



Dr. Rungrueng Kitphati, MD, Director of Bureau of Emerging Infectious Diseases (BEID), Department of Disease Control, Thailand Ministry of Public Health (MOPH), graduated from Prince of Songkhla University (PSU) Medical School in 1994. During his college years, he was recognized as Outstanding Medical Student for his strong dedication to community services.

Early in his career, he joined the Royal Thai Police (RTP) as Medical Expert in Forensic Medicine working at the RTP Institute of Forensic Medicine. He was recognized for his outstanding performance by Singapore Police Force Criminal Investigation Department (CID) and the Canadian Embassy in Bangkok. In 1996 he also served as Forensic Medical Expert Witness for Singapore Criminal Court.

From 2000-2003, he pursued his studies in epidemiology at the internationally-renowned Field Epidemiology Training Program (FETP), which is jointly conducted through the collaboration between Thailand MOPH, World Health Organization (WHO), and US-CDC. He was also certified as Medical Epidemiologist and Public Health Expert by the Medical Council of Thailand. He went on to join the public service working at the National Reference Laboratory, Department of Medical Sciences, Thai MOPH, where he was instrumental in the establishment of the Coordinating Center for Laboratory Testing and Surveillance, as well as founding the National Laboratory Surveillance Network to address the EID threats, particularly the outbreaks of avian and pandemic influenza. Dr. Rungrueng joined colleagues from across Thai MOPH in developing a training curriculum for specimen collection, storage, and transport, which is being used to train over 7,000 members of the Surveillance and Rapid Response Team (SRRT) from across Thailand, as well as developing a web-based coordination and case reporting system. He contributed substantially in the post-mortem investigation titled Probable person-to-person transmission of avian influenza A (H5N1), published in the New England Journal of Medicine in January 2005, of which findings played a key role in influencing a radical change in Thailand's national health policy and preparedness and response to the outbreaks of avian influenza. In addition, Dr. Rungrueng also served as the Focal Point coordinating regular meetings between key

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members of a tripartite partner network made up of those working on disease surveillance, disease control, and laboratories, thus fostering coordinated efforts among health agencies. Throughout his career, he has been recognized on several occasions by professional organizations for his exemplary work ethics and commitment to improving the quality of public health services.

Upon assuming the BEID directorship in 2011, he was acutely aware of EID threats. To address this pressing issue, he focused his works primarily on developing an efficient management system and was actively involved in the preparation and implementation of the National Strategic Plan for EIDs 2013-2016: a platform for improved preparedness and response to EIDS under “One Health” concept – which is now being implemented.

Currently Dr. Rungrueng Kitphati is also serving as special lecturer at several local institutions and president of local health and epidemiology foundations. To date he has had to his credit 27 publications available on international medical and scientific journals.

THAILAND EMERGING INFECTIOUS DISEASES STRATEGIC PLAN:

A Platform for Improved Preparedness and Response to EIDs Under “One Health” Concept

Dr. Rungrueng KITPHATI

MD, FETP, and One Health Thailand Network

At present, threats from the outbreaks of emerging infectious diseases (EIDs) have increasingly become one of the most pressing issues on a global scale. Every year, several EID outbreaks are reported almost everywhere in the world. Most of these IED outbreaks represent a very challenging task for health authorities to come up with adequate prevention and control strategies since they not only have a serious health impact on the general public but also inevitably create significant social and economic impacts, as well as threatening the national security. Over the past decades Thailand has sporadically been affected by major outbreaks of emerging infectious diseases – for instance, SARS outbreaks in 2003, the resurgence of avian influenza between 2004-2008, influenza pandemic (H1N1) 2009 back in 2009, and most recently the outbreaks of Hand, Foot, and Mouth Disease (HFMD), including other infectious diseases which has been posing a constant health threat. Thailand is susceptible to the threats from new infectious diseases, infectious diseases found in the new geographical areas, and re-emerging infectious diseases. It is highly likely that these diseases can over time be introduced into the

kingdom, given the fact that Thailand is a regional hub for international travel and transportation. On another front, we have also been facing an aggravating problem of drug resistance, which so far has been on a steady rise, both in terms of prevalence and complexity. What is alarming is that incidents of drug resistance are constantly being reported both in human and animal populations. In the meantime, we cannot rule out the possibility of the threat of bioterrorism. Most of EIDs are found to be closely linked to domestic animals, wildlife, and environments. Consequently, adequately addressing the problem of this magnitude will fundamentally require multisectoral collaboration. In the past, the responsibilities for the prevention and control of contagious diseases lied principally with public health agencies. The lack of well-coordinated, interagency efforts from other sectors like Animal Health and Wildlife officials had made it difficult for Human Health sector to successfully contain the spread of emerging infectious diseases.

The resounding success of Thailand’s effective response to avian influenza over the past several years has been attributable largely to the

implementation of the 1st and the 2nd National Strategic Plan for Preparedness and Response to Avian Influenza and Influenza Pandemic, which were being implemented from 2005-2007 and 2008-2010, respectively. Under this strategic plan, both state agencies and private organizations were made well prepared to deal with the threats of avian influenza and capable of handling public health emergency arising from EIDs. Another important factor contributing to such success is that Thailand currently has in place a well-developed public health infrastructure which enables health authorities to effectively implement disease prevention, control, and surveillance strategies. And, most importantly, the implementation of these national strategic plans had called for interagency efforts, which in turn resulted in a closer collaboration between different agencies and organizations, increased mutual trust, while ensuring the plans are carried out by multisectoral partners network that helps ensure more concerted efforts. This approach is consistent with the introduction of the so-called "One Health Collaboration" concept, which is widely accepted as a more practical approach to addressing EID threats. This One Health concept has clearly stated that addressing health issues can no longer be confined only to the aspect of human health. Nowadays, when it comes to health issues, other aspects other than human health facet will also need to be incorporated into an integrated approach to addressing health threats known as "One Health" concept. Under this universal theme, everything is inextricably linked to one another. Healthy living can only be achieved through concerted efforts from across a range of sectors and genuine compassion to see others happy and free from sufferings. This also includes animal health, wildlife health, and safe environments.

The National Strategic Plan for Emerging Infectious Diseases Preparedness and Response 2013-2016 was developed due mainly to the expiration of the 2nd National Strategic Plan and in response to the resolution of the 2nd National Health Assembly so as to ensure that Thailand is capable of efficiently preventing and containing emerging infectious diseases in compliance with international standards and practices through well-established management system, personnel capacity, and knowledge management. This critical document, which is prepared by the Committee and Working Group appointed to work on the preparations of the plan, has called for active engagement from across a wide range of sectors, and shared purposes and principles, including collaborative efforts to develop the national strategic plan for EIDs. To date more than 26 key meetings have been held and they are well represented by all parties concerned, including representatives from key sectors such as Human Health, Animal Health, Wildlife, Environments, as well as relevant organizations and partners network. In addition, a number of presentations were also given at key meetings, conferences and events. These were subsequently followed by several public hearing sessions, as well as having the plan presented before the meeting of the National Health Assembly. The National Strategic Plan for Emerging Infectious Diseases Preparedness and Response 2013-2016, which is approved by the cabinet, is comprised of five strategic strands, 25 strategies, and 140 implementation measures: The five key strategic strands include:

1. Development of disease surveillance, prevention and control system which is in line

with One Health concept and consists of five strategies and 41 implementation measures;

2. Development and implementation of efficient management system for commercial animal farms, animal health, and wildlife to ensure a disease-free animal sphere. This consists of eight strategies and 36 implementation measures;

3. Development of knowledge management system and encouragement of research and development consisting of three strategies and 19 implementation measures;

4. Development of integrated management system for EID preparedness and emergency response which is comprised of four strategies and 26 implementation measures; AND

5. Risk communications and public awareness campaign relating to the risks from EIDs consisting of five strategies and 18 implementation measures

All five strategic strands are systematically interrelated to one covering the development of disease surveillance, prevention and control system in humans, animals, wildlife, and environments in an efficient, consistent manner so as to ensure a timely response to the outbreaks, thus providing adequate protection for high-risk and general populations alike. To address these challenges, the knowledge management system has been developed in parallel with ongoing research and development efforts to ensure self-reliance in the long run. In the meantime, preparations are also being made to effectively respond to EID outbreaks, which in turn will strengthen Thailand's public health system capabilities and self-reliance and help minimize potential social and economic

impacts arising from the outbreaks. In addition, the development of integrated management system will also help mobilize resources, strengthen capabilities, and share knowledge and expertise from across a wide range of sectors in order to ensure concerted efforts in addressing the threats from EIDs. Furthermore, as there is currently an increased risk of EID outbreaks which can spread across the globe within a short space of time, strong and continued collaboration from the international community, as well as efficient public relations and risk communications strategy, are also indispensable in order to adequately address these challenges.

One of the key approaches to implementing the strategic plan is through the state mechanism (known as a vertical driving). This is done through the guidance and supervision by the National Steering Committee chaired by the Deputy Prime Minister, with the Permanent Secretary of relevant Ministries serving as members, and the Director-General of Department of Disease Control, Department of Disaster Prevention and Mitigation, Department of Livestock Development, and Department of National Parks, Wildlife and Plant Conservation, which are joint Focal Points of One Health Network, serving as co-secretaries. The strategic plan is to be implemented using the state administration plan by ensuring that it is carried out in line with both ad-hoc and national agenda, as well as the existing state monitoring and evaluation system.

Additionally, the strategic plan will also be implemented through the capacity building program of relevant government agencies

and private organizations, while concurrently fostering international cooperation through the implementation of the International Health Regulations (IHR) 2005, the Asia Pacific Strategy for Emerging Diseases (APSED), and the Declaration of ASEAN Concord.

The most tangible success of the development and implementation of the strategic plan is essentially achieved by a horizontal driving approach without a direct engagement of the government sector – but due largely to a close collaboration of members of “One Health Collaboration Network,” particularly those field staff working on the ground from various sectors including human health, animal health, wildlife, environments, local universities, international organizations, and other relevant sectors, who basically have a shared passion for health and are acutely aware of serious threats from EIDs. The success of the strategic plan development and implementation would not have been achieved without active engagement and participation from all parties concerned throughout the entire process of preparation, development, and implementation of the plan – which has recently been approved by the cabinet. In conclusion, the combination of shared goals and principles, as well as sustained engagement from all parties concerned is testament to this success story from Thailand, which will ultimately lead to an efficient horizontal driving of all existing strategies. To take our collaborative efforts to the next level, the National Collaborating Center of One Health has recently been established with the aim to coordinate and foster closer cooperation among members of the network, conduct program activities, and advance the strategic plan so as to collectively achieve the stated goals under “One Health” concept.