COVID-19 environmental surveillance at the Thai-Malaysian border.
- Provided safe and highly accessible throughput testing of COVID-19 in Chiangmai, Thailand.

THOHUN implemented four activities to assist the Thai community response to COVID-19. “One Health in the Park” was a monthly talk show or debate of multidisciplinary experts and influencers. It aimed to disseminate evidence-based knowledge and facts to address the health issues of the general public. The events have been broadcasted through live streaming on the THOHUN Facebook page, online media, and other channels. A local influencer and nineteen specialists from different disciplines and sectors were invited, and a total of 17,128 viewers attended three sessions from July to September 2021.

A workshop on design thinking principles for faculty and staff of THOHUN universities was designed to provide an opportunity to apply its principles in innovative prototype development to solve COVID-19 problems. Ten prototypes such as the “SPA mask” (a fragrant facemask), “U.WE box” (a device that uses ultraviolet light to safely sterilize objects), and the “Smart Trash” model for recycling face masks were created to help minimize the spread of COVID-19.

The training of “Application of Participatory Epidemiology (PE) to Identify a Possible Solution for Surveillance and Prevention Measures” was implemented to equip participants with the tools needed to respond to COVID-19. The network of participants and trainers was established to exchange knowledge and experience and consult each other for PE-related activities.

The project “Environmental virus surveillance for preventing intra-hospital infection and transmission of COVID-19” involved the community and stakeholders from Songkhla province and government sectors near the Thai-Malaysian border in situational analysis of management practices for environmental virus surveillance. New guidelines and best practices for the prevention and control of COVID-19 transmission were developed and communicated to local hospitals, provincial public health offices, customs houses, immigration offices, and other stakeholders.

The activity on “Outreach and contactless care services for COVID-19 testing” provided user-friendly patient recruitment, sample identification, provision of laboratory results through a web-based application, contactless and high-throughput service for sample collection of nasopharyngeal/throat and blood samples, and serological and molecular testing for COVID-19 in 104 hospital discharged patients. This activity increased access of people to the healthcare system. A success story on this activity is found in the OHW-NG Year 2 Semi-Annual Report 2020–2021.



LESSONS LEARNED/ GOOD PRACTICES

Turning crisis into opportunity. THOHUN had challenges with some One Health activity implementation due to safety concerns caused by the COVID-19 pandemic, country shutdown, travel restrictions, and the need to maintain social distancing. Most meetings were organized virtually via meeting platforms. However, development of certain high-level learning outcomes or One Health skills requires hands-on experience and face-to-face interaction. Although student

internships and field-based activities were cancelled, THOHUN promptly turned this crisis into an opportunity. THOHUN analyzed the situation and assessed its internal capacity to quickly change its OH training and implementation style. Instructional design, an educational approach that combines online educational tools for asynchronous learning and an interactive environment for simultaneous learning, was customized for each learning activity. The

platform helped THOHUN maximize expected learning outcomes together and increased learner accessibility by offering remote learning, thus following standard safety procedures during the COVID-19 pandemic. The successful transition of these platforms was made possible through the educational

development skills and adaptability of THOHUN's Coordinator and Project Manager, the collaborative effort and prompt response of THOHUN trainers or champions, as well as leadership and strong support from the THOHUN Steering Committee and Deans of member faculties.



NEXT STEPS

Empowering THOHUN faculty and University Members to promote the One Health approach to Thai society.

THOHUN will deliver training and education modules developed in Year 2 to target groups for more effective surveillance, prevention, control, and response to newly emerging infectious disease threats and AMR microbes. Our training and education offerings will be expanded to more youth, vocational students, workers, and village health volunteers. THOHUN will support student-centered activities such as Thai OHSCs and One Health Ambassadors. Lessons learned from the COVID-19 pandemic will be used as instructional materials to prepare a competent future and

current workforce to address newly-emerging infectious disease pandemics. THOHUN will strengthen our internal One Health capacity and management by developing more training and education platforms that are adaptable and feasible to implement in both “normal” and “crisis” situations. THOHUN continuously trials and develops plans to pursue sustainability and self-reliance. Fundraising and seeking for support from external funding agencies are also key for Network sustainability. THOHUN will collaborate with more partners and private sectors or international organizations to prevent, detect, and respond to emerging infectious threats, AMR, and biorisk using the One Health approach.

Important Links

International Short Course on Ecosystem Health (THOHUN-TELI) 2021: <https://thohun.org/international-short-course-on-ecosystem-health-thohun-teli-2021/>

Article on small grant “Training on Mosquito-Borne Zoonotic Diseases for Researchers in Southeast Asia”: <https://www.seaohun.org/single-post/training-on-mosquito-borne-zoonotic-diseasesfor-researchers-thailand>

Winning video for Thailand in SEAHOHUN's Regional Student Competition: <https://www.youtube.com/watch?v=-7nn1IXnmC0&list=PL-B9ZefyHD4y7cTlwMzSb17Sbva5JXvRb&index=7>

Success Stories

Transforming field-based learning and One Health capacity strengthening in the COVID-19 era

The COVID-19 pandemic has resulted in schools and universities shut down all across the world. It has changed the learning setting from the classroom to online. While e-learning has provided a workable solution in this COVID era, there are still challenges to this self-paced learning method.

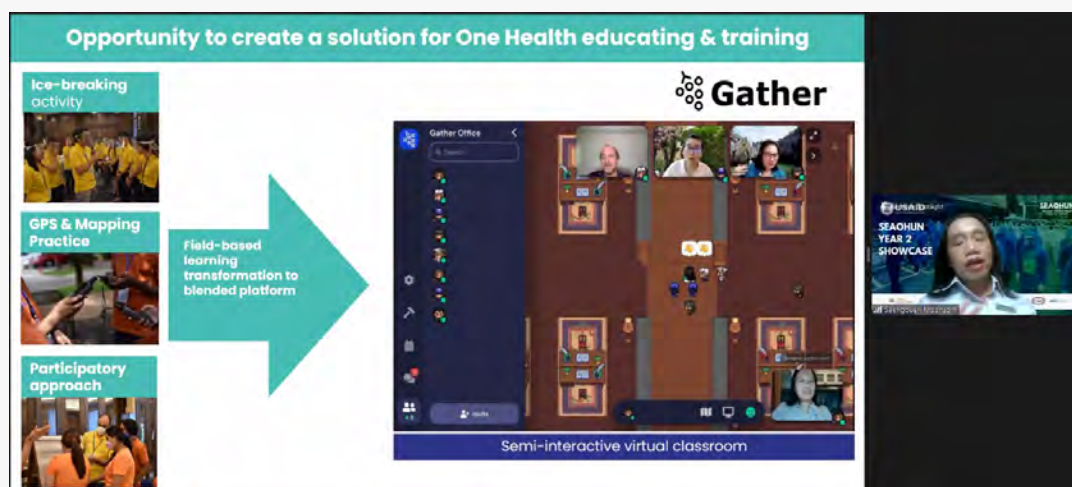
Since its inception the Thailand One Health University Network (THOHUN) has organized a One Health short course, “International short course on Ecosystem Health”, consisting of a week of e-learning of fundamental knowledge followed by a two-week field and project-based practicum for students to apply knowledge and technical skills addressing One Health problems at designated field sites and within communities.

However, due to movement restrictions put in place by the Thai government during the COVID-19 pandemic, our annual One Health capacity building and field-based learning program could not be implemented. At the same time, it could not be replaced by an e-learning platform, so THOHUN opted for a blended learning approach which combines an interactive online environment for asynchronous or simultaneous learning that requires the presence of both teacher and student, and additional educational tools for asynchronous learning.

Through instructional design, various information and communication technology tools were applied to provide a virtual and semi-interactive classroom for communication and discussion (Padlet, Jamboard, and Google Docs). Edmodo, Edpuzzle, Gather Town, and Poll Everywhere were applied to enable interaction of the learners with instructors and to enhance engagement (Quizizz) and improve specific skills such as systems thinking (Mindmeister). Game-based platforms and simulations were created to prepare student learners with required laboratory and analytical skills, along with critical thinking skills.

For our forthcoming short course in project Year 3, a toolkit box containing user-friendly and low-cost laboratory equipment, non-hazardous chemicals and reagents, and a user manual is planned to be delivered to the learners for their synchronous practice sessions with their instructors. The creation of these virtual and actual tools was made possible through funding from the United States Agency for International Development’s One Health Workforce - Next Generation Project.

This blended learning platform and educational transformation will help THOHUN implement One Health capacity building and field-based learning to maximize expected learning outcomes for learners during periods of limited movement, such as the COVID-19 pandemic.



THOHUN activity facilitators enjoyed transforming field-based learning to interactive instructional education using the Gather Town platform to create a digital field experience

Image credit: THOHUN NCO

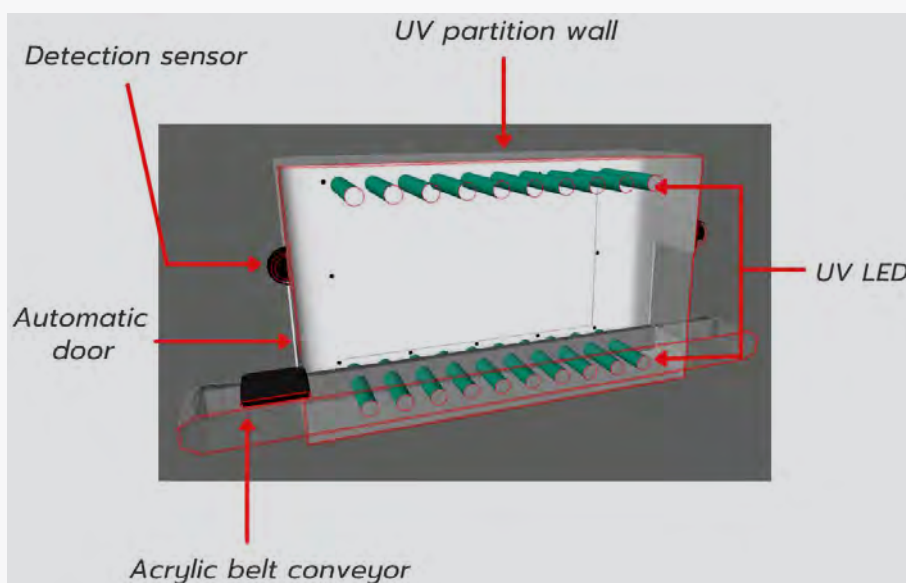
Utilizing design thinking for enhanced infection prevention and control in Thailand

New ideas and innovation have to be explored to help the world to address emerging infectious threats. The COVID-19 pandemic spurred the Thailand One Health University Network (THOHUN) and member Universities to invent and discover innovative ideas and products for infection prevention and control of disease. They used design thinking, a process for the creation of products and development of ideas to solve human-centered issues.

How does design thinking work to innovate? Let's take the "SPA mask" as an example. The concept was initiated to reduce reluctance to wearing masks caused by negative experiences such as allergic reactions to the material and increase in acne. By improving the type of material used, the SPA mask brings a new experience with changeable mask layers that are both skin-friendly and fragrant, while minimizing aerosol spread.

Leveraging support from the United States Agency for International Development's One Health Workforce - Next Generation Project, 62 participants were drawn from Mahidol University and the HRH Princess Chulabhorn College of Medical Science, representing fields as diverse as medicine, veterinary science, language and culture, technology and innovation management, and social engagement. They were guided through the first four stages of the design thinking process in workshops that presented its concept and tools. Medical experts also presented key facts about COVID-19 and its transmission, as well as the One Health approach.

Out of this workshop came 12 unique ideas for infection prevention and control against COVID-19, and ten were awarded seed funds to develop prototypes. These include: 1) the **THOHUN trash machine** that has options for recycling paper face masks or sterilizing cloth ones for reuse; 2) a **Smart helmet** with HEPA filter and biomonitors designed for delivery workers; 3) the **U.WE box** for sterilizing objects using ultraviolet light (watch an animation of the disinfection process: <https://drive.google.com/file/d/1McDCQFNuy25G6K3DDze8Rb98fbqb3Wbv/view?usp=sharing>); 4) **distance belts** that make a sound to let children know if they are too close to each other; and 5) the **2-in-1 mask** and app to change the mask's color for the health- and style-conscious wearer.



The U.We Box, UV-C machine for COVID-19 disinfection.

Image credit: THOHUN NCO

THOHUN has opened discussions for collaboration with potential manufacturers for larger-scale production of these products. Not only did the workshop teach participants about COVID-19, One Health, and design thinking, they also yielded innovative prototypes that will be further developed into marketable products.



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Southeast Asia One Health
University Network



VOHUN

VIETNAM ONE HEALTH UNIVERSITY NETWORK

NETWORK OVERVIEW



24
Universities
30
Faculties



17
One Health
Student Clubs



1,734
Individuals trained
in One Health
topics



288
Individuals
trained
in COVID-19
related topics



7
Completed
activities
increasing
capacity to
respond to
COVID-19



1,599
Individuals
reached via
COVID-19 related
RCCE activities



4
Gender
champions
and gender
experts

ABOUT VOHUN

- Connecting Vietnamese universities from the fields of human medicine, veterinary science, public health, nursing, and food technology, to equip a new generation of lecturers and researchers with a full range of One Health knowledge and skills.
- Vision:** Foster sustainable transdisciplinary capacity building to respond to emerging and re-emerging infectious and zoonotic diseases.
- Mission:** To leverage the training, education, and research capacities of the University Network to build the skills, knowledge, and attitude base for OH leaders.
- Partnered with key government agencies, research institutes, and international development organizations working towards One Health.
- Member of the Viet Nam One Health Partnership for Zoonoses.
- Established in November 2011.
- Visit our website at www.vohun.org.

Year 2 Highlights

- Supported 17 One Health Student Clubs to organize club activities. These efforts engaged 945 students in a range of activities from community outreach on livestock biosecurity for poultry farmers and drinking water sources to capacity building for OHSC members through contests, seminars, and more (October 2020 – September 2021).
- Led a three-day training course on applying One Health Core Competencies towards zoonotic disease prevention plan for 31 human and animal health officers, 26-28 April 2021.
- Conducted the National One Health Camp for 40 Vietnamese students focused on Risk Communication strategies to address Avian Influenza, June to August 2021.
- Facilitated the application of One Health practices in communities including; a biosafety survey conducted by 35 students on poultry farms in Binh Long commune, Thai Nguyen province; an on-site training course on 'OH in Practice' for 43 health and 39 veterinary staff in Thanh Mien district, Hai Duong province, a field-based rabies awareness campaign conducted by 44 students in the O Mon district, Can Tho city.
- Assessed the Knowledge Management (KM) system of VOHUN member Universities finding the majority of the current KM practices are relatively sufficient, and identifying areas to strengthen their KMS. Findings and recommendations were shared with our Universities through the workshop.
- Successfully held a virtual Training of Trainers on Monitoring, Evaluation and Learning for 111 lecturers from 23 VOHUN universities and 5 representatives from other OHUNs that developed understanding and skills in reliable project reporting, September 2021.
- Organized a webinar series on One Health and COVID-19 Risk Communication in collaboration with Veterinarians Without Borders and the Institute of Environmental Health and Sustainable Development attended by 530 students, August to September 2021.



Activities

Objective I

From October 2020 to September 2021, VOHUN engaged 945 students from 17 One Health Student Clubs (OHSCs) in a variety of One Health activities.

A total of 15 activities were conducted by OHSCs, from recruiting new members to replacing graduated members in the

clubs to contests organized; to improve understanding of the One Health approach.

The clubs and the National Coordinating Office (NCO) held three seminars and a webinar on biosecurity in poultry production, applying a One Health (OH) approach in implementing intervention research to reduce the use of antibiotics in livestock production, One Health and zoonotic disease/*Streptococcus suis*, and gender

perspectives in One Health. Through these seminars, 541 students gained insight in applying the approach to solve health issues.

Clubs conducted community outreach activities. The Thai Binh Club, for example, taught 345 primary school pupils how to protect and not waste drinking water. Through such community outreach initiatives, club members are able to apply OH core competencies, especially their communication skills.

OHSCs participated in the workshop “Sharing experience with all OHSCs” with the participation of 147 students. The workshop was an opportunity for all OHSCs to share their operating experiences, learn from other clubs how to organize activities, and develop a step-by-step plan to coordinate activities between clubs in the VOHUN network and clubs in other networks in the coming years.

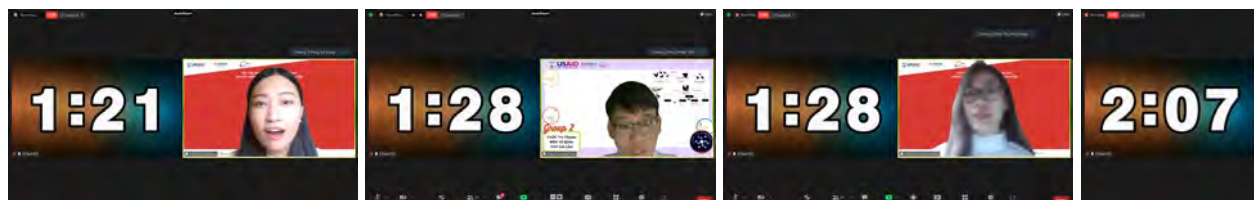
From 26-28 April 2021, 16 human health officers from five provincial Centers for Disease Control (CDCs) and 15 animal health staff from five Sub-Departments of Livestock and Animal Health (SDLAHs) were trained on and practiced developing a zoonotic disease prevention plan for priority health issues.

For the National One Health Camp 2021 held from June - August, 40 students were selected to participate. They completed three competitions, including an online test, debate, and video production contest on avian influenza.

From October 2020 to September 2021, VOHUN’s One Health Sites (OHSs) engaged

their learning communities for learning about One Health issues.

- Thai Nguyen (OHS) engaged students to investigate the biosafety status of poultry farms and apply OH Core Competencies for the prevention and control of avian influenza in chickens and humans in Binh Long commune, Vo Nhai district, Thai Nguyen province. Through this exercise, 35 students were able to apply their One Health skills and knowledge in a practical setting and positively impact 70 poultry farmers.
- Hai Duong OHS: Set up an OHS field site and organized a training course on ‘One Health in Practice’ for 43 health and 39 veterinary staff in Thanh Mien district, Hai Duong province. The purpose of this training was to introduce local health staff to the One Health approach, core competencies and skills. The local health staff will become local mentors to support VOHUN member Universities by directly guiding students in the field.
- Can Tho OHS: Conducted field-based learning for 44 students to raise community awareness on rabies. They applied OH Core Competencies in field activities, such as to assess people’s knowledge and awareness about rabies, and advise them about rabies prevention. Students learned the functions, tasks, organizational structure, and operation of the preventive medicine and the veterinary systems at the district level.



Meeting professionals from these systems is a good career development opportunity for students.

- Thai Binh OHS: Organized a workshop on reviewing training activities at the OHS set up by the Thai Binh University of Medicine and Pharmacy. The purpose of the workshop was to assess practical training activities at the field site based on the OH approach, as well as review training contents and share experiences in mentoring students. This helps improve field-based training for students in the future.
- VOHUN NCO organized two virtual training courses on biosafety and outbreak investigation for 664 medical and veterinary students. These training courses provided necessary knowledge related to biosecurity, biosafety and outbreak investigations to students, helping them confidently register to participate in activities to combat COVID-19 as well as future outbreaks.
- VOHUN NCO held a virtual workshop on sharing the experience of operating OHSs in order to update operations and provide a roadmap for the establishment, maintenance, and development of the sites. The workshop provided the opportunity for VOHUN faculty members to learn from each other's experiences.

Scholarships were awarded to seven Vietnamese students who were admitted

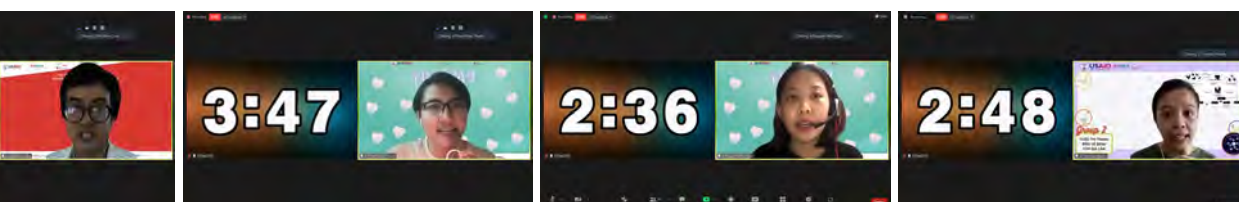
to the International Master of Public Health Program with One Health orientation at the Hanoi Medical University (HMU). The scholars have a chance to apply One Health knowledge to solve global health issues such as infectious diseases, non-communicable diseases, food safety, antimicrobial, nutrition, and psychological problems. These seven scholarship awardees came from various sectors including governmental, educational, and private institutions, who will, in time, provide an elite workforce to contribute to strengthening multi-sectoral collaboration in the future.

VOHUN provided financial support for the Institute of Preventive Medicine and Public Health, HMU to prepare for accreditation of the Master of Public Health – International program.

To increase utilization and distribution of One Health competencies across member faculties, VOHUN conducted a three-day Training of Trainers (TOT) on OH core competencies for 30 lecturers, 20 of which were from four new members and 10 young lecturers from two old member Universities (March 2021). This training provided VOHUN early career professionals with the necessary knowledge and skills to incorporate OHCC in their teaching, further empowering students to adopt these principles, and enabling them to sharpen on OHCC concepts to colleagues, furthering the reach of One Health and the One Health approach.

Objective 2

From April to July 2021, to explore the current situation of KMS in VOHUN member



Students compete in the debate hosted by VOHUN on their 10th anniversary, 30 August 2021.

Image credit: VOHUN

Universities, the VOHUN NCO conducted an online survey with participation from 192 lecturers and staff. As well, six different focus group discussions (FGDs) were conducted with six universities representing both human and animal health fields in three geographical areas across Viet Nam. The assessment identified the Knowledge Management (KM) practices that are currently being implemented at the surveyed universities/faculties such as a majority of the current KM practices are relatively sufficient, the surveyed universities are aware of the need to strengthen their KM system. Some challenges and bottlenecks were identified (such as a lack of a centralized knowledge database, and a lack of motivation for knowledge sharing). Recommendations to improve the current KM systems included set up of a KM team with specific tasks, design of a recognition or rewards systems for staff, and KM strategies and policies aligned with the mission of their universities.

In September 2021, three sessions of TOT on Monitoring, Evaluation and Learning (MEL) were implemented with the participation of 111 lecturers from 23 VOHUN Universities and six representatives from five other OHUNs under the guidance of experts from the Global Team, SEAOHUN, and VOHUN NCO. After completing the course, the trainees gained a better understanding of the MEL system of the OHW-NG Project in general, and VOHUN in particular. Additionally, trainees were able to practice using tools for MEL reporting, further strengthening the Network's capacity with regard to monitoring and evaluation and KM.

Objective 3

The VOHUN Annual Meeting 2021 was organized from 23-24 Sep 2021 with participation from among our members and other NGO partners. The experiences,

successes, and lessons learned from the OH activities implemented in Year 2 were shared during this meeting. The meeting was an opportunity to brief them on the Year 3 main activities.

VOHUN nominated three representatives to the SEAOHUN Resource Mobilization Committee. They will help to: (i) identify and screen new funding opportunities; (ii) contribute and/or recommend experts to jointly develop proposals and provide recommendations and guidance on other resource mobilization activities.

The VOHUN NCO, in collaboration with Veterinarians Without Borders and the Institute for Environmental Health and Sustainable Development (IEHSD), organized a webinar series on "One Health and COVID-19 Risk Communication" for OH students and students outside of the VOHUN Network from August to September 2021. Over 120 students from human health, animal health, environmental sciences, and other specialties participated.

To celebrate VOHUN's 10th anniversary, online contests were held to design a new logo, a slogan, a T-shirt, and select a One Health Ambassador (August – September 2021). Ten students participated. The logos received from participants expresses the meaning of the anniversary and what VOHUN accomplished.

Towards organizational sustainability, the VOHUN NCO developed social media channels (Facebook and Twitter) to increase the visibility of the VOHUN Network. Most of VOHUN's online events were live-streamed on VOHUN's Facebook Fanpage, reaching 382,789 individuals, which was a 184.6% increase compared to the period from 1 October 2019 - 30 September 2020. The total number of followers of the VOHUN Fanpage was 8,026 by 15 October 2021.

The VOHUN Coordinator has participated in several international events such as the “University Graduate School Webinar on One Health – its training, networking and practice: An example in Viet Nam” (21 July 2021), Seminar on “Implementation of One Health in the curriculum” (23 August 2021), and the closing workshop for the Emerging Pandemic Threats 2 Program on 19 January 2021, and the USAID Partners’ Meeting on 3 March 2021. Representatives of donors, government agencies, and other projects, shared their experiences and achievements, promoting peer learning and increasing interest in One Health workforce development.

VOHUN collaborated with other organizations to organize One Health events. A digital contest on “Plastic Pollution and One Health” was held in collaboration with the Center for Supporting Green Development and IEHSD in June 2021. A webinar on “One Health during the pandemic” was conducted together with the Gaia Nature Conservation Center in August 2021.

VOHUN supported the registration of four lecturers and NCO staff to attend and present their abstracts as electronic posters at the virtual “Eighth International Meeting on Emerging Diseases and Surveillance” (IMED 2021) on 4-6 November 2021.

USAID emergency COVID-19 response Tranche-4 funding

- Carried out a needs assessment on Bio Risk Management (BRM) in laboratories from the human and animal health sectors in Viet Nam, which identified the current BRM training and knowledge among medical laboratory staff and veterinary laboratory staff.
- Organized two TOT courses on biosafety and biosecurity for laboratory staff, at member Universities in Northern and Southern Viet Nam. A total of 71 laboratory staff were equipped with skills for safely collecting, handling and processing samples, October 2020.
- Organized four training workshops on Emergency Risk Communication for 217 human and animal health workers, November to December 2020.

In October 2020, two five-day TOT courses on biosafety and biosecurity were organized for 71 laboratory staff at VOHUN Universities in Northern and Southern Viet Nam. Five experts with experience in biosafety and biosecurity from the National Institute of Hygiene and Epidemiology, Pasteur Institute in Ho Chi Minh, National Hospital for Tropical Diseases, and Hanoi Medical University were invited as trainers. Participants gained knowledge on how to become trainers, practice competencies, and take a step towards offering training courses for students and staff at district and community laboratories.

From September 2020 to September 2021, qualified lecturers from VOHUN conducted a quantitative survey with participation from 283 laboratory workers from VOHUN member Universities, provincial CDCs, SDLAHs, and other partner laboratories. In addition, 50 in-depth interviews with leaders of these labs and leaders of provincial levels in human and animal health fields were also conducted. The objectives were to identify the current biosafety and biosecurity practices of



Laboratory technicians in South Viet Nam learning biosafety and biosecurity, 23 November 2020.

Image credit: VOHUN

these laboratories and staff, and to provide recommendations for further training on BRM. The assessment results show the current BRM training and knowledge was inadequate, BRM training needs to be enhanced in both quantity and quality, and there is a need for a cadre of BRM trainers in the future. A standardized national BRM training program curriculum and framework should be in place that ensures the effectiveness of the training activities. Three products were produced: (i) a policy brief on the current BRM situation of laboratories at the CDCs and SDLAHs in 13 provinces; (ii) a policy brief on the training needs assessment for medical and veterinary laboratory staff on BRM in Viet Nam in 2020; and (iii) a training package on BRM for students and laboratory staff.

From November to December 2020, four three-day training workshops were conducted on Emergency Risk Communication for Health Workers across the Northern, Southern, Highland, and Central provinces, focusing on COVID-19. Participants trained in COVID-19 risk communication, included 111 staff from provincial CDCs and district health centers, 48 veterinary staff, eight junior lecturers, and 50 undergraduate students. The training workshops covered principles of risk communication. Using the One Health Systems Mapping and Analysis Resource Toolkit, trainees practiced identifying key stakeholders to engage, designing communication materials, and preparing communication plans. After the course, it was expected that the participants could develop risk communication strategies and products suitable for their local conditions.



LESSONS LEARNED/ GOOD PRACTICES

Expanding the Network directly contributes to diversity and future sustainability.

The VOHUN Network has expanded, and now comprises both private and public university members. The number of Universities increased from 20 to 24 and faculties increased from 22 to 30, in comparison to last year. The member faculties/Universities not only share experiences in the development and teaching of OH modules, but also collaborate together on research projects and contribute resources toward further Network outreach and development.

Continuation of our programs provided essential capacity building during the pandemic.

The VOHUN NCO actively organized several virtual training courses and events related to the COVID-19 pandemic to provide students with essential knowledge and skills in risk management, biosafety in COVID-19 diagnostic laboratories, OH approaches to disease outbreak investigation, as well as emergency risk communications. The training courses and events were designed for students to provide them with sufficient knowledge, skills, and tools in order to build their confidence and willingness to register for COVID-19 control and prevention missions mobilized by state agencies when needed.

Participating in the Viet Nam OH Partnership (OHP) increased opportunities to be seen as a One Health leader in Viet Nam.

VOHUN was invited into signing of a OHP framework for the prevention of transmission of zoonotic diseases between animals and people, and is now one of the 31 partners that compose the OHP. VOHUN received recognition for their OH work from other countries such as Canada, Australia, and the USA.

VOHUN has been recognized by the government and non-governmental organizations for their work on OH-related issues in Viet Nam.

With this recognition, VOHUN can contribute towards a sustainable partnership through the provision of training services for the OH workforce and by providing opportunities to contribute to the implementation of Viet Nam's commitments in the Global Health Security Agenda.



NEXT STEPS

OHSs form the backbone of our Network: students play a critical role in addressing emerging health threats in Viet Nam.

We will diversify forms of education and training to help students develop the necessary skills for the future One Health workforce. VOHUN plans to develop diverse engagement opportunities such as university training events, experiential fieldwork, and community outreach. We will establish OHSs to provide field learning opportunities for students, enabling them to apply the One Health approach in practical settings.

As well, VOHUN plans to organize similar OHS training for in-service human and animal health professionals working focused on disease surveillance. Finally, a workshop on One Health data analysis and interpretation for district human and animal health workers across five provinces will be organized to develop the capacity of students and health practitioners who

will serve as the first responders for health emergencies at the community level.

VOHUN plans to support new members, helping them expand to additional disciplines like environmental health and develop training modules based on updated OH core competencies. We will facilitate the institutionalization and effective implementation of modules by holding virtual experience-sharing workshops bringing together lecturers from old and new VOHUN members as well as the Global Team.

VOHUN will encourage its members to develop One Health modules for new specializations, field training guidelines, and other resources for local health workers and students. The resources will cover case study investigation, disease surveillance, data analysis and interpretation, and risk communication.

Important Links

Article on small grant "Reducing environment pollution in poultry farming in Vietnam": <https://www.seaohun.org/single-post/reducing-environment-pollution-in-poultry-farming-in-vietnam>
Winning video for Viet Nam in SEA OHUN's Regional Student Competition: <https://www.youtube.com/watch?v=Wo3pi0-eIXA&list=PL-B9ZefyHD4y7cTlwMzSb17Sbva5JXvRb&index=3>

Success Stories

Strengthening capacities for project monitoring, evaluation, and learning in Viet Nam

Monitoring, evaluation, and learning (MEL) are essential to any project or program, helping to ensure project activities are implemented on time and according to plan, and demonstrate project outputs and impacts. In September 2021, the Vietnam One Health University Network (VOHUN), together with support from the Global Team of the One Health Workforce - Next Generation Project and the Southeast Asia One Health University Network, organized a three-day virtual training of trainers for representatives of all VOHUN Universities to build capacity to implement the project's MEL framework, as well as to learn applicable knowledge management tools.

“This training is very professional and useful for VOHUN member Universities.” Dr. Nguyen Thi Minh Ngoc, Head, Department of Environmental Health, Faculty of Public Health, Hai Phong University of Medicine and Pharmacy

As a direct result of the training, 111 faculty members were equipped with adequate knowledge and skills on using MEL indicators, forms and tools, and became familiar with the reporting process. As these focal points

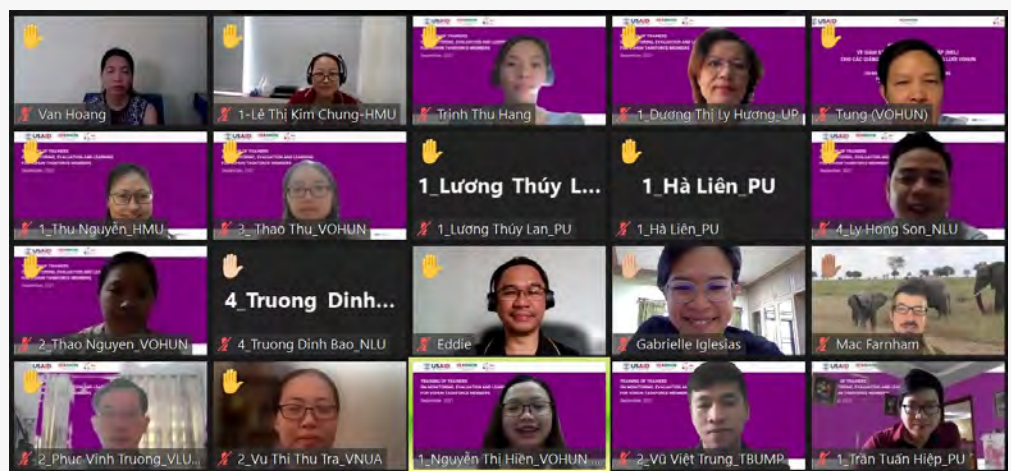
are expected to train their colleagues in turn, the MEL system of VOHUN is expected to operate more effectively with higher data quality, thus benefiting future project reports as well as MEL processes.

“The training provided sufficient knowledge, easy to understand and apply to our work.” Dr. Chu Luong Luan, Lecturer, Faculty of Biotechnology Chemistry and Environmental Engineering, Phenikaa University

This is the first time that VOHUN organized a virtual course, driven mainly by the movement restrictions in parts of the country to limit the spread of COVID-19. Activity planners harvested valuable lessons from the experience of organizing this event. First, backup plans enabled a timely switch to a virtual format when it was clear that the COVID-19 pandemic context precluded face-to-face engagement. Second, regular communication enabled successful coordination between organizers and trainers from diverse backgrounds and who live in different time zones. Finally, practice makes perfect, as a rehearsal on 31 July yielded feedback for improvement prior to the official event.

Participants raise their virtual hands to show they are willing to take a quiz during the Training of Trainers on Monitoring, Evaluation and Learning

Image credit: VOHUN NCO



Emergency risk communication training to support the COVID-19 response in Viet Nam

Emergency risk communication is the dynamic, interactive process of sharing information strategically and effectively about issues of high concern, to help people make informed decisions and understand risks. During a health crisis like the COVID-19 pandemic, it is a critical component of public health interventions, raising both public awareness and action to reduce the spread of the disease.

The Vietnam One Health University Network (VOHUN) developed a three-day training workshop for health professionals, conveying knowledge and core principles of risk communication, and fine-tuning skills to design communication materials and develop communication plans.

December 2020, conducted in each of the four main regions of Viet Nam. The training workshops enhanced the capacity of health and veterinary staff on emergency risk communications, enabling them to identify target audiences who need to understand risks and mitigation strategies to address those risks, then develop risk communication strategies and design communication products tailored for their local conditions.

“ This course has helped me to systematize my knowledge related to risk communication. I can immediately apply the knowledge from this training into my daily work, especially emergency risk communication on COVID-19.” Mr. Ta Quoc Hoi, Officer at Department of Health Communication, Phu Yen provincial Center for Disease Control

A total of 217 people were trained in emergency risk communication, including 111 staff from provincial Centers for Disease Control and district health centers, 48 veterinary staff from the Sub-Department of Animal Health, eight young lecturers, and 50 undergraduate students from health fields.

This picture is an A0-size poster designed by participants attending the emergency risk communication training. The key message is located in the center of the hand with the meaning to encourage all Vietnamese people to practice “5K” behaviors to prevent the transmission of COVID-19 according to instructions from the Ministry of Health. Each finger represents for one component including: *Khẩu trang* (wearing a mask), *Khử khuẩn* (decontamination), *Không tụ tập đông người* (no gatherings), *Khai báo y tế* (health status updates) and *Khoảng cách* (keeping distance). The top and the bottom of the poster highlight two messages: “Together we fight against COVID-19,” and “For a healthy Viet Nam.” This is a simple but intuitive, easy-to-remember, highly effective communication product aimed at all Vietnamese people.



Workshop participants practice their skills at communicating how to properly wash hands.

Image credit: VOHUN NCO

Communication experts from VOHUN member Universities and other institutions were invited to be lecturers for the workshops held from November to



Image credit: SEAOHUN

One Health Champions

Increasing knowledge of the interconnectedness of the health of people, animals, and the environment

ONE HEALTH CHAMPIONS



Thun Vathana

One Health Champion,
CAMBOHUN

President, Prek Leap National
Institute of Agriculture, Phnom
Penh, Cambodia

Dr. Thun Vathana is President of the Prek Leap National Institute of Agriculture and is a member of the Advisory Committee of Science, Technology and Innovation for Cambodia. Dr. Thun was one of the key persons responsible for forming CAMBOHUN in 2019, and was subsequently selected to lead the organization. He is currently on his second term as the Head of CAMBOHUN. His involvement in One Health started in 2018 when he mobilized students and staff at Prek Leap National Institute of Agriculture to participate in the One Health workforce training and other One Health activities. Dr. Thun began his profession in agricultural research and education in 1996, and now specializes in Animal Husbandry and Agricultural Economics. His interests lie in contributing to a better future through agricultural education and health programs. He graduated with a Ph.D. in Agricultural Science in the field of Agricultural Economics 2005 from Nagoya University, Japan.

“The One Health approach is a real health solution to protect our future generations from health risks and crises like COVID-19. This is why I actively work towards influencing national policy to reduce public health and economic risks from wildlife and zoonotic disease, increasing the number of trainers for participatory epidemiology, and advocate for One Health Student Clubs for our member Universities.”



Siti Shofiya Novita Sari

One Health Champion,
INDOHUN

Program Development Manager,
Airlangga Disease Prevention
and Research Center – One
Health Collaboration Center,
Universitas Airlangga, Surabaya,
Indonesia

Siti Shofiya Novita Sari is a field epidemiologist with extensive experience in diphtheria outbreak investigations and evaluation of health surveillance systems, who supports training on food poisoning outbreak investigations and mapping/spatial analysis of infectious diseases and immunization coverage. Ms. Vita researched household resilience to floods in the Bengawan Solo River in Bojonegoro Regency, Indonesia and community resilience to COVID-19. In 2020, she contributed to the spatial analysis of immunization coverage for a project to reduce immunization inequality in Indonesia carried out by Airlangga University and the Indonesian Ministry of Health. She is active at the Airlangga Disease Prevention and Research Center - One Health Collaboration Center where she developed a webinar series program on the role of One Health in natural disaster preparedness and a training on mapping emerging infectious diseases for surveillance officers in puskesmas (public health centers). Ms. Vita obtained a Masters in Epidemiology, and majored in advanced field epidemiology at Universitas Airlangga, Surabaya, Indonesia.

“I am passionate about field epidemiology, disease outbreaks, surveillance, natural disasters and One Health. I believe that if we can collaborate with various fields of science, then complex health problems can be tackled on target. One Health gave me insight that a disease problem is not enough to be solved from one side only. ‘Less me more we’ becomes a better solution.”

FOR SOUTHEAST ASIA

Professor Mayfong Mayxay has been an infectious disease doctor since 1994, conducting clinical trials of anti-malarials and field clinical research since 2000. He helped establish many important health entities in Lao PDR, including the Lao-Oxford-Mahosot Hospital-Wellcome Trust Research Unit in 1999, the first Lao Ethical Committee in 2002, the first Lao Medical Journal in 2009, LAOHUN in 2017, and the Unit for Health Evidence and Policy at the University of Health Sciences by end-2020. He is a key One Health expert in national task forces for the prevention and control of zoonotic outbreaks such as H5N1, H1N1, and COVID-19. His Prof Mayfong's postdoctoral research led to changes in national policy for uncomplicated falciparum malaria treatment in 2005. He has published 193 papers that are indexed in PubMed, covering leptospirosis, Japanese encephalitis, scrub typhus, murine typhus, and COVID-19. Prof. Mayfong is committed to supervising 15 to 20 students, residents, and researchers every year.

“Working as an infectious disease doctor since 1994, I have found that it is not uncommon to see that some of my patients get infections which are related to animals and the environment. This is obviously reflecting the interconnection between human, animal and environment health triad. If one of this triad is affected, it can potentially affect all. No one is living healthy if animals and the environment remain unhealthy. My dream is to see doctors, veterinarians, and environmentalists firmly join their hands to effectively and efficiently work together to sustainably protect One Health!”

Dr. Suraya Amir Husin is the head of the Infection Control Unit and the focal point for antimicrobial resistance at the Ministry of Health Malaysia. She has actively worked in infection prevention and control (IPC) and antimicrobial resistance (AMR) programs for the past 10 years. As national coordinator for the One Health Antimicrobial Resistance program, she contributes to integrating One Health concerns in national One Health AMR policies and guidelines; supports training and education for the One Health workforce and the general public; leads planning of One Health activities with support from MyOHUN; and enhances inter-sectoral collaboration with across institutions. As a focal point for the IPC and AMR programs, Dr. Suraya engages in networking opportunities with international and inter-sectoral agencies around IPC and AMR such as the Global Health Security Agenda, World Health Organization, APEC Policy Forum, Joint External Evaluation, ASEAN Health Cluster 2, Malaysian Strategies for Emerging Diseases, and One Health Antimicrobial Resistance program. Dr. Suraya is a medical doctor with a Masters in Hospital Administration from the University of the Philippines, Manila.

“Malaysia has greatly benefited from the One Health approach in its containment of antimicrobial resistance and zoonotic diseases; hence, the concept of One Health should be given priority at the governance level of all related sectors due to its importance in generating a healthier society and safer environment. I am committed to policy development, surveillance, training, and research related to One Health.”



Mayfong Mayxay
One Health Champion, **LAOHUN**
Professor and Vice-Rector,
University of Health Sciences
and Lao-Oxford-Mahosot
Hospital-Wellcome Trust
Research Unit, Mahosot
Hospital, Ministry of Health,
Vientiane, Lao PDR



Suraya Amir Husin
One Health Champion, **MyOHUN**
Senior Principal Assistant
Director and Head of Infection
Control Unit at Medical
Development Division, Ministry
of Health, Malaysia

ONE HEALTH CHAMPIONS



Hla Hla Win
One Health Champion,
MMOHUN
Rector, University of Public
Health, Yangon, Myanmar

Prof. Hla Hla Win has been involved in academia for more than 20 years. She teaches undergraduate and postgraduate medical students, as well as students in the Master of Public Health program. Her teaching and research focus on epidemiology, biostatistics and environmental health. As Rector of the University of Public Health in Yangon, Prof. Hla Hla Win actively strengthens the capacity development of the university's faculty members, as well as promotes collaboration with other local and international universities and international organizations in the health field. Prof. Hla Hla Win is the proposed Chair for MMOHUN, having actively participated in the strengthening of MMOHUN's organizational structure and for actively collaborating with other University Networks of SEAOHUN. An advocate for combating emerging infectious diseases, she conducts training sessions and community workshops on One Health issues and continues to organize online training events during the COVID-19 pandemic for researchers in universities and government epidemiological units. She recently was part of the research team studying antimicrobial resistance in wastewater of the Yangon Region that was funded by a SEAOHUN Small Grant program. Prof. Hla Hla Win earned her Ph.D. in Public Health at the University of Medicine 2, Yangon, Myanmar.

"I strongly believe that all health professionals must have One Health competencies to combat emerging infectious diseases."



Melbourne R. Talactac
One Health Champion,
PhilOHUN
Vice President for Research
and Extension, Cavite State
University, Cavite, Philippines

Dr. Melbourne Rio Talactac is currently the Vice President for Research and Extension of Cavite State University, the Philippines. His exemplary service as a researcher and educator in the College of Veterinary Medicine and Biomedical Sciences earned him various awards and recognition: Outstanding Young Scientist for 2020 by the Philippine National Academy of Science and Technology, Outstanding Veterinarian in Education for 2020 by the Philippine Veterinary Medical Association, and a Diplomate by the Philippine College of Veterinary Public Health. Dr. Talactac was the Philippine Nominee for the Asia-Pacific Economic Cooperation Science Prize for Innovation, Research and Education "ASPIRE" Prize 2020. His key research included screening of plant extracts, natural substances, and synthetic peptides for their antimicrobial properties; vaccine production against Influenza A virus on mice; evaluation of innate immunity of chickens and mice focusing on Toll-like receptor 4. Currently he is involved in detecting economically important tick-borne pathogens in animals, in the establishment of baseline data on the efficiency of animal rabies vaccination drives in Cavite Province, and the overall human rabies immune status of veterinarians and veterinary medicine students. Dr. Talactac received his Ph.D. in Veterinary Science from the United Graduate School of Veterinary Science, Yamaguchi University, Japan.

"The One Health approach was new to me as a researcher, an educator and as a practicing veterinarian. But despite the late introduction, I will definitely make sure that I will propagate the One Health concept starting with my students down to every stakeholder of my university and community. And with challenges brought about by climate change, wildlife destruction, the COVID-19 pandemic, and unsustainable food systems, I am hoping that more Filipinos will adopt the One Health Initiative: 'When We Protect ONE, We Help Protect ALL.'"

FOR SOUTHEAST ASIA

Asst. Prof. Dr. Ouaypon Tungthongchai is the Associate Dean for Academic Affairs, Faculty of Education, Kasetsart University, as well as a lecturer and academic advisor to undergraduate and graduate students. She is a One Health (OH) facilitator and trainer for THOHUN. The One Health journey of Dr. Tungthongchai started with the development of competency-based education and capacity building on One Health in 2016. Through 2020, Dr. Tungthongchai and her colleagues successfully implemented capacity building activities under the OHW and OHW-NG Projects, including: 1) the development of an introductory OH Core Competencies course that was subsequently successfully integrated into the General Education curriculum of Kasetsart University; 2) the development of the “Training of the Trainers: Integrating OH Core Competencies for a Multi-Disciplinary Workforce” course to prepare teaching staff to better implement One Health teaching modules; 3) the transformation of the OH Core Competencies course into an e-learning platform that was recognized by THOHUN as a best practice for One Health integration into the educational system; and 4) the development of needs-based e-learning courses on OH Core Competencies, regarded as a significant contribution to Higher Education of Thailand. Dr. Tungthongchai earned her Ph.D. in Sports Psychology at the University of Porto, Portugal.

“I believe that the One Health Core Competencies e-learning course plays a vital role in embedding these competencies in students of different disciplines. With continuing updates and improvements of the training module’s contents and assessment tools, it will help create skills in the One Health workforce to effectively combat transboundary, newly-emerging and re-emerging infectious diseases such as COVID-19. I am also looking forward to partnering with other universities to enhance One Health education and training across the academic networks in Southeast Asia.”

Assoc. Prof. Le Thanh Hien is a professional veterinarian who has worked as Head of the Department of Infectious Diseases and Community Veterinary Medicine – Faculty of Animal Husbandry and Veterinary Medicine in Nong Lam University at Ho Chi Minh City. Dr. Hien has worked with VOHUN since 2012, providing his expertise in veterinary medicine and veterinary epidemiology. Dr. Hien has played a very important role in developing the One Health training programs not only for human health students but also the veterinary medicine students. At Nong Lam University, Dr. Hien and his colleagues have successfully developed the Master of Veterinary Medicine program, with specialization in Public Health. His publications include peer-reviewed publications on the surveillance of zoonoses and characteristics of disease spread among pigs and other farm animals, and he has co-authored the book *Veterinary Epidemiology* (in Vietnamese) with Tran Thi Dan (2007). Dr. Hien received his Ph.D. in Veterinary Epidemiology from the University of Guelph, Canada.

“There are many interactions between animals and humans, and I strongly believe that improvements in animal health and services can contribute to human well-being. That is the key role of the One Health approach I have been pursuing to make the community well-recognized and veterinarians proud of their profession. As an educator in a university, my mission is to inspire students to prepare their competencies to be ready for collaboration with partners from different disciplines, to safeguard our planet from future pandemics, as well as give a hand in making a better world.”



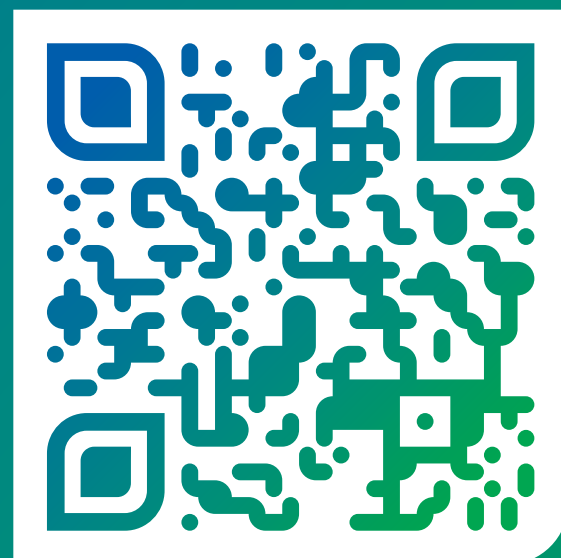
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