

more and more human crises due to conflicts or natural disasters, are all elements of our civilization today. Such elements are already influencing the incidence, the spread and the emergence of zoonotic diseases, and the future of such diseases remains still totally unknown.

Recent outbreaks of SARS and HPAI, especially in South East Asia have revealed the huge economic and social impact that these diseases can have. These experiences have shown us at which point it is now necessary to better understand and anticipate socio-economic elements of zoonotic diseases to better prepare for and mitigate the impact.

MODULE 8 - MANAGEMENT TOOLS

A better preparedness to tackle zoonotic disease, a more efficient and cost effective response to mitigate direct and indirect impacts of potential pandemics, a continuous effort to better manage crises such as zoonotic epidemics, demands sets of management tools which have to be continuously improved, adapted and adjusted to each specific condition and to the evaluation of the potential risk.

For the effective management of zoonoses, a comprehensive set of management tools is required. Such management tools must include: A National Contingency Plan, Risk reduction, mitigation and prevention programs, emergency preparedness and surveillance plans, logistics for an effective outbreak response, risk assessment, risk communication, coordination mechanisms and capacity building. The socio-economic impact of zoonoses can be devastating and the risk levels for public health are often unpredictable and can also have devastating consequences. Having effective Management Tools in place is absolutely critical to mitigating the impacts of a zoonotic disease outbreak.

TARGET PARTICIPANTS

This training package is designed for a diverse group people from a wide range of backgrounds, cultures and experiences such as: officials of Ministries of Health, Livestock/Agriculture, UN Agencies, academic institutions, NGOs, medical and animal health practitioners as well as the media and the private sector.

The Training Package is also significant in sharing of information between the fields of animal and human health, and will provide professionals with the knowledge and skills to manage the threat and the emergence or re-emergence of zoonotic diseases in emergencies effectively. In addition, the Training Package can be used to reach a wider audience of community-level practitioners – such as local government workers – who would benefit from training in community-level zoonotic diseases management.

ABOUT THE ROCKEFELLER FOUNDATION

The Rockefeller Foundation established in 1913 was founded by John D. Rockefeller, Sr., whose mission is to promote the well-being of humanity around the world,

The Rockefeller Foundation supports work that expands opportunity and strengthens resilience to social, economic, health and environmental challenges—affirming its pioneering philanthropic mission since 1913 to promote the well-being of humanity.

For more information, please visit The Foundation's website at <http://www.rockefellerfoundation.org>

ABOUT THE ASIAN DISASTER PREPAREDNESS CENTER (ADPC)

Established in 1986, ADPC is the lead regional resource center dedicated to disaster risk reduction in Asia and the Pacific. ADPC works with governments, NGOs and communities of the Asia and Pacific region to strengthen their capacities in disaster preparedness, mitigation and response through professional training, technical assistance, regional program management and information and research.

CONTACT INFORMATION

For more information about the Training please feel free to contact ADPC.

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Zoonotic Diseases Training Package “One Health Initiative”



in collaboration with:

*Photo credits: JL Ugsang, ADPC and
CARE Viet Nam CBS Model*

BACKGROUND

The *primary product* of the Zoonotic Diseases Project on “*strengthening capacities in South East Asia to anticipate, prepare for, and manage the risks of zoonotic diseases in emergencies*” undertaken by ADPC with funding support from the Rockefeller Foundation is a **comprehensive zoonotic diseases training package**. The Zoonotic Diseases Training Package which is based on the “One Health Initiative” is the result of the One-Day Zoonotic Diseases Curriculum Development Workshop (ODW), held in Bangkok on 8 December 2009 with significant input from Ministries of Health, Livestock/Agriculture, UN Agencies, academic institutions, NGOs, medical and animal health practitioners as well as the media and private sector.

The training curriculum is designed for a broad-spectrum approach from history and overview of “One Health”, “One Medicine”, disaster risk preparedness and response to zoonotic diseases surveillance, monitoring and response including cross-cutting issues. It is significant in sharing of information between the fields of animal and human health, and will provide professionals with the skills to manage the threat and the emergence or re-emergence of zoonotic diseases in emergencies effectively.

The *primary goal* of this Training Package is to provide a vital and appropriate training tool for personnel who need to deal with zoonotic diseases in emergencies from Ministries of Health, Livestock/Agriculture, local governments, NGOs, UN and International Agencies, academic institutions and the private sector.

The **Zoonotic Diseases Training Package “One Health Initiative”** has been developed by experts from various universities, institutions and experts with the funding support from Rockefeller Foundation.

OBJECTIVES

The overall objective of the Training Package is to improve the understanding of zoonotic disease risks and strengthen the tools for the assessment of national levels of preparedness. It is envisaged that this will help to develop:

- the capacity to prepare for and to manage the risks of zoonotic disease emergency,
- the capacity to manage and respond to zoonotic disease emergency, and
- the capacity to recover from zoonotic disease emergency.

To meet these goal and objectives, the Training Package is divided into eight (8) key distinct modules & structured into five (5) sections, namely: Fact Sheet, Technical Notes, Trainer’s Guide, References and Standard Powerpoint, including an

introductory section comprising of an overview, key concepts and terms, acronyms, and other related information as well as some examples of energizers, exercises, team building activities in addition to those activities presented and discussed in each of the Modules Trainer’s Guide section. *The users are given the privilege to use this Training Package, provided that the source (i.e. Zoonotic Diseases Training Package “One Health Initiative” by Rockefeller Foundation and ADPC) is clearly stated.*

CURRICULUM MODULE DEVELOPERS

The Training Package was developed by ADPC in consultation with the Project Planning Group members – comprising ADPC, FAO, London School of Hygiene and Tropical Medicine, Murdoch University, OIE, UNSIC, WHO, and in collaboration with various subject matter specialists, resource persons, trainers, and most notably, with these following organizations, namely:

- **Murdoch University School of Veterinary and Biomedical Sciences, Faculty of Health Sciences, Australia**
- **University of Chiang Mai School of Veterinary Medicine, Thailand**
- **ICF Macro International, USA**
- **Asian Disaster Preparedness Center, Thailand**

MODULE DESCRIPTIONS

MODULE 1 – GLOBAL HEALTH

Focuses on the definition and importance of global health; history of “One Health” concepts; history of global human and animal health organisations; history of global surveillance; history of infectious diseases and epidemiology, with an emphasis on zoonotic diseases; emerging infectious diseases and global spread of disease; factors associated with the emergence or re-emergence of diseases; emerging zoonoses in the past three decades; social and ecological factors predisposing to epidemics; control of global infectious diseases; challenges for future control and surveillance.

MODULE 2 – DISASTER RISK MANAGEMENT

An emergency can be described as the management of harmful change. In this case, because of a perceived threat to people, property or the environment, time available for analysis and decision making is compressed, and systems for collecting information, communication and interaction are stressed or even temporarily disrupted. The risk for the community is that its achievements in health, wealth, wisdom and security are threatened and may be damaged. Therefore, as part of their overall development plan, most communities put in place strategies for dealing with rapid or harmful change when it occurs. These strategies are determined in advance on a collective basis according to each community’s needs, resources and risks, and they are implemented selectively by those agencies which have been delegated that responsibility by the community. This is guided through a risk management framework in which the community needs to undergo a process, working together, identifying risks, putting strategies how to manage these risks through preparedness activities.

MODULE 3 – ZOOBOTIC DISEASES

Presents the definition and importance of zoonoses; historic zoonoses; emerging and re-emerging zoonoses; reasons for zoonotic disease emergence; classification of zoonoses (mode of transmission, animal reservoirs, agents); description of selected important zoonoses; surveillance and control of zoonoses; control of selected zoonoses; challenges in control of zoonoses.

MODULE 4 – EPIDEMIOLOGY

Covers the following broad topics such as the definition and uses of epidemiology; historical theories of disease causation; Koch’s and Evans’s postulates; web of causation; epidemiological terminology; patterns of disease; epidemiology and disease investigation; epidemiological studies; principles for surveillance and control of infectious diseases; sampling methods; bias; diagnostic tests and test characteristics; interpretation of tests; surveys; challenges for epidemiological studies; outbreak investigations; disease control and eradication strategies.

MODULE 5 – ONE MEDICINE

Among the topics comprising this module are as follows: scope of One Medicine; geospatial distribution, ‘hotspots’, of infectious diseases; evolution of infectious pathogens, evolutionary transformation of an animal pathogen; biology and ecology of pathogens, biological and ecological factors; reservoir species and vectors; prudent use of antimicrobial therapy; discovery and development of new antimicrobials; emerging infectious diseases (EID) emergence; pathogen pyramid; drivers/stressors of EID; EID forecasting; demand and world trade of animal products; ‘Livestock Revolution’; food safety in global economy; sources and pathways of foodborne zoonoses; control options; food safety processes, regulatory mandates in food chains (‘farm to fork’); water availability, water under stress; impact of waterborne diseases; classes of water-related diseases; risk factors/driving forces; ‘control envelope’ concept; deficiencies of present surveillance systems; surveillance in human and veterinary medicine; surveillance and EIDs; surveillance types; designing new surveillance systems; improving prediction capability.

MODULE 6 – ECOLOGY AND HEALTH

This module encompasses the definitions of ecology and ecosystem health; importance of ecosystem and health; ecological and sociological changes leading to zoonotic diseases; emerging infectious diseases and ecosystems; environmental changes and impact on global health; relationship of zoonoses emergence and environmental factors; hosts and vectors; challenges for ecology and health.

MODULE 7-SOCIO-ECONOMIC ISSUES

Our society is rapidly changing. Emerging economies are exponentially increasing their demand for meat; food production is today more and more industrialized; the climate is changing, and all ecosystems are or will be affected, modifying the ecology of pathogens. Urbanization, marginalization of the most vulnerable populations, globalization of international trade, planes that facilitate travel across the planet in few hours