



Technical Assistance Consultant's Report

Project Number: 39068
November 2008

Regional: Strengthening Epidemiological Surveillance and Response for Communicable Diseases in INO, MAL, PHI (Financed by the Technical Assistance Special Fund)

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Asian Development Bank

STRENGTHENING EPIDEMIOLOGICAL SURVEILLANCE AND RESPONSE (ESR) FOR COMMUNICABLE DISEASES IN INDONESIA, MALAYSIA, AND PHILIPPINES (TA No. 6305-REG)

**FINAL REPORT
November 2008**



**SINGAPORE HEALTH SERVICES, PTE
LTD, SINGAPORE**



**PACIFIC RIM INNOVATION AND
MANAGEMENT EXPONENTS, INC
PHILIPPINES**

IN ASSOCIATION WITH



**PT TRANS INTRA ASIA,
INDONESIA**



**HEALTH SOLUTIONS GROUP,
MALAYSIA**

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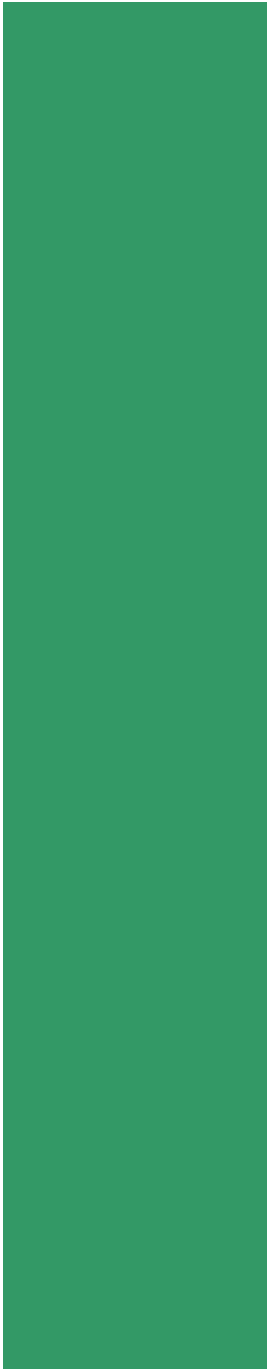
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LIST OF ABBREVIATIONS

ADB	Asian Development Bank
AET	Applied Epidemiology Training
AI	avian influenza
AMR	anti-microbial resistance
AO	administrative order
APSED	Asia-Pacific Strategy for Emerging Infectious Diseases
ASEAN	Association of Southeast Asian Nations
BOQ	Bureau of Quarantine
CDC	Center for Disease Control
CEO	chief executive officer
CEP	country epidemiological profile
CHD	Center for Health Development
CHO	City Health Office
CIF	case investigation form
CPMO	Central Project Management Office
CSR	Communicable Disease Surveillance and Response
DGDC&EH	Directorate General of Disease Control and Environmental Health
DHO	District Health Offices
DOH	Department of Health
DPD	Deputy Project Director
DRU	disease reporting unit
EA	executing agency
EID	emerging infectious disease
eLBIS	electronic laboratory-based surveillance system
EO	Executive Order
EPI	Expanded Program on Immunization
EPU	Economic Planning Unit
ESR	Epidemiological Surveillance and Response
ESS/CTL	Epidemiological Surveillance Specialist/Co-Team Leader
ESS/TL	Epidemiological Surveillance Specialist/Team Leader
ESU	epidemiology and surveillance unit
EWARS	Early Warning and Response System
FETP	Field Epidemiology Training Program
FGD	focus group discussion
FR	Final Report
HEMS	Health Emergency Management Service
HKL	Hospital Kuala Lumpur
HS	Health Solutions Group
HSA	Hospital Sultanah Aminah
HSB	Hospital Sungai Buloh
HSSs/DTL	Health Surveillance Specialists/Deputy Team Leaders
HTAR	Hospital Tengku Ampuan Rahimah
IA	implementing agency
IEWARS	Indonesia Early Warning and Response System
IHR-2005	International Health Regulations of 2005
IMR	Institute for Medical Research

ITS	Information Technology Specialist
KII	key informant interview
LCE	local chief executive
LGU	local government unit
M&E	monitoring and evaluation
MDG	Millennium Development Goal
MOH	Ministry of Health
MOP	Manual of Procedures
MTR	midterm review
NAMRU-2	Naval Medical Research Unit 2
NCDPC	National Center for Disease Prevention and Control
NDRS	Notifiable Disease Reporting System
NEC	National Epidemiology Center
NESSS	National Epidemic Sentinel Surveillance System
NPHL	National Public Health Laboratory
ODMS	Online Data Management System
PAC	Project Administration Coordinator
PD	Project Director
PHO	Provincial Health Office
PIDSR	Philippine Integrated Disease Surveillance and Response
PMU	Project Management Unit
PRIMEX	Pacific Rim Innovation and Management Exponents, Inc.
RCSP	Regional Cooperation Strategy and Program
RESU	Regional Epidemiology and Surveillance Unit
RETA	Regional Technical Assistance
RHU	rural health unit
RSDD	Regional Sustainable Development Department
SARS	severe acute respiratory syndrome
SEARO	Southeast Asia Regional Office
SEP	subregional epidemiological profile
SERD	Southeast Asia Regional Department
SESS	Social Sectors Division
SingHealth	Singapore Health Services
STC	Subregional Technical Consultation
TEPHINET	Training Program in Epidemiology and Public Health Interventions Network
TIA	PT Trans Intra Asia
TL	Team Leader
UPS	uninterrupted power supply
WHO	World Health Organization
WPRO	Western Pacific Regional Offices



MAIN TEXT

I. INTRODUCTION

1. In December 2005, the Asian Development Bank (ADB) approved the Regional Technical Assistance for Strengthening Epidemiologic Surveillance and Response (ESR) for Communicable Diseases in Indonesia, Malaysia, and the Philippines (RETA 6305). The Project was designed to help strengthen the capacity of Indonesia, Malaysia, and the Philippines to conduct epidemiological surveillance and respond in an effective manner to threats of emerging infectious diseases (EIDs) within and across the three countries. Aside from aiming to strengthen ESR systems, the Project hoped to promote subregional cooperation in communicable disease control and the early recognition, containment, and prevention of domestic and international spread of epidemic outbreaks through networking, information and experience sharing, and the establishment or strengthening of mechanisms that will enable the three countries to support each other in ESR.

2. ADB was the TA Executing Agency (EA), through the Social Sectors Division (SESS)¹ of the Southeast Asia Regional Department (SERD). The implementing agencies (IAs) were the Ministry of Health (MOH) of Indonesia, MOH Malaysia, and the Department of Health (DOH) of the Philippines. Linkages were also set up by ADB with the World Health Organization (WHO), through its concerned regional offices,² to ensure that all activities and interventions carried out under the Project are in accordance with technically accepted international guidelines and standards.

3. To implement the TA on its behalf, ADB engaged the services of Pacific Rim Innovation and Management Exponents, Inc. (PRIMEX), Philippines and its Associates (Singapore Health Services [SingHealth], Singapore; PT Trans Intra Asia [TIA], Indonesia; and Health Solutions Group [HS], Malaysia) through a consultancy contract signed on 2 June 2006.³

4. This Final Report (FR) presents the overall accomplishments of the TA and an assessment of its performance and impacts, highlights the insights gained and lessons learned in the course of TA implementation, and presents a set of recommendations to ensure the sustainability of TA benefits. The Report is organized in four volumes: a main report (Volume I) and three volumes of supplementary appendices, one for each country,⁴ consisting of the major outputs and knowledge products developed by the respective health ministries under the TA. The contents of these four volumes have been compiled in a CD, which is in an envelope on the inside cover of Volume I.

¹ Dr. Vincent de Wit, Principal Health Specialist, ADB Social Sectors Division (SESS) was the Project Officer responsible for managing TA implementation.

² In the WHO organization, the Philippines and Malaysia are covered by the Western Pacific Regional Office (WPRO), and Indonesia falls under the Southeast Asia Regional Office (SEARO).

³ The Consultant Team was composed of the following specialists: Dr. Robert S. Bernstein, Epidemiological Surveillance Specialist/Team Leader (ESS/TL); Dr. Florante P. Magboo, Epidemiological Surveillance Specialist/Co-Team Leader (ESS/CTL); Dr. Jose R. Rodriguez, Project Administration Coordinator (PAC); three Health Surveillance Specialists/Deputy Team Leaders (HSSs/DTLs): Dr. Hudoyo Hupudio, Indonesia; Dr. Teong Wah Lim, Malaysia (as replacement of Dr. Munn San Lye); and Dr. Aguedo Troy D. Gepte IV, Philippines; and Mr. Jay Lowell H. Payuyo, Information Technology Specialist (ITS). During the final extension period (May-August 2008), Dr. Rodriguez assumed the role of Team Leader, while Ms. Elvira C. Ablaza, PRIMEX President and CEO, served concurrently as Project Director and PAC.

⁴ Volume II, Indonesia; Volume III, Malaysia; and Volume IV, Philippines.



II. PROJECT DESCRIPTION

5. ESR is among nine essential public health functions, which national and subnational health agencies must perform efficiently and effectively in order to provide evidence and information needed for planning, evaluating, and improving their performance. The recent outbreaks of severe emerging infectious diseases (EIDs), particularly severe acute respiratory syndrome (SARS) and H5N1 avian influenza (AI), and the emergence and spread of antimicrobial resistance (AMR), particularly drug-resistant tuberculosis, have focused attention on the weakness of ESR systems in developing countries and the heightened vulnerability of people living in Asia. In line with the provisions of the World Health Organization (WHO)'s new *International Health Regulations of 2005 (IHR-2005)*,⁵ all WHO member countries are supposed to address these weaknesses by June 2007. These include, among others, the strengthening of core capacities for ESR and the implementation of the WHO Decision Tree Protocol for determining when a public health problem is of international concern and, therefore, requires reporting to WHO.

6. To help support Indonesia, Malaysia, and the Philippines in their assessment and strengthening of the human and institutional capacities required for improved ESR, a technical assistance grant of \$1.2 million was approved by ADB for implementation by the health ministries of the three participating countries. The TA is expected to contribute to the (i) reduction of morbidity and mortality due to communicable diseases and (ii) achievement of related Millennium Development Goals (MDGs) within each country and across the region. Its objectives are to (i) strengthen ESR systems for early detection and response to undesirable changes in the distribution and/or occurrence of communicable diseases, (ii) help strengthen national capacity to respond to an epidemic outbreak of communicable disease (including the capacity to use laboratory-supported analytical epidemiological methods in investigating and addressing the causes of outbreaks), and (iii) harmonize national efforts to promote a subregional collaboration mechanism for communicable disease control and the monitoring, containment, and prevention of outbreaks. The Project is expected to accelerate the development of an integrated national disease surveillance and preparedness system in each of the three countries and to facilitate compliance with the requirements of the IHR-2005.

7. As originally designed, the Project had three components: (i) Component A (Country and Subregional Profiles), involving the preparation of country epidemiological profiles and their consolidation into a subregional profile, which can be posted and accessed through a website; (ii) Component B (Outbreak Simulation and Testing to Assess ESR Systems) involving the conduct of exercises and activities that will measure the functionality of existing ESR systems; and (iii) Component C (Innovative Measures to Enhance ESR Systems) consisting of interventions designed to address the ESR weaknesses identified under Component B (see Box 1).

8. However, at the Project's Subregional Planning Workshop in Jakarta in November 2006, where the Project design and logframe were presented to health officials of the three participating countries, a number of suggestions were made to enhance and enrich the design of the TA, namely:

- Incorporation of a [more comprehensive background section highlighting the importance of ESR systems in view of recent developments, such as IHR-2005 requirements and the increasing threat of EIDs like AI](#);
- [An improved configuration and logical sequencing of Project components](#) (see Box 2); and
- Revision of the Project logframe to ensure consistency with the revisions in the overall Project design and to highlight WHO's technical leadership role and its mandate to provide technical assistance and guidance to the three participating countries.

⁵ A soft copy of IHR-2005 is in the accompanying CD for easy reference.

9. The TA paper was, thus, revised (Appendix 1) to incorporate the suggestions proposed during the Jakarta Workshop and agreed upon by ADB, the participating governments, and the Consultant at their first tripartite meeting, which was held immediately after the Workshop. The Project's three components remained, but the scope of each component was modified to reflect a more logical sequencing of activities intended to address the identified priority needs and resources of the three countries (Box 2).

Box 1: Original Project Scope

Component A (Country and Subregional Epidemiological Profiles): Preparation of country epidemiological profiles (CEPs) and their consolidation into a subregional epidemiological profile (SEP)

Component B (Outbreak Simulation and Testing to Assess ESR Systems): Testing of ESR systems and selected health subsystems in each country through simulated field exercises, inter-country secondment, joint research, subregional workshops, and an international conference

Component C (Innovative Measures to Enhance ESR Systems): Specific activities or small-scale interventions to address ESR weaknesses identified through Components A and B, such as research and case studies, local pilot operations, training, and community/NGO-led HIV/AIDS initiatives.

Box 2: Revised Project Scope

Component A (ESR Systems Analysis and Plan Formulation): Assessment of ESR systems and formulation of plans and programs based on the results of the prior assessment and securing political support for ESR planning and implementation

Component B (System Development): Development of systems that will strengthen ESR capacity and enable the countries to comply with the requirements of IHR-2005

Component C (Capacity Building to Enhance ESR Systems): Innovative, small-scale interventions, measures, or activities to enhance the performance of ESR systems, such as operations research, training, and related capacity building activities included in the ESR roadmaps of the participating countries.

III. EVALUATION OF DESIGN AND IMPLEMENTATION

A. Relevance of Design and Formulation

10. The design and formulation of the Project could not have been better timed – the WHO's IHR-2005 required all member-states to address the weaknesses of their ESR system by June 2007 through a strengthening of core capacities for ESR, among others. The WHO Communicable Disease Surveillance and Response (CSR) Program Office in Lyon had suggested a 'three-phase roadmap' to guide the implementation of IHR activities between May 2006 and 2012. In the first phase, between May 2006 and May 2007, the Plan calls for the development and support to a number of critical planning and program design activities including, *inter alia*, the adaptation of existing assessment tools to IHR national core requirements, development of core capacity guidance materials, development of an IHR-2005 monitoring and evaluation (M&E) framework, and the initiation of training of national and international experts to support national assessments of IHR core capacities.

11. This Project played a crucial role in responding to the needs of Indonesia, Malaysia, and the Philippines for technical and financial assistance to prepare for, and comply with, the requirements of IHR-2005, which took effect on 15 June 2007. In addition, the TA supported the *Asia-Pacific Strategy for*

*Emerging Infectious Diseases (APSED)*⁶ developed by WHO's Western Pacific and Southeast Asia regional offices (WPRO and SEARO) in collaboration with the member-states in July 2005. (The said Strategy serves as the framework for strengthening national and regional capacity for early detection, rapid response, and preparedness for emerging infectious diseases [EIDs].) In addition, although the Project covered only three countries, it supported activities and dialogue that contributed to broader interaction with regional bodies, such as the Association of Southeast Asian Nations (ASEAN) and ASEAN+3, and to the implementation of ADB's *Regional Cooperation Strategy and Program (RCSP) for Southeast Asia*.

12. At the country level, the Project provided vital support to the three countries' efforts to prevent and effectively prevent and control epidemic disease outbreaks, such as avian influenza (AI) in Indonesia, dengue in the Philippines, and food-borne diseases in Malaysia. It also assisted the participating countries in their attempts to achieve the MDGs by 2015. As four out of eight MDGs relate directly to health and nutrition, a major reduction in the high levels of communicable diseases in the three countries is necessary to the attainment of the MDGs.

B. Project Outputs

13. A matrix comparing the target outputs, as indicated in the TA paper, with actual achievement is shown in Appendix 2. The accomplishments of the Project at the subregional level and by country are described below.

1. Subregional Activities

14. At the subregional level, **four workshops** were organized by the Consultant, in close consultation with ADB, to ensure that the (i) Project design is responsive to identified needs, (ii) plans and activities of the three countries are in line with the Project objectives, (iii) progress of plan implementation is on track and major implementation issues are resolved, and (iv) valuable lessons learned are shared. These workshops were followed by **tripartite meetings** among ADB, the three governments, and the Consultant to formalize consensus reached at the subregional workshops with respect to the technical aspects of the Project, agree on next steps, and discuss administrative and financial concerns.

15. The first of these subregional workshops was the **Subregional Planning Workshop** held in Jakarta, Indonesia on 22-23 November 2006 with 30 participants from the MOH leadership and ESR Units of the three participating countries, WHO (headquarters, regional, and country offices), the US Naval Medical Research Unit 2 (NAMRU-2), ADB, and the Consultant Team. It was at this Workshop where the decision to revise the scope of the TA was formalized by the countries and ADB. Other outputs of the Workshop included the following: (i) up-to-date information on the status of ESR systems in place in the three participating countries; (ii) identification of gaps and areas for which RETA assistance could be provided to strengthen the countries' capabilities for communicable disease surveillance and response; (iii) definition of the Project scope and identification of possible national and subregional activities for implementation under the RETA; and (iv) country-specific action plans for ESR strengthening (Appendix 3a). The agreements reached at the Workshop, particularly the need to revise the TA scope, were subsequently confirmed at the **first tripartite meeting** among the health ministries of the three countries, ADB, and Consultant representatives (Appendix 3b).

16. The second subregional workshop was the **Subregional Technical Consultation (STC) on ESR Design**, which was held in Kuala Lumpur, Malaysia on 5-7 September 2007. Some 40 participants from the health ministries of the three countries, WHO, the Malaysia Economic Planning Unit (EPU), ADB, and the

⁶ The e-file of the document is in the accompanying CD.

Consultant Team were in attendance at the STC. The Technical Consultation revealed that (i) much progress has been made in the implementation of ESR workplans in the three countries, (ii) some countries require additional technical assistance to respond to needs that have surfaced in the course of implementing the ESR plans, and (iii) WHO is still in the process of developing the technical assistance tools needed by the countries to facilitate compliance with IHR regulations (Appendix 4a). After the technical consultation, the **second tripartite meeting** was held and agreed on the next steps to be taken by the tripartite group, including the Project's culminating international conference scheduled in the first quarter of 2008 (Appendix 4b).

17. An **International Forum on Applied Epidemiology Training (AET)** was conducted in Manila, Philippines on 31 March – 1 April 2008, with participants from countries in the Southeast Asian region and international organizations such as the Training Programs in Epidemiology and Public Health Interventions Network (TEPHINET, Atlanta), US Centers for Disease Control (CDC), WHO-WPRO, WHO country offices in Indonesia and the Philippines, ADB, and the Consultant Team. The Forum demonstrated the strategic importance of AET in ESR manpower development and showed, without a tinge of doubt, that training in applied epidemiology is a top priority of the countries in the region. The Forum also tackled several issues faced by the countries in conducting AET courses, including the following: (i) lack of standardized designs for short-term AET courses; (ii) lack of successful models in implementing capacity building interventions at the sub-national levels; (iii) lack of sufficient and evidence-based review and evaluation of AET initiatives; (iv) lack of opportunities for sharing experiences and lessons learned among the countries in the region; (v) absence of a pool of technical experts and resources to support country AET initiatives; and (vi) Insufficient resources for AET (Appendix 5). A major recommendation of the Workshop, which drew the support of the participants and the panel of international experts, was the proposal to establish a network of countries and institutions actively engaged in the conduct of AET courses in the region. The proposed network is envisioned to provide technical leadership and mobilize regional and international support for AET.

18. During the two-day forum, the ESR knowledge products developed by the health ministries of the three participating countries were placed on exhibit and highlighted the countries' accomplishments and outputs under the Project. MOH Indonesia displayed its IHR-2005 publication translated into Bahasa Indonesia and the completed *National ESR Assessment Report of 2004* among their knowledge products. MOH Malaysia exhibited the beta version of their web-based electronic laboratory-based surveillance system (eLBIS). The Philippines showcased the Philippine Integrated Disease Surveillance and Response (PIDSR) system that was developed under the TA, as well as the PIDSR website, a video production on system overview and highlights of trainings conducted, and a demo copy of the Epi Info interactive tutorial in English and Tagalog versions.

19. A one-day **Project Concluding Workshop** was conducted the day after the AET Forum, where the three countries presented their accomplishments under the RETA, particularly under Component C, and their proposed recommendations and suggestions. Lessons learned in the course of Project implementation were also presented. A number of recommendations and a range of options for future assistance to the countries individually and collectively were produced by the Workshop (Appendix 6). Indonesia and Malaysia also requested, and ADB agreed, that the TA completion date be moved from 30 April 2008 to 30 June 2008. The participating countries also agreed that, as the TA was coming to a close, and there were no outstanding issues for resolution, it was no longer necessary to hold a final tripartite meeting, as was originally planned.

2. Country Accomplishments

a. Indonesia

20. The outputs of MOH Indonesia under **Component A** include the following: (i) completion of the *Surveillance Assessment Report of 2004*; (ii) legal review of IHR-2005; and (iii) preparation of the *ESR Roadmap and Strategic Plan for 2008-2012*.

21. **Completion of WHO Surveillance Assessment Report of 2004.** After a series of internal meetings (within MOH) and consultations with other stakeholders, the *Final ESR Assessment Report of 2004* was completed on 26 November 2007 and approved for publication by MOH.⁷ The report was then presented at a dissemination workshop held on 14-16 August 2008 with 63 participants from MOH, all 33 provincial health offices (PHOs), the Consultant Team, and other stakeholders.

22. The key findings of the Report are:

- A nationwide network for ESR exists, but the capacity to perform ESR functions especially at the provincial and district levels needs improvement.
- The existing routine data collection system is designed to capture only the number and age distribution of suspects, probable, and confirmed cases.
- Policies and standards to support the collection and reporting of communicable diseases exist, but their dissemination and enforcement is limited.
- Rapid response teams have been organized at the provincial and district levels, but their performance and capacities need to be strengthened.
- Laboratory support for ESR is inadequate.
- A Field Epidemiology Training Program (FETP) to train professional epidemiologists is in place. However, the program, as it is being implemented, is unable to meet the need for more trained epidemiologists at the central, province, and district levels.
- There are efforts to improve the provision of supervision, monitoring, feedback, and dissemination of ESR information at the provincial and district levels, but these efforts need to be assessed and scaled up, if found effective.

23. Its main recommendations are the following:

- Focused strengthening of capacity for surveillance and response especially at the provincial and district levels;
- Inclusion of risk factors in the collection of data for selected diseases;
- Updating and systematic dissemination of policies, standards, and procedures;
- Training and capacity building of rapid response teams;
- Revitalization of FETP and systematization of applied epidemiology training programs at the provincial, district, and subdistrict levels;
- Strengthening of laboratory support for surveillance and response;
- Strengthening of supervisory and monitoring systems; and
- Advocacy for mobilizing local, national, and international support for ESR.

⁷ The finalization of the WHO ESR Assessment Report of 2004 was facilitated by the PAC who worked with MOH in Jakarta from 17 November to 8 December 2007.

**Box 3: Key Features of Indonesia's
ESR Five-Year Strategic Plan (2009-2012)**

Vision

A nationwide and fully functional Early Warning and Response System (EWARS) that responds to local needs, supports the attainment of national health goals, and satisfies international health commitments and obligations

Mission

To forge partnerships with the local government agencies, national agencies, international organizations, the private sector, and other stakeholders in the establishment and maintenance of the early warning and response system

Goal

Reduction of cases and deaths due to communicable diseases

Objectives

- (i) EWARS established in all provinces and districts by 2011;
- (ii) Trained, well-equipped, and adequately supplied Rapid Response Teams in all provinces and districts by 2011; and
- (iii) Laboratory support, human resource development, logistics, supervisory, and monitoring and evaluation systems established at all levels.

Strategies

- (i) Installation of computer application program to fast-track the processing and analysis of surveillance data at the district level;
- (ii) Introduction of case-based data collection for selected diseases;
- (iii) Updating of knowledge and skills of health care providers;
- (iv) Introduction of disease-specific outbreak response protocols to the Rapid Response Teams;
- (v) Advocacy for local support in terms of equipment and logistics;
- (vi) Introduction of disease-specific treatment guidelines for health care providers;
- (vii) Implementation of human resource development package for applied epidemiology training; and
- (viii) Groundworking and advocacy campaign for local support for surveillance and response.

24. **Legal Review of IHR-2005.** A series of mini-workshops was conducted in the last quarter of 2007 to review the legal and policy framework of IHR-2005, and a dissemination workshop was held on 12-16 February 2008 with 70 participants from MOH, all 33 PHOs, international health organizations, other stakeholders, and the Consultant. The legal review showed that the country's existing laws and administrative guidelines and issuances are sufficient to carry out the provisions of IHR-2005. However, what remains to be done is the modification and simplification of some of the procedures for ports of entry, especially the ground crossings. The review also highlighted the importance of organizing an intensive, systematic, and purposive dissemination of IHR-2005 to the concerned units of MOH.

25. **Preparation of the ESR Five-Year Roadmap and Strategic Plan for 2008-2012.** In order to address ESR strategic issues and set the long-term directions for the country's surveillance and response program, the Project assisted MOH in developing an *ESR Strategic Plan and Roadmap*.⁸ The strategic planning process was facilitated by the preparation of a *Strategic Issues and Options Paper*, which helped crystallize the key issues and the range of options available to address them. After a series of meetings and consultations with concerned MOH offices and partners, the *Indonesian ESR Strategic Plan* was completed in March 2008 (Box 3).

26. Under **Component B**, the **IHR National Focal Point Secretariat** was set up within the Directorate General of Disease Control and Environmental Health (DGDC&EH) to support MOH in IHR-2005 implementation. The Secretariat office was equipped with one laptop computer, four desktop computers, four HP Laserjet 1022 printers, and one facsimile machine. In addition, the services of a national consultant⁹ and an administrative assistant

were engaged by the Project for a 14-month period to serve as Secretariat staff with the following responsibilities: (i) coordination of IHR activities with other relevant offices; (ii) organization of meetings; and (iii) preparation of technical documents. An important accomplishment of the Secretariat was the translation of IHR-2005 into Bahasa Indonesia and its printing for use in the conduct of IHR orientation workshops and meetings in MOH and with its partners.

⁸ To jumpstart the project, the CTL and PAC traveled to Jakarta and helped MOH in convening a team of international and local experts who provided technical leadership in Plan preparation.

⁹ Dr. Herbagyanto Purnomo



27. Under **Component C**, the main activities implemented in Indonesia were the (i) pilot-testing of a feedback and dissemination model and (ii) revitalization of the field epidemiology training program (FETP).

28. **Pilot-testing of Feedback and Dissemination of Surveillance Data.** One of the major findings of WHO's *ESR Assessment Report of 2004*, which was confirmed by the 2007 assessment, was the inadequacy of supervisory systems at the provincial and district levels to support the performance of ESR tasks and functions. To address this critical shortcoming, the Project assisted MOH in designing and pilot-testing an intervention model to improve the ESR skills of health care providers through the provision of feedback and effective dissemination of surveillance data. This process of discussion and dissemination and the required application of data management skills are expected to strengthen the data processing and analytic capacities of staff handling the surveillance units. In addition, the intervention is also expected to strengthen the connection among the central, provincial, and district levels. This intervention model was piloted in nine districts/cities of three provinces: Bandar Lampung City and Lampung Tengah and Tanggamus districts in Lampung Province; Tangerang City and Serang and Lebak districts in Banten Province; and Denpasar City and Tabanan and Badung districts in Bali Province.

29. The intervention consisted mainly of training of provincial and district staff in the processing and analysis of surveillance data using Excel software. Six provincial officers were trained in Jakarta, while six district officers were trained in Bandar Lampung, Serang, and Denpasar. The training of the public health center staff was conducted in their respective district health offices (DHOs). The trained staff were then encouraged to present the tables and graphs to the reporting units as basis for epidemiological discussions. As a result of this intervention, it was observed that the trained staff from the participating provinces have become more adept and more confident in the processing and analysis of surveillance data. A much better interaction has also been put in place between and among the provinces, districts, and reporting units. To support this capacity-building initiative, the Project assisted MOH in developing the following training manuals: (i) Integrated Surveillance Data Processing and Outbreak Monitoring for Districts/Cities and Public Health Centers; (ii) Supervision Mechanism for Public Health Centers by Staff of Districts/Cities; and (iii) Advocacy Mechanism for Staff of Districts/Cities.

30. **Revitalization of FETP.** The FETP started in Indonesia in 1982 in two academic institutions, viz., University of Indonesia in Jakarta and the Gadjah Mada University in Jogjakarta, Central Java. Since then, the program has produced more than 200 FETP graduates, who are now managing the national and local health surveillance units all over the country. However, this number is still way below that required to satisfy the need for more professional epidemiologists at the central, provincial, and district levels. To address this limitation, MOH requested the Project's support of an ongoing initiative to revitalize the country's FETP. In response to the MOH request, the Project organized a workshop at the University of Indonesia on 26 February 2008 with various participants, including WHO-SEARO and the RETA 6305 Indonesia Team. The Workshop generated a number of practical suggestions and recommendations to strengthen the program and make it more sustainable. One of its concrete outputs was the creation of an inter-agency task force that will be responsible for Program oversight and serve as a venue for better collaboration between MOH and the implementing universities.

b. Malaysia

31. Under **Component A**, MOH Malaysia conducted an assessment of its ports of entry in August 2007 with technical assistance from WHO and the Project. The assessment results will be used to design interventions to strengthen compliance with IHR in the various ports of entry in Malaysia. Other related accomplishments in this regard include: (i) development of guidelines to help comply with IHR regulations; (ii) review of IHR-related issuances like the *Center for Disease Control and Prevention (CDC) Act of 1988*;

(iii) development of avian flu preparedness plan; and (iv) evaluation of early warning and response (EWAR) functions.

32. Under **Component B**, a set of implementing guidelines for IHR-2005 was developed by the International Health Unit of the MOH's Disease Control Division to facilitate the implementation of IHR-2005. The preparation of the implementing guidelines got underway through a workshop, held on 7-11 April 2008 in Johor Bahru, followed by another workshop held on 26-28 May 2008. The implementing guidelines will be used to assist the national, state, and district health officers, including other relevant public health officers, on the required activities/action plans to be undertaken in the country to ensure compliance with IHR-2005. MOH Malaysia also intends to produce an *Implementation Plan/National Action Plan* before the end of 2008 for targeted implementation starting in early 2009. The Plan will identify the required activities to be executed at various levels, with their corresponding timelines, responsible personnel, and relevant indicators, and will be included as a major component of the IHR-2005 implementing guidelines.

33. Under **Component C**, an electronic laboratory-based information surveillance system (eLBIS) was designed, developed, and operationalized in nine selected pilot sites in different parts of the country (Box 4). In response to a proposal made by the Communicable Disease Surveillance Section of the MOH Disease Control Division to set up the eLBIS, an initial IT assessment of selected national laboratories and hospitals was carried out to determine the technical feasibility of the eLBIS system.¹⁰ The initial assessment showed that the information systems used in these laboratories are of different interface types, particularly in terms of back-end and database compatibility. The assessment also revealed that (i) the units in the Pathology Department of the pilot sites were not linked, (ii) there are different stand-alone systems in each unit, and (iii) some laboratories do not have an information system. Nevertheless, the assessment validated the feasibility of setting up the proposed National Integrated Laboratory-based Surveillance System.

Box 4: eLBIS Pilot Sites

1. Institute for Medical Research (IMR)
2. Hospital Kuala Lumpur (HKL)
3. Hospital Tengku Ampuan Rahimah (HTAR)
4. National Public Health Laboratory (NPHL)
5. Hospital Sungai Buloh (HSB)
6. Hospital Ipoh
7. Hospital Penang
8. Hospital Kota Bahru
9. Hospital Sultanah Aminah (HSA)
10. Public Health Laboratory of Ipoh

34. The objective of the system is to strengthen the existing ESR system through the development of a web-based application program that will monitor selected pathogens. The features of this web-based system include the following:

- online notification forms for samples/isolates of bacteria from human and non-human sources and for verification of certain antibiotic resistance;
- online laboratory reports from reference laboratories to the diagnostic/primary laboratories; and
- the ability to analyze the captured data and produce the relevant required reports.

35. On 2-4 July 2007, a consultative workshop was conducted to obtain consensus on the system development requirements and seek the endorsement of, and support from, senior officials of MOH and the nine selected pilot sites on system development requirements such as hardware and software. With inputs from the Consultant's IT Specialist and PAC, consensus was reached by the participants on the approach to be used in extracting the information from the proposed pilot sites (laboratories and hospitals). The

¹⁰ The assessment was carried out by the Consultant's IT Specialist, DTL for Malaysia, and MOH focal persons in March and April 2007.

participants recommended, and MOH approved, the adoption of WHO-Net¹¹ as the core program on which to build the reporting of the information required for the laboratory surveillance system. WHO-Net is a freeware program developed by WHO to record, store, and report laboratory data. Since all of the nine laboratories are part of this network, it was deemed advantageous and practical to use this system. Based on the agreed option, MOH decided not to pursue the initial plan to hire an IT firm since the scope of the programming and software development work had been greatly reduced. Instead, three short-term IT consultants were engaged by PRIMEX, through Health Solutions Malaysia, for the required tasks.

36. In September 2007, the Project was handed over to the National Public Health Laboratory (NPHL) for execution, and the Public Health Laboratory of Ipoh was subsequently included as one of the pilot sites, bringing the number of pilot sites to ten. Re-assessment visits of the selected pilot sites were done by the NPHL together with the Malaysia Consultant Team in November 2007.

37. In December 2007, a workshop was convened to facilitate a discussion among the relevant technical experts from the hospital laboratories, reference laboratories, and the IT Unit of MOH Malaysia, together with the RETA Consultant Team, to propose and draft the reporting requirements for the development of the web-based application system. The Workshop outputs included (i) a list of organisms of public health importance; (ii) a list of the required reports and summaries, including the required types (e.g., tables, graphs, and line listing); (iii) levels of reporting (i.e., hospital, state, regional, and national); and (iv) frequency of reporting.

38. Throughout the month of March 2008, the Core Group,¹² together with the IT programmers, reviewed the eLBIS and instituted the necessary amendments and adjustments in the system. By April 2008, preliminary testing of eLBIS was carried out, and further modifications and fine-tuning of the system were done. The necessary equipment were procured, the network infrastructure was set up to support eLBIS operations, and the eLBIS user manual was finalized and printed. The successful online hosting of eLBIS can be accessed at <http://elbis.moh.gov.my>.

39. Malaysia now has a web-based application, which was developed using open-source technology for laboratory-based surveillance, and which will contribute to the objective of having an early warning system for the monitoring and prompt detection of pathogens to prevent disease outbreaks. The electronic surveillance platform provides easy and real-time information sharing between the laboratory and epidemiology units of MOH. Real-time surveillance information and data will now be available for contribution at regional levels, if necessary, and for regional laboratory surveillance, if ever. The experience gained in establishing an electronic laboratory-based surveillance system and its application can also be shared with other countries in this region.

c. Philippines

40. Under **Component A** of the TA, DOH conducted a comprehensive ESR assessment and formulated the Philippines' *ESR Strategic Plan for 2007-2010* with technical assistance from the Consultant.

41. **Conduct of a Comprehensive ESR Assessment.** Based on a request from DOH's National Epidemiology Center (NEC), a formal assessment of the Philippine ESR systems was conducted from 25

¹¹ WHONET is a Windows-based database software developed for the management of microbiology laboratory data and the analysis of antimicrobial susceptibility test results. <http://www.who.int/drugresistance/whonetsoftware/en/>

¹² The core group was composed of Drs. Mustafa Bakri, Mariam Mohamad, and Mohd. Addin of NPHL and Mr. Zainuddin Taib of IMR.

September to 6 October 2006. Specifically, the assessment aimed to: (i) obtain baseline information for implementing surveillance activities of priority communicable diseases; (ii) determine country needs regarding the strengthening of the surveillance system for communicable disease prevention and control; (iii) identify gaps and opportunities in performing the core and support functions of ESR and assessing the resources available for these; and (iv) obtain additional data for the enhancement of the national plan of action for strengthening ESR systems. These objectives are in line with the strategy of DOH to intensify disease surveillance to ensure that the targets for disease elimination, prevention, and control are attained.

42. A modified version of WHO's ESR assessment protocol was used to obtain information from central, regional, health facility, and laboratory levels. Key informant interviews (KIIs) with stakeholders were also conducted to gauge the acceptability and use/utility of the existing Philippine ESR systems. The assessment focused on the Notifiable Disease Reporting System (NDRS), National Epidemic Sentinel Surveillance System (NESSS), and the EPI (Expanded Program on Immunization) Surveillance System. Several strengths, weaknesses, opportunities for, and threats to, effective and efficient surveillance and control were observed, and the following major ESR gaps were identified:

- The disease surveillance system is fragmented, and its components are not evenly developed.
- No standards exist for some critical core functions, and some standards are not adequately disseminated.
- Laboratory support for ESR is inadequate.
- Systematic outbreak investigation and response are highly centralized.
- Training programs for surveillance and response are unable to meet current demands.
- Support functions for surveillance, like feedback and supervision, have weakened.
- Policy support for surveillance is generally inadequate.

43. To address the above weaknesses of the system, the following recommendations were made:

- The harmonization and integration of the various systems for communicable disease surveillance, with NEC as the lead unit, should be a priority.
- A national surveillance manual should be developed to standardize and harmonize the implementation of the national ESR system.
- Policies, standards, and guidelines for ESR performance should be developed by DOH and properly disseminated to ensure that all health institutions are oriented on surveillance standards, protocols, and guidelines, and orientations and re-orientations on the new reporting forms, case definitions, policies, and circulars should be conducted by DOH on a regular basis.
- Laboratory support should be provided through the establishment of a laboratory network with clearly established roles and responsibilities.
- A technical assistance capability-building package for setting up and/or strengthening ESR systems should be developed and offered judiciously to pre-assessed local government units (LGUs) whose local chief executives (LCEs) are ready to support surveillance activities and whose local teams are ready to take on surveillance tasks seriously.
- Monitoring and evaluation (M&E) is crucial in ensuring the quality of the surveillance outputs. For example, standard tools for checking data quality and data analysis at all levels of the surveillance and response system should be developed, and emphasis must be put on regular feedback and supervision as part of the M&E system.
- Policy support and budget allocations or resources should be ensured at all levels of the ESR system.

44. The results of the assessment were extensively discussed with DOH officials, local government officials, and other program stakeholders. The assessment report helped build consensus on the key ESR issues that the Philippines needs to address for it to effectively deal with the threat of EIDs and fulfill its local, national, and international health commitments and obligations.

45. **Formulation of the *Philippine ESR Strategic Plan for 2007-2010*.** In order to have a blueprint for the modernization of the country's ESR system, the Project helped DOH-NEC develop a three-year *Strategic Plan for ESR*. The Plan builds on the results of the ESR assessment and is aligned with the Philippines' Millennium Development Goals (MDGs), the national health objectives, and the DOH's health sector reform initiative. With guidance from the Consultant Team, a highly consultative and participatory process involving a wide range of stakeholders was utilized in the formulation of the Strategic Plan (Box 5). The Plan's strategies and key results areas are shown in Box 6.

Box 5: PIDS Strategic Plan

Vision: A Philippines protected from health, economic, and social impact of diseases of public health importance.

Mission: To provide the whole country and all its component communities with the benefits of functional and integrated institutional capabilities for preparedness, prevention, prompt detection, characterization, containment, and control of diseases of public health importance.

Goal: To reduce morbidity and mortality through an institutionalized, functional integrated disease surveillance and response system nationwide (Philippine Integrated Disease Surveillance and Response).

Objectives:

- (i) To increase the number of LGUs able to perform disease surveillance and response.
Target: By the end of 2010, 80% of provinces and highly urbanized cities are able to perform disease surveillance and response.
- (ii) To enhance capacities at the national and regional levels to efficiently and effectively manage and support local capacity development for disease surveillance and response.
Target: By the end of 2010, 17 CHDS, national DOH-NEC, and allied offices within and outside DOH will have the capacity to efficiently and effectively manage and support local capacity development for disease surveillance and response.
- (iii) To increase utilization of disease surveillance data for decision-making, policy-making, program management, planning, and evaluation at all levels.
Target: By the end of 2010, national institutions and all the 80% LGUs performing disease surveillance and response are using surveillance data for decision-making, policy-making, program management, planning, and evaluation.

Box 6: PIDS Strategic Plan Strategies and KRAs

Strategy 1: Establish the PIDS surveillance subsystem

- KRA 1: Support for legal, administrative, and institutional mandates for sustainable disease surveillance and response system secured.
- KRA 2: Network of disease professional workforce within a stable nationwide structure established.
- KRA 3: Existing disease surveillance systems enhanced and integrated.

Strategy 2: Strengthen the PIDS disease response subsystem

- KRA 1: Support for legal, administrative, and institutional mandate for sustained systematic improvement of response secured.
- KRA 2: Functional arrangements for command, control, and coordination necessary for effective integrated disease response (multisectoral/multi-level) established.
- KRA 3: Disease response capabilities and performance systematically improved.

Strategy 3: Improve support system for surveillance and response at all levels.

- KRA 1: Access to lab services for ESR increased.
- KRA 2: Training program in place to support disease surveillance and response.
- KRA 3: Adequate resources mobilized for surveillance and response at all levels.

46. On 20 June 2007, at the presentation of the approved ESR Strategic Plan by NEC Director Tayag to Health Secretary Francisco T. Duque III, ADB, and representatives of donor agencies, academe, private hospitals, and other government agencies, the Health Secretary gave his commitment to support his Department's efforts to strengthen ESR by way of increasing NEC's budget for 2008 by US\$2 million.

47. **Legal and Policy Review to Support the Implementation of IHR-2005.** Existing Philippine health laws, executive orders (EOs), and DOH administrative orders (AOs) relevant to the Philippines' compliance with IHR-2005 were reviewed in August 2007 in order to identify policy gaps that constrain IHR

implementation in the country. Representatives from various offices within DOH and other affiliated agencies – such as the Bureau of Quarantine (BOQ), Health Emergency Management Service (HEMS), PhilHealth, National Center for Disease Prevention and Control (NCDPC), and the City Health Office (CHO) of Valenzuela City (representing the country's LGUs) – participated in a roundtable discussion organized for the purpose.

48. The review revealed that the existing *Republic Act for Disease Notification* needs to be revised and updated.¹³ It also showed that among the limitations of the said statute are the very lenient penalty provisions for non-compliance and the need to update the list of diseases covered. The review recommended that the legal instrument for the updating need not be another Congressional Act, as that process is too contentious and time-consuming, and that an Executive Order issued by the President of the Republic or an Administrative Order by the Secretary of Health will suffice. Acting on the results of the legal review, the DOH Policy and Planning Bureau is exploring the various options that are available to address this important policy gap.

49. Under **Component B**, the main outputs of the Project were the following: (i) designation of NEC as IHR focal point; (ii) design of the PIDSR system; (iii) development and installation of data entry software for PIDSR; (iv) development and installation of an online data management system; (v) design and establishment of a PIDSR website; and (vi) formulation of the PIDSR implementing guidelines.

50. **Designation of NEC as IHR Focal Point.** On 17 January 2007, NEC was officially designated by Health Secretary Duque as IHR Focal Point through the issuance of AO 2007-002. As such, NEC assumes the roles and responsibilities in implementing the recommended WHO measures related to disease surveillance and response, as provided in detail in the AO. NEC's designation as the IHR focal point is highly significant in that it clearly emphasizes the importance of the core capacities of ESR and sends a strong signal to the international community that the Philippines is serious in its intent to meet its international obligations and commitments.

51. **Design of PIDSR System.** To help DOH-NEC address the key issues affecting the country's ESR system and to jumpstart the implementation of the ESR Strategic Plan, the Consultant Team worked with NEC to design the PIDSR system. The system attempts to integrate the existing parallel disease reporting systems, transform the weekly notifiable disease reports into a case-based system, update clinical protocols and guidelines, build sub-national capacity for ESR, and strengthen ESR support systems.

52. To ensure that the PIDSR system is properly implemented, and that a reference material is available to guide its implementation, the Consultant Team worked with NEC in the development, writing, and publication of the *PIDSR Manual of Procedures (MOP)* through a participative and collegial process. After developing the MOP outline, a writeshop was conducted on 7-9 May 2007 with selected NEC technical staff, as well as regional and provincial health staff, as participants. The outputs of the writeshop were consolidated and edited by the consultants, and the first draft of the manual was completed by the end of May 2007 and subsequently presented to different stakeholders for comments. The MOP underwent several revisions until the final form was completed and approved by DOH in March 2008.

53. The PIDSR MOP details the integrated approach to new DOH-NEC approach to disease surveillance and response, and is an excellent guide for all users of the PIDSR system (see Box 7). It is specifically intended for all disease surveillance coordinators in disease reporting units from hospitals, clinics, rural health units (RHUs), and CHOs, and for staff in epidemiology and surveillance units (ESUs) at the provincial, regional, and national levels. It is also a very useful reference for communicable disease

¹³ The legal review was carried out by Atty. Jose Ochave, Legal Specialist.

program managers and EPI managers at the national and local levels, members of epidemic investigation and control teams, epidemic management committees at the provincial and regional levels, health emergency management staff, medical doctors and nursing personnel, and even community health volunteers.

Box 7: Contents of the PIDSR MOP

- Section 1: Introduction
- Section 2: Roles and Responsibilities
- Section 3: Identify Cases
- Section 4: Notification and Reporting of Cases
- Section 5: Data Analysis and Interpretation
- Section 6: Feedback
- Section 7: Use of Information
- Section 8: Epidemic Response
- Section 9: Monitoring and Evaluation
- Section 10: Implementation Arrangements

54. Development and Installation of Data Entry Software for PIDSR. With the newly developed PIDSR, a new data entry and analysis software was needed to accommodate the huge volume of surveillance data coming from all reporting sites in the country. Led by the Consultant's IT Specialist and with the contribution of local and international experts, the PIDSR Data Entry and Analysis Software was completed in September 2007. The software, which was developed using the Visual Basic and Epi Info computer programs, allows the encoding of data from the case investigation and case reporting forms of 10 immediately reportable and 14 weekly notifiable diseases/syndromes monitored by the PIDSR system. Prior to its installation, the application program underwent a series of pre-testing and

debugging activities in NEC. The disease reporting units nationwide were then trained on its use, and the program was installed in their office computers and local area network. This customized software facilitated the standardization of data encoding and analysis of surveillance data across the country.

55. Development and Installation of Online Data Management System (ODMS). The PIDSR system requires the submission of all disease surveillance forms to the next higher level on a weekly basis. Specifically, the disease surveillance coordinators are required to submit the PIDSR forms from the city or municipality to the PHO, either in electronic form or paper copy. Disease surveillance officers, on the other hand, are responsible for submitting an electronic copy of the PIDSR forms from all the reporting units of the province to the Center for Health Development (CHD) (DOH regional office). Finally, Regional Epidemiology and Surveillance Units (RESUs) are responsible for submitting an electronic copy of the PIDSR forms from all the reporting units in the region to NEC. The PIDSR data entry and analysis software has already been installed in all the RESUs. Currently, electronic copies of PIDSR data are submitted to the next level via e-mail. However, while e-mail is a good means of communication for particular work activities, it is not a consistent and reliable vehicle for the transmission of large volumes of data and information, as is the case for the PIDSR system.

56. Thus, to provide the entire national PIDSR network with a reliable tool to easily integrate the data across the entire national ESR system, DOH-NEC, with technical assistance from the Project, adopted Microsoft Office Groove 2007 technology for their ODMS to provide faster peer-to-peer data collaboration across all reporting units in the country. This move has enabled the users of the online management file system to be less dependent on extensive IT support from the central level; it has also provided a seamless system to connect people. Learning the system also did not require a significant ramp-up time for the acquisition of skills on the new software. This program also enables the real-time submission of surveillance data by the reporting units and their receipt by the next higher level.

57. Design and Establishment of PIDSR Website. The PIDSR website (www.pidsr.net.ph) was initially conceptualized to accommodate the PIDSR ODMS, and was supposed to be a web-based File Manager that allows the uploading of surveillance anytime and anywhere in the country. However, due to existing realities at the local level, where most surveillance offices have slow internet connections, the website is now performing an important function by serving as the primary vehicle for sharing and acquiring



web-based information. NEC is regularly updating this website to include, among others, clinical updates, reports on disease outbreaks and other epidemiological events nationwide, and information on the status of submissions of required epidemiological reports.

58. **PIDSR Implementing Guidelines.** To provide overall guidance in PIDSR implementation, especially with respect to administrative arrangements, and to clearly delineate the roles and responsibilities of the implementing units, the Project helped DOH-NEC draft and complete the *PIDSR Implementing Guidelines*. Two consultative workshops were held in the first quarter of 2007 to gather inputs, ideas, and support in the drafting of the Guidelines. The first involved the national DOH, other national agencies, CHDs, and the private sector, while the second had participants from the LGUs. After a series of technical meetings, the PIDSR implementing guidelines were translated into an administrative order (AO 2007-0036) and signed by the Secretary of Health on 1 October 2007. This AO and the PIDSR MOP provide the overall technical and administrative framework for PIDSR and lay out the detailed guidelines for its nationwide implementation.

59. Under **Component C**, the Project assisted DOH-NEC in the conduct of training workshops for the country's 17 administrative regions and selected priority provinces main activity in order to jumpstart PIDSR implementation. The first PIDSR training workshop, held from 28 January to 1 February 2008 in Subic Bay, Zambales, was the first major step in the nationwide implementation of PIDSR. It had 32 workshop participants representing the eight regions of Luzon and the PHOs of Mountain Province and Nueva Vizcaya. The second PIDSR training workshop was conducted on 10-14 March 2008 at the Marco Polo Hotel in Davao City. Participants came from the three regions of the Visayas; six regions of Mindanao; Davao City; PHOs of Negros Occidental, Negros Oriental, South Cotabato, and North Cotabato; and two PHOs from Luzon, namely, Nueva Ecija and Tarlac.

60. The training workshops focused on the following:

- AO No. 2007-0036, "*Guidelines on the Philippine Integrated Disease Surveillance and Response (PIDSR) Framework*;"
- Understanding the case definitions of the diseases, syndromes, and events under surveillance;
- Familiarization with the revised Weekly Notifiable Disease Reporting forms and case investigation forms (WNDR CRF and CIF);
- Understanding the rationale and method of notification and reporting of Notifiable diseases;
- Identifying the disease reporting units (DRUs) and staff relevant to their level;
- Learning the new PIDSR data entry and analysis software; and
- Importance of PIDSR M&E and designing a PIDSR watch for their level.

61. An important output of the workshops was the preparation of Regional PIDSR Implementation Plans, where the CHDs outlined their PIDSR activities, targets, and timelines. A major component of the capacity-building package is the upgrading of the capacities of the hardware in the DOH regional offices. The DOH-NEC, using Component C funds, provided each regional health office and each priority province with a brand new high-end computer package with licensed operating system and the PIDSR data entry and analysis software. The package was also bundled with an inkjet colored printer and uninterrupted power supply (UPS). This computer package is designed for the exclusive use of the PIDSR system and has tremendously boosted the data storage and processing capacities of the DOH-CHDs.

62. The completion of the PIDSR training for the CHDs and the provision of the IT package marked an important milestone in the implementation of PIDSR. The CHDs are now using the new data entry programs and submitting their reports through the online system in a much more timely and responsive

manner. More importantly, the CHDs are now well-positioned to take on the critical responsibility of leading the field effort to modernize the country's ESR system.

C. Project Costs

63. The total cost of the TA was estimated at \$1.7 million equivalent, with ADB financing \$1.2 million on a grant basis and the balance of \$0.5 million equivalent consisting of in-kind contribution from the participating countries. When the TA was revised, funds were reallocated from various line items in order to create a fund of \$600,000 for Component C activities, with each country allotted \$200,000 to finance pre-approved activities in line with their ESR roadmaps. For that purpose, a reallocation of funds from various line items of the consulting services contract had to be made and previously unallocated TA funds were transferred to the Consultant's contract, the contract ceiling of which was increased to \$1.195 million. A comparison of the original and revised Project costs is shown in Appendix 7. It should be noted that, while each country had an allocation of \$200,000 for Component C activities, the Philippine DOH agreed to give up \$25,000 of its allotment to cover the cost of providing additional technical assistance to MOH Indonesia. In effect, only \$175,000 were spent for DOH activities, while MOH Indonesia received the equivalent of \$225,000.

64. In order to avoid unnecessary delays in the completion of time-sensitive clusters of activities under Component C, the Consultant worked with ADB to establish a cash advance mechanism similar to an imprest account. The cash advance facility enabled the transfer of funds to the countries in tranches, through the Lead Consultant and its local associates, for them to procure goods and services and conduct workshops, trainings, and other Component C activities, provided that prior approval from ADB has been obtained.

D. Project Schedule

65. The TA commenced on 19 June 2006 with the mobilization of the Consultant Team, and was to end in November 2007 after an 18-month implementation. However, due to the revision of the TA scope, the TA was extended to April 2008, and then to June and August 2008, upon the request of MOH Indonesia and MOH Malaysia, to enable them to complete their planned activities.

E. Implementation Arrangements

66. ADB's Southeast Asia Regional Department (SERD), through the Social Sectors Division (SESS), was the executing agency (EA) for this TA. SESS worked in close cooperation with the Regional Sustainable Development Department (RSDD) to ensure complementation of the TA activities with other ongoing ADB-wide activities, particularly those related to avian influenza in the region. SERD also coordinated with the World Health Organization (WHO)'s Western Pacific Regional Office (WPRO) and Southeast Asia Regional Office (SEARO) in the planning and conduct of subregional workshops, and with WHO country offices in the implementation of in-country activities, as necessary.

67. The health ministries in the three countries served as TA implementing agencies through the following offices: (i) Directorate General of Disease Control and Environmental Health, MOH Indonesia; (ii) Disease Control Division, MOH Malaysia; and (iii) National Epidemiology Center, DOH Philippines. Each of the countries designated senior officials to serve as TA focal points.¹⁴

¹⁴ The key government health officials involved in Project implementation were the following: (i) Indonesia: *Dr. H. Andi Muhadir*, Director of Surveillance Epidemiology Immunization and Matra, and *Dr. Hari Santoso*, Head of the Outbreak Control Section, both from DGDC&EH; (ii) Malaysia: *Dr. Zainudin bin Abdul Wahab*, Deputy Director for Disease Control Division, and *Dr. Rohani binti Jahis*, Principal Assistant Director for Surveillance; and (iii) Philippines: *Dr. Enrique A.*

68. A Central Project Management Office (CPMO) was established at the Consultant's office in Manila under the overall direction of a Project Director.¹⁵ The CPMO provided the administrative, financial, and logistical backstopping required by the technical specialists and the country teams in the performance of their assigned tasks. In addition, they monitored Project status and progress; facilitated the submission of required reports and documents to ADB, the IAs, and WHO; and took the lead in managing events and activities at the subregional level. The Project Director made sure that ADB requirements and procedures were adhered to, especially with respect to the procurement of goods and the use of TA funds.

69. In each of the three participating countries, a PMU was established at the offices of the Consultant's local associate firms, headed by a Deputy Project Director (DPD) responsible for the provision of in-country administrative support to the IA.¹⁶ The PMUs were responsible for: (i) overseeing the field implementation of Project activities in coordination with the relevant government agencies; (ii) planning the country-specific work program, administering contracts (e.g., special studies, surveys, research projects, pilot projects), maintaining Project accounts for monitoring Project expenses, and preparing liquidation reports; (iii) supervising and monitoring the work program for specific components and activities and preparing local progress and monitoring reports; (iv) providing technical advice and assistance to government agencies on the technical aspects of the Project; (v) coordinating specific national activities of the different Project implementers; and (vi) procuring necessary goods and services. The DPDs facilitated the conduct of workshops, meetings, field visits, and other technical activities based on the approved workplans. They were also responsible for ensuring that the utilization of the Project's resources was done in accordance with ADB rules and regulations.

F. Consultant Recruitment and Procurement

70. An international consulting firm (PRIMEX and Associates) was engaged by ADB, in accordance with its *Guidelines on the Use of Consultants*, to provide both technical and project management services during TA implementation. The Consultant provided technical assistance and support to the implementing agencies in the (i) preparation of their ESR strategic plans and roadmaps; (ii) planning and implementation of training and related capacity-building activities; and (iii) design, preparation, and implementation of proposals for Component C initiatives. The Consultant also served as Project Manager, with responsibility for the day-to-day implementation of the TA (see paras. 68-69 above).

71. The core consultants included the following: (i) Team Leader/Epidemiological Surveillance Specialist; (ii) Co-Team Leader; (iii) three Deputy Team Leaders (one per country); (iv) Project Administration Coordinator; and (v) IT Specialist. In addition, the services of international and national specialists were engaged to provide technical support to the health ministries in Component C implementation. These specialists included (i) an IHR Secretariat Support Specialist in Indonesia; (ii) three IT programmers in Malaysia; and (iii) a Legal Specialist, ICT Specialist, ESR Policy Specialist, Capacity Building Specialists, and National IHR Focal Point Support Specialist in the Philippines. A comparison of their original and actual consulting inputs is shown in Appendix 8.

72. Various items of equipment were procured by the Consultant, according to ADB's relevant procurement guidelines, for use by the health ministries for implementation of Component C activities. The

¹⁵ Tayag, Director, and Dr. Marlow O. Niñal, Chief of Public Health Surveillance and Information Division, both of NEC.

¹⁵ The CPMO was headed by Dr. Jose Rodriguez, PAC, who reported to Ms. Ablaza, Project Director. The PAC was supported by technical and administrative staff comprised of Ms. Josefina Ma. F. Pavico, Project Coordinator, and Ms. Clarissa I. Coching, Project Accountant.

¹⁶ Each of the PMUs was headed by a Deputy Project Director (DPD), namely: Mr. Noor Arief Muzadi, DPD-Indonesia; Ms. Shwu Fang Long, DPD-Malaysia; and Ms. Ma. Lourdes A. Sumilang, DPD-Philippines.

total cost of the equipment was \$335,308 (Appendix 9); the certificates of equipment turnover to the respective health ministries are in Appendix 10.

G. Performance of the IAs

73. During the ADB midterm review (MTR) mission from 29 August to 7 September 2007 and at the TA Concluding Workshop held in March 2008, ADB expressed satisfaction with the good progress of the TA and the satisfactory performance of the health ministries in the implementation of their respective ESR workplans. In spite of their staff limitations, the Project targets were all attained, as shown in the matrix in Appendix 2.

H. Performance of the Consultant

74. During the ADB midterm review (MTR) mission from 29 August to 7 September 2007 and at the TA Concluding Workshop, concerned health ministry officials acknowledged the satisfactory performance of the Consultant and expressed appreciation of their role in facilitating Project implementation, particularly the timely disbursement of funds for Component C activities. The ADB MTR mission also noted the good working arrangements that were established between staff of the health ministries and the Consultant Team and cited the Consultant's flexibility and readiness to assist and support their government counterparts, even beyond their terms of reference. Getting the interest and attention of government officials who have many competing interests and commitments is tough. The Consultant Team proved more than equal to the task with their combination of proven technical expertise, ability to work harmoniously with partners, and the will and resolve to rise to the challenge when faced with difficult situations. This was openly acknowledged by the DOH-NEC Director during the Project's Concluding Workshop, when he attributed their success *"to the dedication of NEC staff and the professionalism exhibited by PRIMEX staff."* All three countries also commended the Consultant Team for the efficient, effective, and timely provision of technical and financial support during Project implementation.¹⁷

I. Performance of ADB

75. ADB provided the necessary technical leadership and oversight supervision that were helpful in the satisfactory delivery of the Project outputs. ADB worked closely with the Consultant in organizing the subregional workshops and international FETP forum, monitored the Project activities, and fielded a midterm review mission to review the status of Project implementation and recommend better ways of supporting the countries in the remaining months of the TA. The countries were thankful to ADB for the assistance and support it provided towards in the attainment of their health goals and objectives, especially in the area of communicable disease prevention, surveillance, and control. They also appreciated ADB's flexibility and responsiveness in the management and utilization of the Project's financial and technical resources. Given the adjustments that the MOH partners had to make to their ESR plans in accordance with unanticipated events and the emergence of new realities and conditions, the responsiveness of ADB to requests for realignment of funds and activities contributed to the development of a healthy and collegial relationship with the partners anchored on mutual trust and confidence. Such flexibility enabled the MOH officials in the three countries to feel more empowered in making the right decisions. Based on the IAs' comments during the subregional workshops and at the Concluding Workshop, ADB's performance in jointly administering the Project is considered satisfactory.

¹⁷ PRIMEX and Associates. 2008. RETA 6305. Appendix 7: Proceedings of the Concluding Workshop. Sixth Quarterly Progress Report, May 2008.

J. Performance of WHO

76. The Project's relationship with WHO, particularly its regional offices, left much to be desired. Although WHO-SEARO was represented during the Subregional Planning Workshop in Jakarta, WHO-WPRO and WHO-SEARO did not participate during the Subregional Technical Consultative Workshop in Kuala Lumpur. WHO-SEARO failed to send a representative to the International Forum on Applied Epidemiology Training in Manila. The conspicuous absence of the WHO regional offices at these subregional activities underscored the wasted opportunity for meaningful interaction and dialogue on IHR and APSED, two WHO-led initiatives, with highly interested participants from WHO member countries. While the Project gratefully acknowledges the support and collaboration of the WHO country offices, especially in the Philippines and Indonesia, it is regrettable that the regional offices did not demonstrate the same level of interest and enthusiasm.

IV. EVALUATION OF PROJECT PERFORMANCE

A. Relevance

77. The TA was highly relevant to the needs of the three participating countries and supportive of their efforts towards EID prevention and control. The TA succeeded in assisting the three participating countries in the planning and implementation of ESR-related activities intended to address identified priority needs that will help the countries comply with the requirements of IHR-2005. It also provided technical advice and support to the health ministries in the design and establishment of ESR systems and built capacity of health personnel in the various aspects of ESR to enable them to better cope with disease outbreaks in the future.

78. The Project activities were clearly responsive to the needs of the three countries to strengthen country ESR capacity to manage the very real threat of emerging infectious diseases. In Indonesia, the MOH very much appreciated the Project's assistance in developing a roadmap and laying the groundwork for the establishment of an early warning system for communicable diseases. A nationwide ESR network has been in existence in the country, but the capacity to perform disease surveillance functions at the provincial and district levels needed improvement to perform ESR functions in accordance with national standards and requirements. There was a clear need for strengthening the skills of provincial and district staff in terms of data management, processing, and analysis as well as in conducting outbreak investigation and response. This national capacity was also a requirement under IHR-2005, which the country has ratified.

79. In Malaysia, the establishment of a laboratory surveillance system clearly complements the syndromic and case-based surveillance systems that are already in place. The system was viewed as an important mechanism that will greatly enhance the capacity of MOH to perform its surveillance function, especially with respect to bacterial and viral pathogens that produce conditions and infections that are of high priority to MOH.

80. In the Philippines, the PIDSR is considered by DOH as a milestone accomplishment, especially in terms of building capacity for ESR at the regional and provincial levels. The inadequacy or fragmentation of the current disease surveillance systems in the Philippines and the need to comply with the IHR-2005 required an integrated approach towards strengthening the Philippine ESR system. This approach consisted of integrating all surveillance and response activities at all levels, including training, supervision, and resources, both financial and material, from all programs and donors.

B. Effectiveness in Achieving Outcome

81. The Project was effective in meeting its targets, although there were slight delays in implementation due to the change in TA scope that was agreed upon by the countries and ADB during the Jakarta Workshop in November 2006, six months after TA commencement. Through the Project's support, MOH Indonesia successfully pilot-tested an intervention model designed to improve feedback and dissemination of surveillance data at selected field sites. In Malaysia, the MOH chose to focus its work under the RETA on laboratory surveillance and response, with the design and development of an electronic lab-based information system for establishment in selected public health laboratories as its main output. In the Philippines, DOH successfully completed the design, development, and operation of an integrated disease surveillance and response system (PIDSRS), but its introduction was limited to the regional health offices and three selected provinces. There is however, a building clamor to push through for a next phase wherein the PIDSRS is rolled down to the municipal and barangay levels so that they are all connected - "*para lahat kami sa Pilipinas, konektado*" ("so that the whole country is connected"), as articulated by Dr. Vilma Diez, Provincial Health Officer of Cavite.

82. While it is premature to expect the attainment of the Project's impact (goal), it is believed that the wider application/utilization of its outputs will contribute to the reduction in the burden of endemic and emerging diseases in the participating countries and, hence, to the attainment of the MDGs. The most significant outcomes of the Project on the countries' ESR system are the (i) improvement in the quality and timeliness of surveillance information being collected and (ii) improvement in the processing of information at the sub-national levels and in reporting cases and outbreaks on a more timely basis for appropriate response and intervention.

C. Efficiency in Achieving Outcome and Outputs

83. One of the most significant observations about the Project came from an MOH official who said that the Project did not bring much money to the table, but the accomplishments of the Project were way beyond expectation. The health ministries of the three countries were not exactly deficient in terms of financial support from the donor community, and the Project's resources were very modest and could have been easily ignored by the partners. However, what it lacked in financial power was more than compensated by the focused and consistent delivery of expert technical assistance.

84. The three countries were able to maximize the Project's limited resources by focusing on high-priority activities that required urgent support. For example, in the case of Indonesia, it was evident from the outset that having an early warning system (EWARS) was the number one priority, not only for AI but also for other communicable diseases. The decentralization of health services has heightened the need for better attention to the quality of surveillance and response at the sub-national levels.

85. In Malaysia, the development of an electronic laboratory-based surveillance system, which linked the central MOH database to field-based laboratories in the country, was a priority concern. Thus, despite the limited TA resources, which would not allow the development of a fully integrated laboratory-based surveillance system to standardize data collection and reporting, MOH decided that the TA could best assist them in pilot-testing the eLBIS. The system has been completed and is now able to handle receiving, processing, and storing of relevant surveillance information generated by ten pilot hospital laboratories. The pilot eLBIS can then be modified and expanded to cover not only bacterial but also viral pathogens over time to meet specific clinical and operational goals of the hospitals and contribute to the country's improved ESR capacity.

86. In the Philippines, the design of the PIDSR and its implementation in selected provinces was high in the agenda of DOH-NEC. While vertical disease surveillance systems had been established as a component of specific disease intervention programs, these individual systems had their own data collection and reporting flows, hardware and software requirements, and procedures for processing and analysis at different levels. That produced a lot of inefficiencies, redundancies, and duplication of efforts which led to extra costs and training requirements for capacity building and resulted in health workers becoming overloaded and unmotivated.

87. In spite of the absence of a project financial and economic analysis, it may be concluded that the Project has been cost-effective and cost-efficient. This was affirmed, at the TA Concluding Workshop, by the DOH-NEC Director, who noted the Project's important contribution to health sector reform in the Philippines, "*despite the limited funding*," and by other senior officials from the three countries, who were unanimous in saying that (i) the flexible approach of the Project was a unique feature seldom found in donor-assisted projects, and (ii) the channeling of funds through the Consultant greatly facilitated its implementation since it effectively "bypassed" government bureaucratic procedures.¹⁸

D. Preliminary Assessment of Sustainability

88. During the ADB MTR, the senior government officials all gave their commitment to pursue and sustain Project efforts to enhance their ESR capabilities. It is believed that this will likely be the case since sustainability measures were very much a part of the TA. For one, the highly participatory consultative approach adopted by ADB and the Consultant created a strong sense of Project ownership among the participating health ministries. At the country level, all concerned stakeholders were fully engaged in the planning and implementation of Project activities and in pursuing a common strategy to attain the TA objectives. Large numbers of one-on-one meetings with key health officials, focus group discussions (FGDs), and consultation workshops were organized by the country teams to assess their current ESR situation, identify major problems/constraints and opportunities for improvement, suggest solutions or remedies to identified problems, and prepare specific, concrete proposals to enhance their ESR systems. In addition, the development of manuals and implementing guidelines was made part and parcel of system development, and ministry personnel were given training in system operation and maintenance, to ensure that the systems that were developed under the TA will be utilized in the country's ESR efforts.

V. LESSONS LEARNED

89. In the course of implementing the TA, important insights were gained and lessons learned by the Consultant and their IA counterparts. The following learning points could be used to improve Project implementation and provide guidance in the provision of technical assistance to countries in the future:

- (i) **The IHR of 2005 and the Asia-Pacific Strategy for Emerging Infectious Diseases (APSED) provide an excellent framework and anchor for building the countries' ESR systems.**

90. The Project made a conscious decision to adopt IHR-2005 and APSED as the technical and policy context within which the Project's program of assistance was framed. Consequently, the conduct of country ESR assessments and the preparation of ESR plans and roadmaps were drawn from, and guided by, the two documents. The very encouraging feedback from the health ministries and the clarity of the results of the ESR assessments and the ESR roadmaps demonstrated the usefulness of new IHR and APSED in providing guidance to the capacity building process. The value of this approach of using the new IHR and

¹⁸ PRIMEX and associates, 2008, *ibid*.

the APSED lies in their comprehensiveness and wide scope of coverage, their unequivocal emphasis on building the core capacities of countries for ESR, and the ease with which the technical parameters are translated into planning and assessment tools and instruments. An added value is the opportunity to take advantage of the mandate given to WHO to provide technical support to country initiatives relative to IHR and APSED implementation.

(ii) Absorptive capacity and technical assistance readiness are critical factors to consider in the phasing of project implementation and the programming of project resources.

91. One of the difficult decisions faced by Management during the preparation of the Project's work and financial plan was how to allocate Component C funds among the three countries. In order to avoid possible controversies, it was decided to divide the Component C funds equally among the three countries. That decision did not factor the country's absorptive capacity and readiness for the TA. As a result, only the Philippines was able to fully utilize the Component C funds and implement all its planned activities in the agreed time frame. Both Indonesia and Malaysia had to ask for significant time extensions to attain their work and financial targets. Given this experience, it is very clear that budgetary and timeline decisions may have to consider factors other than just equity in order to achieve optimum effectiveness and efficiency in the implementation of projects.

(iii) Subregional activities require careful planning and significant investments in time and resources.

92. A number of planned subregional activities did not push through. Subregional activities, like the planned technical exchange visits and joint field exercises, require significant investments in terms of time and resources. These activities need to be planned and coordinated very carefully since they involve the joint participation of senior government officials coming from different countries who have very tight schedules. Because of a prior agreement to focus the Project's activities and resources on the other components, there was not much money left in the TA budget for subregional activities to be realistically pursued and executed.

(iv) Technology matters, but people make the difference.

93. The design of ESR interventions in the three countries was heavily driven by technology with varying degrees of sophistication. The IEWARS in Indonesia required an application program to process and analyze the data at the district level, the PIDSR in the Philippines introduced a new data entry program and an online data management system to facilitate the submission of reports, and the eLBIS in Malaysia required the development of a web-based application program that captured the results of tests performed in hospital laboratories. All this reliance on technology, however, did not obscure the fact that it was the people in the MOH in the three countries who made the ultimate difference. Without the technical leadership of the MOH Surveillance Officer in Indonesia, the Laboratory Pathologist in Malaysia, and the Director of the DOH-NEC in the Philippines, the opportunities provided by the available technology would have gone to waste.

(v) The value of engaging experienced consulting firms to provide administrative support cannot be overemphasized.

94. The extensive experience of the Consultant in the implementation of ADB TAs facilitated the provision of technical assistance to the three ministries of health. Moreover, the firms' familiarity with local conditions and rapport with MOH partners enabled the Project to establish very positive working relationships and helped build the necessary trust and confidence for the Project work to happen.

(vi) A cash advance mechanism is key to fast-tracking Project implementation.

95. One of the Project requirements, prior to the release of funds from ADB to support the conduct of technical activities, was to have a proposal prepared by the Consultant and reviewed and approved by ADB. This process helped ensure that the activities are technically consistent with the Project's scope and mandate and, at the same time, provided sufficient control over the efficient use of the Project's resources. However, it would not have been very efficient in instances where there were a number of overlapping activities that needed to be completed in a short period of time. In order to minimize the potential adverse effects, Project management opted to establish a cash advance facility wherein the countries could avail of adequate funding support provided the necessary technical clearances were obtained. This process was particularly useful for the Philippines which had a very heavy schedule of activities under its Component C workplan. As a result, all the activities were smoothly carried out and implemented without missing a beat.

VI. CHALLENGES, RECOMMENDATIONS, AND NEXT STEPS

A. At the Country Level

1. Design, Field-testing, and Nationwide implementation of IEWARS in Indonesia

96. The formulation of the ESR Strategy and Roadmap for Indonesia paved the way for the conceptualization of the *Indonesia Early Warning and Response System (IEWARS)*. Such a system is expected to modernize and make functional the collection, processing, analysis, and utilization of surveillance data for a set of priority infectious diseases. While the Project has done the initial work in developing a blueprint and process for the establishment of this system, much remains to be done in order to make the IEWARS a reality.

100. An important immediate task is the design and testing of the application program that will facilitate the processing and analysis of surveillance data at the provincial and district levels. That program will have to be compatible and consistent with the prevailing IT infrastructure in the country. Another immediate task is the design and testing of data collection forms for the priority diseases for which a case-based system will have to be introduced. Given the short-handed situation at MOH, it is unlikely that these tasks can be performed effectively without external assistance. A more daunting challenge is the sourcing of the enormous financial and logistical resources that are needed to implement the IEWARS in the country's 33 provinces and more than 300 districts.

2. Review, Expansion, and Integration of eLBIS in Malaysia

97. The successful development and introduction of the laboratory-based surveillance system in Malaysia demonstrates the effectiveness of technology-based interventions in a setting where the infrastructure is adequate and ready to support the introduction of new technology. However, the new technology should be allowed to mature and be regularly reviewed and modified, as necessary, before it can be expanded to other sites. The expansion of the system will also have to be carefully managed given the system's stringent IT infrastructure requirements. Another major challenge would be the integration and meshing of the lab-based system with the other existing surveillance systems (rumors, syndromic, and case-based). Such an attempt for integration will have to contend with the differences in case definitions and the different software and IT platforms that are in use.

3. Implementation of Sub-national Capacity Building within the context of the Philippine PIDS

98. The development of PIDS and the introduction of a nationwide case-based reporting system require the building of ESR capacities at the provincial, city, and municipal levels. Such capacities include the strengthening of epidemiological skills of the health manpower and the establishment of ESR support systems, especially the establishment of functional referral systems for public health laboratories and the procurement of the necessary IT equipment and supplies. This sub-national capacity building effort would require huge financial and logistical investments in training and procurement of equipment for surveillance and response. While the DOH-NEC was able to obtain additional funding from the Philippine Government for 2008, in the amount of US\$2 million, it is estimated that an additional PhP607,300,000 (equivalent to about US\$13 million at the current exchange rate of US\$1 = PhP46) is required to enable DOH-NEC to create the necessary capacities at the sub-national level. Aside from the funding issue, DOH may also have to address concerns about its absorptive capacity, given NEC's low level of funding in the past.

B. At the Subregional Level

1. Establishment of a Regional Applied Epidemiology Training Network

99. The establishment of a well-trained and highly skilled ESR workforce is a top priority for many countries in the region. This sentiment was strongly manifested by the participants and experts who attended the Project-sponsored International Forum on Applied Epidemiology Training in Manila. As a strategic response, the Forum called for the establishment of a regional network that would connect and support the applied epidemiology training activities being carried out by the different countries in the region. Such a network will be very helpful in the setting of training standards, designing and adapting the development of training curricula to meet the specific needs of countries, assisting the countries to review and evaluate AET initiatives, providing venues for technical exchange and the conduct of joint epidemiological investigations, creating a pool of technical resources to support AET, and in mobilizing country, regional, and international support for AET. In addition, the presence of a regional applied epidemiology training network is envisioned to lay the foundation for better collaboration among countries in cases where epidemiological events require multilateral and international assistance.

100. Initial discussions regarding this proposal showed a high degree of interest among the MOH of the Philippines, Indonesia, and Malaysia. Given the strong presence of ADB in the region and its track record of supporting ESR initiatives, the participants and experts at the Forum strongly recommended an ADB-led initiative to establish an applied epidemiology training network in Southeast Asia. This network is believed to be vital to the strengthening of the ESR systems of the countries in the region and to capacitating them to more effectively manage and deal with the threat of EIDs in the future.

2. Integration of Surveillance Data from the Project-initiated Systems to the ASEAN Surveillance Information Network

101. The ASEAN group of nations, of which the three countries are members, has established a web-based surveillance information sharing network. The network is based in Jakarta and managed by a unit in the MOH. Most of the existing information available in the network is composed of news articles on epidemiological events published in newspapers in the region. There is a need to expand the coverage of the network to include surveillance data from the systems, which the Project helped establish, such as the PIDS in the Philippines, the eLBIS in Malaysia, and, ultimately, the Early Warning and Response System in Indonesia once it becomes operational. The effective sharing of information among the member countries will lay the groundwork for more meaningful international collaboration in the field of epidemiology in the future.

3. Dissemination of IHR-2005 and Strengthening of Surveillance and Response Capacities of the Ports of Entry in Indonesia, Malaysia, and the Philippines

102. The establishment of IHR focal points has generated momentum in getting the countries to fully satisfy the mandated provisions. However, there is a need to adopt and carry out a more systematic approach in the dissemination and implementation of the key guidelines and procedures. This is especially true for the ports of entry where the existence of good epidemiological surveillance and response capacities is a vital requirement. The MOH and other government agencies and institutions responsible for the establishment of such capacities need to assess and identify the strategic gaps and issues and design the appropriate interventions to address them.

APPENDIXES



Appendix 1:
REVISED TA PAPER

Technical Assistance Report

Project Number: 39068

December 2005 (Revised: 8 January 2007)

Proposed Technical Assistance Strengthening Epidemiological Surveillance and Response for Communicable Diseases in Indonesia, Malaysia, and Philippines



**STRENGTHENING EPIDEMIOLOGICAL SURVEILLANCE AND
RESPONSE FOR COMMUNICABLE DISEASES IN
INDONESIA, MALAYSIA, AND THE PHILIPPINES
(TA NO. 6305-REG)**



ABBREVIATIONS

ADB	– Asian Development Bank
AFRO	– African Regional Office (WHO)
AMR	– Antimicrobial Resistance
APHA	– American Public Health Association
ASEAN	– Association of Southeast Asian Nations
CCDM	– Control of Communicable Diseases Manual (by WHO & APHA)
CDC	– U.S. Centers for Disease Control and Prevention
CSR	– Communicable Disease Surveillance and Response (WHO)
DOH	- Department of Health
EID	– emerging infectious disease
EPR	– Epidemic and Pandemic Alert and Response (WHO)
ESR	– Epidemiological Surveillance and Response
FAO	– Food and Agriculture Organization of the United Nations
HAI	– Healthcare-Associated Infections
IDSR	– Integrated Disease Surveillance and Response
IHR	– International Health Regulations
IT	– information technology
MDG	– Millennium Development Goal
MIS	- Management Information System
MOH	- Ministry of Health
NGO	– nongovernment organization
RCSP	– Regional Cooperation Strategy and Program
SARS	– severe acute respiratory syndrome
SEARO	– Southeast Asia regional Office (of WHO)
SERD	– Southeast Asia Department
TA	– technical assistance
UNAIDS	– Joint United Nations Programme on HIV/AIDS
WHO	– World Health Organization
WPRO	– Western Pacific Regional Office (of WHO)



TECHNICAL ASSISTANCE CLASSIFICATION

Targeting Classification	– General intervention
Sector	– Health, nutrition, and social protection
Subsector	– Health systems
Themes	– Regional cooperation, inclusive social development, capacity development
Subthemes	– Human development, organizations development

NOTE

In this report, "\$" refers to US dollars.

Vice President	J. Eichenberger, Operations Group 2
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I. INTRODUCTION

1. The recent outbreaks of severe emerging infectious diseases (EIDs), particularly severe acute respiratory syndrome (SARS) and H5N1 avian influenza, and the emergence and spread of antimicrobial resistance (AMR), particularly drug resistant tuberculosis, have focused attention on the weakness of epidemiological surveillance and response (ESR) systems in developing countries and the heightened vulnerability of people living in Asia.

2. ESR represents an essential public health function of governments. In accordance with provisions of the new International Health Regulations (IHR)-2005 of the World Health Organization (WHO), all member countries of WHO will need to address these weaknesses by June 2007, through, among other provisions, strengthening core capacities for ESR and implementing the WHO Decision Tree protocol for determining when a public health problem is of international concern and, therefore, requires reporting to WHO and other actions.

3. The WHO Communicable Disease Surveillance and Response (CSR) Program based at the WHO Lyon Office for National Epidemic Preparedness and Response produces strategies, norms, tools, models, and advocacy resources that can be applied nationally or globally to develop preparedness and response capacity to communicable diseases. The US Centers for Disease Control and Prevention (CDC), a WHO Collaborating Center for Public Health Systems and Practice, and the US Council of State and Territorial Epidemiologists have proposed a set of Applied Epidemiological Competencies and have developed and applied an instrument for assessing ESR competencies that can be applied internationally.

4. The WHO/CSR Office in Lyon has suggested a three-phase “road map” to guide WHO’s activities in IHR implementation between May 2006 and 2012. In the proposed Phase 1, between May 2006 and May 2007, the plan calls for WHO to develop and support a number of critical planning and program design activities including, but not limited to, the adaptation of existing assessment tools to IHR national core requirements, development of core capacity guidance materials, development of an international health regulations (IHR-2005) monitoring and evaluation (M&E) framework, and the initiation of training of national and international experts to support national assessments of IHR core capacities.

5. The Asian Development Bank (ADB) plays a crucial role in responding to regional needs, in close coordination with its development partners, by using its financial and technical resources to help address immediate needs and strengthen preparedness and response. Communicable disease prevention and control is a regional public good and forms one pillar of the draft *Regional Cooperation Strategy and Program (RCSP) for Southeast Asia*. In the context of the potential impact of EIDs and AMR in Indonesia, Malaysia, and Philippines, the proposed regional technical assistance (TA) is intended to (i) support interventions to reduce vulnerability through assessments and improvements in the ESR systems in each country, and (ii) evaluate the benefits of possible collective measures in the three countries. In this regard, the Project will support the *Asia Pacific Strategy for Emerging Infectious Diseases* developed by the Southeast Asia and Western Pacific Regional Offices of WHO (WHO/SEARO and WHO/WPRO)¹ in collaboration with its Member States in July 2005. This Strategy will serve as the framework to strengthen national and regional capacity for early detection, rapid response, and preparedness for emerging infectious diseases. The Project will also emphasize the strategy’s call for the need for strengthening inter-country, inter-regional, and multisectoral networking and collaboration, and the need for developing and implementing activities in the areas of surveillance and response. Although the Project will cover only the three countries, it will likewise support activities, dialogue, and pilot initiatives that will contribute to broader interaction with regional bodies such as the Association of Southeast Asian Nations (ASEAN) and ASEAN+3.

¹ Includes the People’s Republic of China, Japan, and Republic of Korea.

6. Indonesia, Malaysia, and the Philippines are committed to achieving the Millennium Development Goals (MDGs) by 2015. Four out of the eight MDGs relate directly to health and nutrition: reducing child and maternal mortality and malnutrition and containing and beginning to reverse the trend of HIV/AIDS and other communicable diseases. If communicable diseases are not controlled, achieving these MDGs is unlikely and learning and productivity will also affect economic growth and poverty reduction. Thus, if the MDGs are to be achieved, a major reduction in the high levels of communicable diseases in the three countries is required.

7. Avian influenza caused by the influenza A type H5N1 virus is now endemic in poultry in Indonesia, and the number of human infections and fatalities is growing. Person-to-person transmission cannot be excluded. Malaysia successfully contained and eradicated an avian influenza outbreak in poultry in 2004, but, like the Philippines, remains at risk from migratory birds and outbreaks in neighboring countries. WHO warns that the avian influenza virus could evolve into a human influenza virus and possibly lead to a global pandemic with high mortality and economic impact. All three countries are vulnerable. Because of the global threat, emerging infectious diseases (EIDs) are receiving major international attention and support. HIV/AIDS, poliomyelitis, malaria, and tuberculosis control also receive major international support.

8. However, measles, infectious diarrhea, typhoid, cholera, water- and food-borne diseases, dengue, and parasitic diseases also cause significant morbidity and mortality. The incidence of hepatitis C and dengue hemorrhagic fever is approaching epidemic proportions in the three countries, while poliomyelitis recently re-emerged in Indonesia. Neglected endemic diseases are often concentrated in impoverished populations living in marginalized areas or urban slums and disproportionately affect children and affect school attendance, cognitive development, physical growth, and productivity.

9. Cost-effective interventions are available to manage most common infections, but budget shortfalls and structural problems have not allowed them to be used to their maximum potential. In addition, poor management of antimicrobial pharmaceuticals and inadequate performance of other aspects of communicable disease prevention, surveillance, and control programs have led to the emergence and spread of AMR, including drug-resistant tuberculosis.

10. Preventing, and effectively investigating and controlling epidemic outbreaks of diseases, is the most cost-effective way to deal with most infections. However, current ESR systems have, in general, been weak, while good performance has often been confined to specific disease control programs. An effective ESR system must produce accurate and timely reporting, verification, investigation, and response, including strategic forecasting and preventive measures. ESR systems need strengthening in both technical capability and in coverage to achieve any major impact on the levels of communicable diseases.

11. So far, outbreaks of SARS and avian influenza have had little impact on population health in the three countries,² but have the potential to cause catastrophic damage. The outbreaks have already had major economic consequences amounting to millions of dollars in direct losses and billions in indirect losses through declining tourism, reduced flows of foreign investment, and export restrictions on livestock and animal products.

12. HIV/AIDS, SARS, and avian influenza have reinforced the need for regional cooperation for communicable disease control, and Indonesia, Malaysia, and Philippines are already working closely together through regional organizations. Rapid identification of disease outbreaks and a coordinated

² The case fatality rate for SARS is around 10% and human avian influenza, despite its high fatality rate of more than 50%, is not easily transmitted from human to human.

regional response, in accordance with the new IHR-2005, will help to limit the impacts of outbreaks by containing them, monitoring the spread and genotype of the virus, identifying potential hosts, preparing for subsequent outbreaks with vaccinations or other preventive measures, and treating cases. Early and accurate detection and appropriate local, national, and international responses (when the latter are required by the decision tree protocol described in Annex 2 of the new IHR-2005), are vital to prevent the spread of other re-emerging diseases such as measles, Japanese encephalitis, poliomyelitis, dengue, typhoid, and cholera. To enhance national economic and health security, epidemics must be contained at their source.

13. Programs for prevention and control of communicable disease are national and regional public goods: there are greater benefits to be obtained through cooperation between districts, provinces, and nations than would be possible through the independent actions of each district, province, or country.

14. Coordination and collaboration, where possible, with other stakeholders will be essential to optimize the impact of the TA. WHO is the lead development partner in the health sector, particularly for ESR. ADB will partner with the WHO regional and country offices in the three countries to help implement the TA by providing specialist advice and technical inputs. A wide range of development partners and donors support communicable disease control programs, but not necessarily disease-specific or integrated ESR systems, in all three countries.³ Most externally financed programs have tended to be disease-specific. This is often quite a successful and valid approach, given that diseases usually have specific etiological causes and well-defined methods of pharmacological and/or non-pharmacological prevention, treatment, and control. However, countries cannot afford to set up new, vertical ESR systems in response to each EID or health emergency.

15. An ESR system is not a unified set of procedures, but rather an aggregate of heterogeneous but similar subsystems. It is important to optimize the synergies in these subsystems. The TA is intended to provide an assessment of the ESR system as a whole for each country. From this, potential subregional operations will be derived that would help mitigate disease vulnerabilities and add value to national systems. Assessments, tests, pilots, and protocols will further be developed for the three countries. The African Regional Office of WHO (AFRO), in collaboration with the US CDC, have implemented an initiative for strengthening the integration and performance of Disease Surveillance and Response (IDSR) and linked this initiative to the ESR capacity-building that is required in order to implement IHR-2005. The AFRO-CDC efforts, described in the September 2004 issue of WHO/AFRO's *Communicable Diseases Epidemiological Report*, may serve as a useful framework for similar efforts in the WPRO and SEARO Member States. Full implementation of the capacity-building requirements of IHR-2005 is not required of Member States until 2012.]

II. THE PROPOSED TECHNICAL ASSISTANCE

A. Impact and Outcome

16. The purpose of the proposed TA is to help support the three countries to assess and strengthen the human and institutional capacities required to properly perform ESR. It is expected that improvements in the performance of ESR (i.e., improving the collection, analysis, dissemination, and use of evidence and information on the risk factors and causes for the occurrence and distribution of preventable communicable

³ Includes other United Nations agencies, multilateral banks, bilateral aid agencies, as well as international and local NGOs, charitable organizations, and corporate foundations.

diseases) will help national and sub-national Health Departments in the three countries to assess and improve the performance and quality of their high-priority communicable disease prevention and control programs to achieve the goals of (i) reducing morbidity and mortality due to communicable diseases⁴ and (ii) contributing to the achievement of related MDGs within each country and across the region.

17. The TA's objectives are to (i) strengthen ESR systems for early detection and response to undesirable changes in the distribution and/or occurrence of communicable diseases, (ii) help strengthen national capacity to respond to an epidemic outbreak of communicable disease (including the capacity to use laboratory-supported analytical epidemiological methods in investigating and addressing the causes of outbreaks), and (iii) harmonize national efforts to promote a subregional collaboration mechanism for communicable disease control and the monitoring, containment, and prevention of outbreaks. ADB will work closely with the three governments, WHO, and other stakeholders, in particular, other development partners and non-government organizations (NGOs), to identify where resources are deployed, where there are gaps in coverage, and to take action to mobilize appropriate resources.

18. The Project is expected to accelerate the development of an integrated national disease surveillance and preparedness system in each of the three countries and facilitate compliance with the requirements of IHR. Such improvements will include: (i) use of WHO protocols and guidelines for evaluating and improving the integration and performance of communicable disease surveillance and response systems at sub-national, national, and international levels; (ii) investigation, case management, and mitigation of communicable disease problems of national and international concern at local, national, and subregional levels; (iii) use of information and communication mechanisms in preparedness and response to communicable disease problems; and (iv) designing and implementing supportive national policies for communicable disease prevention, surveillance, and control.

B. Methodology, Approach, and Key Activities

19. The TA is divided into three main components. Component A will focus on ESR system analysis and plan formulation; Component B will focus on systems development; and Component C will focus on capacity building to enhance ESR systems. Where possible, the components will be implemented simultaneously.

1. Component A: ESR System Assessment and Plan Formulation

20. WHO has published several key guidelines related to ESR systems for integrated communicable disease prevention and control programs. These include (i) a set of ESR Performance Standards; (ii) the first international edition of the *Control of Communicable Diseases Manual* (CCDM) in collaboration with the American Public Health Association (APHA); and (iii) detailed guidelines and protocols for the evaluation of national and sub-national ESR systems. The WHO ESR evaluation guidelines were adapted for use in a joint WHO-Ministry of Health (MOH) national evaluation of the ESR systems for selected high-priority communicable diseases in Indonesia in 2004.

21. Under Component A, the WHO ESR Evaluation Guidelines, WHO ESR Performance Standards, the WHO Laboratory Assessment Tool, the WHO Outbreak Communications Guidelines, and the CCDM will be used to carry out evaluations and make recommendations for strengthening ESR systems in collaboration with the ESR Units of the respective health ministries and WHO Country and Regional

⁴ The TA is targeted on ESR for communicable and infectious diseases, not on all health surveillance systems (for example, chronic, lifestyle, and hereditary diseases such as diabetes, obesity, and cancers.)

Offices. For Indonesia and Malaysia, in collaboration with the respective MOH ESR Units and WHO, an assessment will be made of actions taken, and further assessment or action required, to strengthen the ESR systems in response to the findings of the joint WHO-MOH evaluations of the Indonesia and Malaysia ESR systems that were carried out in 2003-2004. In carrying out the tasks and activities under this component, the Consultant Team will cover a number of key elements, as described below.

a. Surveillance Systems Analysis Proper

22. Using the WHO protocol for ESR assessment, the Team will work with Health Ministry/ Department officials in assessing the following elements of their ESR systems: (i) structure, (ii) processes and capacity for surveillance and response, (iii) output, and (iv) communication.. Although not specifically part of the WHO protocol, assessments on the 1) legal / legislative frameworks for efficient and effective performance of ESR, especially in respect to compliance with IHR 2005, 2) laboratory capacity and quality for support of ESR, and 3) status of ESR policies and practices specifically in respect to the requirements of IHR 2005 (e.g. in providing the evidence needed to make use of the Decision Tree protocol) may also be conducted if necessary.

23. During all phases of the RETA, the participation and involvement of MOH officials and the collaboration of WHO's regional and country ESR experts, are critical to ensure buy-in, ownership, and technical excellence. To make this happen, the Consultant Team will work with WHO to facilitate the organization of a committee within the health ministry/department that will oversee the conduct of the assessments and, more importantly, take leadership in presenting the results of the assessment and ensuring recommendations to the highest levels in MOH/DOH.

24. The Project will not create a new website, but will review the need for interlinking existing websites and consider ways of improving the use of website information for ESR. This issue will be discussed during the subregional planning workshop.

b. ESR Plan Formulation and Roadmap Preparation

25. The results of the assessment will be used as the starting point for planning or revising existing plans to improve the ESR systems individually, within each country, and collectively, across the three countries. Towards this end, the Project will organize a subregional forum wherein the MOH officials of each country will present the results of the assessment and share their ideas on how to address identified ESR gaps and issues. At this forum, WHO officials and technical experts will be invited to provide technical guidance and direction. The ESR plan will serve as the blueprint and framework for all ESR-related activities in the medium term.

26. One important and practical application of the ESR plan is that it can be used by MOH/DOH in managing donor assistance. A major reason why ESR systems are so fragmented is the propensity of donors to create parallel reporting systems. The ESR medium-term plan can be an effective tool in negotiating with donors and put an end to the creation of donor-driven parallel surveillance systems. Lastly, the ESR plan will be the basis for activities that will be undertaken under Components B (Systems Development) and C (Capacity Building).

c. Advocacy for Political Support

27. The Consultant Team will work with MOH/DOH and WHO officials and other stakeholders in obtaining political and financial support for the ESR plan. One activity that can help in the advocacy effort

is the organization of a technical conference or a series of conferences wherein the ESR plan and the results of the ESR assessment will be presented and discussed. During these conferences, it is important that key decision makers from the MOH/DOH and other branches of government be invited and given an opportunity to express their commitment to support the plan. The role of the WHO as a technical and advisory body will be highlighted during this phase.

2. Component B: Systems Development

28. Drawing on the information generated by the country assessments and with the technical guidance provided by WHO and other experts, the Project will assist the health ministries of the three countries in setting up systems that will strengthen their capacity to conduct epidemiological surveillance and response and comply with the requirements of IHR. Examples of activities that could be supported under this Component are:

- (i) review and development of policies, pieces of legislation, and or administrative issuances that articulate the government's support for ESR and IHR;
- (ii) development of ESR standards, operational guidelines, protocols and manuals;
- (iii) development of ESR and IHR training strategies and approaches, training modules, tools, and instruments;
- (iv) review and development of ESR and IHR supervisory guidelines and procedures as well as ESR and IHR reporting and feedback mechanisms; and
- (v) assistance to the three health ministries in setting up their National Focal Point for IHR implementation.

29. It is expected that the degree and magnitude of the systems development work will depend largely on the level of development of the country's ESR system. The country-specific ESR assessment should serve as the basic guide and reference in undertaking activities under this component.

3. Component C: Capacity Building to Enhance ESR Systems

30. This Component will consist of specific activities that address weaknesses in the ESR system or constraints that impede the country's ability to support IHR. These will be relatively small-scale interventions such as operations research, training and related capacity-building activities. Examples of activities that will be supported under this Component are:

- (i) measures to integrate or link fragmented ESR systems, such as IT and communications-related interventions;
- (ii) measures to improve case detection and case confirmation including interventions to strengthen the role of laboratories in supporting ESR and IHR;
- (iii) measures to improve timeliness, accuracy, and completeness of ESR and IHR reports;
- (iv) measures that strengthen the capacity of health staff to process, analyze, interpret and use epidemiological data;
- (v) measures designed to strengthen the capacity of health workers to conduct outbreak investigation, introduce outbreak control measures, and help health managers prepare and plan for epidemiological disasters;
- (vi) measures to strengthen community involvement and participation in ESR activities; and
- (vii) measures to strengthen the capacity of the National Focal Point to manage and coordinate IHR-related activities.

31. Before these activities can be carried out, the concerned MOH officials will prepare proposals, with assistance of the Consultant Team, for review and approval by ADB. Such proposals should be in line with the government's overall plan for implementing ESR and supporting IHR 2005. In view of the limited funding to support these activities, the Project will utilize a set of criteria to set priorities, including the following:

- (i) **Relevance:** the proposals should address major gaps and issues in the ESR system;
- (ii) **Efficiency:** the proposals should be able to produce the desired results at a minimum cost;
- (iii) **Effectiveness:** the proposals should show that the proposed interventions and measures have been proven to work under similar situations; and
- (iv) **Sustainability:** the proposed measures and interventions do not require extensive external support and can be carried out using local resources.

C. Cost and Financing

32. The total cost of the TA is estimated at \$1.7 million equivalent. ADB will finance \$1.2 million on a grant basis by ADB's TA funding program. The balance of \$0.5 million equivalent will be provided in-kind by the participating countries.⁵ The cost estimates and financing plan are in Appendix 2. ADB and its partners will also actively seek additional external grant co-financing.

D. Implementation Arrangements

33. ADB (Southeast Asia Department [SERD]) will be the executing agency for the TA. SERD will work in close cooperation with the Regional Sustainable Development Department (RSDD) to ensure that the TA complements other ongoing ADB-wide activities, particularly operations to address avian influenza in the region.

34. The Project Team will work closely with WHO officials to ensure that all activities and interventions carried out under the Project are in accordance with technically accepted international guidelines and standards. The presence of, and guidance from, WHO officials are also needed to make sure that the countries honor their international commitments.

35. A memorandum of understanding (MOU) will be entered into between ADB and WHO outlining a cooperation framework for TA implementation. Local WHO offices will collaborate and provide technical support at the national level, while activities will be coordinated through the two WHO regional offices.⁶ Each participating country will designate a committee and an institutional focal point to interact with other government agencies and with the consultants engaged under the TA. Counterpart personnel will provide direction and technical inputs and will participate in the facilitation and conduct of field simulations and evaluation. ADB will provide international travel, accommodation, and per diem for staff seconded under the exchange program and for official participants, including experts, at subregional workshops and the international conference.

36. A project management consulting firm will be engaged by ADB. Approximately 12 person-months of international and 60 person-months of domestic consultant services will be required in (i) project management and implementation, (ii) ESR system, and (iii) health systems management. Outline terms of

⁵ In the form of office space, local travel, remuneration of counterpart and supporting staff, office facilities and utilities, and in-country workshop support as well as in the conduct of monitoring and evaluation activities.

⁶ Within the WHO organization, Philippines and Malaysia are under the Western Pacific Regional Office and Indonesia is under the Southeast Asia Regional Office.

reference are in Appendix 3. In addition to the provision of consultants, the firm will undertake arrangements for training, system development, and national, regional, and international conferences. With ADB approval, the firm will procure or subcontract services, equipment, and activities proposed under Components B and C that are within cost ceiling parameters. The consulting firm will be engaged in accordance with ADB's *Guidelines on the Use of Consultants* and other arrangements satisfactory to ADB for the engagement of domestic consultants using the simplified technical proposal procedure.

37. Outcomes from Component A will help identify core activities for Component B and C. Proposals are expected to be developed by the implementing agencies with the assistance of the Consultant team and WHO. Activities under Components B and C costing less than \$100,000 will be contracted or procured through the consulting firm. Activities estimated to exceed this ceiling will be procured by ADB. Implementation arrangements, particularly for Components B and C, will be flexible and will allow adjustment in the terms of reference of consultants, duration, and schedule of expert inputs. Procurement of other consulting services, if required under Components B and C, will follow ADB's procedures with reasonable flexibility. Procurement of most small equipment, facilities, services, and supplies will be outsourced through the consultants using international shopping, direct purchase, or other arrangements acceptable to ADB. Co-financing for non-core activities under Components B and C will be explored. To facilitate the work of the IHR National Focal Point, a certain amount not to exceed \$25,000 will be allocated for each country under Component C, and released directly by ADB to each of the three ministries of health. Such funds will be used to defray transportation, meeting, and other operational costs associated with running the National Focal Point office.

38. The Project will begin in July 2006 and be implemented over 24 months (June 2008). Within two months from start-up, an inception report will be submitted outlining the detailed activities and implementation schedule for components A and B of the Project. Country ESR assessments are expected to be updated by December 2006, and the formulation of country ESR plans by March 2007 to address identified weaknesses of their ESR systems and meet requirements for IHR 2005 compliance.

IV. THE PRESIDENT'S RECOMMENDATION

39. The President recommends that the Board approve the provision of technical assistance not exceeding the equivalent of \$1,200,000 on a grant basis for Strengthening Epidemiological Surveillance and Response for Communicable Diseases in Indonesia, Malaysia, and Philippines.

Annex A**DESIGN AND MONITORING FRAMEWORK**

Design Summary	Performance Targets/Indicators	Data Sources/Reporting Mechanisms	Assumptions and Risks
Impact Reduced burden of endemic and emerging diseases in Indonesia, Malaysia, and Philippines, thereby contributing to achieving the MDGs in the three countries.	All countries • Decrease burden of communicable diseases [1-2 disease(s) to be selected as indicator after incidence baseline established in components A and B]	• Annual health statistics reports • Statistical surveys and qualitative surveys • National demographic and health surveys • Communicable diseases surveillance systems • MDG update reports • UNAIDS surveys	Assumptions • No major social or economic disruptions to allow time to set up and test the system • ESR and disease control are effective Risk • Sudden emergence of avian influenza as a pandemic overwhelms health systems
Outcomes Timely and adequate identification of epidemics Improved capacity for ESR Compliance with IHR-2005	• Proportion of targeted provinces that provided timely reporting and appropriate response to disease outbreaks • Proportion of targeted provinces that have demonstrated standard capacity for ESR • Regular submission, by the three countries, of reports to WHO as required under IHR-2005	• WHO reports and field visits • Assessment of ESR performance through field visits • WHO and country reports	Assumptions • Funding for surveillance and response system is adequate. • Staff are available to expand services. • Policies are appropriate and effectively implemented.
Outputs			
1. Completed/updated ESR systems analysis 2. Roadmaps for improving ESR	• ESR systems analysis reviewed and approved • Roadmaps reviewed and approved	• ESR analysis reports • Roadmaps	Assumptions: • Analysis, roadmaps and other activities are relevant and of adequate quality • Trained staff can use the acquired skills and guidelines provided • Identified gaps can be



Design Summary	Performance Targets/Indicators	Data Sources/Reporting Mechanisms	Assumptions and Risks
3. Improved capacity in ESR	• Number of persons trained and guidelines prepared	• Report of training of staff	identified within the time and resource constraints
4. Gaps addressed in ESR system	• Number of gaps addressed	• Report of improvements in ESR systems	
5. National Focal Point for IHR established	• Organizational structure and guidelines approved	• Approved guidelines	

Activities with Milestones	Inputs
<ol style="list-style-type: none"> 1. Prepare an assessment/update of ESR systems in the three countries (up to December 2006) 2. Prepare/update roadmaps for improving ESR systems, including regional coordination (December 2006-January 2007) 3. Prepare reference manuals/guidelines and provide training to strengthen ESR systems. (December 2006-March 2007) 4. Support subregional collaboration through joint activities (January 2006-August 2007) 5. Up-scale and project preparatory activities to fill gaps, provide training, and improve national and subregional ESR December 2006–August 2007) 6. International conference to exchange findings and best practices (May 2007) 	<ul style="list-style-type: none"> • ADB = \$1.2 million • Governments = \$0.5 million Total: \$1.7 million

ADB = Asian Development Bank; EID = emerging infectious disease, ESR = epidemiological surveillance and response; MDG = Millennium Development Goal; WHO = World Health Organization.

Annex B

COST ESTIMATES AND FINANCING PLAN
(\$'000)

Item	Foreign Exchange	Local Currency	Total
Asian Development Bank Financing^a			
1. Consultants			
a. International	250.0	0.0	250.0
b. Local	0.0	200.0	200.0
c. International and Local Travel	15.0	10.0	25.0
2. Secondment and Exchange Program ^b	60.0	0.0	60.0
3. Simulations and Testing	0.0	30.0	30.0
4. Website Development, Software, and Portal	20.0	0.0	20.0
5. Conference and Workshops ^c	40.0	15.0	55.0
6. Translation, Printing, and Supplies	15.0	5.0	20.0
7. Component C	500.0	0.0	500.0
8. Contingencies	25.0	15.0	40.0
Subtotal (A)	925.0	275.0	1,200.0
Government Financing			
1. Office Space	0.0	150.0	150.0
2. Local Transportation	0.0	100.0	100.0
3. Counterpart Staff	0.0	250.0	250.0
Subtotal (B)	0.0	500.0	500.0
Total	925.0	775.0	1,700.0

a Financed by the Asian Development Bank technical assistance funding program.

b Includes travel, accommodation, and per diem for official participants.

c Includes travel, accommodation, per diem for official participants, and honoraria for resource speakers and/or facilitators.

d Includes activities, equipment, case studies, research, and training materials.

e Including salaries and benefits of staff during secondments.

Source: Asian Development Bank estimates.

Annex C**OUTLINE TERMS OF REFERENCE FOR CONSULTANTS****A. Scope of Work**

1. A project management and consulting firm will be engaged by the Asian Development Bank (ADB). Approximately 12 person-months of international and 60 person-months of domestic consultant services will be required in the fields of (i) project management and implementation, (ii) epidemiological surveillance and response (ESR) systems, (iii) health systems management, and (iv) information technology (IT) systems integration.
2. The consulting firm will procure through competitive bidding the services of an IT firm to develop a portal for the subregional epidemiological profile and purchase and installation of software and training materials.
3. In addition to the provision of consultants, the firm will undertake logistical arrangements for training, testing and simulation exercises, workshops, secondment programs, and the conference.
4. The firm will designate a project administration coordinator based at one of its offices, preferably in one of the three countries, to coordinate with the respective implementing agencies and other government agencies and local World Health Organization (WHO) offices in each country.
5. Proposals for component C are expected to be developed by the implementing agencies with the assistance of the consultant team, ADB, and WHO.⁷ Proposals including a terms of reference, cost estimates, and implementation arrangements will be submitted for ADB approval prior to commencement of activities. Activities costing less than \$100,000 will be contracted or procured through the consulting firm. Activities estimated to exceed this ceiling will be procured by ADB.
6. The project commencement date is July 2006 and is to be implemented over 18 months (estimated completion time December 2007).

B. Consulting Services**1. International Consultants**

2. **Epidemiological Surveillance Specialist and Team Leader** (8 person-months). An international consultant will be engaged for 8 person-months intermittently over 18 months to (a) oversee the overall work program and ensure consistency of activities, reports, simulation results; (b) take overall responsibility for the work of the consultants and reports; and (c) lead following specific assignments:

⁷ Selected activities to address surveillance system weaknesses or other shortfalls either already identified or emerging from the assessments. These are expected to fall under the following broad categories: (i) strengthen national and regional surveillance systems and preparedness on communicable diseases; (ii) strengthen technical and managerial capacity for investigation, case management, and mitigation; (iii) improve policies and legislation related to prevention and control of communicable diseases, including quarantine; (iv) promote regional collaboration to improve strategic information management, quality control, and standards for medicines, services and human resources; and (v) possible preliminary design for longer-term or larger-scale projects beyond the financing envelope or time horizon of the TA.

- (i) Work closely with Government representatives, ADB, WHO regional and country offices, CDC, and other stakeholders to seek out engagement and, cooperation.
- (ii) Review existing ESR systems; government policy and plans; ESR resources, and planned assistance in addressing priority diseases and system gaps.
- (iii) Conduct a detailed assessment/update of the performance of existing surveillance and response systems.
- (iv) Test those systems through real time field simulation or analysis of process documentation and data from actual cases.
- (v) Through a participatory planning approach, prepare/update roadmaps for improving ESR systems in each of the three countries
- (vi) On a need and demand basis, provide system designs, guidelines, training manuals and training to improve capacity of ESR staff in the three countries.
- (vii) Help address other gaps in ESR systems through support for country proposals.
- (viii) Evaluate existing cross-border communication mechanisms and subregional collaboration; and identify priority diseases where a regional approach may provide a cost-effective way of reducing risk and vulnerability through both prevention and response mechanisms.
- (ix) Help the IT specialist to interlink and improve the use of web-sites to improve regional information exchange.
- (x) Stimulate regional coordination including joint research, participation in simulation exercises, and support for government representatives to present papers, findings, and results from the field exercises at the international conference.
- (xi) Conduct an international conference to share and compare the findings to promote networking and mutual support activities.

4. **IT Specialist: Database, GIS, Web Page Design** (1 person-month): The IT specialist will be familiar with management information systems (MIS), website and platform architecture, IT systems and software and will have extensive knowledge of the advantages and limitations of available database and GIS software in the market. In close coordination with the team leader and other government experts, WHO, and ADB among others, the IT specialist will do the following:

- (i) Review and make recommendations on the purchase of database and GIS software that can be interfaced with the existing platform and architecture of the national ESR systems. Make recommendations on a cost-effective and pragmatic architecture, taking account of data integrity, data migration, and data security needs.
- (ii) Review systems meeting these criteria that may be available through bilateral or multilateral assistance programs both for the regional system and for possible applications to improve national ESR systems.

5. **Project Management and Implementation** (3 person-months): Approximately 3 person-months equivalent of consulting services will be provided by one or more experts of the project management and consulting firm (and its associated firms) to undertake all project management, implementation, contracting, purchasing, back-office, and related activities. This would include contracting for the main IT services, software and equipment, and the procurement or subcontracting of services, equipment, case studies, materials, and other activities under component C. Proposals, cost estimates, and procurement mode will be submitted to ADB for prior approval. The qualifications and capability of the firm (and its associated firms) to perform sustained contract management support for a number of varied activities in each of the three countries for the duration of the TA will be a key determinant for consultants shortlisting and selection.

2. Domestic Consultants (60 person-months)

6. The domestic consultants (deputy project directors) will have backgrounds in health systems management, ESR systems, clinical systems, or related fields. Each domestic consultant's biodata, terms of reference, costing, and implementation arrangements will be submitted for ADB approval prior to engagement or commencement of activities. They will be engaged depending upon needs and country capacities. They will primarily work as a team with the team leader and carry out similar assignments, and also work as a liaison with the Governments and other stakeholders in the respective countries.

Appendix 2:
ASSESSMENT OF PROJECT PERFORMANCE

ASSESSMENT OF PROJECT PERFORMANCE

Design Summary	Performance Targets/Indicators	Project Output	Remarks
Impact			
Reduced burden of endemic and emerging diseases in Indonesia, Malaysia, and Philippines, thereby contributing to achieving the MDGs in the three countries.	All countries • Decrease burden of communicable diseases [1-2 disease(s) to be selected as indicator after incidence baseline established in components A and B]		
Outcomes			
Timely and adequate identification of epidemics	• Proportion of targeted provinces that provided timely reporting and appropriate response to disease outbreaks		
Improved capacity for ESR	• Proportion of targeted provinces that have demonstrated standard capacity for ESR		
Outputs			
1. Completed/updated ESR systems analysis	• ESR systems analysis reviewed and approved	INDONESIA • 2004 Surveillance Assessment Report completed and approved by MOH-Indonesia • Legal Review of IHR-2005	• WHO supported the conduct of the 2004 Surveillance Assessment
		MALAYSIA • Assessment of Ports of Entry vis-à-vis IHR Compliance	• Malaysia has previously conducted an ESR Assessment prior to RETA6305
		PHILIPPINES • 2007 ESR Assessment Report finalized and approved by DOH-Philippines • Legal and Policy Review to Support the Implementation of IHR	
2. Roadmaps for improving ESR	• Roadmaps reviewed and approved	INDONESIA • ESR Five-Year Roadmap and Strategic plan for 2008-12 formulated	



Design Summary	Performance Targets/Indicators	Project Output	Remarks
		MALAYSIA <ul style="list-style-type: none"> Review and update of ESR strategic plan 	<ul style="list-style-type: none"> ESR strategic plan formulated prior to RETA6305
		PHILIPPINES <ul style="list-style-type: none"> Philippines ESR Strategic Plan for 2007-10 formulated 	
3. Strengthened regional coordination	<ul style="list-style-type: none"> Linked websites used 		
4. Improved capacity in ESR	<ul style="list-style-type: none"> Number of persons trained and guidelines prepared 	INDONESIA <ul style="list-style-type: none"> 193 individuals from 9 districts/cities and provincial health staff in processing and analysis of surveillance data using Excel software 	
		MALAYSIA <ul style="list-style-type: none"> 56 staff from 10 pilot hospital sites trained in the use of eLBIS system 	
		PHILIPPINES <ul style="list-style-type: none"> 117 individuals from all the regional and selected provincial health offices trained for PIDSR Preparation of 17 Centers for Health Development (CHD) Regional PIDSR Implementation plans 	
5. Gaps addressed in ESR system	<ul style="list-style-type: none"> Number of gaps addressed 	INDONESIA <ul style="list-style-type: none"> Pilot-testing of Feedback and Dissemination of Surveillance Data Revitalization of FETP Development of training manuals for: (i) Integrated Data Processing and Outbreak Monitoring for District/Cities and Public Health Centers; (ii) Supervision Mechanism for Public Health Centers by Staff of Districts/Cities, and (iii) Advocacy Mechanism for Staff of District/Cities 	
		MALAYSIA <ul style="list-style-type: none"> Design and Introduction of an Electronic-based Information and Surveillance System 	<ul style="list-style-type: none"> 10 pilot hospitals are included



Design Summary	Performance Targets/Indicators	Project Output	Remarks
		(eLBIS)	
		PHILIPPINES <ul style="list-style-type: none"> Design of the Philippine Integrated Disease Surveillance System (PIDSR) Development and Installation of the Data Entry Software fo PIDSR Development and Installation of Online Data Management System Design and Establishment of PIDSR Website Administrative Order for the PIDSR Implementing Guidelines 	
7. National Focal Point for IHR established	<ul style="list-style-type: none"> Organizational structure and guidelines approved 	INDONESIA <ul style="list-style-type: none"> IHR National Focal Point Secretariat set up at the Director General of Disease Control and Environmental Health (DGDC&EH) Translation of IHR-2005 into Bahasa 	<ul style="list-style-type: none"> The Director General of Disease Control and Environmental Health (DGDC&EH) has been designated as the IHR Focal Point prior to RETA6305
		MALAYSIA <ul style="list-style-type: none"> Preparation of the Implementing Guidelines for IHR-2005 	<ul style="list-style-type: none"> The Disease Control Division has been designated as the IHR Focal Point prior to RETA6305
		PHILIPPINES <ul style="list-style-type: none"> Designation of the National Epidemiology Center (NEC) as the IHR Focal Point 	<ul style="list-style-type: none"> The Bureau of Quarantine was initially acting as the IHR Focal Point

Appendix 3a:

**REPORT ON THE EPIDEMIOLOGICAL
SURVEILLANCE AND RESPONSE (ESR)
SUBREGIONAL PLANNING WORKSHOP**

**EPIDEMIOLOGICAL SURVEILLANCE AND RESPONSE (ESR)
SUBREGIONAL PLANNING WORKSHOP
Jakarta, Indonesia, 22-23 November 2006**

EXECUTIVE SUMMARY OF WORKSHOP REPORT

A. Introduction

1. To set the stage for the full implementation of the RETA, a two-day Subregional Planning Workshop was held at the Hotel Borobudur in Jakarta, Indonesia on 22-23 November 2006. The Workshop had 30 participants from the MOH leadership and ESR Units of the three participating countries; experts on ESR and International Health Regulations (IHR) from the World Health Organization (WHO) headquarters, Southeast Asia Regional Office (SEARO), and Indonesia Country Office; the U.S. Naval Medical Research Unit 2 (NAMRU-2), ADB, and the Consultant Team. The List of Participants is in Annex A.

2. The Workshop aimed to (i) review the current situation with respect to epidemiological surveillance and response (ESR) systems in the three participating countries as a step towards identifying gaps and areas for which RETA assistance could be provided to strengthen the countries' capabilities for disease surveillance and response in line with Component A; (ii) seek inputs from key representatives of the three participating countries, WHO, and other partners in the review and refinement, as appropriate, of the Project scope to ensure maximum benefits to the countries; (iii) provide a forum for the three countries to share experiences and information on their respective ESR systems as a basis for developing small proposals on subjects/topics of common interest or concern, and which could be implemented under Components B and C of the Project; and (iv) lay the foundation for future cooperation and collaboration among the three countries, with WHO and ADB support, in the area of ESR for communicable disease control.

3. The Workshop was expected to produce the following outputs: (i) up-to-date information on the status of ESR systems in place in the three participating countries; (ii) identification of gaps and areas for which RETA assistance could be provided to strengthen the countries' capabilities for communicable disease surveillance and response; (iii) definition of the Project scope and identification of possible national and subregional activities for implementation under the RETA; and (iv) country-specific action plans for ESR strengthening.

4. The Workshop consisted of an introductory session comprising of a Project overview by the Team Leader and a presentation of IHR-2005 and IHR-related needs for capacity-building in ESR by a WHO official from Geneva. The main sessions consisted of a plenary presentation of the results of ESR assessments followed by breakout group discussions and a presentation of the country action plans in plenary. The Workshop Program is in Annex B.

B. ESR Country Presentations

5. **Indonesia.** The Indonesia ESR assessment report presented by Mr. Priagung AB (DG DC&EH MOH) described the different laws and decrees that provide the legal bases for the ESR system in Indonesia. He then described how the ESR component is organized given the highly decentralized nature of the Indonesian health care system and highlighted the activities that had been undertaken to strengthen the ESR system and the various donors that have provided, or intend to provide, support to the development of the ESR system in the country. The highlight of the presentation was a list of recommendations or action points that need to be undertaken in order to make the ESR system more responsive and effective. The evaluation did not make assessments nor recommendations regarding the legal framework for ESR under decentralization, the performance of laboratories and their participation in support of ESR, the use of analytical epidemiological methods in outbreak investigations, the quality and capacity to use communications in epidemic outbreaks, or



the capacity of ESR systems in implementing IHR.

6. **Malaysia.** The country report of Malaysia consisted of two presentations. Dr. Rohani binti Jahis, Principal Assistant Director, Disease Control Division, MOH Malaysia, focused on the description of the Malaysian ESR system. She illustrated and compared the six types of communicable disease surveillance systems that currently exist in Malaysia, and presented the results of the evaluation of the Malaysian ESR system, which was performed jointly by MOH and WHO in 2004. The results of the evaluation demonstrated the high level of development of the Malaysian ESR system. The existence of policies, standards, guidelines and the infrastructure to undertake ESR activities were highlighted in the report. Dr. Jahis rounded up her presentation by presenting a plan of action to address the remaining gaps identified in the evaluation. The evaluation did not make assessments or recommendations regarding the use of analytical epidemiological methods in outbreak investigations and the quality and capacity to use communications in epidemic outbreaks.

7. Dr. Balvinder Singh Gill, Sr. Assistant Director, Disease Control Division, MOH Malaysia focused on the status of preparations for the implementation of IHR 2005. Dr. Gill gave a brief introduction to IHR 2005 and proceeded to describe the activities that have been carried out to comply with the IHR requirements. He listed the areas of possible technical cooperation that can be undertaken under the mantle of IHR 2005.

6. **Philippines.** Dr. Marlow Niñal, Medical Health Officer VII and Chief, Public Health Surveillance and Informatics Division, National Epidemiology Center Department of Health, focused on the key findings and recommendations of the recently conducted assessment of the Philippine ESR system based on a modified WHO ESR protocol. The assessment results showed the gaps and weaknesses of the surveillance and response system, particularly the need to develop policies, standards, and guidelines. The assessment also demonstrated the need to integrate and unify the existing parallel surveillance systems and to develop ESR capacities at the sub-national and local levels. Dr. Niñal also acknowledged that much work needs to be done to address these issues and to make the Philippines compliant with IHR-2005. The evaluation did not make assessments nor recommendations regarding the legal framework for ESR under regionalization, the performance of laboratories and their participation in support of ESR, the use of analytical epidemiological methods in outbreak investigations, the quality and capacity to use communications in epidemic outbreaks, or the capacity of ESR systems in implementing IHR.

C. ESR Country Action Plans

7. Dr. De Wit addressed the government representatives and asked what additional activities in Component A their governments intend to carry out in terms of assessment, planning, or support for IHR-2005. He further suggested reorganizing Components B and C and asked the participants' ideas regarding the possible integration of the ESR systems. Based on the country presentations, the concept of Component B (simulation testing) can be expanded into systems design, testing, and monitoring while engaging in regional cooperation to make the system work. Component C will involve capacity strengthening activities.

8. **Indonesia.** The Indonesia ESR action plan proposed activities under the three major components of the Project. Activities for Component A will include (i) a review of the results of the ESR assessment, (ii) finalization of the ESR assessment report, and (iii) follow-up of the recommendations into action plans. For Component B, Indonesia plans to support the implementation of table-top simulation for pandemic preparedness at the national level. For Component C, plans focused on the provision of financial and technical support for the establishment and operation of a national IHR focal point office and support to the MOH Sub-Directorate for Surveillance for promoting feedback, monitoring, and supervision of ESR performance. Other donor partners are providing financial and technical support for addressing the other weaknesses and gaps in the capacity for proper performance of ESR and IHR.

9. **Malaysia.** The Malaysia ESR action plan proposed activities focusing on (i) strengthening laboratory



surveillance and (ii) building the core ESR and Focal Point capacities to meet requirements for IHR compliance. The first set of activities will include the integration of the laboratory test results into their Early Warning and Response (EWAR) system and a systems design to network and integrate the different laboratory surveillance systems. The second set of priority activities will involve an assessment of the core capacity requirement for ports and ground crossings using WHO protocols and development of a manual on how to use the decision tree of the IHR 2005.

10. **Philippines.** The Philippines ESR action plan focused on the following activities: (i) integration and harmonization of the parallel surveillance and response systems that currently exist in the country; (ii) formulation of policies and administrative issuances that articulate the government's support to ESR and IHR; (iii) development of standards and operating guidelines for the ESR system; (iv) capacity building for ESR at the sub-national levels; and (v) strengthening of ESR support systems such as training, supervision, feedback, and logistical support. The standards and guidelines to be developed will form the core content of the Manual of Procedures that will be the basic reference and guide for the Philippine ESR system.

D. Next Steps

11. **Planning for the Next Conference.** A two-day technical conference to follow up on the three countries' preparations for IHR compliance was tentatively set for March 2007 with Malaysia as the venue. It was agreed that the conference should deal with only two principal topics: (i) progress with respect to the implementation of ESR and IHR, with laboratory surveillance as a possible focus; and (ii) plans for multi-country collaboration in ESR.

12. **Development of Small Proposals.** Dr. Bernstein encouraged the countries to draw on the technical expertise available within the RETA Team for guidance in the development of small proposals for implementation under the Project, especially given the relatively limited time available until its conclusion in December 2007.

13. **TA's Next Steps.** It is expected that the ESR country action plans will be further refined and presented to the senior officials of the respective health ministries for validation and approval. These plans will serve as a guide for the DTLs to help the governments in planning and implementing their plans and will also be useful in presenting the progress report of each country at the technical conference to be held in Malaysia in 2007. Dr. de Wit reiterated the need for confirming the revision in the scope of each country's plan, and obtained the participants' agreement to prepare the revised plans within two weeks.

E. Workshop Closing

14. Dr. De Wit concluded the Workshop by expressing his satisfaction at way the presentations and discussions went, and thanked the participants for their attendance and active participation. He also acknowledged the efforts of Ms. Ablaza and the RETA Team in the organization and the conduct of the workshop. Ms. Ablaza echoed Dr. de Wit's thanks and appreciation to everyone for their participation and hoped to see them at the next workshop in Kuala Lumpur.



Annex A

**Strengthening Epidemiological Surveillance and Response for Communicable Diseases in Indonesia, Malaysia, and the Philippines
(TA 6305-REG): Subregional Planning Workshop**
Borobudur Hotel, Jakarta, 22-23 November 2006

Workshop Participants

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Annex B**PROGRAM**

Strengthening Epidemiological Surveillance and Response for Communicable Diseases in Indonesia, Malaysia, and the Philippines
(TA 6305-REG): Subregional Planning Workshop
Borobudur Hotel, Jakarta, 22-23 November 2006

Workshop Participants**INDONESIA**

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Annex C**PHOTODOCUMENTATION**

ESR Subregional Planning Workshop participants composed of representatives from the participating Health ministries, World Health Organization (WHO), US. Naval Medical Research Unit 2 (NAMRU-2), Asian Development Bank, and the RETA Consultant Team.

Appendix 3b:
MINUTES OF THE
FIRST TRIPARTITE MEETING

MINUTES OF THE FIRST TRIPARTITE MEETING
Hotel Borobodur, Jakarta, Indonesia, 23 November 2006

A. Introduction

1. The first tripartite meeting among the Asian Development Bank (ADB), the TA Executing Agency, representatives of the health ministries of the three participating countries, and the Consultant was held at Hotel Borobodur, Jakarta, Indonesia on 23 November 2006 from 3:30 – 5:00 PM. The meeting was chaired by Dr. Vincent de Wit, ADB Principal Health Specialist, and attended by representatives of the Ministry of Health (MOH) Indonesia, MOH Malaysia, Department of Health (DOH) Philippines, and the Consultant [Pacific Rim Innovation and Management Exponents, Inc. (PRIMEX) in association with SingHealth, PT Trans Intra Asia (Indonesia), and Health Solutions (Malaysia)] (see Annex A for list of meeting participants).

2. In his opening remarks, Dr. de Wit welcomed the meeting participants and explained that the meeting was called mainly to review the progress of work under the RETA and discuss the next steps to be taken by the participating countries, with support from the Consultant, as agreed at the recently concluded Subregional Planning Workshop. Dr. de Wit also expressed pleasure at the positive outcome of the Workshop and thanked the Consultant Team for all the arrangements and preparations that led to its success.

B. Presentation of Progress of Work to Date

3. On the request of ADB, Dr. Florante Magboo, Co-Team Leader (CTL), presented the highlights of the Consultant's activities, as contained in the First Quarterly Progress Report (QPR) submitted to ADB on 17 November 2006.

1. Revision of TA Paper

4. After a careful review and study of the TA paper and a series of meetings between ADB and the Consultant Team, the TA paper was revised to include a more comprehensive background section and provide greater clarity and additional detail on the scope of work, key activities, and expected deliverables of the Project. The revisions focused on the following:

- (i) A more comprehensive background section highlighting the importance of epidemiological surveillance and response systems in view of recent developments, such as the new International Health Regulations (IHR) requirements and the increasing threat of emerging infections like Avian Influenza (AI);
- (ii) A much improved configuration and logical sequencing of Project components: Component A deals mainly with assessment of ESR systems and the use of the results of the assessment in formulation of plans and programs as well as the need for political support for ESR planning and implementation. Component B deals mainly with ESR simulation exercises and tests that would provide information on the functionality and integrity of existing ESR systems. The updated version of Component B also emphasized the importance of regional collaboration and networking and listed some examples of how much such collaboration and networking can be achieved. Component C deals mainly with innovative measures to enhance the performance of ESR systems.



The updated version of this component provides more guidance on the process of identification and selection of the intervention measures as well as a few examples of potential activities that might be funded through this component.

- (iii) Finally, the revised TA paper emphasized the role of the World Health Organization (WHO), which is the mandated organization for ESR, and other technical agencies in providing technical guidance and support to the Project.

2. Country-specific Activities related to ESR Assessment

5. **Indonesia.** Major updates from Indonesia include (i) the acceptance by the Government of Indonesia (GOI) of the ADB letter of notification regarding the Project; (ii) meetings of the Deputy Team Leader (DTL) and Team Leader (TL) with the Director General for Disease Control and Environmental Health to discuss ESR-related matters; and (iii) presentation of the Project by the DTL to the Director General, Secretary of the Directorate General, Director of Epidemiological Surveillance, and their technical staff. A series of meetings were also held with MOH technical staff to prepare a paper describing the status of the country's ESR system, as contained in the 2004 Joint WHO-MOH Evaluation of the National ESR System in preparation for the full implementation of IHR-2005 in June 2007.

6. **Malaysia.** In view of the absence of a formal Agreement between the Government of Malaysia (GOM) and ADB with respect to GOM participation in the implementation of this Project, it has not been possible for the Consultant to initiate any Project-related activities since TA inception. The Memorandum of Agreement (MOA) between ADB and GOM was officially signed on 14 November 2006. On the administrative side, Dr. Lim Teong Wah was engaged on 31 October 2006 as the replacement of Dr. Munn-Sann Lye as Deputy Team Leader for Malaysia.

7. **Philippines.** The major activities revolved around the conduct of an ESR Systems Assessment following the official concurrence of the Department of Health (DOH) to ADB's official letter of notification regarding the Project on 23 September 2006. A team composed of staff from DOH's National Epidemiology Center (NEC) and Regional Epidemiology and Surveillance Units (RESUs) worked together with the Philippine Consultant Team (Co-Team Leader [CTL], DTL for the Philippines, and the Project Administration Coordinator [PAC] in conducting a formal assessment of the Philippine ESR systems. The findings of the assessment are to be presented to DOH central and regional officials for discussion and possible refinement as the basis for the formulation of the country's ESR road map.

3. Subregional Planning Workshop

8. Much time and effort went into setting up the various arrangements and preparations for the recently concluded Planning Workshop in close coordination with ADB, the World Health Organization (WHO), and the health ministries in the three countries. The Workshop was organized to provide the venue for the three participating countries to present the current status of their ESR systems and identify priority activities and interventions that the Project can support in the remaining period of its implementation.

4. Online File Management System

9. The Consultant's IT Specialist developed an online file management system for storing various Project documents, reports, reference materials, and other internal communications among Team members. The web-enabled system, which can currently be accessed at <http://www.primexinc.org/projects-RETA6305.htm>, enables the consultants and support staff to share or post different documents related to the Project in the system. Authorized users are given round-the-clock access to the system. They can then upload/download files, create new folders, rename files and folders, and search for files as needed. To ensure the security of the filed documents, the system is password-protected.

C. Finalization of TA Scope and Implementation Arrangements

10. Dr. de Wit explained that, with the decision of ADB and the Consultant Team to make IHR 2005 the framework for RETA activities, it was necessary to shift the focus of the TA activities to ESR system assessment and plan formulation as well as preparation for IHR compliance, with capacity building and provision of technical advice and support to the three countries in ESR as the underpinning objectives of the TA. In other words, the focus should be laid on the ability of ESR systems to support the countries' compliance with IHR. That being the case, a first revision of the TA paper was made by ADB and the Consultant Team prior to the Workshop. The revision involved the following main changes: (i) deletion of the preparation of the country epidemiological profiles and (ii) deletion of the establishment of a new regional ESR website.

11. However, based on the country presentations and discussions at the recently concluded Planning Workshop, it has become apparent that a second revision of the TA scope is necessary, mainly pertaining to the TA components and inclusive activities. It was then agreed that the TA will consist of the following components:

Component A: ESR Assessment and Planning (including policy advocacy)

Component B: System Development (with focus on establishment and support for each country's IHR Focal Point, design and development various systems [IT, surveillance database, linking of existing websites, and regional collaboration])

Component C: Capacity Building (including secondment and exchange programs, training programs, special studies and surveys)

12. The establishment of a separate website is not necessary as there are other existing websites which the three countries could access and utilize for their ESR needs, particularly the ASEAN surveillance database network which is hosted by MOH Indonesia. Instead, Dr. de Wit suggested the possibility of linking existing websites and providing real-time data for specific indicators.

13. **Implementation Arrangements.** In reply to a query by DOH Philippines on the role of the health agencies in the three countries in the TA, Dr. de Wit clarified that it is to provide technical leadership and guidance in the implementation of the country-specific proposals as well as for any regional initiative that the three countries may agree to undertake under the TA. The TA Consultant Team will facilitate implementation through the provision of (i) ongoing technical advice and support to the government agencies in ESR assessment and road map formulation, system design and

development, capacity building for IHR compliance; and (ii) general project administrative support including procurement of equipment, recruitment of specialists, preparation of proposals for specific activities, and channeling of funds for the implementation of special studies, national workshops, and the like.

14. Dr. de Wit mentioned that the three governments should consider the Consultant Team as a key resource in the implementation of their specific proposals under Components B and C, and that apart from the Core Consultant Team (composed of the TL, CTL, 3 DTLs, and IT Specialist), there is a provision for short-term specialists who could be engaged by PRIMEX for specific, highly technical tasks (e.g., Legal Specialist). However, as the current consultancy contract does not include the funds for such purpose, it may be necessary to request for a contract modification to simplify the process of consultant engagement.

15. **Financial Aspects.** In response to the participating governments' query as to the availability and flow of funds for the implementation of their proposed activities under the TA, Dr. de Wit explained that, as designed, the TA funds have been obligated under the Consultancy Contract with PRIMEX. That means that funding for specific activities, special studies, equipment procurement, etc. by the participating governments will be channeled through PRIMEX after ADB approval of the specific proposals or requests. Dr. de Wit will meet with concerned offices within ADB to explore the possibility of introducing amendments to the disbursement of TA funds. However, any changes in funds flow will have to take into consideration each government's preference given the difficulties in bureaucratic mechanisms and auditing procedures for funds received by governments from donor agencies.

16. As an alternative, the possibility of performance-based/lump sum subcontracts for small proposals will be explored to simplify financial disbursement, monitoring, and management by PRIMEX, which is responsible and could be held liable by ADB for unliquidated or inadequately supported cash advances. The TA budget and cost estimates will also have to be revisited based on the countries' action plans, and the possibility of reallocating some line items to increase the Component C budget (of \$500,000) by another \$100,000 will be studied to enable the equitable distribution of the fund (\$600,000) among the three countries for Component C activities.

D. Next Steps

17. With the three participating countries having presented their proposed action plans for TA implementation at the recently concluded Planning Workshop, the coming months are expected to be extremely busy for the concerned health ministries and the Consultant Team. Based on the country presentations at the recent Subregional Planning Workshop, the following priority activities have been identified for action by the concerned parties:

No.	Immediate Next Steps	Responsible Parties	Deadline
1.	Revision of TA implementation schedule and circulation among health ministries	CTL, PAC, PD	29 Nov 2006: for discussion with ADB
2.	Finalization of TA paper	TL, CTL, PAC	4 Dec 2006
3.	Preparation of Proceedings of Subregional Planning Workshop	CTL, PAC, PD	17 Dec 2006
4.	Preparation of ESR Action Plans by participating countries (based on ESR assessments and Workshop agreements)	MOH Indonesia, MOH Malaysia, DOH Philippines (with support from DTLs)	15 Dec 2006
5.	Preparation of specific country proposals for implementation under Components B and C	MOH Indonesia, MOH Malaysia, DOH Philippines (with support from TL, CTL, DTLs, PAC)	Jan 2007 onwards
6.	Organization and conduct of a Subregional Workshop	MOH Malaysia and PRIMEX	Jan – March 2007

Note: PD – Project Director; TL – Team Leader; CTL – Co-Team Leader; DTLs – Deputy Team Leaders; PAC – Project Admin. Coord.

18. **Revised Implementation Plan.** As a result of the change in TA scope, it will be necessary for the Consultant to revise the TA implementation schedule, which was presented in the Inception Report. The revised schedule will be discussed with ADB and circulated among the three countries, through the Deputy Team Leaders, for information and reference.

19. **Finalization of TA Paper.** The revised TA paper will be amended further to incorporate suggestions and agreements at the Workshop. The Team Leader, Dr. Robert Bernstein, will prepare the first cut of the revised paper for comments by ADB and subsequent finalization and dissemination to the three countries for concurrence. The TA paper should include (i) reference to, and a brief description of, the Asia-Pacific Strategic Plan prepared by WHO; (ii) revised description of the three components to reflect the following agreed scope: (a) Component A - ESR Assessment and Plan Formulation, (b) Component B - National and Regional System Development (with focus on establishment and support for each country's IHR Focal Point and system design, including IT aspects), and (c) Component C – Capacity Building and Special Studies; and (iii) revised implementation arrangements, budget, and funds flow. The draft of the second revision of the TA paper will be sent to the concerned WHO regional offices (WPRO and SEARO) for review and comments prior to finalization.

20. **Preparation of Workshop Proceedings.** The Proceedings of the Subregional Planning Workshop will be drafted by PRIMEX and circulated among the three countries by 6 December 2006. Any suggested changes to the draft should be sent to the PRIMEX PMO within one week or by 13 December 2006 to enable the printing of the final document and dissemination to the participants by 18 December 2006.

21. **Finalization of Country Action Plans.** The health ministries, with Consultant support, will refine the action plans presented by the three countries at the Planning Workshop and get approval from their respective senior management prior to submission to ADB. The action plans will be used as the basic document for all future proposals to be submitted by the countries to ADB for funding under

the RETA. Relatedly, the countries requested for copies of the WHO Checklist for IHR Preparedness, which they could use as their basis for determining their specific needs for further ESR assessment and technical assistance (e.g., legal aspects, quarantine, cross-border aspects).

22. **Preparation of Specific Proposals for Implementation under the TA.** Proposals for specific activities, which the countries would like to implement within the TA framework under any of the three components, will be prepared by the concerned ministries with Consultant assistance and support, and submitted to ADB for approval. The proposals have to clearly describe the linkage of the proposed activities to the overall government ESR road map and its goals and activities in order to reflect the “programmatic approach” of the TA. The proposal need not be long (five pages maximum) but should contain the following main sections: (i) Project title; (ii) background and rationale (including one paragraph describing how the proposed project fits into the government’s overall ESR program); (iii) objectives and expected outputs; (iv) proposed activities; (v) implementation and personnel schedules; and (v) detailed cost estimates. The proposal outline will be disseminated by the Consultant to the ministries, through the DTLs, for their guidance. The DTLs will work closely with their government counterparts to facilitate proposal development and submission to ADB for approval.

23. Dr. de Wit clarified that, while each proposal has to be submitted individually to ADB for approval, all proposals must be seen as contributing to the accomplishment of the government’s ESR road map and IHR preparedness. He emphasized the need for each government to take the lead in generating proposals and suggested that, in the preparation of the specific proposals, the ministries should consider the TA Consultant Team as a resource that could be tapped for technical assistance and advice.

24. **Subregional Workshop.** The meeting agreed to a tentative schedule of March 2007 for the next subregional workshop in Kuala Lumpur, Malaysia. MOH Malaysia welcomed the opportunity to host the said workshop. As agreed at the just-concluded Planning Workshop, the Malaysia Workshop will focus on Laboratory Surveillance and the status of preparations for IHR compliance and ESR strengthening. Dr. de Wit underscored the need to identify the workshop participants early to ensure a stronger government and WHO participation than that at the recently concluded Planning Workshop. The DTL for Malaysia will work closely with MOH Malaysia and the Malaysia Country Office of WHO in the preparations for the March 2007 Workshop.

E. Closing

25. Dr. de Wit summarized the key activities for immediate action by the three countries, the Consultant Team, and ADB, namely:

- Final revision of the TA paper (by ADB and the Consultant);
- Revision of the TA implementation schedule (by the Consultant);
- Processing of the change of TA scope within ADB, including adjustment of the TA budget and any modifications in funds flow for government expenditures (ADB and Consultant);
- Preparation of the design of the Subregional Technical Workshop to be held in Malaysia, including list of participants, and early notification of concerned WHO offices and government ministries (Consultant and ADB);



- Finalization of the ESR road maps by the three countries, which will provide the framework for all small projects and other activities for implementation under the TA (by the countries with Consultant assistance); and
- Preparation of specific proposals under Components B and C of the TA (by the countries with Consultant assistance).

26. There being no other matters to discuss, the meeting adjourned at 5:00 PM.

PREPARED BY:



ELVIRA C. ABLAZA
President and CEO, PRIMEX and
Consultant Project Director

NOTED:

ORIGINAL SIGNED

VINCENT DE WIT, M.D.
Principal Health Specialist, SESS
Asian Development Bank



Annex A**LIST OF MEETING PARTICIPANTS**

No.	Name	Position
A.	ADB	
1.	Dr. Vincent de Wit	Principal Health Specialist, SESS
B.	Ministry of Health, Indonesia	
2.	Mr. Hari Santoso, SKM	Staff, Subdirector of Epidemiological Surveillance, Directorate General of Communicable Diseases and Environmental Health (DG CD & EH)
3.	Mr. Agung AB, SKM, MMedSc	Staff, Subdirector of Quarantine Health, DG CD & EH
C.	Ministry of Health, Malaysia	
4.	Dr. Rohani Binti Jahis	Principal Assistant Director
5.	Dr. Balvinder Singh Gill	Sr. Assistant Director
D.	Department of Health, Philippines	
6.	Dr. Marlow Niñal	Chief, Public Health Surveillance and Informatics Division
E.	Consultant Team	
7.	Ms. Elvira C. Ablaza	President and CEO, PRIMEX and Consultant Project Director
8.	Dr. Robert Bernstein	Team Leader/Epidemiological Surveillance Specialist
9.	Dr. Florante Magboo	Co-Team Leader/ Epidemiological Surveillance Specialist
10.	Dr. Hudoyo Hupudio	Deputy Team Leader, Indonesia
11.	Dr. Teong Wah Lim	Deputy Team Leader, Malaysia
12.	Dr. Aguedo Troy Gepte IV	Deputy Team Leader, Philippines
13.	Dr. Jose Rodriguez	Project Administration Coordinator



Appendix 4a:
**HIGHLIGHTS OF THE SUBREGIONAL
TECHNICAL CONSULTATION ON ESR**

SUBREGIONAL TECHNICAL CONSULTATION ON ESR DESIGNS

Boulevard Hotel, Kuala Lumpur, Malaysia
5-7 September 2007

HIGHLIGHTS OF THE TECHNICAL CONSULTATION

A. Introduction

1. A Subregional Technical Consultation on ESR Designs was held at the Boulevard Hotel in Kuala Lumpur, Malaysia on 5-6 September 2007 under the auspices of ADB RETA 6305. The activity had about 40 participants from the health ministries and WHO country representatives of Indonesia, Malaysia, and the Philippines, as well as ADB and the Consultant Team. The full list of participants is in Annex A.

2. The objectives of the Technical Consultation were to: (i) review progress of implementation of the ESR workplans of Indonesia, Malaysia and the Philippines; (ii) discuss ESR design issues and options; and, (iii) recommend measures to improve ESR designs. The first day of the workshop was dedicated to presenting the status of ESR Assessment and Planning and ESR Systems Design and Development for the three countries. The second day was focused on ESR System Enhancement and IHR Implementation. A field visit to the National Public Health Laboratory was held on the third day. The program of the Technical Consultation is in Annex B, and photodocumentation of the event is in Annex C.

3. The Technical Consultation Meeting opened with welcome remarks from Ms. Elvira Ablaza of PRIMEX and opening statements from Dr. Vincent de Wit, ADB Principal Health Specialist, and Dr. Han Tieru, WHO Representative to Malaysia, Brunei Darussalam and Singapore. Dato Dr. Hj. Ramlee bin Hj. Rahmat, Deputy Director General of Health, Malaysia, delivered the keynote speech on behalf of Director General of Health Tan Sri Datuk Dr. Haji Mohd Ismail Merican.

4. After the opening program, Dr. Robert Bernstein, Consultant Team Leader, presented the highlights of the WHO-SEARO Workshop held in Malé, Maldives on 23-25 April 2007. His presentation focused on the relationship of ESR capacity-building and IHR implementation with particular emphasis on Global Public Health Security based on the WHO 2007 World Health Report.

B. ESR Country Presentations

1. Day 1: ESR Assessment and Planning and ESR Systems Design and Development

5. **Indonesia.** Dr Hari Santoso, Head of the Outbreak Control Section of the Ministry of Health (MOH) Indonesia, presented the status of preparation of the final report of the 2004 Joint MOH-WHO assessment of the ESR system. Significant findings of the assessment were: (i) the lack of coordination between programs; (ii) structural constraints; (iii) weakness of training; and (iv) lack of recognition of the role of the public laboratories and its underutilized structure. Activities that have been done in response to these findings include (i) developing an integrated surveillance between the animal and human sectors; (ii) conducting community-based surveillance; and (iii) developing an integrated investigation team for outbreak investigation. For its immediate next steps, the Ministry will finalize the Surveillance Evaluation Report done in 2004 and develop an ESR Plan of Action.

6. **Malaysia.** Dr. Rohani binti Jahis, Principal Assistant Director for Surveillance of the Disease Control Division of MOH Malaysia, presented the progress in the establishment of the Laboratory-based

Surveillance for Communicable Diseases. Requirements analysis of the proposed laboratory-based surveillance has already been conducted, and the use of the WHO-Net software program as a core program for the surveillance system is being considered. A web application will eventually be developed for online data banking (integration, reporting, and analysis) that will consider the following: (i) having a national database for laboratories; (ii) creating a computerized and centralized data collection system; (iii) forming an enhanced early warning system for disease outbreak; (iv) strengthening the capacity of hospitals to analyze and manage infectious diseases; (v) facilitating information sharing with international bodies; and (vi) assisting the ASEAN+3 EID Program in lab-based surveillance.

7. **Philippines.** Dr. Enrique Tayag, Director of the National Epidemiology Center (NEC) of the Philippine Department of Health (DOH), described their progress in the development of the Philippine Integrated Disease Surveillance and Response System (PIDSRS). Other important milestones include the (i) designation of NEC as the National Focal Point for IHR, (ii) formulation of the strategic plan for PIDSRS, (iii) formulation of the PIDSRS policy and guidelines, (iv) development of the PIDSRS manual of procedures, and (v) pilot-testing of the PIDSRS system in selected sites. Dr. Tayag mentioned that more time is needed for proper implementation of the PIDSRS and noted that there is a need for additional resources prior to its nationwide implementation.

8. **Highlights of Day One.** Dr. Jose R. Rodriguez, Project Administration Coordinator and Session Moderator, summarized the highlights of the country presentations and reiterated the updates on ESR assessment and planning in each country.

2. Day 2: ESR System Enhancement and IHR Implementation

9. **Indonesia.** Ms. Ria Sukarno, Head of the Collaboration Program of the National Health Research Development of Indonesia, presented a pilot project on improving feedback and supervision as an entry point for ESR strengthening. The project is being implemented in selected provinces and districts and is proposed to be a model for surveillance strengthening that could be applied to other provinces and districts.

10. Dr. Hari Santoso presented the setting up of the National Focal Point for IHR in Indonesia and the work that has been done on the translation of IHR-2005 into the local language. He also discussed the plan for a review of legal issues in the implementation of IHR in Indonesia. An assessment of IHR is planned for November 2007.

11. Difficulties that were cited as obstacles to the projects presented by Indonesia are: (i) difficulties in data analysis due to aggregate data being recorded in spreadsheet (Excel) format; (ii) limitations in the knowledge of epidemiological principles especially at the district level; (iii) the delayed response of ADB to MOH's requests for approval of proposed activities; (iv) difficulties in gathering key officials; and (v) difficulties in communication and coordination.

12. **Malaysia.** Dr Norhizan Ismail, Senior Principal Assistant Director of MOH, presented the status of the implementation of IHR 2005 in Malaysia. The three top priorities mentioned were: (i) the establishment of a functioning National IHR Focal Point; (ii) ensuring adherence to reporting requirements and verification of public health events; (iii) assessment and strengthening of national capacities for (a) surveillance and response and (b) routine and emergency public health capacities at designated points of entry (POEs). Accomplishments include: (i) the establishment of the National Focal Point; (ii) briefings on reporting and verification of public health events of international concern (PHEIC) to national and state surveillance and

response teams; (iii) implementation of regulations on import and export of pathogenic organisms/substances, tissues, and dead bodies; (iv) a review of the Communicable Disease Control Act of 1988; and (v) development of other plans and guidelines (e.g., for pandemic influenza).

13. More recently, in August 2007, routine and emergency public health capacities at points of entry have been assessed at three entry points: (i) the Kuala Lumpur International Airport (KLIA); (ii) Klang Seaport; and (iii) Johore Causeway (ground crossing with Singapore). A significant highlight of Malaysia's presentation is that a National IHR Coordinating Committee was established to (i) plan and review the implementation of IHR-related activities, manpower deployment, relevant infrastructure, equipment, and logistics; and (ii) develop guidelines and standard operating procedures (SOPs) and review existing legislation in relation to the implementation of IHR-2005. Next steps include the (i) conduct of an assessment of the national surveillance and response capacity according to the Asia Pacific Strategy for Emerging Diseases (APSED); (ii) development of an action plan to strengthen surveillance and response capacity; (iii) conduct of simulation exercises to identify operational gaps; (iv) strengthening of the operational link between national surveillance and designated POE; and (v) strengthening of laboratory surveillance.

14. **Philippines.** Dr. Marlow Niñal, Chief of the Public Health Surveillance and Informatics Division of DOH-NEC, presented a review of legal and policy issues related to IHR and PIDSR implementation in the Philippines. He cited a number of legal and policy gaps such as the following: (i) identification of the legal authority responsible for the declaration of an outbreak; (ii) clarifying the national process of defining what events can be considered as PHEICs; (iii) implications of implementing PIDSR alongside other existing surveillance systems in the Philippines; and (iv) need for national legislation to establish guidelines for collaboration of the Philippines will collaborate with other countries in cases of cross-border outbreaks.

15. **Highlights of Day Two.** Dr. Florante Magboo, Project Co-Team Leader and Session Moderator, summarized the highlights of the country's presentations on ESR system enhancements. He stressed the following points raised during the open forum in his recapitulation: (i) since the IHR legal review and identification of policy gaps is ongoing the Philippines, the policy action of the country should be focused on decentralization-related issues; (ii) for Indonesia, it was recommended that feedback and dissemination intervention should be carried out to strengthen ESR; and (iii) since legal and policy instruments related to IHR have been enacted in Malaysia, the focus of the activities in the country is the strengthening of its lab-based surveillance.

C. Reactions to the Presentations

16. During the panel discussions and open forums that followed the different presentations, the following conclusions were drawn: (i) the national focal points for IHR are in place in the three countries; (ii) IHR legal review and identification of policy gaps are still ongoing in Indonesia and the Philippines (in Malaysia, they legal issuances are already being enacted); (iii) appropriate policy and legal instruments are still being developed; and (iv) it is necessary to take policy action to deal with decentralization-related issues in Indonesia and the Philippines.

17. Country-specific suggestions for Indonesia include the following:

- It is necessary for MOH to complete its ESR assessment for it to be used as a tool in the formulation of the country ESR workplan that will, in turn, enable MOH to mobilize resources and more effectively manage donor participation.

- The IHR National Focal Point must complete the legal and policy review of IHR, which will lead to the development of the appropriate legal and policy instruments to more effectively carry out IHR.
- It is necessary to develop instruments for the assessment of points of entry.
- Pilot-testing of the feedback and dissemination intervention is needed to strengthen ESR and use the results for expanding its implementation in the rest of the country.

18. For Malaysia, there is a need for clarification regarding the scope of laboratory surveillance and the role that it plays in the overall surveillance and response system. Malaysia was also requested to share the materials and tools used in the assessment of POEs.

19. For the Philippines, the participants appreciated the candor of the DOH representatives in sharing the problems and obstacles faced in its surveillance and response tasks and the complexities of coping with the decentralization of health services. Concerns were raised regarding the feasibility of having just one legal instrument that would address all the gaps and issues listed by Dr. Niñal.

D. Next Steps

20. Based on the discussions and recommendations of the Workshop, MOH/DOH officials are expected to modify and refine their respective ESR workplans.

E. Workshop Closing

21. The Workshop ended with statements of thanks and appreciation by Dr. de Wit of ADB and Ms. Ablaza of PRIMEX.

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Annex B

WORKSHOP PROGRAM

Subregional Technical Consultation

5-7 September 2007, Westside I and II, Boulevard Hotel, Kuala Lumpur, Malaysia

	WEDNESDAY 5 SEPTEMBER 2007	THURSDAY 6 SEPTEMBER 2007	FRIDAY 7 SEPTEMBER 2007
0600	Breakfast (for in-house participants)	Breakfast (for in-house participants)	0600 Breakfast (for in-house pax)
0700			0730 Assembly and Departure to the National Public Health Laboratory
0800			
0830	Registration of Participants	Registration of Participants	
Emcee/ Moderator	<i>Dr. Jose R. Rodriguez, Project Administration Coordinator, RETA 6305</i>	<i>Dr. Florante Magboo, Co-Team Leader, RETA 6305</i>	
0900	OPENING CEREMONIES Welcome Remarks - Ms. Elvira C. Ablaza, Project Director, PRIMEX - Dr. Vincent de Wit, Principal Health Specialist, Social Sectors Division, Southeast Asia Regional Department, ADB - Dr. Han Tieru, WHO Representative for Malaysia, Brunei Darussalam, and Singapore Keynote Address - Tan Sri Datuk Dr. Haji Mohd Ismail Merican, Director-General of Health, Ministry of Health, Malaysia (Represented by Dato' Dr. Hj. Ramlee Bin Hj. Rahmat Deputy Director-General of Health) Overview Introduction of Participants Group Photo	SESSION 2: ESR System Enhancement and IHR Implementation	0900 Arrival at the National Public Health Laboratory
		Improving Feedback and Supervision as an Entry Point for ESR Strengthening <i>Ms. Ria Sukarno, MOH Indonesia</i>	The Role of Laboratories in Support of Surveillance and Response in Public Health Works
		Setting up of the National Focal Point for and Legal Review of IHR in Indonesia <i>Dr. Yusharmen, MOH Indonesia</i>	
0930		Status of IHR Implementation in Malaysia <i>Dr. Nor Hizan Ismail, MOH Malaysia</i>	Open Forum (Sharing of Observations) - Indonesia, Malaysia, Philippines
1000	COFFEE BREAK	COFFEE BREAK	COFFEE BREAK <i>(Sponsored by MOH, Malaysia)</i>
1030	Relationship of ESR Capacity Building and IHR Implementation: Summary of the WHO/SEARO Workshop, Maldives <i>Dr. Robert Bernstein, Team Leader, RETA 6305</i>	Review of Legal and Policy Issues related to IHR and PIDSR Implementation in the Philippines: A Few Insights and Observations <i>Dr. Marlow O. Ninal, DOH Philippines</i>	Tour of the National Public Health Laboratory
	Open Forum	Panel Discussion and Open Forum Reactors: Dr. R. Jahis, MOH MAL Dr. Santoso, MOH INO Dr. G. Samonte, DOH PHI Dr. G. Tallis, WHO INO CO Dr. R. Bernstein, RETA 6305	Plenary Session Synthesis and Summary of Key Points <i>Dr. Lim Teong Wah, Deputy Team Leader, Malaysia</i>
1200	LUNCH BREAK	LUNCH BREAK	LUNCH BREAK <i>(Sponsored by MOH, Malaysia)</i>
SESSION 1: ESR Assessment and Planning and ESR Systems Design and Development		Panel Discussion and Open Forum (Continuation)	Travel back to Boulevard Hotel
1300	Status of the Preparation of the Final Report of the 2004 Joint MOH-WHO Assessment of the Indonesian ESR System with Emphasis on Design Issues <i>Dr. Hari Santoso, MOH Indonesia</i>		
1330	Strengthening the National Laboratory-Based Surveillance System in Malaysia <i>Dr. Rohani binti Jahis, MOH Malaysia</i>		
1400	Development of ESR Policies, Plans, and Guidelines: Status and Lessons Learned <i>Dr. Eric A. Tayag, DOH Philippines</i>	CLOSING SESSION Synthesis - <i>Dr. Florante Magboo, Co-Team Leader, RETA 6305</i> Closing Remarks - <i>Dr. Vincent de Wit, ADB</i> - <i>Representative from MOH Malaysia</i> Closing Coffee	FREE TIME (Discover Kuala Lumpur)
1430	Panel Discussion and Open Forum Reactors: Dr. Yusharmen, MOH Indonesia Dr. Zainudin bin Abd Wahab, MOH, Malaysia Dr. M. O. Ninal, DOH Philippines Dr. N. Dominguez, WHO PHCO Dr. R. Bernstein, RETA 6305		
1500			
1530			
1600	Summary and Recapitulation - <i>Dr. Jose R. Rodriguez, Project Administration Coordinator, RETA 6305</i>	TRIPARTITE MEETING <i>(For MOH, ADB, and RETA 6305 Team)</i>	
1630	ADJOURNMENT and TEAM MEETING <i>(For RETA 6305 Team Members Only)</i>		
1700		TEAM MEETING <i>(RETA 6305 Team Members)</i>	
1830	WELCOME DINNER (For all participants)		

PHOTODOCUMENTATION



Dato Dr. Hj. Ramlee bin Hj. Rahmat, Deputy Director General of Health (Malaysia), delivered the keynote speech on behalf of Director General of Health Tan Sri Datuk Dr. Haji Mohd Ismail Merican.



Dr. Vincent De Wit, Principal Health Specialist, Asian Development Bank, shared some thoughts on the Project, as Ms. Elvira Ablaza, PRIMEX President and CEO, Dr. Rahmat, Dr. Han Tieru, WHO Representative for Malaysia, Brunei Darussalam, and Singapore, and Dr. Robert Bernstein, Project Team Leader, look on.



The representatives from the Philippines were led by Dr. Enrique Tayag (second from left), Director of the National Epidemiology Center of the Department of Health.



The Malaysian contingent was led by Dr. Rohani binti Jahis (extreme left) of MOH Malaysia.



The Workshop had 40 participants from the health ministries of Malaysia, Indonesia, and the Philippines, the World Health Organization (WHO), ADB, and the RETA Consultant Team.



The MOH Indonesia participants were headed by Dr. Yusharmen (extreme right).



Dr. Maria Nerissa N. Dominguez and Dr. Graham Tallis of WHO listen to the presentations.



Dr. Robert Bernstein, Team Leader, presented the Summary of the WHO/SEARO Workshop in the Maldives.



Dr. Jose R. Rodriguez (extreme left), Project Administration Coordinator, shared a light moment with Dr. Yusharmen and Dr. Hari Santoso of MOH Indonesia.

The lead country representatives sat down with the Project Consultant Team and ADB to discuss the next steps of the Project.



Two personnel of the National Public Health Laboratory briefed the participants on their activities during the Field Visit on the third day of the Consultation.

Appendix 4b:
MINUTES OF THE
SECOND TRIPARTITE MEETING

MINUTES OF THE SECOND TRIPARTITE MEETING

Boulevard Hotel, Kuala Lumpur, Malaysia, 6 September 2007

A. Introduction

1. The second tripartite meeting among the Asian Development Bank (ADB), the TA Executing Agency, representatives of the health ministries of the three participating countries, and the Consultant was held at Boulevard Hotel, Kuala Lumpur, Malaysia on 6 September 2007 from 4:00 – 5:00 PM. The meeting was chaired by Dr. Vincent de Wit, ADB Principal Health Specialist, and attended by representatives of the Ministry of Health (MOH) Indonesia, MOH Malaysia, Department of Health (DOH) Philippines, and the Consultant [Pacific Rim Innovation and Management Exponents, Inc. (PRIMEX) in association with SingHealth, PT Trans Intra Asia (Indonesia), and Health Solutions (Malaysia)] (see Annex A for list of meeting participants and Annex B for photodocumentation).

2. In his opening remarks, Dr. de Wit welcomed the meeting participants and explained that the tripartite meeting was called mainly to review the progress of work under the RETA and discuss the next steps to be taken by the participating countries, with support from the Consultant, as agreed at the recently concluded Subregional Technical Consultation meeting.

B. Recap of Workshop Highlights

3. Upon the request of Dr. de Wit, Dr. Jose R. Rodriguez, Project Administration Coordinator (PAC), presented the highlights of the subregional technical consultation.

1. Country Progress

4. The three countries have made good progress since Project commencement in June 2006. Specific accomplishments reported during the Subregional Consultation include the following:

- **Establishment of national focal point:** The three countries have established their National Focal Point for IHR 2005.
- **Roadmap development:** While Malaysia and the Philippines have developed their respective roadmaps for strengthening ESR, Indonesia is still in the process of completing its National ESR Plan of Action.
- **Capacity building:** Indonesia has three levels of training: one for professional epidemiologist, one for assistant epidemiologist at the district level, and one for the community level. Malaysia has its Epidemic Intelligence Program (EIP). The Philippines has the Field Epidemiology Training Program (FETP) and Field Management Training Program (FMTP), but needs short-term courses to assist local governments in establishing epidemic and surveillance units (ESUs) to strengthen their ESR capacity.
- **Community preparedness:** Since Indonesia has experience in AI community preparedness, it can provide assistance to Malaysia and the Philippines on community preparedness in response to public health events of international concern (PHEIC).
- **Advocacy and resource mobilization:** The Philippine Secretary of Health has allocated US\$2 Million for 2008 to start up the implementation of the PIDSR at the sub-national levels, but

there is still a need for advocacy among local chief executives (LCEs) for resources for training support and maintenance of their ESUs.

- **Laboratory support:** Malaysia has taken the lead in developing their laboratory surveillance system and can serve as a model for Indonesia and Philippines in improving their laboratory capabilities.

2. Subregional Collaboration

5. Dr. Rohani binti Jahis of MOH Malaysia suggested the conduct of a simulation exercise to test preparedness to deal with infectious and pandemic diseases, including communication capacity. Dr. Marlow Niñal of DOH Philippines suggested the identification of areas of common interest to the three countries as basis for planning subregional activities. He also suggested that small, rather than large, undertakings be considered, such as sharing information among the three countries through a web-based application.

3. Next Steps

6. Dr. Yusharmen of MOH Indonesia, seeing the accomplishments made by the Philippine DOH, requested for technical assistance in the finalization of their 2004 ESR assessment and development of ESR roadmap. Dr. Eric Tayag of DOH Philippines requested for technical assistance in the development of a technical training package in setting up ESUs at the subnational level.

C. Comments on the Workshop

7. The following comments on the recently concluded Subregional Technical Consultation were elicited from the health ministry representatives of the three countries:

- **Technical Content and Overall Process:** There was a right mix of topics discussed for in-depth learning and sharing. Participation among the three countries was dynamic and encouraging. The countries appreciated WHO's presence, which enhanced the technical discussions.
- **Accomplishment of Workshop Objectives:** The Technical Consultation was able to review progress of implementation of the workplans, although specific ESR designs and issues were not discussed extensively.
- **Venue:** The meeting room was satisfactory but more microphones could have facilitated the discussions and responses from the participants. Accommodation and food were excellent.
- **Secretariat Support:** Outstanding secretariat support was provided by Health Solutions headed by Ms. Shwu Fang Long and Ms. Joy Pavico of PRIMEX.
- **Recommendations:** The countries could have brought and shared copies of their guidelines and protocols. Indonesia needs longer lead time (at least 10 days) for approval of MOH representatives invited to participate in future conferences or workshops.

8. Dr. Vincent de Wit expressed pleasure at the positive outcome of the Subregional Technical Consultation and thanked the Consultant Team for all their arrangements and preparations.

D. International Conference

9. The International Conference was initially planned to be the Project's culminating activity. However, discussions led to the rethinking of the purpose of the conference and expanding its scope and participation.

- **Timing:** The timing of the Conference will depend on the availability of enough technical content that can be presented during the conference.
- **Technical content:** There is a need to showcase concrete products. It was suggested that a joint conference with another ADB RETA for the Greater Mekong Subregion (GMS) may be conducted to ensure quality of the technical content and better stakeholder participation aside from the cost sharing benefits.
- **Participation:** It is possible to invite other countries like Japan, Australia, Canada, etc. and other donors and agencies like WHO. However, to ensure WHO participation, it is necessary to involve them in the planning and design of the Conference.
- **Other suggestions:** It was suggested that instead of an international conference, a Concluding Workshop be organized, and/or the international conference could be piggy-backed with other related conferences to maximize resources.
- **Agreement:** After a lengthy discussion, it was agreed that the three countries, the Consultant, and ADB should make a decision on whether or not to push through with the International Conference on or before the end of October 2007.

E. Administrative Issues

10. The countries voiced out their difficulties with dealing with ADB procedures especially concerning the approval of activity proposals. Dr. de Wit and Ms. Ablaza suggested the following to expedite approvals:

- **Proposal preparation:** Similar or related activities should be lumped together in one project proposal instead of requesting approval for individual activities.
- **Procurement request:** Procurement requests should be accompanied by proper documentation, which includes three quotations from vendors.
- Proposals for workshops and meetings need only indicative number of participants.

F. Adjournment

11. There being no other matters to discuss, the meeting adjourned at 5:00 PM.

PREPARED BY:**ELVIRA C. ABLAZA**

President and CEO, PRIMEX and
Consultant Project Director

NOTED:**VINCENT DE WIT, M.D.**

Principal Health Specialist, SESS
Asian Development Bank

Annex A**SECOND TRIPARTITE MEETING**

*West Side Rooms 1 and 2
Boulevard Hotel, Kuala Lumpur, Malaysia
6 September 2007*

NAME	POSITION
1. Dr. Vincent de Wit	ADB Project Officer
Ministries of Health	
2. Dr. Yusharmen	MOH Indonesia
3. Dr. Hari Santoso	MOH Indonesia
4. Dr. Rohani Binti Jahis	MOH Malaysia
5. Dr. Enrique Tayag	DOH Philippines
6. Dr. Marlow Niñal	DOH Philippines
RETA 6305 Team	
7. Ms. Elvira Ablaza	Project Director
8. Dr. Robert Bernstein	Team Leader
9. Dr. Florante Magboo	Co-Team Leader
10. Dr. Jose Rodriguez	Project Admin Coord.
11. Mr. Jay Payuyo	IT Specialist
12. Dr. Hudoyo Hupudio	DTL Indonesia
13. Dr. Teong Wah Lim	DTL Malaysia
14. Dr. Troy Gepte IV	DTL Philippines

Annex B**PHOTODOCUMENTATION**

Kuala Lumpur, 7 September 2007. During the Second Tripartite Meeting, the participating Ministries of Health, together with ADB and the RETA Team of Consultants, discuss the recently concluded Subregional Technical Consultation, plan for the culminating International Conference, and the next steps to take until Project completion. Dr. Vincent de Wit, ADB Project Officer, presided over the meeting.



Appendix 5:
**PROCEEDINGS OF THE
TECHNICAL FORUM ON APPLIED
EPIDEMIOLOGY TRAINING**



capacity
networking

PROCEEDINGS technical forum on **APPLIED EPIDEMIOLOGY** training

31 March - 1 April 2008
Manila, Philippines

Theme: "Financing, Capacity, and
Networking for Applied Epidemiology Training"



TECHNICAL FORUM ON APPLIED EPIDEMIOLOGY TRAINING*Theme: Financing, Capacity, and Networking for Applied Epidemiology Training*

Richmonde Hotel, Manila, Philippines

31 March - 1 April 2008

PROCEEDINGS OF THE FORUM**A. Introduction**

1. Regional Technical Assistance (RETA) 6305 is an ADB-financed project aimed at assisting the governments of Indonesia, Malaysia, and the Philippines to assess and improve their capacity to conduct communicable disease surveillance and effectively respond to the occurrence and spread of emerging and re-emerging infectious diseases. In this regard, the Project supports the efforts of the three countries in meeting the requirements of the International Health Regulations (IHR) of 2005 and in complying with the region's Asia Pacific Strategy for Emerging Diseases (APSED).

2. One of the major challenges faced by the countries in strengthening their capacity to effectively perform epidemiological surveillance and response (ESR) activities is the development of a skilled workforce. In Indonesia, Malaysia, the Philippines, and other countries in the region, the main program for producing trained manpower is the Field Epidemiology Training Program (FETP). FETP is a two-year training program designed to develop epidemiologists who will be responsible for managing the ESR system of a country and perform disease surveillance and response functions. Indonesia, Malaysia, and the Philippines have established FETPs with each country having varied experiences on how the program was designed, funded, and structured. The experiences in the three countries have demonstrated the usefulness of FETP in producing technical experts who can perform the ESR functions especially at the national and local levels. However, the program continues to face challenges regarding funding, curriculum design, continuing education, and accreditation.

3. In the Philippines, the Department of Health (DOH) has assumed responsibility for funding FETP with a line item for the program in the national budget. However, the current level of funding is very low compared to what is required to meet the demands for trained epidemiologists at sub-national levels. A related issue is the design of the training course, considering that the program in most countries requires two years to be completed. This requirement greatly limits the capacity of the program to produce enough FETP graduates to meet the needs of an entire country. In Indonesia, while the Ministry of Health (MOH) has not administered a national FETP for several years since establishing the program in 1983, it has permitted several universities to undertake efforts to implement various classroom and field-oriented approaches to FETP. In Malaysia, the Epidemic Intelligence Program (EIP) was established in 2002 as a skills training program in public health, which focuses on "field epidemiology" using the same FETP model recommended by Centers for Disease Control and Prevention (CDC) in Atlanta.

4. During an International FETP meeting in Phuket, Thailand on 24-25 January 2008, these issues regarding funding, networking, and curriculum design surfaced. The event was organized by the World Health Organization (WHO) and CDC-Atlanta and was participated by Thailand, Malaysia, Philippines, Laos, Cambodia, Vietnam, Myanmar, Japan, and the Yunnan Province of China. The meeting was designed to assist the Mekong Basin countries and Yunnan Province to establish a training program for epidemiologists and to present the blueprint for a Mekong Subregional Network for collaborative applied epidemiology capacity building. Based on the objectives, most of the presentations from the invited resource persons and the ensuing discussions focused on the requirements for the establishment of a training program for field epidemiologists.

5. While much has been said and done with the National FETPs there is little discussion and attention paid to applied epidemiology training programs at the provincial, district, and health center levels. In many countries, the ministry of health developed and introduced short courses on public health surveillance and basic epidemiology but such initiatives have not been standardized nor critically reviewed. More importantly, there is very little work done in estimating the cost of conducting these courses and the other requirements for scaling up those initiatives. There is also not much effort spent in addressing the issue of continuing education and keeping those trained updated.

6. Given the importance of developing skilled ESR manpower, RETA 6305 organized a Technical Forum on applied epidemiology training. Specifically, the Forum aimed to help participating countries to (i) strengthen existing plans for human resource development for ESR; (ii) estimate the cost of conducting training programs for applied epidemiology for the needs of the entire country; (iii) discuss, identify, and agree on approaches to keep trained staff updated; and (iv) discuss/agree on how the countries in the region can share and network resources for epidemiology training programs. The Forum program is in Annex A.

7. The Forum had about 40 participants representing the health ministries of Indonesia, Malaysia, and the Philippines, some of whom are FETP alumni themselves, as well as WHO, ADB, TEPHINET, IFETP, and the RETA 6305 Consultant Team and support staff. The directory of participants is in Annex B.

B. Opening Session

8. The Project Administration Coordinator, Dr. Jose Rodriguez, who served as the Workshop moderator for the first day, introduced the key people who were to deliver messages during the opening session. Ms. Elvira Ablaza, PRIMEX President/CEO and RETA 6305 Project Director, welcomed the participants to the Forum. She highlighted the timeliness of the Forum and its extreme relevance as it will tackle one of the critical challenges in strengthening national capacity for ESR, namely, the development of human resources for disease surveillance and response. Her message is in Annex C-1.

9. **Message from ADB.** Dr. Vincent De Wit, ADB Principal Health Specialist and TA Project Officer, set the directions for the workshop discussions. Aside from quantifying the critical mass of trainors and the cost of training, Dr. de Wit said that the Forum should “*consider what are the conditions that make these people effective workers,*” and that the big challenge is not having the people in place, but in making the system work. He also assured all that ADB definitely thinks that public health and global warming control remain important in the Bank’s development agenda. The full text of his message is in Annex C-2.

10. **Message from WHO.** Dr. Li Ailan, Medical Officer, Communicable Disease Surveillance and Response (CSR), WHO Regional Office for the Western Pacific (WPRO), delivered the message on behalf of Dr. Takeshi Kasai, Regional Adviser, CSR-WPRO. She emphasized the importance of the partnership of ADB and WHO in strengthening both national and regional outbreak alert and response systems. She also said that WHO looks at short course module types of training based on the country’s specific needs and pointed out that, “*Training itself is not an objective. FETP should be carefully planned. WHO looks forward to working with its member states.*” The full text of her message is in Annex C-3.

11. **Keynote Address.** Dr. Enrique Tayag, Director of the DOH-National Epidemiology Center (NEC), started his address by presenting a video of the 20th anniversary celebration of FETP in the Philippines, which showcased the different challenges faced by FETP graduates in responding to outbreaks and national calamities through the years, as well as their aspirations for the future of FETP. The video was much appreciated by the audience. In fact, some participants requested for a copy of the video to share

with their respective country FETPs with the premise that, “*if the Philippines can do it, so can we!*” After the video presentation, Dr. Tayag gave an overview of the historical timelines of FETP in the Philippines, noting that its success did not come easy. He cited the most prized of all FETP successes as its “*having a critical mass of field epidemiologists in the country today. A bonus would be the FETP Alumni Foundation, Inc., which to this day continues to support NEC’s mission and provide educational assistance to its graduates.*” The full text of his keynote speech is in Annex C-4

12. A self-introduction of the participants and a group photo followed Dr. Tayag’s opening remarks (see Annex D for the photodocumentation of the Workshop).

C. Day 1 Presentations

1. Input Presentations

13. **WHO Indonesia Paper.** Dr. Gina Samaan of WHO Indonesia talked about “*Changing Disease Patterns and Changing Response Requirements: Towards a Comprehensive Surveillance and Response System that Addresses National and International Needs and Potential Cost Implications*” (Annex E). Her paper gave the participants a flavor of the situation on emerging diseases and the need to reassess the re-emerging infectious disease situation, citing polio as an example.

14. During the open forum that followed her presentation, issues raised included: (i) the impact of global warming and what do we give our health workers, and (ii) is there some kind of taxonomy to categorize all diseases and its implication in term of epidemiological capacity.

15. Dr. Samaan’s response is that there should be generalist public health people who can respond to different types of outbreaks and disease priorities. There is a need to build the capacity for them to be flexible in their ability to respond to both non-communicable as well as communicable diseases. On disease prioritization, there are actually capacities and tools that can be used to rate diseases according to their burden. Dr. Tayag shared the development of indicator-based and events-based surveillance system in the Philippine. Dr. O’Reilly cited the fireworks injury surveillance in the Philippines to showcase the effort of FETP to expand beyond communicable diseases.

16. **IFETP Presentation.** Dr. Michael O’Reilly, CDC Southeast Asia Regional Advisor and IFETP Thailand staffmember, discussed “*Multilayer Training in Applied Epidemiology: Key Issues and Cost Implications*” (Annex F). He stressed that currently, neither WHO nor CDC has a target number for the two-year applied epidemiology program graduates per 500,000 population, nor do they have a target number for medium term (1-6 months training) program graduates per administrative designation or 500,000 population. He noted that, based on their assessment, they have realized that (i) intensive two-year course graduates alone cannot provide adequate disease detection and response capacity needs for a country with a population greater than 2 million, (ii) the greatest need may not be increasing the volume of such intensively trained public health officials, but (iii) multiple layers of applied epidemiology training may best address a country’s needs.

2. Country Papers

17. **Indonesia.** Dr. Hari Santoso of MOH Indonesia presented the background of FETP in Indonesia and current MOH efforts to revitalize FETP, including its human resource capacity needs (Annex G).

18. **Malaysia.** Dr. Fadzilah binti Kamaludin, Director of EIP, MOH Malaysia, presented the different types of formal training courses offered in Malaysia in the field of public health. She also presented the human resource capacity and capability at the ministry, state, and district levels as well as in hospitals and laboratories, and the matching of staff and job specifications at each level. She noted that the program is based on public health experience in field investigation, disease surveillance, epidemiological methods, report writing, and oral presentation, and further presented the HRD and resource requirements of EIP. Dr. Fadzilah's presentation is in Annex H.

19. **Philippines.** Dr. Joy Althea Pabellon, DOH-NEC Training Coordinator, presented the history of FETP in the Philippines and its goals and key strategies, the activities of FETP trainees, and the impacts of their investigations (Annex I). She cited the public health benefits of FETP in the Philippines, specifically the upgrading of technical skills of field health workers, the enhancement of evidence-based decisionmaking and the credibility of the government health sector, and contributions to improvements in the quality of health services.

3. Breakout Session 1

20. Three breakout groups were formed to discuss inputs for applied epidemiology training. Each group selected a chair to lead the discussions and a rapporteur to document and present the group's output at plenary. The discussions were guided by the following questions, which were pre-formulated by the Consultant Team:

- (i) What are the responsibilities of the different levels of health care (national, provincial, district, hospitals, health centers, community) with respect to disease surveillance and response? Are these responsibilities clearly defined by level? Are the relationships between the different levels clear?
- (ii) Based on the expected responsibilities, are the desired competencies of staff at the different levels identified?
- (iii) Given the desired competencies, do the existing applied epidemiology training courses match the required skills? What has been the experience thus far with respect to these courses?
- (iv) What refinements are needed on the existing courses to make them more responsive? What assistance do you require in the refinement/adjustment of the existing courses?

21. The composition of the three groups and their respective outputs are in Annex J.

D. Day Two Presentations

1. Input Lectures

22. **Community of Practice (CoP) and Its Application to CDC Professionals.** Mr. Stephane P. Rousseau, Regional Coordinator of the ADB-funded Greater Mekong Subregion CDC Project, spoke of ways to develop linkages in building a community of practice on applied epidemiology and identified the priority activities that need to be supported to nurture CoP (Annex K). He said that (i) CDC Professionals and CDC programs have all to gain in developing and nurturing CoP and adopting Knowledge Management (KM) strategies; (ii) developing and nurturing CoP should be part of CDC capacity-building

and CDC HRD strategies; (iii) training courses in applied epidemiology (and alumni) can be a fertile ground for CoP, and CoPs, in turn, can be the best source of materials for applied epidemiology training curricula; (iv) CoP can efficiently address a number of issues related to CDC, S&R, and applied epidemiology training; and (v) the overall goal of CoP and KM is improved performance.

23. **Training Programs in Epidemiology and Public Health Interventions Network (TEPHINET).**

Dr. Jim Andersen, TEPHINET Executive Director, presented the mission and functions of TEPHINET, a professional alliance of FETPs located in 32 countries around the world. Trainees of these programs master a set of core competencies vital to the practice of public health, while providing a valuable public health service. Its mission is to strengthen international public health capacity through supporting, networking, and initiating field-based training programs that enhance competencies in applied epidemiology and public health interventions. The donors that support the network include: CDC, WHO, USAID, ASEAN, ADB, and AusAid, among other donors and partners. Mr. Andersen's presentation is in Annex L.

2. Breakout Session 2

24. Dr. Florante Magboo, Project Co-Team Leader, served as moderator for the second day and facilitated the formation of three breakout groups to discuss networking and continuing education. As in the first breakout session, each group was provided with a set of questions to guide the discussions.

- (i) What are the areas for regional or subregional collaboration related to the conduct of FETP/applied epidemiology training? (sharing of technical experts, exchange visits of trainees and trainers, sharing of curricula and training materials, joint outbreak investigations for trainees/trainers, establishment of regional training sites, establishment of regional website for epidemiology training, and preparation of joint proposals to solicit external support for applied epidemiology training in the region);
- (ii) How would such collaboration be done? Should it be undertaken as part of existing regional structures like ASEAN?
- (iii) Should a secretariat for the collaboration/networking be established? Who will act as the secretariat?
- (iv) What types of continuing education activities/approaches will you recommend?

25. The composition and output of the breakout groups are in Annex M.

E. **Synthesis and Closing**

26. **Synthesis: Challenges and Agenda for the Future.** Dr. Rodriguez summarized the salient points and agreements arrived at during the two-day forum, namely:

- (i) **Training materials:** There are many training materials and curriculum designs that already exist for countries for the conduct of field epidemiology training courses. The need is for adaptation and improvisation, rather than the lack of technical resources.
- (ii) **Training programs:** It is important to build the structure and make the right choices. The types of programs depend on the kinds of systems and the kinds of people and competencies that are needed. It is not also possible to just import a system *in toto* and then adopt it.

- (iii) **Resources:** Right now, resources are not viewed as a major limitation. There are several donor agencies interested in applied epidemiology because of the threat of emerging and re-emerging infectious diseases. What needs to be done is to diversify and make sure that not “all our eggs (are) in one basket”, so to speak. It is important to anticipate and make sure that resources are provided or mobilized from any possible source to ensure the sustainability of programs.
- (iv) **Networking:** The challenge lies in building the connections and establishing the mechanics of how such collaboration can take place.

27. **Closing Remarks.** Dr. de Wit thanked the representatives of the three governments and the various institutions for their dynamic participation and for sharing their expertise at the Forum. He was pleased that the Forum had a focused agenda, saying that *“We have heard a lot about existing networks, and my feeling is that we do not want to try to duplicate what is already there, what is existing and what seems to be functioning, so why not go along that line than try to create something from scratch. Clearly, there is something unique in this region that binds you and us together and that needs more attention that it gets from existing networks.”*

28. On behalf of the host country, Dr. Tayag thanked the speakers for their time, ideas, and thoughts, and for challenging the participants even more. He expressed gratitude to Dr. de Wit for his support and ideas on collaboration and thanked PRIMEX and its core of consultants and secretariat staff for the efficient organization and arrangements.

Annex A

TECHNICAL FORUM ON APPLIED EPIDEMIOLOGY TRAINING
Theme: Financing, Capacity, and Networking for Applied Epidemiology Training
 Richmond Hotel, 21 San Miguel Avenue, Ortigas, Metro Manila, Philippines
 31 March – 1 April 2008

DAY 1, 31 March 2008

9:00 – 9:30 AM **REGISTRATION OF PARTICIPANTS**

9:30 – 10:00 **OPENING SESSION**

Welcome Remarks

Ms. Elvira C. Ablaza

President and CEO and Project Director, PRIMEX

Opening Statement

Dr. Vincent De Wit

*Principal Health Specialist, Social Sectors Division,
Asian Development Bank (ADB)*

Message from the World Health Organization (WHO)

Dr. Li Ailan

*Medical Officer, Communicable Disease Surveillance and Response, WHO
Regional Office for the Western Pacific (WPRO), Manila*

Keynote Address

Dr. Enrique A. Tayag

*Director, National Epidemiology Center (NEC)
Department of Health (DOH), Philippines*

Introduction of Participants

Group Photo

10:00 – 10:30 Coffee and Tea Break

10:30 – 10:45 **CHANGING DISEASE PATTERNS AND CHANGING RESPONSE REQUIREMENTS**

Dr. Gina Samaan

*Technical Officer,
WHO, Indonesia*

10:45 – 11:15 Open Forum

11:15 – 11:30	MULTILAYER TRAINING IN APPLIED EPIDEMIOLOGY: KEY ISSUES AND COST IMPLICATIONS Dr. Michael O'Reilly <i>Advisor, IFETP-Thailand</i>
11:30 – 12:00	Open Forum
12:00 – 13:00	LUNCH BREAK
13:00 – 15:00	COUNTRY PRESENTATIONS Current Situation of Indonesia FETP Dr. Hari Santoso <i>Ministry of Health, Indonesia</i> Malaysia: Applied Epidemiology Training and Networking: Issues and Constraints Dr. Fadzilah binti Kamaludin <i>Epidemiology Information Program, Ministry of Health, Malaysia</i> The Philippine FETP: Towards Excellence in Public Health Practice Dr. Joy Althea Pabellon <i>National Epidemiology Center, Department of Health, Philippines</i>
15:00 – 15:30	Small Group Discussions
15:30 – 15:45	Coffee and Tea Break
15:45 – 17:00	Presentations by the Small Groups and Open Forum
18:30	WELCOME DINNER

DAY 2, 1 April 2008

9:00 – 9:15	INTRODUCTION TO THE CONCEPT OF COMMUNITIES OF PRACTICES AND ITS APPLICATION TO CDC PROFESSIONALS Mr. Stephane P. Rousseau <i>Regional Coordinator, ADB-funded Greater Mekong Subregion CDC Project</i>
9:15 – 9:30	EXPERIENCE IN INTERNATIONAL SUPPORT AND NETWORKING: FUTURE NEEDS AND COST IMPLICATIONS Dr. Jim Andersen <i>Executive Director, TEPHINET</i>
9:30 – 10:15	Small Group Discussions
10:15 – 10:30	Coffee and Tea Break
10:30 – 12:00	Presentations by the Small Groups and Open Forum

12:00 – 13:00 **LUNCH BREAK**

13:00 – 13:30 **SYNTHESIS: CHALLENGES AND AGENDA FOR THE FUTURE**

Dr. Jose Rodriguez

Project Administration Coordinator, RETA 6305

13:30 – 14:00 **CLOSING SESSION**

Closing Remarks

Dr. Vincent de Wit

Principal Health Specialist, ADB

Dr. Enrique Tayag

Director, NEC-DOH



Annex B

DIRECTORY OF PARTICIPANTS

MINISTRY OF HEALTH, INDONESIA

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Dr. Ratna Djuwita Sukirna	University of Indonesia FETP Coordinator	School of Public health Indonesia University, FKMUI Depok Kampus Baru UI Depok. Indonesia	Office : 62 21 78849031/ 62 21 7863474 Fax number : 62 21 78849032 Mobile number: +62811927513	drwita@pacific.net.id

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FETP in the PRIVATE SECTOR

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Annex C-1**WELCOME REMARKS****Elvira C. Ablaza***President and CEO**Pacific Rim Innovation and Management Exponents, Inc. (PRIMEX)***Dr. Enrique A. Tayag**Director, National Epidemiology Center (NEC)
Department of Health (DOH), Philippines**Dr. Vincent de Wit**Principal Health Specialist
Southeast Asia Regional Department, ADB**Dr. Li Ailan**Medical Officer for Communicable Disease Surveillance and Response,
WHO Regional Office for the Western Pacific (WPRO)

Distinguished Participants, Guests, and Friends,

A very pleasant good morning to you all.

On behalf of the Consultant Team to this ADB Regional Technical Assistance Project for Strengthening Epidemiological Surveillance and Response (ESR) for Communicable Diseases in Indonesia, Malaysia, and Singapore (otherwise known as RETA 6305), I welcome you all to Manila and to this Technical Forum on Applied Epidemiology Training.

This subregional forum is the third workshop in a series of technical workshops for implementation under this ADB-financed Project. Some of you were with us as we launched our Project at our Subregional ESR Planning Workshop in Jakarta, Indonesia in November 2006, and at the more recent Subregional Consultation on ESR Designs in Kuala Lumpur last September 2007.

This final technical workshop is expected to help the participating countries to (i) strengthen their existing plans for human resource development (HRD) for ESR; (ii) estimate the cost of conducting training programs for applied epidemiology to address the needs of the entire country; (iii) discuss, identify, and agree on approaches to keep trained staff updated; and (iv) discuss/agree on how the countries in the region can share and network resources for epidemiology training programs.

This forum is timely – and extremely relevant – as it will tackle one of the critical challenges in strengthening national capacity for ESR, namely, the development of human resources for disease surveillance and response.

The development of skilled manpower at all levels of the health care system is an essential element in making disease surveillance and response work. The past two decades have seen the growth of Field Epidemiology Training Programs (FETPs) in many countries. FETP is recognized and acknowledged as an



effective approach towards developing professional epidemiologists to manage and perform required disease surveillance tasks and activities.

Although there is general agreement that the FETP approach has strengthened the capacity of many countries to conduct surveillance and response activities at the national level, there appears to be no clear consensus on the approaches and strategies in building surveillance and response capacities at the sub-national and local levels. There have been many initiatives to develop and establish short training programs, but these have produced varying results in terms of their usefulness and effectiveness. What is less uncertain is that many of these initiatives continue to face problems in terms of course duration, training content, training approaches and methodologies, and the need for continuing education and resource mobilization to sustain the training programs.

While this Technical Forum may not be able to provide all the answers to the many issues and questions regarding applied epidemiology training, our Team believes that your presence here today, and the collective sharing of valuable experiences and lessons learned, will help in making informed decisions and the right choices.

After all, informed and evidence-based decision-making is what epidemiology is all about.

In closing, I wish you an enjoyable, albeit brief, stay in Manila, and I look forward to two days of productive discussions, interactions, and experience sharing among colleagues in the ESR.

Maraming salamat po at Mabuhay!

Annex C-2**MESSAGE FROM THE ASIAN DEVELOPMENT BANK****Dr. Vincent de Wit***Principal Health Specialist, SESS*

Good morning to the National Epidemiology Center of the Philippine Department of Health, Delegates, Participants, and welcome to Manila.

What can I contribute to the introductory statement? I would like to make an opening statement at the macro level, trying to picture how important your effort is for the whole world, in a sense.

Although I know you watch the Discovery Channel, I would just like to reemphasize that, not avian flu, in the long term, but global warming that is the biggest threat to life on earth. We need to put measures in place to hold off the effects of global warming, to preserve life as it is. This task is even more daunting if you consider the ever-expanding world population to, perhaps, 11 billion people and increased consumption and, therefore, pollution.

We are now experiencing food shortages. For example, in the Philippines, where would they get rice if Vietnam puts a ban on rice exports? While experts tell us that productivity can be improved, that will be achieved at the cost of our planet. We are facing a global threat, which is even bigger than avian flu and other emerging diseases. But then, if we have global pandemic, let's say, originating from avian flu or some other disease, that will probably result in high mortalities. It will also cause some form of economic setback, probably also an economic meltdown. You already know how fragile the world economy is right now. This will result in massive layoffs, with people being sent home from their overseas jobs, unemployment, poverty, security problems, political unrest – ideal for the enemies of a peaceful society to take advantage of. Governments will be distracted with rebuilding societies and economies and fighting global warming will be less of a priority. It is therefore imperative that we work together to avoid a global pandemic and maintain stability in our economies.

What I am just trying to say is that fighting avian flu is not fighting just avian flu. It is fighting for the future of our planet because if we get distracted from our global warming agenda, that will have a huge threat for future generations. The US epidemiology training experts therefore have a very important task ahead. The challenge here today is to plan for a human chain that needs to be put in place to link communities and the national level to be able to contain outbreaks to levels not seen before. We will be discussing the requirements for strengthening the human link of rapid recording and containment of outbreaks.

We should not just focus on how many people need to be trained, on what, at what cost, and how to know which can be improved. We should consider what conditions can make these people effective workers. As many of you know, most outbreaks have been reported in an informal system, not through a formal system. So, what are the chances of a formal system, a human chain that you propose to take place through applied epidemiology training, to actually work effectively? That is the big challenge, just not having people in place, but how to make the system work.

We cannot address it all at this Workshop, but when you debate on how many should be trained at what level, do keep in mind that these people have to be able to deliver, and what are the conditions for them to be able to deliver.



ADB will continue supporting this area, as per our recent discussions on what ADB will be supporting in the health sector. It seems that ADB definitely thinks that public health and global warming control remain important. So I hope we can provide you with some support in the future.

I wish you success in your discussions.

Thank you very much.

Annex C-3**MESSAGE FROM THE WORLD HEALTH ORGANIZATION****Dr. Li Ailan***Medical Officer, CSR, WHO WPRO*

Ms. Elvira Ablaza, Dr. Vincent de Wit, Dr. Enrique A. Tayag,
Distinguished representatives, ladies and gentlemen,

Good morning, everyone.

It is my great pleasure to be here today on behalf of Dr. Takeshi Kasai, our Regional Adviser for Communicable Disease Surveillance and Response (CSR), WHO Western Pacific Regional Office. He sincerely apologizes for not being able to come due to other commitments.

As you all know, the WHO has actually been working very closely with ADB in strengthening both national and regional outbreak alert and response systems. This is a good opportunity for us to be here again, and we take this opportunity to thank ADB.

As many of you are aware, the Asia Pacific Strategy for Emerging Diseases (APSED) has been developed by two WHO Regional Offices, in consultation with Member States. This bi-regional strategy is being implemented as a common framework for countries to strengthen national capacities that are required for early detection of, rapid response to, and effective preparedness for, emerging infectious diseases. APSED implementation actually helps countries to develop the core capacities required under the International Health Regulations (2005), including the minimum required national and local capacities to respond to disease outbreaks and other public health events.

Field epidemiological training is no doubt essential for building such capacities. There is an urgent need to expand the pool of trained epidemiologists in the Region so that countries will be able to quickly detect events, analyze events, and rapidly respond to infectious disease outbreaks that can be of national, regional, and international concern.

But one of the important questions that is in front of all of us is: what option do we have to strengthen field-based epidemiology training? I am sure this will be one of the central topics for our discussion in the coming days.

We just want to take this opportunity to mention two major approaches to strengthen field epidemiology training that have been highlighted in our Asian Pacific sub-workplan. The first approach is **the traditional two-year FETP training** that provides high quality, but small numbers, of experts in field epidemiology. I am sure all of us are very familiar with this approach and are fully aware of its advantages and some limitations. The second approach is a short-course modular training that provides large quantity training with minimum required capacities.

While it is ideal to have the traditional two-year FETP program, there have been country situations or realities where other models are preferred or needed. The traditional FETP demands higher inputs and investment. Future priority should also be given to the short-course modular-type of training based on the country's specific needs. This approach is vitally important for poorly performing areas and those with inadequate resources.



Finally, we like to take this opportunity to remind ourselves here, that training is not an objective in itself. Field epidemiology training programs should be carefully planned and closely linked to the design of overall national surveillance and response systems, such as the event-based surveillance system. The World Health Organization looks forward to working very closely with its Member States and partners to strengthen this important area of work.

We also wish you a very fruitful discussion.

Thank you.

Annex C-4**KEYNOTE SPEECH****Dr. Enrique A. Tayag***Director, National Epidemiology Center
Department of Health, Philippines*

Greetings.

Twenty years ago, the Philippines started its own Field Epidemiology Training Program, which is now the National Epidemiology Center.

Its contribution to public health is recognized here and internationally.

It earned recognition for its continuing work on public health surveillance, outbreak investigations, and scholarly epidemiologic studies.

Success was not easy. Even its birth can be likened to an orphan child during one of the tumultuous periods in the nation's history. A hastily written curriculum, a two-man faculty, an experimental first cohort, and a semi-abandoned office space were the preparations for what would become the premier institution that provides a culture of evidence-based decision making for public health professionals.

To name even a few of its most outstanding achievements is already difficult since every effort of its fellows and graduates to this day is an outstanding achievement of sorts. Nevertheless, we can cite a few of them here because they paved the way for emboldening the Philippine FETP credo of Integrity and Excellence.

The establishment of the National Epidemic Sentinel Surveillance System paved the way for the creation of the Regional Epidemiology and Surveillance Units (RESUs) all over the country. The seminal investigations on paralytic shellfish poisoning brought public confidence in government to a new high and ushered renewed interest in clinical toxicology. Epidemiologic studies on catastrophic events, including the Great North Luzon earthquake and Mt. Pinatubo volcanic eruption, firmly established FETP's reputation and earned it a John Snow Award.

The list is endless, and the most prized of all is having a critical mass of field epidemiologists in the country today. A bonus would be the FETP Alumni Foundation, Inc., which, to this day, continues to support NEC's mission and provide educational assistance to its graduates. In the international arena, we are a member of TEPHINET, which is also turning a new leaf this year when it joins the Task Force on Child Survival.

Majority of our graduates have stayed with government and continued to perform their tasks as regional or local epidemiologists. A big number have forayed into ODA projects. A few have become health program managers and have since occupied third-level positions.

Now here come the challenges that face the program and its graduates as well.

Two years of training is quite long to produce a field epidemiologist. Until now, FETP has been a non-degree course. These make it less and less attractive to public health professionals who, in recent years, have looked to greener pastures outside their careers and outside this country.



The growing human resource demand brought about by emerging disease threats and health system reforms will most likely put a further strain on future recruitments and on its overall relevance to public health. NEC has also received requests for technical assistance to our Asian neighbors.

What are some of the ways to overcome this?

Introducing short courses is taking time to germinate. There are no existing templates to facilitate its implementation. This year, NEC may introduce it on a pilot basis.

Until recently, investments in information, surveillance, and research have been minimal. The newer technologies require a fair amount of new investments and, more importantly, they will require upgrading of human resource capacity. The problem is not really the scope of reforms, but the speed with which we are able to carry them out.

We have found our niche, but the new environment is taking it away from us. Unless we think quickly and sustain our success as we move to new horizons, we will suffer from our own irrelevance.

We shall not less this happen. A lot is at stake. Everybody's cooperation is needed.

Annex D

PHOTODOCUMENTATION
TECHNICAL FORUM ON APPLIED EPIDEMIOLOGY TRAINING



Ms. Elvira Ablaza, PRIMEX President/CEO and RETA6305 Project Director welcomes the participants to the Forum. (Seated L-R): Dr. Vincent de Wit, ADB; Dr. Enrique Tayag, DOH-NEC; Dr. Li Ailan, WHO-WPRO; and Dr. Robert Bernstein, RETA 6305 Team Leader.



"Fighting avian flu is not fighting just avian flu, it is fighting for the future of our planet ..."
 – Dr. de Wit, ADB



"The World Health Organization looks forward to working very closely with its Member States and partners to strengthen this important area of work..."

– Dr. Li Ailan, WHO-WPRO

"We have found our niche, but the new environment is taking it away from us. Unless we think quickly how we can sustain our success as we move to new horizons, we will suffer from our own irrelevance.

We shall not let this happen. A lot is at stake. Everybody's cooperation is needed."

- Dr. Enrique Tayag, DOH-NEC



The participants, resource speakers, RETA 6305 Consultants during the Technical Forum on Applied Epidemiology Training : 31 March – 1 April 2008, Richmond Hotel, Pasig City, Philippines.

RESOURCE SPEAKERS

Changing Disease Patterns and Changing Response Requirements: Towards a Comprehensive Surveillance and Response System that Addresses National and International Needs, and Potential Cost Implications

*Dr. Gina Samaan,
WHO Indonesia*



Planning for Human Resource Development in Applied Epidemiology: Expanding to Multilayer Training Program and its Cost Implications (HRD Requirements, Training Capacity, and Sustaining Knowledge Base)

*Dr. Michael O'Reilly,
Advisor, IFETP-Thailand*



Introduction to the Concept of Communities of Practices and its Application to CDC Professionals

*Mr. Stephane P. Rousseau,
Regional Coordinator,
ADB-funded Greater
Mekong Subregion
CDC Project*



Experience in International Support and Networking: Future Needs and Cost Implications

*Dr. Jim Andersen,
Executive Director,
TEPHINET*



Synthesis: Challenges and Agenda for the Future

*Dr. Jose Rodriguez,
Project Administration
Coordinator,
RETA 6305*



COUNTRY PRESENTORS

Current Situation of FETP in
Indonesia

*Dr. Hari Santoso,
Head of Outbreak Control,
Ministry of Health, Indonesia*



Applied Epidemiology Training and
Networking: Issues and Constraints

*Dr. Fadzilah Kamaludin,
Director,
Epidemic Intelligence Program,
Ministry of Health,
Malaysia*

The Philippine FETP: Towards
Excellence in Public Health Practice

*Dr. Joy Pabellon,
Training Coordinator,
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Presentation of Group 1:
Networking and Continuing
Education

*Dr. Haripurnomo Kushadiwijaya,
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Presentation of Group 2:
Strengthening Epidemiology
Network in the Region

*Dr. Rohani binti Jahis,
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Presentation of Group 3:
Networking and Continuing Education

*Dr. Vito Roque, Jr.,
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Philippines*



Annex E**CHANGING DISEASE PATTERNS AND CHANGING RESPONSE REQUIREMENTS****Dr. Gina Samaan***Technical Officer, WHO Indonesia***Changing Disease Patterns and
Changing Response Requirements**Gina Samaan
Technical Officer, WHO Indonesia**Emerging diseases: definition****New diseases which have not been recognised previously.****Known diseases which are increasing, or threaten to increase, in incidence or in geographic distribution.**

The diseases of most concern are those that may have international significance – either as a possible global epidemic or pandemic, or because they pose a risk for travellers with high case fatality rates or because they have trade implications.

Human-made "bio-risk" also increasing

Accidental and deliberate release of infectious agents

■ Serious biosafety accidents (e.g. SARS 2003-2004; Ebola 2004; Tularemia 2004)

■ Deliberate release (Anthrax, 2001)

■ WHO presentation at the Convention on Biological and Chemical Weapons, 2004 – and the need for international surveillance

■ In addition, there are concerns over the level of bio-security in some regional laboratories with respect to containment.

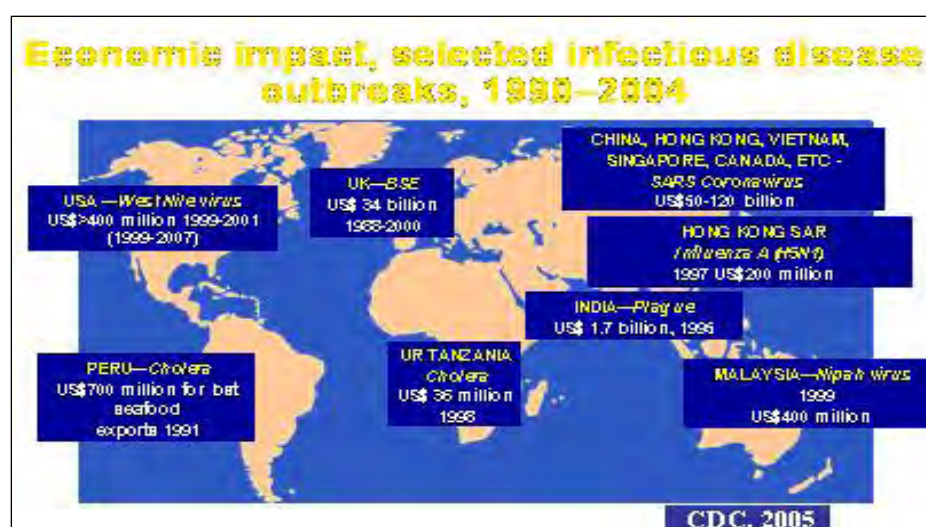
**Emerging viral diseases – the importance
of animal reservoirs**

- Over 75% of all emerging viruses over the past two decades have been zoonotic;
- Most of these viruses have come from either bats (particularly fruit bats), rodents or birds – for others, the hosts have yet to be determined;
- **Thus the importance of understanding wildlife diseases and the role of wildlife in disease emergence cannot be understated, and there is strong belief that wildlife diseases should be a major component of global surveillance strategies.**

Emerging viruses: recent examples

1999 - CHIKUNGUNYA [SW Indian Ocean, East Africa, India, Sri Lanka, Indonesia]	1999 - NIPAH VIRUS [Malaysia]
- AVIAN INFLUENZA [H5N1] [Egypt, Iraq]	- INFLUENZA H5N1 [HK]
- WEST NILE [Argentina]	- WEST NILE VIRUS [USA]
- Rift Valley Fever [Kenya, Somalia, Tanzania]	- LJUNGEN VIRUS [Sweden]
- NEW HUMAN RHINOVIRUS [USA]	- KEN VIRUS [Italy]
- AVIAN INFLUENZA [H5N1] [Cambodia, China, Indonesia]	- JAPANESE ENCEPHALITIS VIRUS [Australian Mainland]
- MARBURG [Angola]	- AL KHUJUMA VIRUS [Saudi Arabia]
- ASIAN INFLUENZA [H5N1] [Thailand, Vietnam, ...]	1997 - MENANGLE VIRUS [Australia]
- NIPAH VIRUS [Cambodia]	- INFLUENZA H5N1 [HK]
- HUMAN CORONAVIRUS NL63	- TT VIRUS [Japan]
2003 - SARS CORONAVIRUS	1996 - AUST BAT LYSSA VIRUS
2001 - HUMAN METAPNEUMOVIRUS	- WEST NILE [Romania]
NIPAH VIRUS [Bangladesh, India]	1995 - JAPANESE ENCEPHALITIS VIRUS [Australia, Taiwan, Strait]
- TICK-BORNE VIRUS [Malaysia]	- HUMAN HERPESVIRUS 8
- Rift Valley Fever [Middle East]	- HEPATITIS G
	1994 - HENDRA VIRUS [Australia]
	- RABIA VIRUS [Greece]
	1993 - RIN NOMBRE VIRUS [USA]





Economic Impact of Re-emerging Disease events – Poliovirus: When Eradication Goes Wrong

- Poliovirus types 1 and 3 remain endemic in 5 countries (Poliovirus type 2 has been eradicated).
- Between 2003 and 2006, 25 'polio-free' countries were re-infected, largely from one state in northern Nigeria.
- This resulted in >1400 children paralyzed, and it cost US\$446 million in international funding (not including national expenditure) to re-establish polio-free status.

Concerns – Specific Diseases

Disease threats can be both exotic and endemic.

Important diseases include:

- Nipah virus
- Chikungunya virus
- Rift Valley fever virus
- Japanese encephalitis virus
- Multi-drug resistant TB
- Avian influenza H5N1 & its pandemic potential
- Dengue
- Other possible or potential virus threats include, such as Sepik, Congo-Crimean haemorrhagic fever, Ebola Reston



New viruses from fruit bats

1994 – Hendra virus (Australia)
 1996 – Australian bat lyssavirus (Australia)
 1997 – Menangle virus (Australia)
 1999 – Nipah virus (Malaysia)
 2000 – Tioman virus (Malaysia)
 2001 – Nipah-like virus (Bangladesh)



The Nipah Outbreak

- Early cases of encephalitis in Perak, north of Kuala Lumpur.
- First thought to be Japanese encephalitis (JE), and extensive immunisation was carried out with JE vaccine.
- However, human cases were observed in vaccinated individuals & pigs were dying, not a normal symptom of JE in pigs.
- Outbreak then exploded in early March 1999 in Negeri Sembilan, an area of intensive small-holding pig farms near to Kuala Lumpur.

Impact of the outbreak

Malaysia:	282 cases	105 deaths
Singapore:	11 cases	1 death

No new cases occurred after the outbreak, but further deaths were observed in individuals who had recovered but suffered from relapses.

Evidence for implicating fruit bats as the wildlife hosts of Nipah virus

Wildlife serology:

- *Pteropus vampyrus* 5/29 seropositive
- *Pteropus hypomelanus* 11/35 seropositive

Virus isolation – Nipah virus was first isolated from urine collected from *P. hypomelanus* on Tioman Island.

Transmission was presumed to be from bats to pigs, and then from pig-to-pig, pigs to cats, dogs, horses and humans. **NO HUMAN-TO-HUMAN TRANSMISSION.**

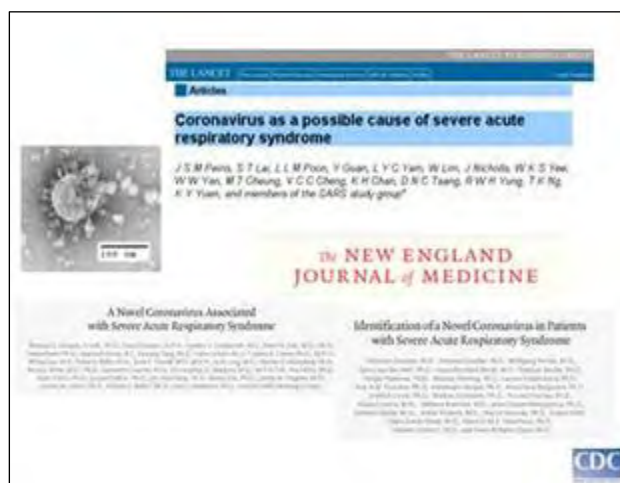


Nipah Virus Outbreaks 1999-2005

Dates	Location	Cases	Deaths	CFR (%)
Sep 98-Apr 99	Malaysia; Singapore (Mar 99)	265 11	105 1	40 9
Feb 01	Siliguri, India	66	45	68
Apr-May 01	Meherpur, Bangladesh	13	9	69
Jan-Apr 04	Goalando, Bangladesh	29	22	76
	Faridpur, Bangladesh	36	27	75
Jan-Mar 05	Tangail, Bangladesh	12	11	92

Nipah in Bangladesh, India & Cambodia

- Of international concern: good but circumstantial evidence of human-to-human transmission in 2004 and 2005 in Bangladesh, and in 2001 in Siliguri, India.
- Does this indicate future pandemic potential?
- Nipah virus may also been involved with outbreaks of disease in other parts of India.
- A Nipah-like virus has recently been isolated from fruit bats in Cambodia.
- Pteropid fruit bats have been found to have antibody to a Hendra-like virus in Papua New Guinea, and to a Nipah-like virus in Thailand and Timor Leste.



A global epidemic

- Cases reported by 27 countries in 6 continents based on WHO's surveillance case definition.
- Cumulative total >8000 cases & >770 deaths; 21% HCWs.
- Almost exceeded the surge capacity of acute care facilities and public health services.
- Social, political and economic impact, including psychosocial impact.
 - Estimated economic cost of \$US30 billion (Stanley Morgan); \$US100 billion (Nature); \$US48 billion in China alone (Chinese Center for Economic Research)

Post epidemic cases of SARS-CoV infection

- Since the end of the SARS epidemic there have been 14 cases of SARS-CoV infection:
 - Four cases of laboratory-acquired infection; one in September in a BL3 laboratory in Singapore, one in December in a BL4 laboratory in Taiwan, and two from the Institute of Virology in Beijing (see below);
 - Three confirmed cases & one possible case in Guangdong, southern China in Dec 2003 - Jan 2004; all of which were relatively mild, and no further human-to-human transmission occurred.
 - Nine cases (1 death) reported from Beijing and Anhui Province in April/May 2004, with three generations of cases, following two lab-acquired infections.



Rationale for continued vigilance for SARS

- Concern that further transmission may occur due to a laboratory accident or may be below the level of detection by "routine surveillance".
- Generally a feeling that if SARS happens again, we can respond rapidly and effectively using our knowledge of its transmission mechanisms and normal public health measures.....

Arthropod-borne viral diseases

Transmitted by mosquitoes, ticks or sandflies

Japanese encephalitis virus

Emergence and spread through a combination of changes in land use, and movement by vagrant avian hosts

Japanese encephalitis serological group



Japanese Encephalitis



- Most cases are asymptomatic, with 1:30-1:300 case : infectivity rates;
- Clinical disease is encephalitis (75-85%), meningitis (5-10%), myelitis (5-10%)
- Of clinical cases, ~25% fatal, 50% with severe-psychiatric sequelae, & 25% fully resolve;
- Most cases occur in young children in endemic areas;
- JE is a zoonosis, normally circulating between mosquitoes and waterbirds (particularly ardeids) or pigs.
- About 45,000 cases reported annually in Asia, but this may be gross under-reporting.

JE Movement



- It has long been recognized that JE virus has a high propensity to move into & colonize new areas.

- This has often been due to the development of new rice paddy fields, often associated with land clearing, deforestation, & changed agricultural practices.

Most recent expansion has been into Haryana State, India (1993); Pakistan (1994), Torres Strait (1995), Kerala State, India (1996), Cape York, Australia (1998).

JEV in Northern Australia – 1 Incursion due to Topotype 2 JEV

- 1995: JEV first described in islands of the Torres Strait of northern Australia, with three human cases and two deaths, and transmission to pigs on 9 islands - the closest known virus had been isolated in Indonesia, near Jakarta, 3000 km to the west!
- 1996-97: JEV activity observed in sentinel pigs in Australia;
- 1998: JEV again in Torres Strait, with first human case on mainland Australia, and isolates/serology in pigs in both Torres Strait and the mainland.
- The JEV isolates were all virtually identical and belonged to genotype/topotype 2.

And the future???

Will JE virus:

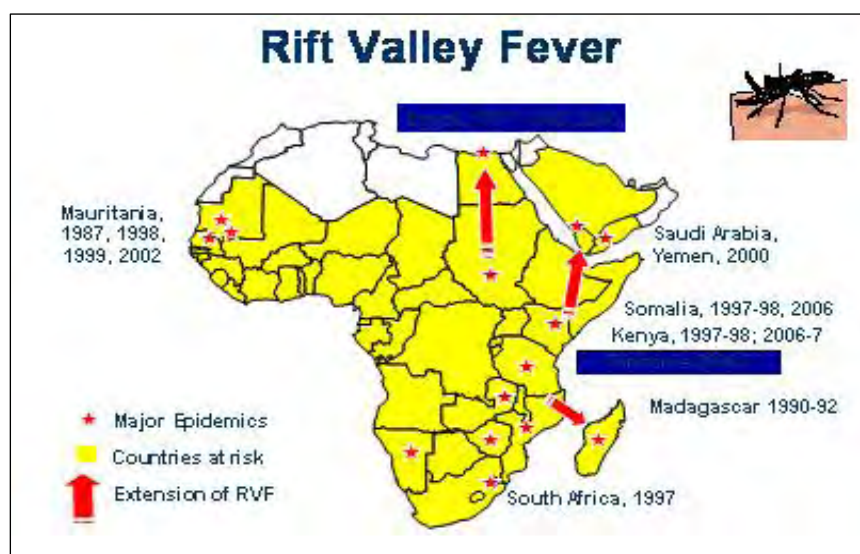
- Spread into the Oceania/Pacific area?
- Become established in Pakistan?
- Move further to another continent?
- Is there a risk to North America??

Other arboviruses of concern.....

Rift Valley fever

- There is a risk of an imported human case with sufficient viraemia to allow transmission if bitten by a competent mosquito species.
- Rift Valley fever has major animal and human health implications – in humans, can cause encephalitis and haemorrhagic fever as well as ocular problems. The fatality rate varies between 2 and 5%, but can be higher.
- Causes serious disease in ruminants, including abortion and death of neonates, and hepatitis and death in older animals.





Chikungunya

- Identified in 1952 (Tanzania)
- An Alphavirus in the family Togaviridae, 2 strains, 1 serotype
- Range from West, East and South Africa, islands in the SW Indian Ocean, and in southern Asia from India to Philippines
- Closely related to the African virus, O'nyong-nyong
- Transmitted by *Aedes* sp, especial *Ae. aegypti*, *Ae. albopictus*, *Ae. africanus*. Transmission also reported for some *Mansonia* sp., and *Culex quinquefasciatus*. Little is known about vector competence of other mosquito species.
- Vertebrate hosts include primates, but little is known about other possible vertebrate host species.

Chikungunya

- Not generally a serious disease, although occasional cases can be severe.
- Very similar in presentation to dengue fever, with fever, joint pain (or arthralgia), arthritis affecting multiple joints, swelling of joints, nausea, chills, vomiting. There may sometimes be a rash. Haemorrhagic manifestations occur very occasionally (similar to DHF).
- Death is very uncommon.
- Up to about 10% can have chronic joint symptoms.

Chikungunya and Dengue outbreaks - Indian Ocean 2006

<u>La Réunion</u>	<u>Mayotte</u>	<u>Mauritius</u>
• Population 760,000	• Population 180,000	• Population 1,200,000
• 218,000 estimated cases	• 3,754 reported cases	• 8,800 estimated cases
• Attack rate - 29%	• Attack rate - 2%	• Attack rate - 2%
• Hospital rate - 3%	• Hospital rate - 3%	• Hospital rate - 1%
• 155 death certificates CHIK	• No death reported	• No deaths reported
• Excess mortality >10%		
• PIB 10 Billion Euro		

Additional viruses of possible concern

- Some viruses which could prove to be of some concern in the future are:
 - Sepik virus - a flavivirus from PNG and a close relative of Yellow Fever, and almost indistinguishable from a very serious livestock virus - Wesselsbron.
 - Alkhurma virus - a tick-borne virus related to Kyasanur Forest virus of India and found to cause fatal disease in butchers in the Middle East.
 - Me Tri virus - a mosquito-borne Alphavirus from Vietnam causing encephalitis
 - Ebola Reston strain - from the Philippines, and probable a bat-borne virus.
- Others as yet unknown in wildlife



What should countries be doing??

1. Pre-border surveillance:

- Pre-border surveillance is an essential component of any surveillance initiative to improve early warning and risk mitigation.
- It should be done through a partnership with various labs (e.g. Indonesia, PNG, Malaysia, Singapore, Australia & Philippines).
- Support for WHO programmes designed to improve surveillance capability through laboratory capacity and infrastructure building – APSED and GLaDNET. These help meet national needs for implementation of new IHR.

What should countries be doing??

2. Improving Bio-safety and Bio-containment:

- The recent lab accidents with SARS-CoV, Ebola, Sabia and anthrax, mainly in developed country labs, reinforce the need to ensure that all countries adhere to a basic standard of bio-safety and bio-security, especially when dealing with diseases of international significance.
- With the new IHR, this becomes increasingly important, and countries should not work on this issue alone, but rather, work together on bio-safety issues as part of a capacity building for improved surveillance.

What should countries be doing??

3. In-country early warning and response systems:

- Laboratory-based surveillance and support for response activities. Lab confirmation & analysis of risk factors are important to reduce disease transmission.
- Disease prioritization. Need national policies, definitions & standardized data collection/feedback dissemination.
- Rapid response teams to disease outbreaks. Health workforce development - trained staff who can respond to a number of diseases & bio-threats. Cross-country expertise: sharing human resources.

Thank you



Annex F

MULTILAYER TRAINING IN APPLIED EPIDEMIOLOGY: KEY ISSUES AND COST IMPLICATIONS

Michael O'Reilly, MD, MPH

CDC Southeast Asia Regional Advisor, IFETP Thailand Staff

Multilayer Training in Applied Epidemiology: Key Issues & Cost Implications



Michael O'Reilly, MD, MPH
CDC Southeast Asia Regional Advisor
IFETP Thailand Staff



Overview

- Population Based Needs Assessments
- The Geometry of Expansion
- Structural Underpinnings of Expansion
- Coherence & Effective Program Building
- Cost Estimation and Indices
- Riding Economic Waves

Epi Capacity: Targets

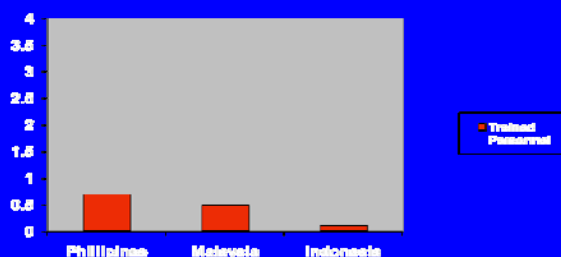


- Currently, neither WHO nor CDC have a target number of 2 year applied epidemiology program graduates per 500,000 population
- Nor do they have a target number of medium term (1-6 months training) program graduates per administrative designation or 500,000 population
- No one knows how to estimate a target # of short course training graduates or rapid response teams

Disease Response & Surveillance



Estimated IFETP Graduates per 500,000 Population:
Selected SE Asian Countries, 2007



*Trained = graduate of 2 year program

Epi Capacity Assessment

- Intensive 2 year course graduates alone cannot provide adequate disease detection and response capacity needs for a country with population > 2 million
- The greatest need may not be increasing the volume of such intensively trained public health officials
- Multiple layers of training may best address country's needs

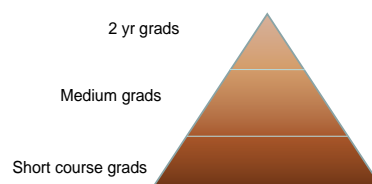


Denominators: Should Factor Heavily into Needs Assessments

- **Indonesia**
 - 235 million population
 - 33 provinces; 440 districts
- **Malaysia**
 - 25 million population
 - 13 states
- **Philippines**
 - 91 million population
 - 81 provinces

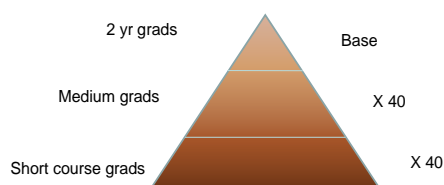
Geometry of Expansion: Pyramid Models

- The higher the training level, the fewer persons involved
- No evidence-based training ratios exist



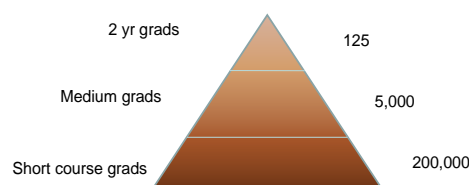
Geometry of Expansion: Pyramid Models

- The higher the training level, the fewer persons involved
- No evidence-based training ratios exist



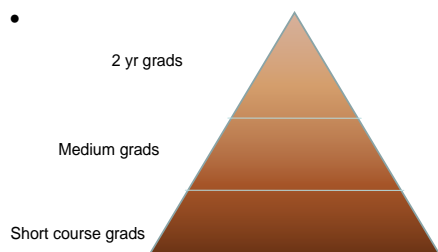
Geometry of Expansion: Pyramid Models

- The higher the training level, the fewer persons involved
- No evidence-based training ratios exist



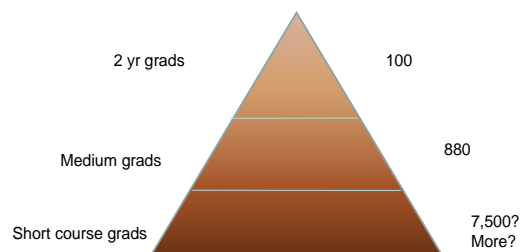
Geometry of Expansion: Pyramid Models

- In reality, administrative divisions may be best basis for ratios
-



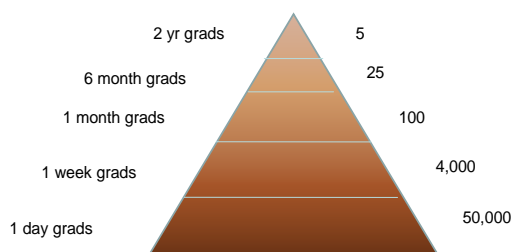
Expansion example: possible Indonesian five year targets

- 235 million population; 33 provinces; 440 districts



Expansion example: *possible* Indonesian five year targets

- Complex needs of country may dictate > 3 levels



Expansion Geometry: Flaws

Pyramidal structure is too simplistic:

- Short courses can appear powerful quantitatively (lots of butts in seats), but may not increase system capacity
- Intensive courses can provide excellent training, but without capacity at lower levels, may not increase system capacity

One Solution: Integrate Training by Use of Double Cascade

The higher level trains the lower levels

Echo trainings/
consistent curriculum

Best students advance to higher level training

Better surveillance and health event reporting



Structural Underpinnings of Expansion



- Building national disease detection and response capacity is large scale construction
- Requires not only building materials, but heavy infrastructure

Understanding the Scope of Expansion

- Cannot meet goals with partial commitment or part time staff
- Requires dedicated FTEs and budget



Structural Underpinnings of Expansion

- Curricular Development
- Training
 - trainers
 - provincial level teams
 - district level teams
- Coordinator at each province/state level
- Annual meetings
- Financial and technical assistance to rapid response teams
- Field-based follow-up

Itemize Expansion Costs: Staffing

- National level FTEs
- Provincial level coordinators (part time?)
- Trainers
- IT (consider distance training via web/CDs)
- Curricular consultants
- Administrative staff
- M & E staff
- Staff travel, fringe, other

Itemize Expansion Costs: Meetings/Workshops

- Venues
- Honoraria for some lecturers?
- Per diem, if appropriate
- Travel (trainers and participants)
- Lodging
- Texts
- Supplies



Itemize Expansion Costs: Support of Local Teams

- At sub-district level, teams are essentially composed of volunteers
- Local gov't has scarce funds for investigations and may have scarce supplies
- Providing each team with funds to conduct investigations may be advantageous

Coherence & Effective Program Building

- What measures indicate the success of your expansion?
- Who keeps track of this?
- How do you obtain long term donor support?

Monitoring & Evaluation of Program Building: Indicators

- Number of persons trained at each level
- Outbreaks reported
- Outbreaks investigated
- Number of persons who investigate outbreaks
- Surveillance reports submitted
- Surveillance reports submitted on time
- Investigations where laboratory specimens are submitted
- Investigations where etiology confirmed
- Surveillance systems evaluated
- Number of investigation reports submitted
- Timeliness



Monitoring & Evaluation of Program Building: Indicators to Avoid

- Number of outbreaks where disease was controlled
- Number of outbreaks that led to a change in health policy
- Rates of reported disease
- New diseases*

Monitoring & Evaluation Caveats

- Measure initial level of indicators
- Review progress & troubleshoot (realistically)
- Distribute reports to public health personnel and donors

Cost Estimation and Indices

Building real capacity:
costs at skyscraper levels

Consider cost indices

- \$/per 500,000 population
- \$/per outbreak investigated
- \$/per trained individual at specific administrative level



Riding Economic Waves

Currently we are in rich times, but ... expect cyclical funding levels



- Challenge: avoid money's poisonous characteristics
 - Securite Generale
 - 31 y/o mid level trader
 - Lost \$7 Billion USD this week
 - Current levels of support may not last

Holding On in Tough Times

Hang on Firmly to the Priority Activities

- Priority:
 - Outbreak investigations
 - Surveillance analysis
 - Surveillance system development and enhancement
- Not Priority:
 - Sophisticated research activities with well resourced partners
 - Disease du jour



Annex G**CURRENT SITUATION OF INDONESIA FETP**

Hari Santoso, MD, SKM, M.Epid

Ministry of Health, Indonesia

Current Situation of Indonesia FETP

Manila, 31 March – 1 April 2009

1

FETP Background in Indonesia

- Started in 1982 as **"non-degree"** training program by MoH
- Changed in 1990: **"degree program"** (Masters) at UGM/UI
- Secretariat remained at MoH until 1992
- 1993-2007: FETP administered independently through the universities. Very little input from MoH.
- 2005 →: Push for change in the FETP system. MoH to be more involved again → **"FETP Revitalization"**

FETP Revitalization Goals

1. Enhance MoH involvement in FETP oversight, administration & embed the program into the system.
2. Ensure sustainability of FETP in Indonesia.
3. Increase number of graduates to meet demand.
4. Revise current curricula to ensure graduate have skills that meet MoH needs.
5. Join the International network

FETP: Part of Human Resource Epi Capacity

Different types of capacity:

1. FETP (2 years): **specialists** in field epidemiology
2. NETP (3 mths): knowledge & capacity to apply epi concepts
3. Volunteer epidemiology training (2 day): for community health volunteers who can identify unusual events & report them
4. Manager training (2 weeks): enable managers to appropriately utilize epidemiologists & their outputs

Applied Epidemiology Needed for Health Sector ⁽¹⁾

Level	FETP	NETP	Volunteer	Manager Epi
Central level	150	100	-	100
Provinces level	250	300	-	200
District level	500	1.500	-	500
Village level	-	-	70.000	-
Total	900	1.900	70.000	800

Number of FETP graduates : 250

Applied Epidemiology Needed for Health Sector ⁽²⁾

a. Distributions

- Priority candidate from Indonesia east regional
- Priority candidate from district / mun. level

b. Time Schedule

- Estimate product / alumni = 40/years, conducted by 2 university and then extend to 2 universities (USU, UNHAS)

5



Estimated Budget Needed (US\$)

FETP	900 x 10.000	: 9.000.000
NETP	1.900 x 2000	: 3.800.000
Volunteer	70.000 x 50	: 3.500.000
Epi Manager	800 x 750	: 600.000
Total		: 169.000.000

7

FETP Funding Resources

1. Government (national & local)
2. Donor agencies
3. Private

8

Preparing for the field



Interviewing the Case, Family & Contacts



FETP Activities on Outbreaks Investigation



Thank You

12



Annex H**MALAYSIA: APPLIED EPIDEMIOLOGY TRAINING AND NETWORKING - ISSUES AND CONSTRAINTS***Fadzilah binti Kamaludin, MD**Ministry of Health, Malaysia***MANDATE**

- Requirement
 - Must have MPH when serving in public health related areas and in health districts
- PUBLIC HEALTH training is conducted
 - Universities – MPH, PhD, DrPH
 - Institute for Public Health
 - Institute for Health Management
 - In house training
- Placement
 - Ministry level – Program Managers
 - State level- State Epidemiology Officers
 - District level – District Health Officer

Epidemiology training programs

- Basic training in PH (epidemiology) at the Universities
 - Physicians –MBBS, MD
 - Have 2-3 years PH work experience
 - MPH 4 years specialized course in
 - Biostatistics & Epidemiology, Environmental & Occupational, Health Management, Family Health etc..
- Basic training for allied health personnel
 - Diploma courses - Public Health Inspectors
 - Post basic training – Public Health Nurses
- In-services training at other health institutions
 - Minimum 3-4 days training
 - Focus area: outbreak management, disease specific, IT & statistical computing, epid & biostat, specific programs e.g. IHR

Human resource capacity & capability

LEVEL	TYPE OF STAFF/WORK PLACE	TYPE OF JOB SPECIFICATION	ID
MINISTRY LEVEL	SURVEILLANCE (CPRC TEAM) GDC VECTOR	ID program & budget planning Emerging diseases epidemiology Disease specific surveillance & response Risk communication Data & IT management IHR & APSED requirement Monitoring & Supervisory role	
STATE LEVEL	EPID OFFICER RAPID RESPONSE TEAM	Emerging diseases epidemiology Disease specific surveillance & response Outbreak investigation & control Data & IT management IHR & APSED requirement Risk communication	

CPRC team: epidemiologist, entomologist, public health inspectors
 RAPID RESPONSE team: epidemiologist, ID physicians, public health inspectors, etc...

Human resource capacity & capability

LEVEL	TYPE OF STAFF	TYPE OF JOB SPECIFICATION	ID
DISTRICT LEVEL	DISTRICT HEALTH OFFICER RAPID RESPONSE TEAM	Disease specific surveillance & response Emerging diseases epidemiology IHR & APSED Outbreak investigation & control Specimen taking & transportation Data & IT management Risk communication	
HOSPITAL	ID PHYSICIANS INFECTION CONTROL TEAM ID NURSE STAFF	Emerging disease clinical management Symptomatic approach clinical management Data & IT management Lab response	
LABS	PATHOLOGIST LAB TECHNOLOGIST	Specimen taking & processing Clinical interpretation Data & IT management	

INFECTION CONTROL TEAM: ID physicians, nurses



Why EIP Malaysia

- Cabinet decision in 1998 to strengthen capacity & capability in disease control
 - Reviewed our epidemiology training programs
- What we have:
 - Most of the epidemiology training is theoretical, complex & research oriented, ah-hoc, in pieces
- What we NEED is applied epidemiology (shoe leather) training
 - Disease surveillance & evaluation, outbreak field investigation, application of epid & statistical methods, lab specimen taking, report writing, oral & written presentation, risk communication
 - Urgent, relevant conclusion & focus decision making

Human resource capacity development EIP Malaysia's NEEDS / year

LEVEL	TYPE OF TRAINING	NO	EST. COST
MINISTRY LEVEL - PROGRAM MANAGER	Curriculum design & instruction Curriculum development e.g. case studies Paper reviews /edit / critic	5	
TECHNICAL SUPERVISORS	Advanced courses in applied epidemiology Soft skills & mentoring	10	
STATE LEVEL - FIELD SUPERVISORS	Managerial skills Disease priority setting & decision making	14	

Human resource capacity development EIP Malaysia's NEEDS / year

LEVEL	TYPE OF TRAINING	NO	EST. COST
STATE LEVEL	FETP equivalent Outbreak management Data management	1 /state 2-3 /state 2-3 /state	
DISTRICT LEVEL	FETP equivalent Outbreak management Surveillance & response Lab response	1/district 3-4 /district 3-4 /district 2-3 /district	
HOSPITAL & LAB LEVEL	Syndromic approach management	1-2 /hospital 1-2 /lab	

CHALLENGES

EIP Malaysia

- To have a constant intake of fellows
 - In service training
 - Part time training program
 - Must be able to balance to become requirement EIP training program Vs designated job e.g. outbreak
- Voluntary
- Currently restricted to physicians
 - Need to extend to other team players e.g. Lab technicians, nurses, PH inspectors
- To keep updating the skills and competencies of trainers/supervisors
- To maintain networking with other similar training programs

Training conducted by others
continuity of the training program which is subjected to the priority of the training institution & budget allocation



email:
tephinet2008.moh.gov.my

Website:
www.tephinet2008malaysia.com

Venue:
Renaissance Hotel, Kuala Lumpur

Abstract deadline:
31st May 2008





TEPHINET
KUALA LUMPUR, MALAYSIA 2008
1 - 6 November
The 5th Global Scientific Conference



Annex I**THE PHILIPPINE FETP: TOWARDS EXCELLENCE IN PUBLIC HEALTH PRACTICE****Dr. Joy Althea Pabellon***National Epidemiology Center, Department of Health, Philippines***History**

- 1987** FETP established in Dept. of Health with USAID and CDC assistance
- 1994** autonomous, run by DOH staff (FETP graduates)
- 2000** National Epidemiology Center, DOH

**Philippine FETP****Goal**

improve the practice of epidemiology in the government public health sector

Key Strategy

applied (in-service) field epidemiology training based at the national health department

**Activities of FETP Trainees**

- Outbreak investigations**
 - Descriptive and analytic studies
- Surveys & Program Evaluations**
 - Rapid assessment, cluster surveys, qualitative research
- Surveillance**
 - Infectious and non-infectious diseases

**Surveillance Systems****National Epidemic Sentinel Surveillance System (NESSS)**


- AFP/Polio + Measles + Neonatal Tetanus
- HIV/AIDS
- Injuries

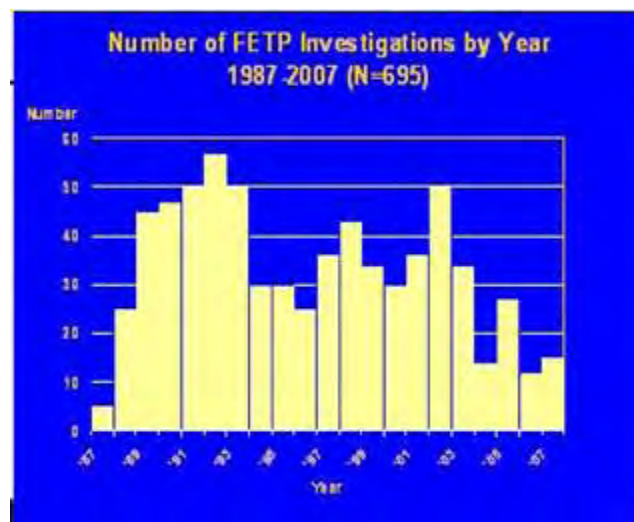


Activities of FETP Trainees

Communicating information
Public health advisories, media interviews, presentations


Training of health workers
Didactics, short epidemiology and public health surveillance courses






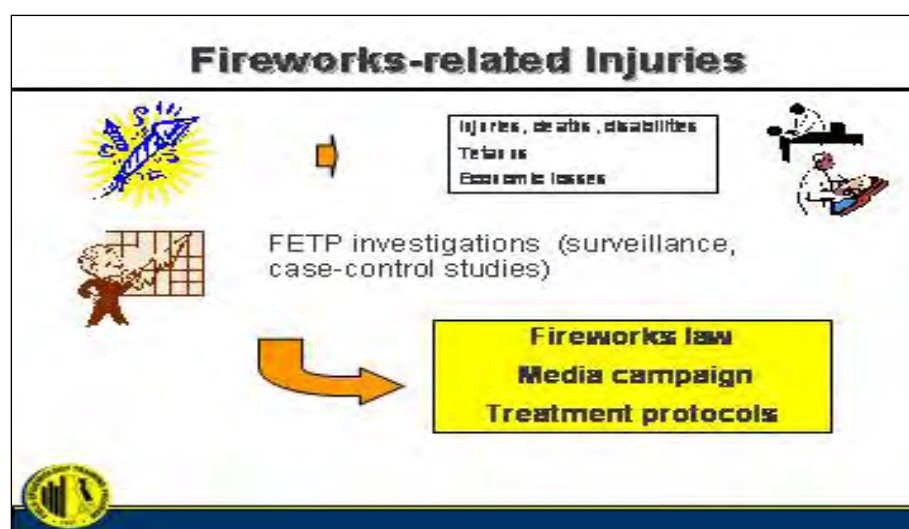
Impact of FETP Investigations

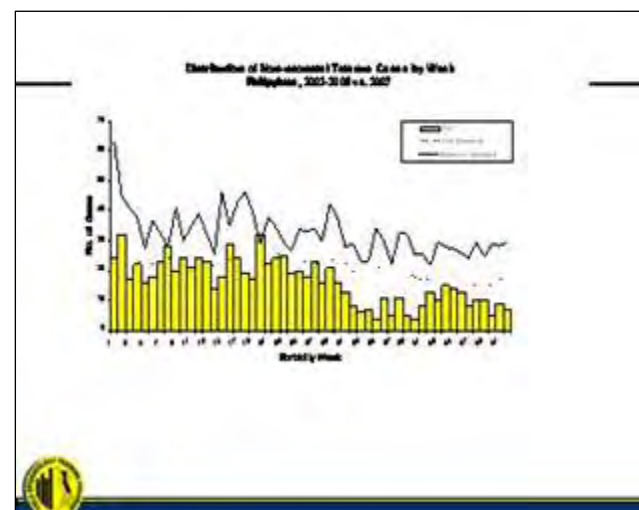
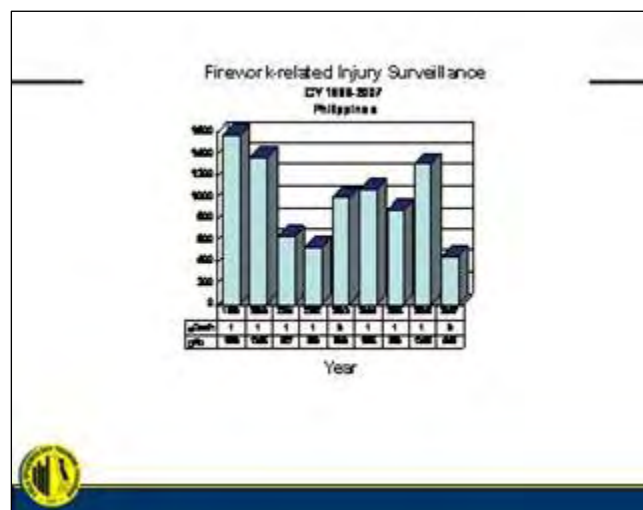
- **Improved water systems**
 - Outbreak investigations
- **Identification of vulnerable groups and rational allocation of resources during disasters**
 - Rapid surveys, surveillance



Impact of FETP Investigations

- **Recognize public health problems**
 - Malaria among injecting drug users, misdiagnosed paragonimiasis cases, detection of cVDPV
- **Clarify issues and allay fears**
 - Ebola-Reston outbreak among monkeys, Tetanus toxoid and abortions, Anthrax scare



Impact of FETP on Public Health System

- Upgrade technical skills of public health workers
- Encourage evidence-based decision-making
- Enhance credibility of government health sector
- Improved quality of health services

Benefits of an FETP

Short term Impact:
early detection and response to public health problems → minimize morbidity and mortality

Long term Impact:
Empowered health workers → better health services → Healthier population



Strategies to Achieve Impact

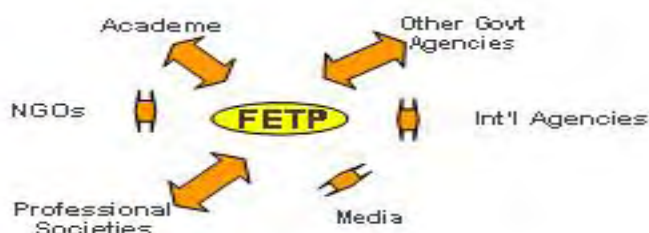
Institutionalization of FETP at the DOH

- Access to decision makers
- Access to media
- Easy to mobilize trainees
- Authority to conduct investigations



Strategies to Achieve Impact

Networking with other sectors



Public Health Workforce in Applied Epidemiology

Type of Training in Applied Epidemiology	Level of Public Health System	Estimated Number of Trained Staff Needed	Estimated Cost per Trainee	Estimated Total Cost Needed (PHP Millions)
Field Epidemiology Training Program (FETP) – 2 years	Careers for Health Development (CHD) Regions, Provinces, Cities/Municipalities	27 to 100,000	PHP 40,000	PHP 1,080,000 to 4,000,000
Local Epidemiology, Surveillance and Management Training – 6 months	CHD Regions, Provinces	27 to 100	PHP 30,000	PHP 810,000 to 3,000,000
Basic Epidemiology and Surveillance Training – 2 days	Cities/Municipalities	27 to 100 (at 100)	PHP 1,000	PHP 27,000 to 100,000



**Maraming
Salamat**



Annex J

BREAKOUT GROUP SESSION 1: INPUTS TO APPLIED EPIDEMIOLOGY TRAINING

BREAKOUTS

MECHANICS

1. Breakout into 3 groups
2. Select a Chair
3. Select a Rapporteur
4. Time Management:
 - discussion = 30 minutes
 - plenary presentations = 30 minutes

GROUP 1 - Malaysia

Chair – Dr. Zainudin

Rapporteur – Dr. Rohani binti Jahis

Members:

Dr. Fadzilah Kamaludin
 Dr. Teong Wah Lim
 Dr. Allan Li
 Dr. Sing Menorath
 Dr. Michael O'Reilly
 Dr. Jose Rodriguez
 Mr. Jay Payuyo
 Ms. Shwu Fang Long

GROUP 2 - Indonesia

Chair: Dr. Hari Santoso

Rapporteur: Dr. Haripurnomo

Members:

Dr. Ratna Djuwita Sukirna
 Dr. Hudoyo Hupudio
 Dr. Gina Samaan
 Mr. Stephane Rousseau
 Dr. Jim Andersen
 Dr. Vincent de Wit

GROUP 3 - Philippines

Chair – Dr. Eric Tayag

Rapporteur - Dr. Troy

Members:

- | | |
|------------------------------|-----------------------|
| • Dr. Genesis Samonte | Dr. Nicolas Catindig |
| • Dr. Vito Roque, Jr. | Dr. Agnes Segarra |
| • Dr. Maricel Castro | Dr. Juan Lopez |
| • Ms. Dulce Elfa | Dr. Nerissa Dominguez |
| • Dr. Vikki Carr delos Reyes | Mr. Noel Orosco |
| • Dr. Nemia Sucaldito | Dr. Robert Bernstein |
| • Dr. Joy Pabellon | |
| • Dr. Marlow O. Nifal | |
| • Dr. Grace Viola | |

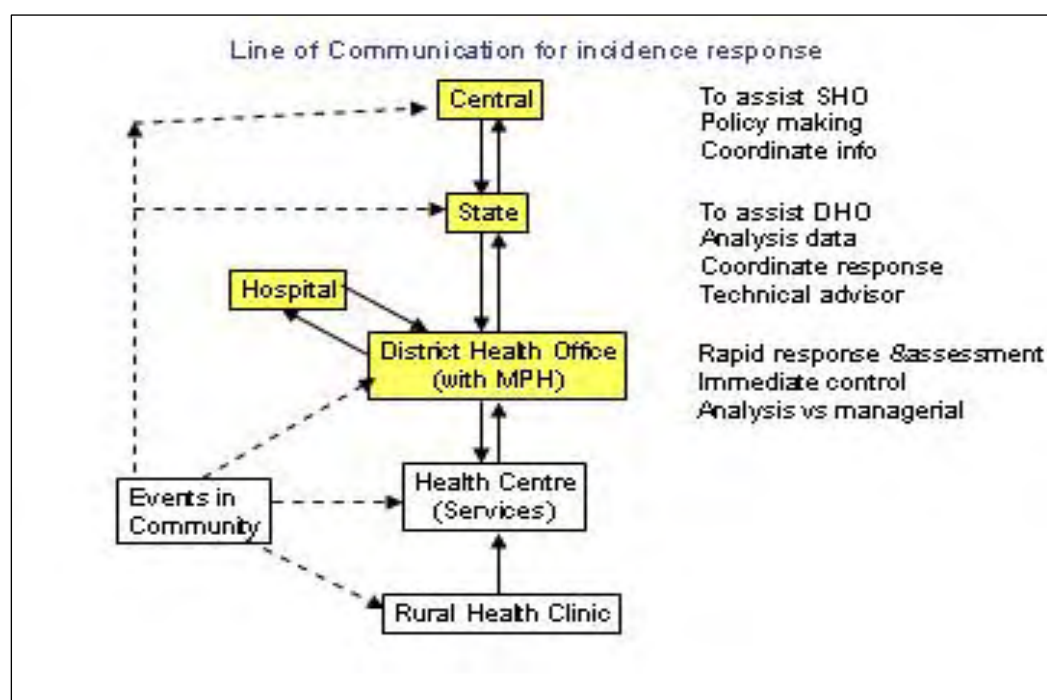


Annex J-1**PRESENTATION OF MALAYSIA****Epidemiology Training Needs**

Malaysia

Health System

- Health services
 - 75% government & 25% private
- Centralised health system
 - Directive from central government
 - Manpowers – employees of MOH



Epidemiology training

- EIP
 - 2 years non-degree program
 - Entry: MPH holders
 - Monthly salary with allowance
 - Strengthened their knowledge, skills and competency
- Outbreak investigation course
 - Theoretical
 - Impact??

Knowledge transfer

- Quarterly epid meeting
 - Lesson learned in outbreak investigation
 - Expectation and norms
- State epid meeting
 - Monthly or fortnightly
- District epid meeting
 - Weekly

International participation?

- EIMP
 - South-South Cooperation
 - 2nd intake – June 2008 for 1 month
- One week outbreak investigation
 - Plan 2x a year
 - 1st in May 2008
- EIP June introduction course
 - 2 weeks course

Challenges

- Not enough manpower
 - To increase mentor : mentee ratio
- Local scenario PBL
- A week hands-on outbreak investigation
- Credentialing and accreditation of epid training

Annex J-2

PRESENTATION OF INDONESIA

Indonesia FETP
Break Up Discussion Group

The System



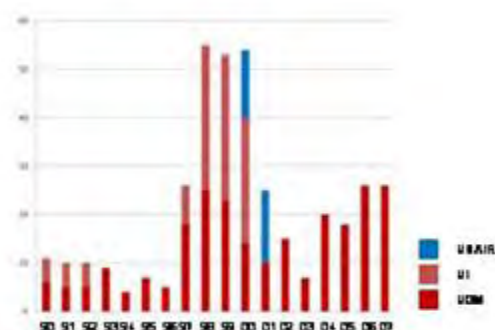
Distribution of FETP Graduates (UGM, 2006)

Province	Total	Province	Total
DI Aceh	1	Kalimantan Tengah	8
Sumsatra Utara	8	Kalimantan Selatan	22
Sumsatra Barat	3	Kalimantan Timur	2
Riau	3	Sulawesi Utara	4
Riau Kepulauan	1	Gorontalo	2
Jambi	10	Sulawesi Tengah	17
Sumsatra Selatan	8	Sulawesi Tenggara	8
Bengkulu	2	Sulawesi Selatan	1
Lampung	3	Bali	7
DKI Jakarta	1	Nusa Tenggara Barat	12
Jawa Barat	1	Nusa Tenggara Timur	8
Banten	1	Maluku	2
Jawa Tengah	27	Irian Jaya Barat	2
DI Yogyakarta	28	Papua	10
Jawa Timur	4	Timor Leste	2
Kalimantan Barat	6		

Distribution of FETP Graduates



Yearly Student Intake



Training Schedule



Learning Strategies

A balance between academic competency and field

experiences and skills through:

1. Lecture on epidemiological concepts and methods
2. Practice and discussion on epidemiological cases
3. Self-learning
4. Literature review
5. Field projects
6. Seminars

First Question

Responsibilities and the levels of involvement with respect to disease surveillance and response? Clearly defined? Realistic? Make technicians clear?

- Responsibilities of different levels: National (policies and regulations) and regional (provincial and district: operational). There are three decrees by the Minister of Health: surveillance, early warning and epidemic control.
- Surveillance and response: mandated, but not enforced because this is not made known in all provinces/districts.
- Central capacities to oversee and control the implementation of surveillance and response in all areas are limited.
- Infrastructure for surveillance and response is not uniform in the districts.
- Mapping of the understanding of the decrees and existing infrastructure among the areas (provinces/districts).
- District level is the critical level for surveillance and response.

Second Question

Desired competencies identified?

- Responsibilities described, competencies are implied.

Third Question

Applied epidemiology training courses matching the required skills?

- Applied epidemiology is manifested as FETP (most of the time of the course is spent in the field)

Fourth Question

Retirements needed on the existing courses? Assistance required in retirement? Justification?

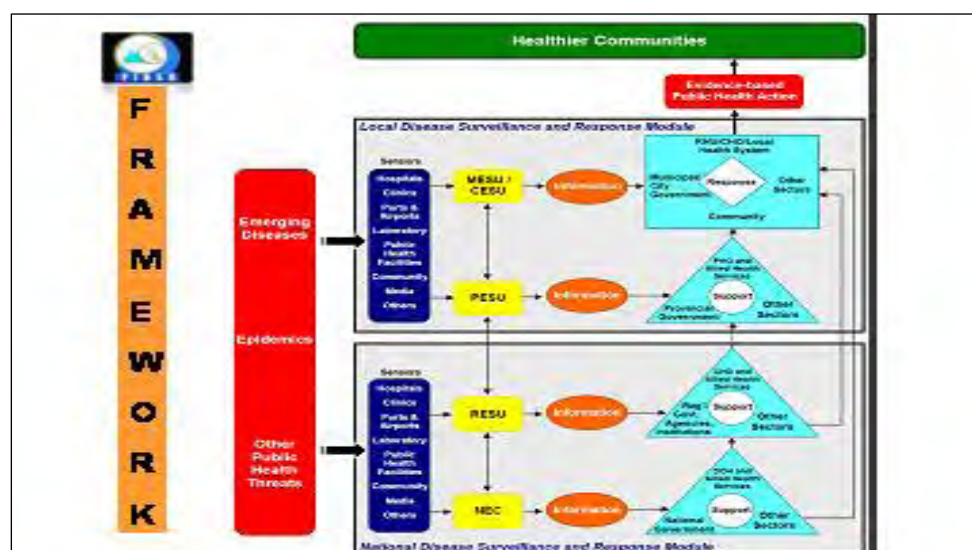
- Short-term training courses to meet the need in the districts.
- Monitoring of the different levels of applied epidemiology competencies.
- Monitoring the graduates, where they are going their careers.

SALAMAT PO



Annex J-3**PRESENTATION OF PHILIPPINE****Philippine Presentation****Question #1**

- What are the responsibilities of the different levels of health care (national vs. local, etc) with respect to disease surveillance and response?
- Are these responsibilities clearly defined by level?
- Are the relationships between the different levels clear?

**Questions 2 and 3**

2. Based on the expected responsibilities, are the desired competencies of staff at the levels identified?
3. Given the desired competencies, do the existing applied epidemiology training courses match the required skills? What has been the experience thus far with respect to these courses?

- Historically, the FETP Core Competency Model for the two-year FETP course is already well-developed for training a field epidemiologist.
- Graduates of FETP are expected to provide training on basic epidemiology and surveillance at the local level.



- For the Short Training Course, only selected appropriate competencies should be addressed for the participants:
 - e.g. PIDSR Training for Disease Surveillance Advocates PIDSR – one-day orientation on surveillance
- Training for Response have not yet been identified for the short course
- Curriculum for short courses are presently being developed

Suggestions

- Level-based Model for Competency (Cascade Training)
- Review different models for training – e.g. University Programmes (Univ. of North Carolina, UC-Berkeley)
- Community of Practice can lead to a good sharing of expertise in the region
- Could check with WPRO and SEARO to determine what is an/are effective training program(s)

Question #4

- What refinements are needed on the existing courses to make them more responsive?
- What assistance do you require in the refinement/adjustment of the existing courses?

- The present FETP training addresses the need for epidemiological skills to be competent in the accomplishment of Annex II tasks (Responsive to IHR) though it is not an actual module; there is a need to address communication across the country and WHO.
- As the NEC is the National Focal Point for IHR, training was already provided for FETP graduates and ESU staff on rapid reporting and response (events-based surveillance); strengthening the response module in FETP training

Thank you



Annex K

INTRODUCTION TO THE CONCEPT OF COMMUNITIES OF PRACTICES AND ITS APPLICATION TO CDC PROFESSIONALS

Stéphane P. Rousseau

Regional Coordinator

ADB Greater Mekong Subregion Communicable Diseases Control Project, Regional Coordination Unit


Technical Forum on Applied Epidemiology Training
Manila, 1st April 2008

**INTRODUCTION TO THE CONCEPT
OF "COMMUNITIES OF PRACTICES"
AND ITS APPLICATION
TO CDC PROFESSIONALS**

Stéphane P. Rousseau
Regional Coordinator
ADB Greater Mekong Subregion
Communicable Diseases Control Project
Regional Coordination Unit

INTRODUCTION TO THE CONCEPT OF "COMMUNITIES OF PRACTICES" AND ITS APPLICATION TO CDC PROFESSIONALS

"Community of Practice" ← **Knowledge Management** term...

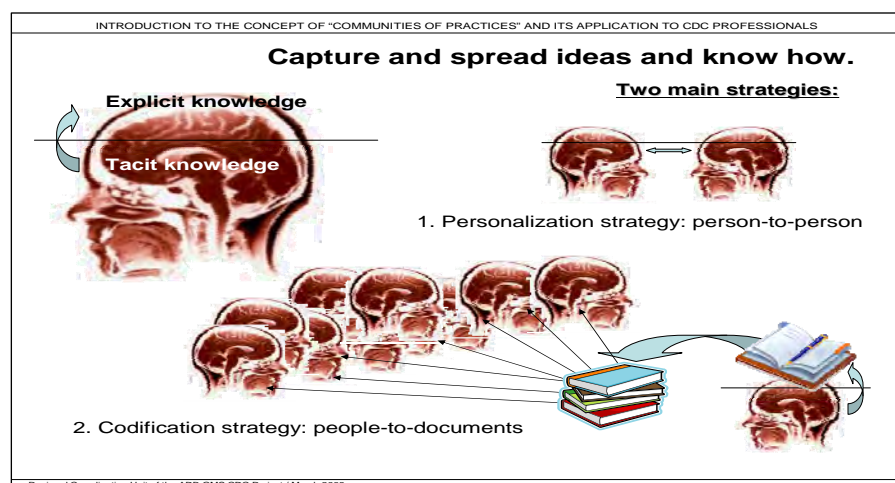


"Knowledge acquired through easily articulated means"

"Learned by doing" (skills, know-how, etc)

=> Capture that hidden Tacit Knowledge!

Regional Coordination Unit of the ADB GMS CDC Project / March 2008



INTRODUCTION TO THE CONCEPT OF "COMMUNITIES OF PRACTICES" AND ITS APPLICATION TO CDC PROFESSIONALS

~~Knowledge Management = Information sharing~~

Is "information sharing" a good thing... always?

Information can be
false, biased, distorted, incomplete, exaggerated, etc

Also, too much information is worse than not enough →
saturation, fatigue, confusion.

Regional Coordination Unit of the ADB GMS CDC Project / March 2008

INTRODUCTION TO THE CONCEPT OF "COMMUNITIES OF PRACTICES" AND ITS APPLICATION TO CDC PROFESSIONALS

"Don't want to know!"	All spams	
"Nice to know"	"Britney Spears has a new album"	"MUST know!"
"Good to know"	"New manual for epidemiology produced"	"Don't want to know!"
"MUST know!"	"a new severe pathogenic germ has been identified in the region"	"Don't want to know!"
	↑	↑
	For a CDC professional	For your teenage daughter

To be useful, information must be filtered and targeted.

Regional Coordination Unit of the ADB GMS CDC Project / March 2008



INTRODUCTION TO THE CONCEPT OF "COMMUNITIES OF PRACTICES" AND ITS APPLICATION TO CDC PROFESSIONALS

How do I get info I like, I am interested in and I need most?

>> buy [expensive] book at the book shop.

>> or consult books at the library.

>> browse the WWW (knowing the searching and filtering "trick")

... or just have lunch with my colleagues!

Colleagues doing the same type of job know what I am interested in and what I already know. They automatically, naturally filter the information...

~~"Hey guys! You know what malaria comes from mosquito bite!"~~

"Mind you, guys, there's something bad circulating in the area with a very high CFR!"

...and more importantly they can tell me stories that explain the "know-how".

"Hey, it's not because she said "uhhh" to your question that's it mean "yes", your outbreak investigation questionnaire results may be wrong"

Regional Coordination Unit of the ADB GMS CDC Project / March 2008

INTRODUCTION TO THE CONCEPT OF "COMMUNITIES OF PRACTICES" AND ITS APPLICATION TO CDC PROFESSIONALS

Do peers in CoP provide only "Good to know" and "Must Know" information?

→ No, risk of false, biased, distorted, incomplete, exaggerated info still exists → need for VALIDATION of information before redistribution.

CoP = not informal group → CoP contribute to the management of the knowledge. Not only talks!

Knowledge → "Knowledge is information that changes something or somebody" (Peter F. Drucker)

Management → seeks performance

Knowledge Management → How to increase performance through a good management of knowledge.

Regional Coordination Unit of the ADB GMS CDC Project / March 2008

INTRODUCTION TO THE CONCEPT OF "COMMUNITIES OF PRACTICES" AND ITS APPLICATION TO CDC PROFESSIONALS

A definition of "Community of Practice":

"Communities of Practices are groups of people informally bound together by shared expertise and passion for a joint enterprise"

Source: Wenger and Snyder, Communities of Practice, in Harvard Business Review on Organizational Learning, Harvard Business School, 2001

CoP ~ "permanent free workshop" or constant happy brainstorming.

A community = tens or even hundreds of people, but typically it has a core of participants whose passion for the topic energizes the community and who provide intellectual and social leadership.

Regional Coordination Unit of the ADB GMS CDC Project / March 2008

INTRODUCTION TO THE CONCEPT OF "COMMUNITIES OF PRACTICES" AND ITS APPLICATION TO CDC PROFESSIONALS				
Community of Practice vs. Teams, Task Force				
Group Types	Function	Basis of Membership	Basis of Cohesion	Duration
Communities of Practice	Develop members' expertise and define their place or role in the community	Self selected	<u>Commitment</u> and identification with the expertise that forms the basis of the practice	As long as members have <u>an interest in improving the practice</u> and maintaining the community
Formal Work Teams	Perform the ongoing work that has been assigned to the team (e.g., produce and deliver a product or service)	Everyone who has been assigned to the team	Job/performance requirements and continuing, common goals	Until the work or the organization is reorganized
Project Teams and Task Forces	Accomplish a specific task or assignment, usually during a particular time frame	As assigned by the management	Project milestones and goals	Until the project or task has been completed
Informal Networks	Collect and share information of common interest	Reciprocal value and acceptance, that is, members obtain and provide information of value	Perceived value in belonging and participating	As long as people have a reason to connect and share information
Source: Distance Consulting™ http://home.att.net/~discon/KM/CoPCharacteristics.htm				
Regional Coordination Unit of the ADB GMS CDC Project / March 2008				



INTRODUCTION TO THE CONCEPT OF "COMMUNITIES OF PRACTICES" AND ITS APPLICATION TO CDC PROFESSIONALS

What are the benefits CoP of CDC professionals can bring?

- Develop professional skills (laboratory, epidemiologists, clinicians, managers, etc).
- Improved performance of CDC chain of work at all levels (CDC Department, PHD, DHD, etc)
- More efficient CDC strategies, policies, guidelines and manuals, "books of knowledge".
- Generate more effective or innovative, inventive and improvisational ways to get CDC job done (when things do not happen "as in the book").
- More effective and much quicker way to solve problems (critical to CDC!).
- Promote the spread of best CDC practices.
- Better guaranty to recruit and retain talent.
- For FETP – critically based on experiences -- CoP will capture and transmit that experience to trainees.

INTRODUCTION TO THE CONCEPT OF "COMMUNITIES OF PRACTICES" AND ITS APPLICATION TO CDC PROFESSIONALS

If CoP are so effective, why aren't all people involved in it?

- Lack of awareness of the potential and of the benefits.
- barriers exists (knowledge=power, hierarchical pressure, work motivation, self-esteem, etc).
- No incentives, on the opposite (ex. deserted dengue website).
- Need nurturing.
- Confusion about Knowledge Management (KM=Info sharing) or consequence of incomplete/ineffective approach ("sharing experience"... then what?)

INTRODUCTION TO THE CONCEPT OF "COMMUNITIES OF PRACTICES" AND ITS APPLICATION TO CDC PROFESSIONALS

How to measure the value of CoP?

Very difficult through the "usual" quantitative indicators.

- Systematic collection of "stories", "anecdotes, etc
- Listening to CoP members can clarify the complex relationship among activities, knowledge, and performance.

Examples of estimated financial gain:

- At Shell company → Analysis of the stories revealed that CoP had saved the company (from wastage) \$2 million to \$5 million and increased revenue by >\$13 million in one year.
- Xerox's Eureka KM database (of tips) → estimated to have saved the corporation \$100 million.

Regional Coordination Unit of the ADB GMS CDC Project / March 2008

INTRODUCTION TO THE CONCEPT OF "COMMUNITIES OF PRACTICES" AND ITS APPLICATION TO CDC PROFESSIONALS

What can CDC managers or MoH do to get CDC CoP going and sustain them over time?

- Identify potential communities of practice that will enhance the CDC strategic capacities; (FETP Alumni?), and bring the right people together.
- Provide infrastructure that will support such communities and enable them to apply their expertise effectively: promotion system, support communities conferences, knowledge fairs, story competitions, library services, and technical support; remove structures that discourage collaboration.
- Provide the right incentives: recognitions, working conditions, promotion, etc.
- Supervisors to use supervision missions to identify the "Champions" (innovative and efficient staff willing to share)
- Supervision to review positively staff practices that are "out of the book". Think "out of the box".
- Accept to "forget" hierarchy during CoP time (especially in face-keeping cultures).

Regional Coordination Unit of the ADB GMS CDC Project / March 2008

INTRODUCTION TO THE CONCEPT OF "COMMUNITIES OF PRACTICES" AND ITS APPLICATION TO CDC PROFESSIONALS

Some of the limitations of the CoPs:

- One can capture only what exists!
- → need to enlarge the CoP and/or involved for outside (experienced international experts, etc)

Assumptions for well functioning CoPs.

- Managers and Supervisors understand the need to tap into their staff's knowledge, and support all capitalization efforts.
- Managers and Supervisors understand the benefit for staff to take part in CoP and let them invest time (own and working time) to exchange (either face-to-face or electronically).
- Staffs understand and are willing to spend time and energy in sharing.
- The right incentives are there (promotions, recognitions, social capital, etc)
- Good and systematic collection of "stories" to evaluate the value of the CoP.

Regional Coordination Unit of the ADB GMS CDC Project / March 2008

INTRODUCTION TO THE CONCEPT OF "COMMUNITIES OF PRACTICES" AND ITS APPLICATION TO CDC PROFESSIONALS

CoP and some of the issues discussed at this forum:

Capacity building? CoP brings skills, know-how, ideas, solutions to problems, etc.

Chain of work? CoP membership can be larger and more complete than people in the official organogram. Other professionals from other sectors can join provided they share the practice (lab technicians).

Brain drain?

- They are leaving? CoP to ask an in-depth informal debriefing.
- They left already: keep them in the loop! (in the CoP).
- Going on retirement? CoP organizes a debriefing before the farewell party.

Sustainability?

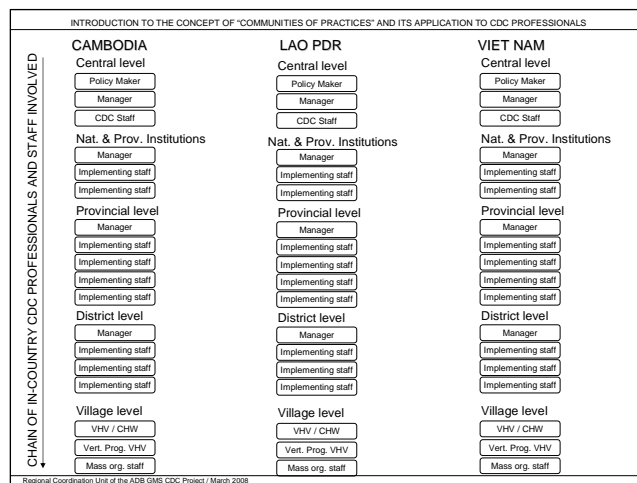
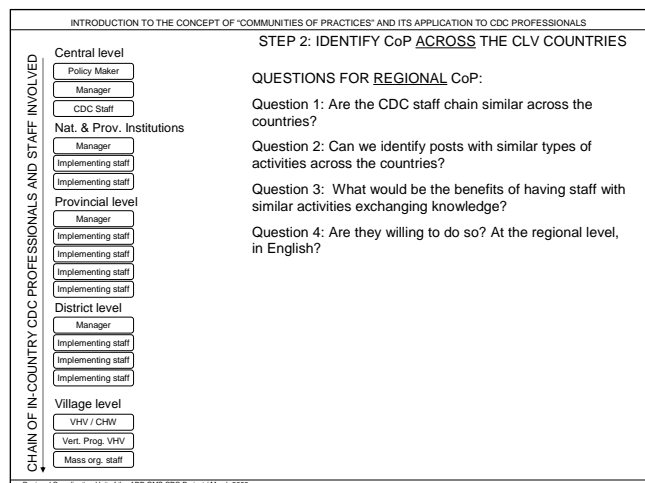
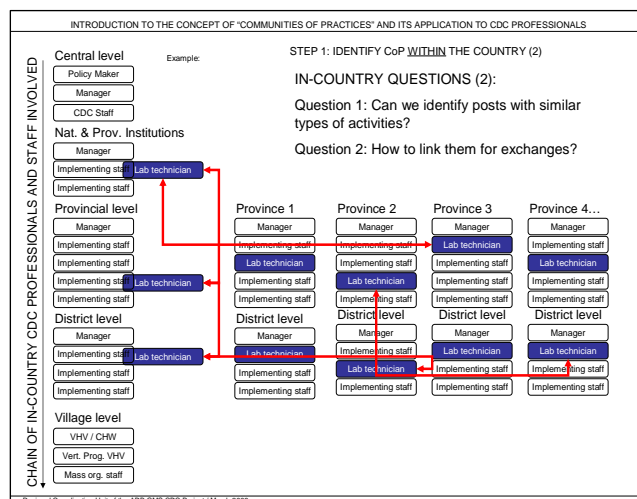
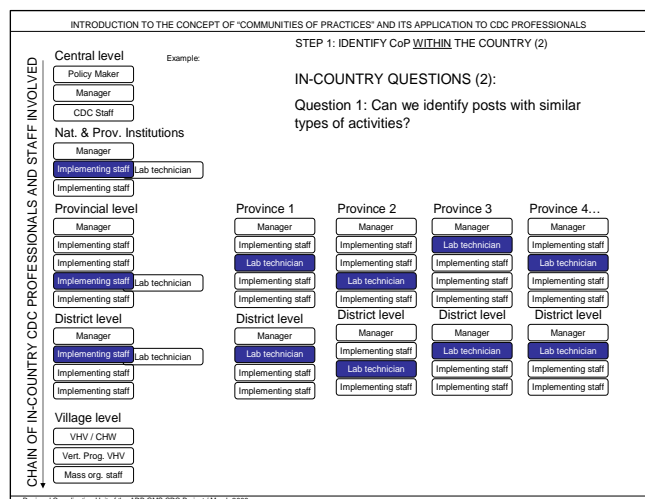
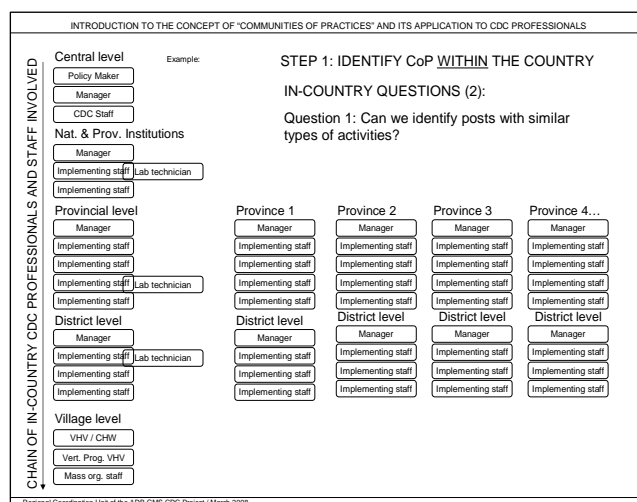
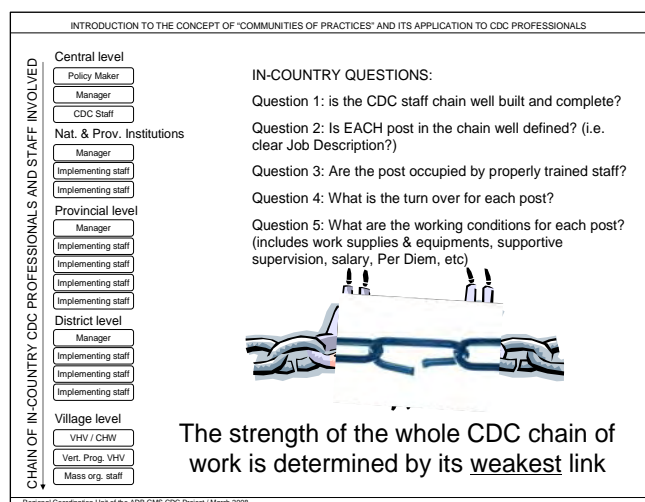
- Access to funding: CoP more likely to identify sources, and faster.
- Tutorial sustainability: CoP is best to ensure up-to-date materials for the curriculum.

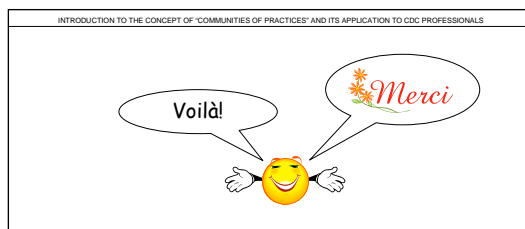
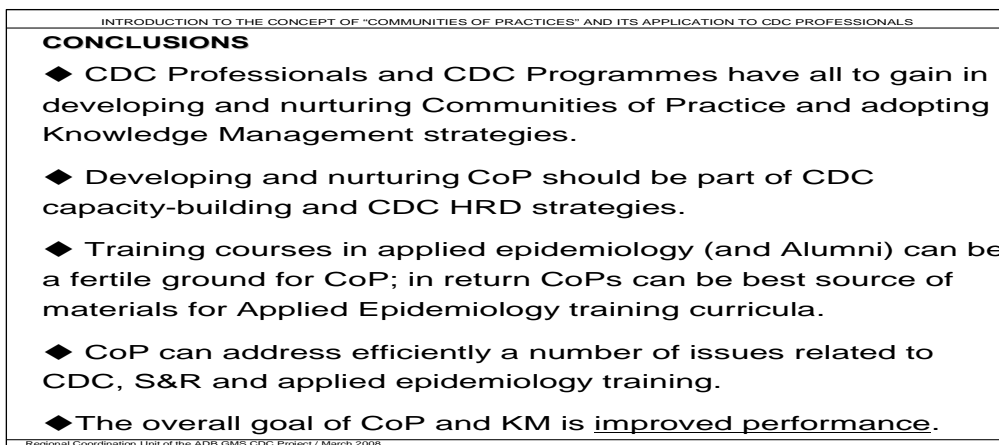
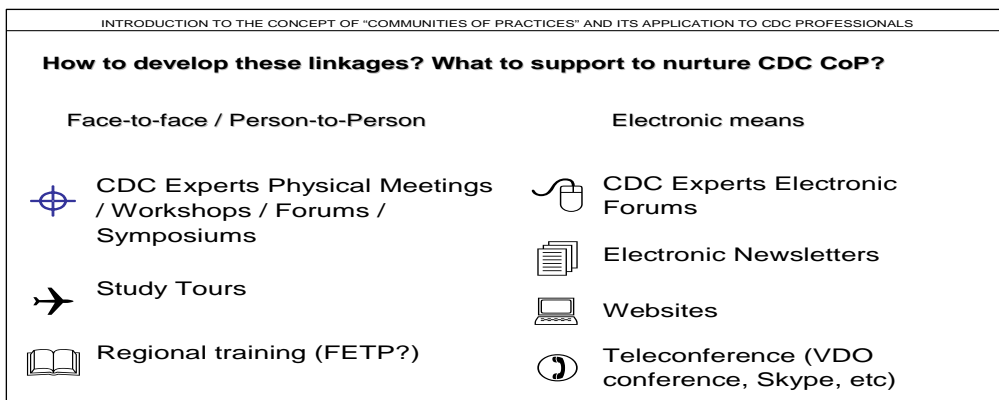
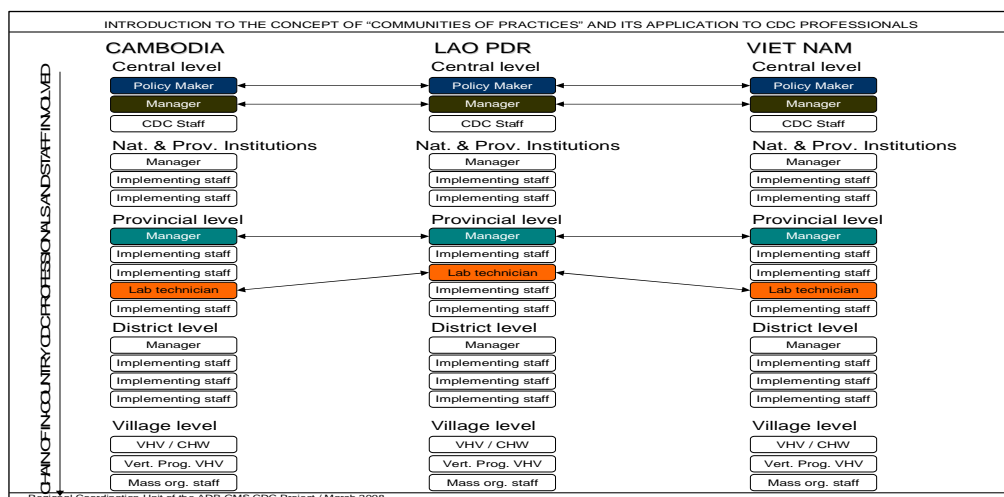
Event-based surveillance? CoP brings a large network of motivated professionals (i.e. PROMED).

"the devil is in the details": CoP will identify these details, and propose solutions.

Regional Coordination Unit of the ADB GMS CDC Project / March 2008







Annex L**THE EXPERIENCE IN INTERNATIONAL SUPPORT AND NETWORKING:
FUTURE NEEDS AND COST IMPLICATIONS****Dr. Jim Andersen***Executive Director, TEPHINET Inc.*

On behalf of the Board of Directors and Members of the Training Programs in Epidemiology and Public Health Interventions Network, better known as TEPHINET, I would like to thank the organizers, including the Asian Development Bank, for the opportunity to address this forum. They have put together an excellent agenda addressing those key issues confronting Asian health authorities in general and disease control in particular.

Epidemiological Surveillance and Response (ESR)

It is interesting to note that the particular countries of the Philippines, Malaysia, and Indonesia have developed disease surveillance and response in different ways. However, the implications of the WHO International Health Regulations direct member countries to do their part in the identification, assessment and control of diseases and conditions of epidemic and pandemic potential. While implementing these regulations places the burden upon individual countries, the exploration of regional networks makes absolute good sense.

TEPHINET Supports Regional Networks

TEPHINET has been instrumental in the development of other regional networks in Africa, Central Asia, and Central America. We are also facilitating discussions in other regions, including the Mekong Delta and the Eastern Mediterranean.

TEPHINET is a professional alliance of Field Epidemiology Training Programs (FETPs) involving 40 programs in 38 countries, and growing. We believe that public health policy should be based on good science, and that the standard of good science is embodied in the training of field epidemiologists who are required to learn and master certain core competencies during an apprenticeship program. The value to public health authorities is that trainees investigate actual outbreaks and work on other public health concerns within their country. The setting for training may be within the ministry of health, in an independent research institute, or an academic institution. In most situations, the two-year training is 80% field-based and 20% didactic.

The true value of the program is the long-term application of this training as the graduates are moved into career positions as epidemiologists within their country, substantially adding to that country's competent human resource capacity. I would like to share with you the FETP model. It is important to note that FETP trainers, mentors, and trainees make a contribution to the countries' surveillance and response capacity quickly, because the trainees learn while doing actual outbreak investigations. The trainees and graduates of FETP are essentially the frontline of defense in new, emerging, and re-emerging diseases and conditions. These skilled epidemiologists were involved in SARS, Avian Influenza, Ebola, and many other investigations of regional and international importance, and the data they generated improved existing policy and interventions in all cases. FETP trainees in China, once involved, identified the SARS outbreak, identified the transmission routes and changed (shortened) the recommended quarantine period, minimizing loss of productivity and panic – a classic example of



evidence-based public health. Trainees in Africa have conducted effective shoe leather epidemiology to control Rift Valley Fever and an outbreak of Ebola, while Thai FETP trainees have pioneered in several Avian Influenza investigations, including transmission in a tiger farm.

Financial Support for FETPs

Those of us involved in public health are well aware of the classic struggle for funding of preventive programs in competition with curative programs. Preventive programs historically get a small percentage of the health budget as governments tend to focus on hospital infrastructure and costly diagnostic equipment. While this situation has improved, those of us in the business of increasing skilled manpower capacity must fight for a share of the preventive health budget. Still, lawmakers and donors are inclined to approach the public health side by funding specific diseases and conditions, rather than skilled epidemiologists that can intervene across the board for many diseases and conditions. We see funds going directly into AIDS, TB, Malaria, Influenza, and other high-profile diseases. An entire NGO industry has developed around these highly funded programs. Interventions for these diseases are developed as independent entities often with only token representation of public health authorities. The money poured into these independent entities is in the billions of dollars.

Applied epidemiology and the support of Field Epidemiology Training Programs have some ardent supporters. The Centers for Disease Control and Prevention know full well the importance of FETPs. It developed the Epidemic Intelligence Service more than 60 years ago and can attest to its contribution to evidenced based public health. A special unit has been set up within CDC to assist countries in the development of FETPs. In the Pacific Region, advisors have been posted by CDC in Indonesia and the Philippines to help guide the development of those programs. CDC also has an interest, as does TEPHINET, in the development of Regional Networks and have provided financial support and advisors. Dr. Michael O'Reilly, who serves as a CDC Technical Advisor to the Thai International FETP, is attending this forum. He has also provided assistance to the ongoing development of the Mekong Delta Regional Network. The World Health Organization is very supportive. Along with CDC, WHO was instrumental in creating TEPHINET, and both organizations are represented on our board of directors in a liaison capacity. Other supporters of Regional Networks include USAID, which supports the Central Asian Regional FETP Network, the Asian Development Bank, which is supporting this forum, ASEAN, and AUSAID. Other supporters include donors such as the Bill and Melinda Gates Foundation, which has been very generous in supporting TEPHINET Global Scientific Conferences.

A Move Toward a Regional Network

The challenge of this forum is to identify a common ground for an epidemiological surveillance and response network among the countries represented here today, to also identify the strengths of individual countries and how those strengths can benefit other countries in the network, and finally, to clearly identify the advantages of a network. Representatives here will have to go back to their countries and present the concept to decision makers to move this process forward.

TEPHINET believes that a systematic approach to the development of a cadre of epidemiologists skilled in the core competencies will be the basis for an outbreak and response mechanism that will meet international standards. In addition, there are many parts of the public health infrastructure that feed into the system and require training and practice. This will require knowledge, country-specific

experience, and the help of skilled epidemiologists, instructional designers, and others to initiate a program to reach those who need to be trained.

We in TEPHINET, including our board and member countries, stand ready to assist in the development process.

Thank you for your attention.

Annex M

**BREAKOUT GROUP SESSION 2:
NETWORKING AND CONTINUING EDUCATION**

MECHANICS

1. Breakout into 3 groups
2. Select a Chair
3. Select a Rapporteur
4. Time Management:
discussion = 30 minutes
plenary presentations = 30 minutes

GROUP COMPOSITION

Group 1

(Front)

Dr. Hari Santoso
Dr. Fadzilah Kamaludin
Dr. Jojo Roque
Dr. Agnes S.
Ms. Dulce
Dr. Jim Andersen
Dr. Dominguez
Dr. Troy
Dr. Coly Catindig
Dr. G Samaan

Group 2

(middle)

Dr. Sing Menorath
Dr. Haripumomo
Dr. Rohani
Dr. Juan Lopez
Dr. Nemia Sucaldito
Dr. O'Reilley
Mr. Rousseau
Dr. Lim
Dr. Vincent de Wit
Dr. Joe Rodriguez

Group 3

(Back)

Dr. Bernstein
Dr. Joy Pabellon
Dr. Hudoyo
Dr. Ailan Li
Dr. Zainudin
Dr. Grace Viola
Dr. Eric Tayag
Dr. Genesis Samonte
Dr. Vicky
Dr. Sukirna



Annex M-1**PRESENTATION OF GROUP 1****Presentation of Group 1**

Networking and Continuing Education

For Question #1 & #2

1. What are the areas for regional or subregional collaboration related to the conduct of FETP/applied epidemiology training?
2. How would such collaboration be done? Should it be undertaken as part of existing regional structures like ASEAN?

a. There are existing networks/websites such as those of TEPHINET and ASEAN +3 initiatives such as ADSNet that can be used to further support the collaboration between countries.

b. It is important to consider that we should utilize these networks rather than establish new ones.

c. Regarding the areas for regional/sub-regional collaboration, there is a need to elicit from countries what we need to get out of networking with each other.

d. An assessment of needs in the region/sub-region can determine what needs should be addressed and prioritized and what mechanisms could be used to respond to these needs.

e. There are various difficulties faced by different countries to support collaboration:

- Obtaining funding support is difficult
- There is a long and tedious process of getting permission to travel and to have passports processed – internal bureaucracy!

f. There are countries with exchange visits of trainees and trainers such as Malaysia and Thailand who both share the costs for travel and accommodations.

g. TEPHINET has a website that provides job announcements, training materials, case studies and announcements for conferences; links in the website are used to connect to other websites.

h. The ASEAN +3 ADSNet website is currently being updated and is requesting for member countries to share links to other websites.

i. Thailand's website also shares materials that can be downloaded.



- j. For TEPHINET, there is difficulty in obtaining financial support to fund the organization and its activities as funding is usually obtained through projects.
- k. Countries can possibly tap into disaster/emergency management programs to obtain support (funds and technical resources) for epidemiological training.

Question #3

3. Should a secretariat for the collaboration/networking be established? Who will act as the secretariat?

- Pending the results of a needs assessment for collaboration that was previously mentioned, ASEAN could function as the secretariat for the region. (Indonesia hosts the ASEAN website)
- We need to assess the feasibility, needs, objectives etc of collaboration. This is number one!

Question #4

4. What types of continuing education activities/approaches will you recommend?

- Inter-country collaboration could share a pool of resource persons that can be utilized by different countries (e.g. for training)
- Support for travel for low-income and middle-income countries is limited and there is a need to build into each country's budget for travel expenses. Cost-sharing between countries is an alternative.
- Aside from cross-country outbreak investigations, surveillance assessments can be jointly done by multi-country teams for international exchange.

Thank you



Annex M-2**PRESENTATION OF GROUP 2****Strengthening epidemiological network in the region****Q1: Easily shared**

- Instructional designer and clearing house
 - Curricula
 - Problem based learning materials
- Expert sharing
 - Gurus
 - Disease specific
 - Methods: mathematical modeling, other
- Exchanges of trainees and trainers
- Website
- Establishment of regional training sites?

Q1: To operationalise: each country

- Contact / focal people
 - Administrative/coordinator
 - Technical FETP Network Coordinating Officer
- Funding
 - ADB
 - Second donor?
- Network
 - Inventory of alumni/experts

- Tephinet Regional meeting to enhance sharing
- Extend training to the animal health scientific meeting
- Strengthening alumni associations
 - Facilitate communication

Q2: As part of existing regional collaboration

- ASEAN role
 - Driven by political and economical agenda
 - Need recognition from ASEAN for support

Q3: Secretariat

- General agreement of need for secretariat
- Could include technical, admin, M&E/Quality Improvement and Instructional Design staff
- Location: Manila and BKK?
- Footprint?

Q4: Recommended Regional CME

- Short courses are useful
 - Best practices
 - International participation
 - Curricula development
 - Training the trainers
 - Monitoring and Evaluation of short and long programs
- Instructional design
 - Assist countries to develop their own materials
 - Regional sharing

Annex M-3**PRESENTATION OF GROUP 3****Group 3****Networking and
Continuing Education
Breakout Session**

Is collaboration really needed?

- learning opportunities by sharing experiences
- same infectious diseases and disasters exposure
- empowerment of existing trainings from that country
- because we don't have all the money in the world

**Constraints while collaboration is
needed...**

- Firstly, take FETP strengths first before taking up this challenge for collaboration--- (each country can state what they can do, what they need and what they can offer)
- Plan... in terms of how collaboration and networking be done -- Parallel collaborations? Ex. APSED and take one of its components as an entry point to consider.
- Addressing language barriers

Areas for regional and subregional collaboration

Areas	Regional collaboration
Sharing of technical experts (2)	possible
Exchange visits of trainees and trainers	Possible
Sharing of curricula and training materials	Language
Joint outbreak investigations for trainees/trainers	possible
Establishment of regional training sites	possible it will include countries with out
Establishment of regional website for epidemiology training	Possible (under certain condition)
Preparation of joint proposal for solicitation	Possible (under conditions)

Collaborations

1. Bilateral agreements
2. Facilitated agreements (WHO)
3. ASEAN (but already has a plan, no FETP)
4. APSED – sub work plan on FETP
5. Informal agreements between countries

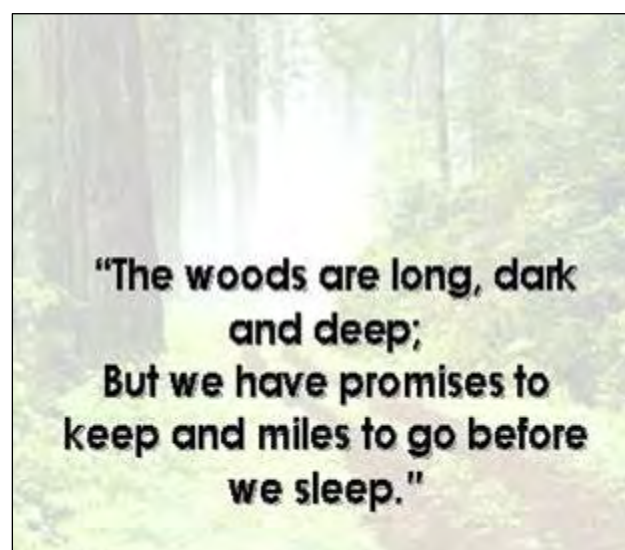
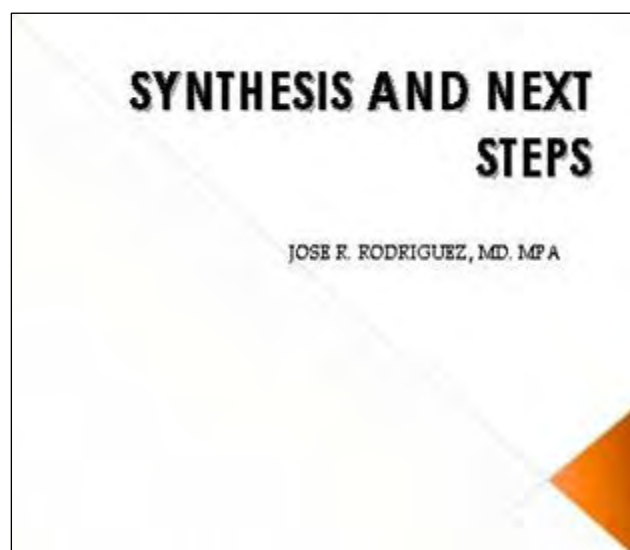
Should a secretariat be established?

This has advantages and disadvantages

Recommended type of continuing education

- Periodic conferences (regional)
- Journals, publications
- Continuing education = Certification
- "Internship" opportunities in WHO, etc



Annex N**SYNTHESIS AND NEXT STEPS***Dr. Jose Rodriguez**RETA 6305 Project Administration Coordinator*

Appendix 6:
HIGHLIGHTS OF THE
CONCLUDING WORKSHOP



PROCEEDINGS

Strengthening Epidemiological Surveillance and Response (ESR)
for Communicable Diseases in Indonesia, Malaysia, and the Philippines

CONCLUDING WORKSHOP

2 April 2008
Richmonde Hotel, Ortigas Center,
Pasig City



HIGHLIGHTS OF THE CONCLUDING WORKSHOP*Richmonde Hotel, Pasig City, Philippines**2 April 2008***A. Introduction**

1. Regional Technical Assistance (RETA) 6305 is an ADB-financed project aimed at assisting the governments of Indonesia, Malaysia, and the Philippines to assess and improve their capacity to conduct communicable disease surveillance and effectively respond to the occurrence and spread of emerging and re-emerging infectious diseases. The Project also supports the efforts of the three countries to meet the requirements of the International Health Regulations (IHR) of 2005 and complying with the Asia Pacific Strategy for Emerging Diseases (APSED).

2. After two years of implementation, a Concluding Workshop was held at the Richmonde Hotel in Pasig City, Philippines on 2 April 2008. The meeting had about 40 participants from the three health ministries and WHO country offices of Indonesia and the Philippines (see Annex A for list of participants).

3. The objectives of the Concluding Workshop were to provide an opportunity for the three participating countries to present (i) their accomplishments and lessons learned, (ii) what RETA 6305 has contributed in strengthening their ESR systems, and (iii) what is left to be done particularly in the areas of disease surveillance and effective response to the threat of emerging and re-emerging infectious diseases. The Workshop also produced recommendations for continuing work on ESR in the three participating countries. The Workshop program is in Annex B.

B. Opening Session

4. The Deputy Team Leader for the Philippines, Dr. Troy Gepte IV, who served as the Workshop moderator, introduced the key people who delivered messages during the opening session. Ms. Elvira Ablaza, PRIMEX President/CEO and RETA 6305 Project Director, welcomed the participants to the Workshop which, she said, was an occasion to celebrate the successes and achievements that had been made by the three participating health ministries during the two-year Project period. She noted that the Workshop was also an opportunity for everyone *“to review the valuable lessons that had been learned, carefully weigh the options that are available and decide on the best course of action to pursue in order to ensure that the gains and successes that had been achieved are not wasted.”*

5. Dr. Vincent de Wit, ADB Principal Health Specialist, expressed his gratitude to the three ministries of health for their support and said that he expects that a decision on how to use the remaining TA funds would be one of the outcomes of the Workshop. He also thanked Dr. Enrique Tayag, Director of the DOH National Epidemiology Center (NEC) for his special support in chairing the Workshop.

6. Dr. Tayag, for his part, thanked ADB for the support provided through the RETA. He noted the Project's important contribution to health sector reform in the Philippines, despite the limited funding, saying that *“surveillance and response in the country will never be the same again after the Project.”* He attributed their success to the dedication of NEC staff, particularly Dr. Marlow Niñal, who continues to inspire them, and to the professionalism exhibited by PRIMEX staff. He capped his speech by saying that *“the framework we had was that this is a competition, not something that is adversarial, but a competition because whoever gets to the finish line actually brings the others closer to the finish line.”* The full text of Dr. Tayag's address is in Annex C.

7. A self-introduction of the participants and a group photo followed Dr. Tayag's opening remarks (see Annex D for the photodocumentation of the Workshop).

C. Highlights of RETA 6305

8. Dr. Robert Bernstein, Team Leader of RETA 6305, presented the highlights, achievements, and challenges of the Project from the Team Leader's Perspective. He highlighted the following five subregional activities and their contribution to the accomplishment of the TA objectives: (i) Project website, set up in October 2006 and maintained by PRIMEX, which has served as a repository of resource documents and products; (ii) Subregional Planning Workshop held in Jakarta in November 2006, which paved the way for the formulation and approval of country ESR workplans; (iii) Component C funding, the first release of which was made in June 2007, which allowed the ministries to move forward and implement their work plans; (iv) Subregional Technical Consultation in Kuala Lumpur in September 2007, where the countries presented the full implementation of their approved activities; and (v) Technical Forum on Applied Epidemiology Training in March 2008, which discussed human resources for ESR and IHR. The challenge lies in addressing two gaps: (i) the conduct of a joint (subregional) tabletop exercise; and (ii) the provision of legal assessment support. The Team Leader's presentation is in Annex E.

9. In response to the Team Leader's report, Dr. De Wit touched on the value of tabletop exercises for priming decisionmakers to see the importance of ESR. Mr. Stephane Rousseau, Coordinator of the ADB GMS Communicable Disease Control Project, shared the difficulties experienced by GMS in subregional cooperation. In the GMS, there is a need to ensure that the provincial level is aware of international regulations and to see that there are no contradictions with local laws and roles. Responding to Mr. Rousseau's need for international health legislation experts, Dr. Roque of DOH suggested that he turn to the International Court of Justice for their experts and database as well.

D. Country Reports

10. **Indonesia.** Dr. Andi Muhadir, Director of the Epidemiological Surveillance and Maternal Health presented the accomplishment report on behalf of MOH Indonesia (Annex F). He mentioned that ADB and WHO are the two major donors in the country's efforts to strengthen ESR. With ADB funding, MOH has achieved the following: (i) IHR implementation, including the establishment of an IHR secretariat and the translation of IHR-2005 into Bahasa Indonesia and the dissemination of the Bahasa version through a series of workshops; (ii) piloting of the feedback system in three provinces and nine districts, including the development of training modules, training of health officials, and collection of data; and (iii) finalization of the National Surveillance Assessment Report and conduct of multisectoral workshops. On the other hand, WHO financed IHR 2005 Assessment and National FETP Assessment.

11. The following activities remain for implementation:

- (i) Strengthening of surveillance for IHR implementation through (a) dissemination of IHR especially to health officials manning ports of entry and ground crossings, (b) updating operational guidelines and procedures for the ports of entry and ground crossings, and (c) strengthening of links between early warning system reporting and IHR notification at the provincial and district health offices;
- (ii) Implementation of the ESR roadmap and strategic plan through the design of the Indonesian Early Warning and Reporting System (IEWARS), pilot testing in three provinces, and nationwide implementation; and

- (iii) Other initiatives including (a) pilot-testing and integration of an events-based surveillance system using SMS gateway currently being used for Avian Influenza, (b) development, pilot-testing, and integration of laboratory based surveillance system, and (c) implementation of a revitalized FETP through better collaboration between MOH and the universities.

12. Following the Indonesia presentation, discussions revolved around the similarity between Indonesia and the Philippines in terms of their archipelagic nature and their decentralized system of government, which could facilitate a sharing of experiences and lessons learned.

13. To Dr. Marlow Niñal's query about how surveillance can be done at the local level so that the people will run, operate, analyze, and sustain the surveillance system on their own, MOH said that the following have worked for Indonesia: (i) equipping the people at the local level with the proper knowledge, attitudes, and practices on disease surveillance; (ii) establishing community-based surveillance with support from CDC Atlanta; (iii) advocacy on health; and (iv) reporting with the use of the SMS gateway.

14. Dr. Niñal then commented that rapid communication should be coupled with rapid response, otherwise, reporting becomes useless. He also brought up the uncanny similarity between Indonesia and the Philippines, although Indonesia is a much bigger country than the Philippines. To that, Dr. Bernstein noted that, in terms of ports capacity, there is a real need to think about how to share experiences, lessons learned, and how to move forward, and that the area of IHR-related surveillance and response capacity port managers is one area for sharing and further strengthening.

15. Dr. Jose Rodriguez, RETA Project Administration Coordinator (PAC), remarked that Indonesia has a population of about 235 million and 330 districts, each being the equivalent of a province in the Philippines. He added Indonesia has the advantage of having the district-level infrastructure and rapid response teams, mainly as a response to the avian flu outbreak, which provide a good foundation on which to build the response capacity of the Indonesian ESR system.

16. **Malaysia.** Dr. Zainudin Abdul Wahab, Deputy Director for Disease Control Division, presented MOH Malaysia's accomplishments, concerns, lessons learned, and next steps in the establishment of the Laboratory-based Surveillance for Communicable Diseases in Malaysia (Annex G). Their accomplishments include the following:

- (i) Capacity building efforts in ESR, lab-based surveillance, zoonoses, infection control, risk communication, and points of entry; and
- (ii) Development of a electronic laboratory-based information system (eLBIS), with testing of the software in the pipeline and with user acceptance testing and user training scheduled on 4 April and 17-18 April 2008, respectively.

17. Dr. Zainuddin also took the opportunity to clarify certain misconceptions and air certain concerns. For one, he said that public health is the concern not only of MOH but of several agencies. There are many players involved, particularly at the points of entry, where there are about 15 agencies; hence, the need to strategize on how to collaborate with involved agencies. For eLBIS, the software is newly developed, so there is a need to test it and maintain it so that not only Malaysia, but also other countries in the region, can benefit from it.

18. As IHR covers a broad scope, there is a need to be creative and innovative to develop activities for Component C that can be implemented in the short period of the RETA. The development of the eLBIS

software took much longer than expected, and more time is needed for a team (administrative and technical) to further test and develop the software.

19. MOH Malaysia will continue to follow the APSED protocols. For eLBIS, which currently focuses on bacteriological results only, there is a plan to integrate serological and virological test results into the said system later. There is also a need to include other laboratories to this laboratory-based surveillance system network once this pilot project is successful.

20. During the open forum that followed Dr. Zainuddin's presentation, the following points were discussed:

- (i) With the TA coming to an end, MOH proposes to continue the Project, but needs an extension of time to test the software to further improve it. MOH also needs to procure the hardware so that the software that has been developed can be used. The system can be shared with other countries after testing in Malaysia.
- (ii) Malaysia's work on port of entries is being supported under the RETA and is one of the activities to be conducted in the following week.
- (iii) Malaysia has a centralized health system. Disease monitoring is done regularly at the central level. If a certain serotype is found to occur beyond threshold levels, that is the signal for the central level to ask the local level to verify the cases related to the pathogen. There are 27 diseases under the Notifiable Diseases Law, for which notice has to be given within seven days from detection. If lab-based surveillance is used, notification can be done within one day. Lab-based surveillance makes rapid detection possible, as compared to indicator-based surveillance.

21. **Philippines.** Dr. Tayag presented the accomplishments of DOH in building capacities to fight emerging infectious diseases. His presentation described (i) what has been done so far with the assistance of RETA 6305, (ii) the remaining gaps, or areas for technical and financial support, and (iii) where to go from here, or the setting of new priorities (Annex H). Prior to the implementation of Component C activities, DOH carried out an assessment of its ESR systems in 2006, which led to the development of the Philippine Disease Surveillance and Response System (PIDSR).

22. Following are DOH's accomplishments under the Project:

- (i) designation of NEC as the IHR Focal Point through Administrative Order 2007-0002 signed by the Secretary of Health in January 2007;
- (ii) development of the PIDSR Strategic Plan and presentation to multisector stakeholders;
- (iii) commitment of US\$3 million for PIDSR;
- (iv) legal reviews and consultations to identify policy gaps and issues and appropriate policy instruments;
- (v) production of the *PIDSR Manual of Procedures*, a general reference for surveillance activities and an excellent resource for developing training, evaluation, and supervision;
- (vi) signing of Administrative Order 2007-0036 or the *PIDSR Framework Guidelines* by the Secretary of Health in 2007 to guide its implementation at all levels of the health care delivery system in both the public and private sectors;
- (vii) development of PIDSR software for data entry, analysis, and data management procedures;

- (viii) provision of computer packages to regional epidemiological surveillance units (RESUs) in all regions of the country;
- (ix) conduct of regional PIDSR trainings in the 17 regions and five provincial ESUs; and
- (x) revision of reporting forms in line with the requirements of IHR 2005.

23. In the course of implementing the Project, gaps were identified in the surveillance, response, and support (laboratory and training) subsystems. For the **surveillance subsystem**, the following activities need to be carried out: (i) PIDSR module development for LGUs and testing; (ii) PIDSR training rollout to cover more areas (79 provinces, 140 cities, 1500 municipalities, and 30,000 barangays); (iii) establishment of more ESUs at the provincial level; and (iv) development of events-based surveillance. For the **response subsystem**, there is a need for the (i) creation of rapid response teams, (ii) efficient stockpiling of drugs and medicines, (iii) conduct of simulation exercises to determine the country's capacity to meet the requirements of IHR, and (iv) multi-country and subregional level coordination to test the ESR system and its ability to meet IHR requirements, especially in collaboration with other countries. For the **laboratory support subsystem**, there is a need to (i) improve laboratory infrastructure (equipments, reagents, etc), (ii) improve human resource capacity, and (iii) develop the funding mechanism to access lab services in support of ESR. For the **training support subsystem**, there is a need to (i) review existing training programs (FETP, FMTP, Basic Epi, etc.) which support surveillance and response and (ii) systematize training program/modules to support ESR at each level. FETP and FMTP both have origins in CDC Atlanta and complement each other. FETP allows the application of skills and knowledge in epidemiology, while FMTP improves decision making of managers.

24. In the next 18 months, DOH-NEC would like to see (i) the law amending the *Notifiable Diseases Act* prioritized in health legislative agenda, (ii) the national and regional capacity for event-based surveillance developed, (iii) Field Health Service Information System (FHSIS) revitalized and put in place, and (iv) a Field Epidemiology Training short course launched and carried out for several batches.

25. Dr. de Wit commended Dr. Tayag for his presentation which was filled with deep insights into how PIDSR evolved despite bureaucratic obstacles, saying that, *"It is very important to realize that being a change agent requires a lot of effort. It is not really about the money, but more about knowing where to go and getting there step by step, accepting disappointment, and knowing that you cannot get everything that you want."*

E. Project Administration Support

26. Dr. Rodriguez presented the status of fund utilization for Component C by the three countries and made some comments on lessons learned from the perspective of Project management (Annex I). He then thanked the MOH counterparts for their patience and understanding of the different ADB requirements.

27. **Component C Fund Utilization.** The current balances of undisbursed Component C funds for each country are: (i) US\$13,339.48 for the Philippines, (ii) US\$150,223.90 for Indonesia, and (iii) US\$68,519.94 for Malaysia. The figures indicate the need to extend the TA completion date to give the countries the opportunity to implement the remaining activities in their ESR work plans.

28. **Lessons Learned.** Dr. Rodriguez made the following observations regarding the Project administration aspects of the RETA:

- (i) The flexible approach to Project implementation was beneficial to the countries as it enabled the Project to respond to their needs of the country.

- (ii) Despite the approval of the country workplans, there was still a need for the health ministries to write proposals for specific activities for ADB approval prior to their actual implementation. To facilitate the process, PRIMEX developed templates for proposal preparation and requested ADB for a cash advance facility of \$80,000 per country for Component C activities.
- (iii) In organizing international events, there is always a change of dates and participants, and it is important to have a social circle of people whom you can count on or pull in to fill available slots.

29. During the open forum following Dr. Rodriguez's presentation, senior officials from the three countries were unanimous in saying that (i) the flexible approach of the Project was a unique feature seldom found in donor-assisted projects, and (ii) the channeling of funds through the Consultant greatly facilitated its implementation since it effectively "bypassed" government bureaucratic procedures. All three countries also commended the Consultant Team for the efficient, effective, and timely provision of technical and financial support during Project implementation.

30. On behalf of the Consultant Team, Ms. Ablaza cited the full support extended by ADB, through Dr. de Wit and his staff, Ms. Judith Doncillo and Ms. Madeline Dizon, who promptly acted on PRIMEX's requests for administrative support, as in the approval of proposals for Component C funding (e.g., for workshops, procurement, training, etc.). She also thanked DOH, through Dr. Tayag, for agreeing to give up part of the Philippine Component C allocation to Indonesia. During the tripartite meeting in Kuala Lumpur in September 2007, MOH Indonesia requested for some technical assistance with the development of their ESR roadmap and strategic plan. In the spirit of subregional collaboration and in view of the limited funds of the Project, DOH agreed to part with some of their Component C allocation to allow Dr. Rodriguez and Dr. Magboo to provide the needed technical assistance.

E. Synthesis and Closing

31. Dr. Florante Magboo, Co-Team Leader, summarized the country accomplishments and what else needs to be done under the RETA.

32. Dr. De Wit closed the Workshop with his personal impressions and expression of thanks to the ministries and the Consultant Team for their cooperation and participation.

33. Ms. Ablaza then suggested, and the ministry officials agreed, that Dr. de Wit's concluding remarks (Annex J) could serve as the *Memorandum for Action* for the countries and the Consultant Team, and as such, it is no longer necessary to hold a final tripartite meeting. The meeting then adjourned at 2:30 pm.

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Annex B**CONCLUDING WORKSHOP**

*Richmonde Hotel, 21 San Miguel Ave., Ortigas, Metro Manila, Philippines,
2 April 2008*

8:30 – 9:00 AM REGISTRATION OF PARTICIPANTS**9:00 – 9:45 OPENING SESSION**

Welcome Remarks

Ms. Elvira C. Ablaza

President and CEO and Project Director, PRIMEX

Dr. Vincent de Wit

Principal Health Specialist, SESS, ADB

Dr. Enrique A. Tayag

*Director, National Epidemiology Center, Department of Health
(NEC-DOH), Philippines*

Introduction of Participants

Group Photo

9:45 – 10:15 **RETA 6305: Highlights, Achievements, and Challenges**
Dr. Robert Bernstein
Team Leader, RETA 6305

10:15 – 10:30 **Coffee and Tea Break**

**RETA 6305: ACCOMPLISHMENTS, LESSONS LEARNED, AND
WHAT IS LEFT TO BE DONE**

10:30 – 11:00 **Presentation by Indonesia**
Dr. H. Andi Muhadir
*Director, Epidemiological Surveillance and Maternal Health,
Ministry of Health, Indonesia*

11:00 – 11:15 **Open Forum**

11:15 – 11:45 **Presentation by Malaysia**
Dr. Zainudin bin Abdul Wahab
*Deputy Director, Disease Control Division
Ministry of health, Malaysia*

11:45 – 12:00 **Open Forum**

12:00 – 13:00 **Lunch**

- 13:00 – 13:30 Presentation by the Philippines
 Dr. Enrique A. Tayag
 Director, National Epidemiology Center
 Department of Health, Philippines
- 13:30 – 13:45 Open Forum
- PROJECT ADMINISTRATION**
- 13:45 – 14:00 Project Administration Report
 Dr. Jose Rodriguez
 Project Administration Coordinator, RETA 6305
- 14:00 – 14:15 Open Forum
- 14:15 – 14:30 **CLOSING SESSION and FINAL TRIPARTITE MEETING**
- Summary and Recapitulation
 Dr. Florante Magboo, Co-Team Leader, RETA 6305
- Closing Remarks and Memorandum for Action
 Dr. Vincent de Wit, Principal Health Specialist, ADB

Annex C**OPENING STATEMENT¹****Dr. Enrique A. Tayag***Director, National Epidemiology Center (NEC), Department of Health (DOH)*

Good morning to the President and CEO of PRIMEX, Ms. Elvira Ablaza, Dr. Vincent de Wit, Dr. Bob Bernstein, all the delegates from the three countries involved in this RETA, and our special guests, Gina Samaan, Michael (O'Reilly), and Stephane Rousseau,

Good morning, everyone.

I was struggling while seated here, trying to decide whether I will wear the hat of a DOH bureaucrat or that of a member of this Project.² Because this is the Concluding Workshop, it gives me the opportunity to say things that I have never said before and say it on the last day. When the RETA was being conceptualized, I must admit that the NEC was not confident or too trustful that this Project will provide value to what we have envisioned at the National Epidemiology Center. Little did we know that, when the International Health Regulations were revised and were beginning to run the circles of ministries of health around the world, the strengthening epidemiological surveillance and response for communicable diseases in Indonesia, Malaysia, and the Philippines will pave the way for waking up the Department of Health so that it can actually, with speed and precision, join the bandwagon of implementing IHR-2005. Dr. Vincent de Wit aptly said that this is an example of a project that was so flexible compared with other projects. We must confess that we love this Project because for the first time, it is not donor-driven. We are weary of donors providing assistance because of hidden agenda and creating systems that will not be sustainable when the Project ends. Even without this Project, the NEC could have done it alone, but it would take us several years, not the less than two years that the Project has afforded us.

The Project came when the National Epidemiology Center was at the crossroads because we had problems with our staffing. I must inform everyone that the Department of Health is rationalizing its work force and, therefore, vacancies are not to be filled. Thus, when people left NEC, I just could not replace each vacant position. Even if our hearts and minds were focused on achieving the targets set by the International Health Regulations, we simply could not do it. That is where the RETA came in. The RETA provided us with extra arms so that we were able to accomplish the things we wanted within a shorter period. Of course, there were problems/issues during the implementation of the Project, and we will be sharing these with you, together with what we were able to overcome, this afternoon, when we present accomplishments, lessons learned, and what next to be done.

I can only second-guess what happened in Indonesia and Malaysia. While we have promoted our accomplishments in the last three days, we have taught ourselves not to be overwhelmed because this is a journey. We could have started on the right foot, but if we are not focused on our goals, especially now that the Project is ending, all our accomplishments will come to naught.

To have another path after this is going to be very difficult, because this Project made an important contribution to our health sector reform. Disease surveillance and response in this country will never be the

¹ Delivered during the Opening Session of the RETA 6305 Concluding Workshop held on 2 April 2008 at the Richmond Hotel, Pasig City, Philippines.

² RETA 6305: Strengthening Epidemiological Surveillance and Response for Communicable Diseases in Indonesia, Malaysia, and the Philippines.



same again because what we have accomplished is a total revamp of our framework for surveillance and response. In fact, this Project surprised us, because with a little amount, we were able to accomplish so much! In the past, very big projects ended with a dud – almost no output. Of course, I can brag on and on for hours about this, but the secret really lies in the dedication of my staff and the professionalism of the PRIMEX staff. Too bad, I do not see Marlow,³ who has inspired us, so he will not get to hear what I am about to say about his accomplishments. But Vikki (Dr. Vikki Carr delos Reyes), a member of his staff is here, so she can relay this to him. I can also tell him later, 'My congratulations and kudos to you.'

I must also admit to Dr. de Wit that I always look at his face every time we have meetings because non-verbal communication is very, very important. Even if you say kind words, the non-verbal gestures say it all. So, what do you think when he said earlier that he was very pleased about this Project? I saw it in his eyes – he was actually very pleased.

I would like to also thank our counterparts from Indonesia and Malaysia. In fact, I must admit that our framework was that this Project is a competition – not something that is adversarial – but a competition because whoever gets to the finish line actually brings the others closer to the finish line.

Good morning and thank you, everyone.

³ Dr. Marlow Niñal, Chief, Public Health Surveillance & Informatics Division, NEC-DOH, provided significant inputs that shaped the Philippine Integrated Disease Surveillance and Response (PIDSRS).

Annex D**PHOTODOCUMENTATION OF THE CONCLUDING WORKSHOP**

*Richmonde Hotel, 21 San Miguel Ave., Ortigas, Metro Manila, Philippines,
2 April 2008*

THE OPENING SESSION

Key figures during the opening session of the Concluding Workshop. (Left to Right) Ms. Elvira C. Ablaza, PRIMEX President/CEO and RETA 6305 Project Director; Dr. Enrique Tayag, Director, National Epidemiology Center of the Philippine Department of Health; Dr. Vincent de Wit, Principal Health Specialist and Program Officer, Asian Development Bank, and Dr. Robert Bernstein, RETA 6305 Team Leader.



Dr. Troy Gepte IV, Philippine Deputy Team Leader and workshop facilitator, welcomes everyone to the workshop.



"This workshop is an occasion to celebrate the successes and achievements that had been made by the three participating health ministries." - Ablaza



Dr. de Wit expresses his gratitude to the three countries for their support in RETA 6305.



Keynote speaker Dr. Tayag says that, *"surveillance and response in the country [Philippines] will never be the same again after the Project."*

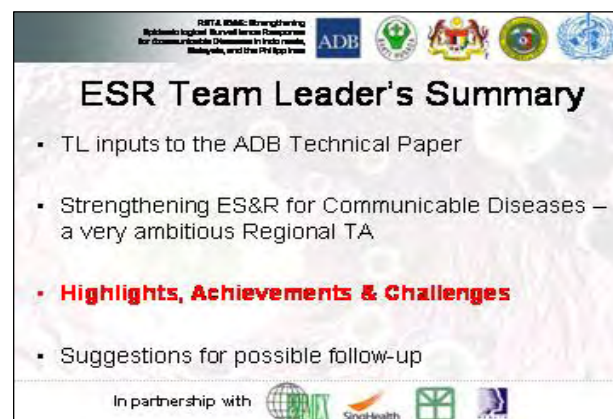
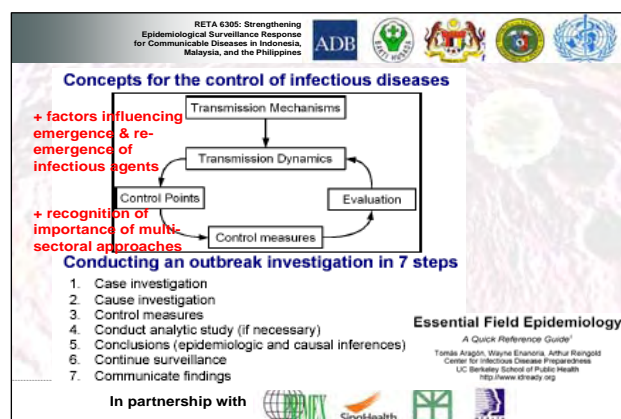
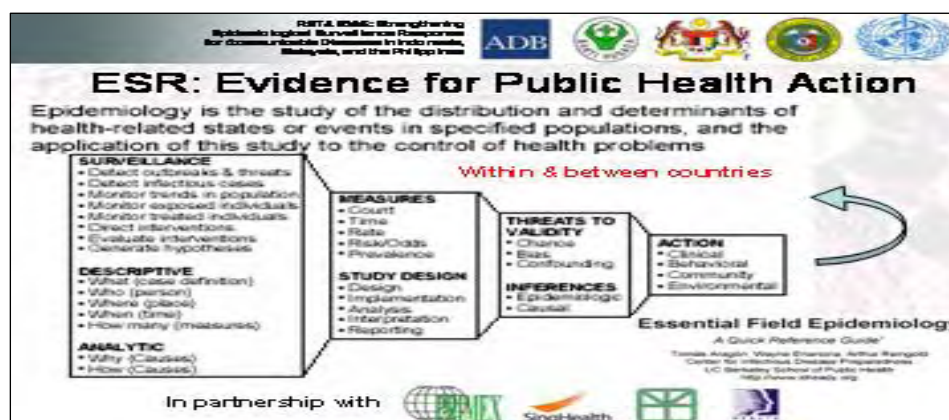


Participants during the Concluding Workshop of RETA 6305 held on 2 April 2008, at the Richmonde Hotel, Pasig City, Philippines.

Annex E

**RETA 6305 SUMMARY:
HIGHLIGHTS, ACHIEVEMENTS & CHALLENGES
FROM TEAM LEADER'S PERSPECTIVE**

DR. ROBERT BERNSTEIN
RETA 6305 Team Leader



RTA EMAC Strengthening
Epidemiological Surveillance Response
for Communicable Diseases in India, Malaysia, and the Philippines

Highlights, Achievements & Challenges - Malaysia

- Lab Surveillance prioritized
 - LIS/IT e-architecture drafted
 - LIS soft/hardware needs id'd
 - HAI/AMR protocols reviewed
- LIS/IT procurements & field-test required
- Assess for implementing IHR Annexes I & II
- IHR assessment required
- Assess Legal Framework

In partnership with    

RTA EMAC Strengthening
Epidemiological Surveillance Response
for Communicable Diseases in India, Malaysia, and the Philippines

Highlights, Achievements & Challenges - Indonesia

- IHR important @ all levels
 - IHR Focal Point estab/support
 - IHR translated/disseminated
- Governance @ all levels
 - Project-2-program gaps
 - Policy-2-budget gaps
 - Policy-2-practice gaps (institutionalization & sustainability issues... "good intentions are not good enough"*)
- ESR evaluation finalized
 - ESR & FETP needs linked
 - ESR & IHR needs linked
 - ESR feedback strengthened
 - ESR/EWAR strategy drafted
- Assess Legal Framework





* See: <http://go.worldbank.org/EBIVKQJMD0>

In partnership with    

RTA EMAC Strengthening
Epidemiological Surveillance Response
for Communicable Diseases in India, Malaysia, and the Philippines

ESR Team Leader's Summary





- TL inputs to the ADB Technical Paper
- Strengthening ES&R for Communicable Diseases – a very ambitious Regional TA
- Highlights, Achievements & Challenges
- **Suggestions for possible follow-up**

In partnership with    

RTA EMAC Strengthening
Epidemiological Surveillance Response
for Communicable Diseases in India, Malaysia, and the Philippines

Suggestions for followup

- ADB Grant to WHO (SEARO & WPRO) to support sub-regional ESR-IHR table-top exercises and related legal / legislative assessments
- ADB Grant to WHO (SEARO & WPRO) to support program of continuing education for FETP Directors & Directors-to-be
- TEPHINET invitation to Indonesia to join network

In partnership with    

RTA EMAC Strengthening
Epidemiological Surveillance Response
for Communicable Diseases in India, Malaysia, and the Philippines



THANKS very much to all !!

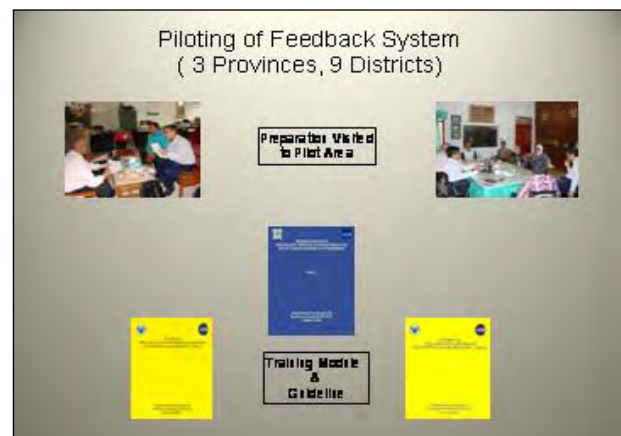
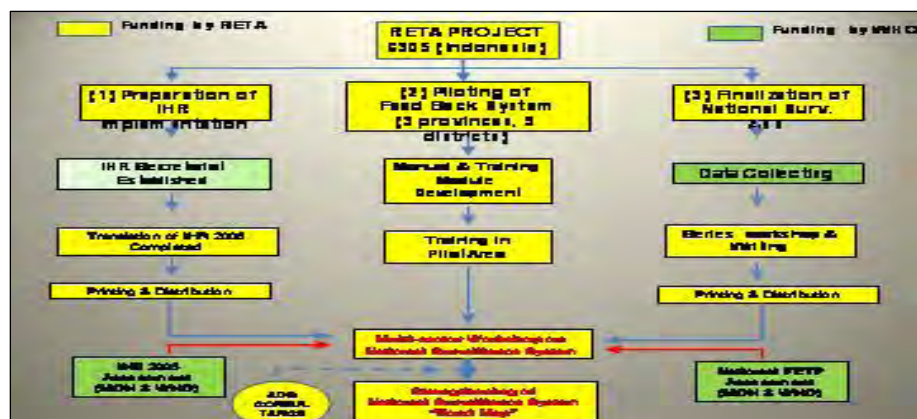
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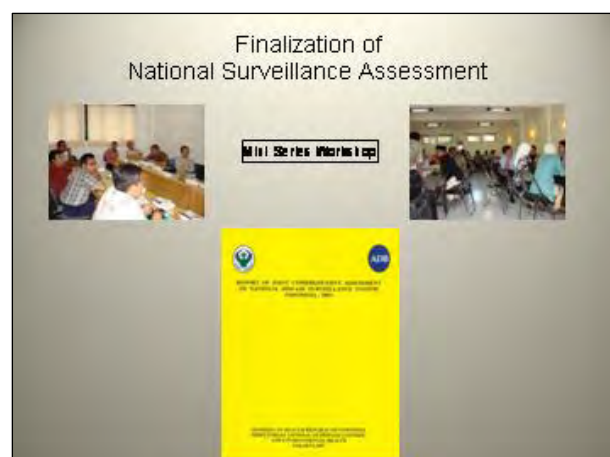
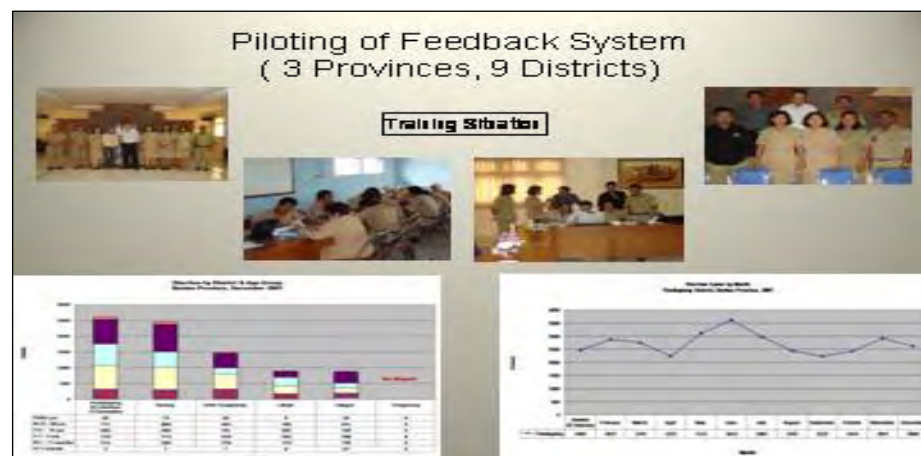
PROGRESS REPORT OF THE MINISTRY OF HEALTH OF INDONESIA ON THE IMPLEMENTATION OF RETA 6305

**Progress Report of
the Implementation of RETA
6305
MOH, INDONESIA**

Strengthening Epidemiological Surveillance and Response
For
Communicable Diseases in Indonesia, Malaysia and the
Philippines

Manila, 2 April 2008





Financial Progress As of end of March 2008

Item	Total Budget (Rp. 000)	Actual Expenditure (Rp. 000)	Balance (Rp. 000)	Total Budget (Rp. 000)	Actual Expenditure (Rp. 000)	Balance (Rp. 000)
A. STRENGTHENING SURVEILLANCE FOR IHR IMPLEMENTATION	10,000,000	10,000,000	0	10,000,000	10,000,000	0
B. BUILDING CAPACITY OF HEALTH OFFICIALS	10,000,000	10,000,000	0	10,000,000	10,000,000	0
C. IMPLEMENTATION OF SURVEILLANCE EVALUATION REPORTS	10,000,000	10,000,000	0	10,000,000	10,000,000	0
TOTAL (A+B+C)	30,000,000	30,000,000	0	30,000,000	30,000,000	0
TOTAL (A+B+C) (Actual Expenditure)	30,000,000	30,000,000	0	30,000,000	30,000,000	0

What Remains To Be Done

A. Strengthening Surveillance for IHR Implementation

1. Dissemination of IHR especially to health officials manning ports of entry and ground crossings
2. Updating of operational guidelines and procedures for the ports of entry and ground crossings
3. Strengthening of link between early warning system reporting and IHR notification in PHO & DHO

What Remains To Be Done

B. Implementation of ESR Roadmap and Strategic Plan

1. Design of IEWARS: March-September 2008
2. Pilot-testing in 3 provinces: October 2008-March 2009
3. Phased national wide implementation: April 2009-June 2012

What Remains To Be Done

C. Other initiatives

- a. Pilot-testing and integration of events-based surveillance system using SMS gateway currently being used for Avian Influenza
- b. Development, pilot-testing and integration of laboratory based surveillance system
- c. Implementation of revitalized FETP through better collaboration between the MOH and the universities



ESTIMATED BUDGET FOR PILOTING EARLY WARNING AND RESPONSE

Activity	Unit	Quantity	Unit Price	Total Cost	Remarks
Surveillance	Person	10	1000000	10000000	Surveillance system development
Support to Surveillance and Response	Person	10	1000000	10000000	Support to Surveillance and Response system development
Response	Person	10	1000000	10000000	Response system development
Training	Person	10	1000000	10000000	Training system development
Monitoring and Evaluation	Person	10	1000000	10000000	Monitoring and Evaluation system development
Communication	Person	10	1000000	10000000	Communication system development
Management	Person	10	1000000	10000000	Management system development
Other	Person	10	1000000	10000000	Other system development
Total				60000000	

Thank You

Annex G**RETA 6305 – MALAYSIA ACCOMPLISHMENTS, LESSONS LEARNED, AND WHAT'S NEXT****Zainudin bin Abdul Wahab, MD**Deputy Director, Communicable Disease Control Division,
Ministry of Health, Malaysia


RETA 6305 – Malaysia
Accomplishments, Lessons Learned
and What's Next

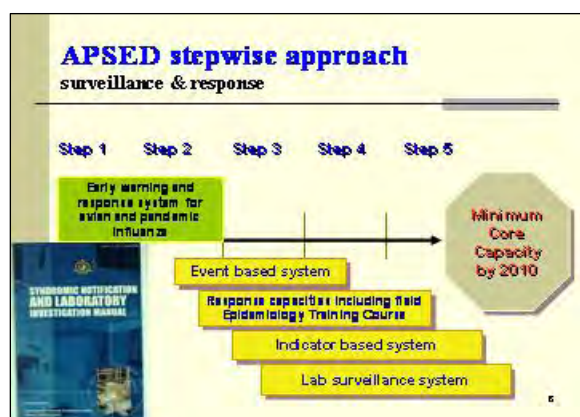
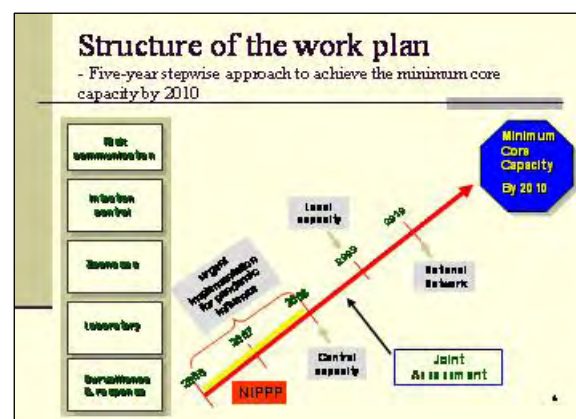
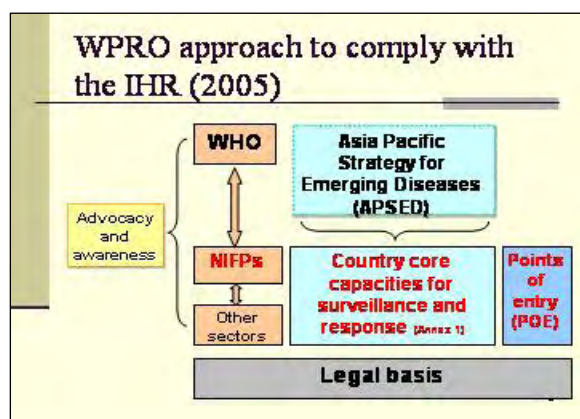
ASIAN DEVELOPMENT BANK
Strengthening Epidemiological Surveillance and Response (ESR) for
Communicable Diseases in Indonesia, Malaysia and the Philippines
(TA 6305-REG)
Concluding Workshop, Metro Manila
2nd April, 2008

1

Introduction

- Malaysia proposed 2 projects:
 - To strengthen its laboratory-based surveillance (LBS) system.
 - To facilitate the implementation of the International Health Regulations (2005).
- RETA 6305 deadline: 30th April 2008.
- Budget allocation: USD200,000.

2



Assess and strengthen surveillance and response capacity

- Identify gap in National Surveillance & Response Capacity according to the Asia Pacific Strategy for Emerging Diseases (APSED)
 - Checklists
 - Visits and observation
 - Discussion

3

Where We Are						
	2007	2008	2009	2010	2011	2012
EIR	System in place Policies, laws, regulation and policy	Pre-sensibilise staff on PR-ESC - LDC, NAT, PNT. Develop QIL / review QIP.				
	Capacity building – applied epid Strengthen surveillance system and networking Evaluation of relevant surveillance system					
LBS	Mapping capacity & capability Develop law	Pre-sensibilise staff on PR-ESC				
	Capacity building – diagnostic, EQA, biosafety Strengthen preparedness, response and networking					

Where We Are (continuation)						
	2007	2008	2009	2010	2011	2012
Zoonosis	Collaboration and networking in place Identify gaps	Buildlines / SOPs in sharing info and response				
	Strengthen surveillance system and networking Collaborative research					
Infection control	Define our role – non-communical infection Antimicrobial R	Strengthen containment plan				
	Capacity building – training, simulation Strengthen preparedness and response					

Where We Are (continuation)						
	2007	2008	2009	2010	2011	2012
Risk comm.	Identify gaps and needs	Develop work plan			evaluation	
	Capacity building – training: curriculum, materials Collaboration with other sectors					
POEs	Evaluate 3 POEs	Develop staff on PR-ESC and their role. Develop QIL / QIP / review QIP.		Develop new POEs		Pre-evaluation
	Evaluate 55 other POEs Strengthen preparedness and response through networking and collaboration with others					

Other accomplishments - IHR

- Established CPRC and focal point 24/7
- Briefing: National & State Surveillance & Response Team on Decision Instrument: Annex 2
- Incorporated into ISO 9000 procedure for PH event management
- NIPPP and simulation exercises
- Strengthen HR capacity and capability - EIP



Accomplishments - LBS

- Objectives
 - Strengthen the LBS system through the development of a **web-based application, central database and monitoring of pathogens (eLBIS)**.
 - Facilitate early warning and response.
 - Facilitate information sharing.
- Pilot project
 - 10 sites
 - 7 hospital laboratories, 2 public health laboratories and 1 Institute for Medical Research.
 - Scope: bacteriology (culture, identification and antibiotic sensitivity).

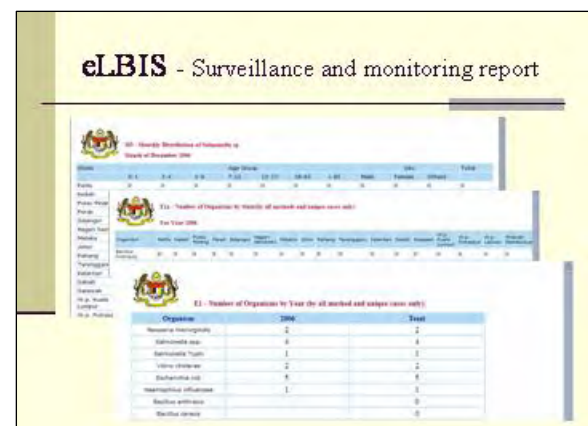
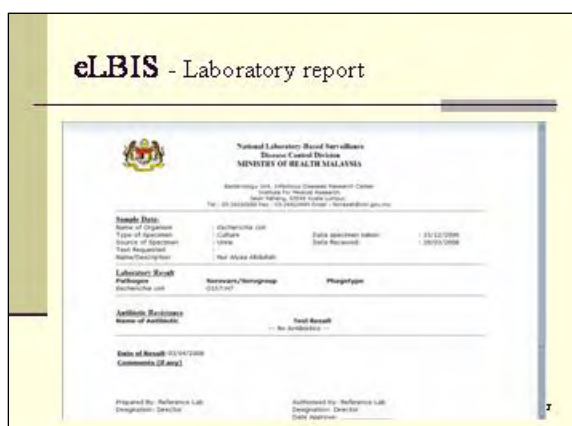
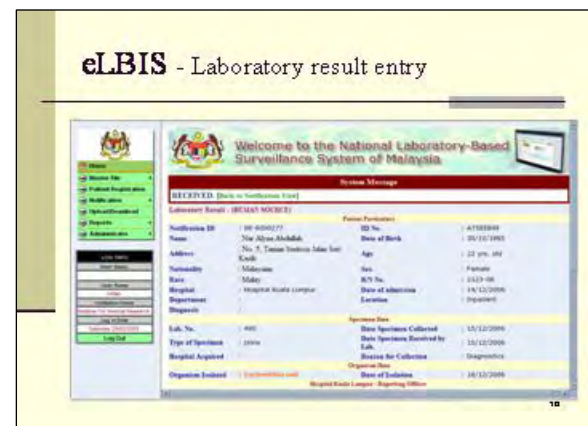
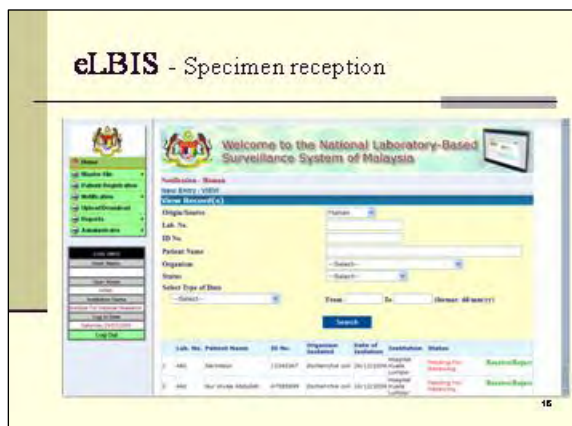
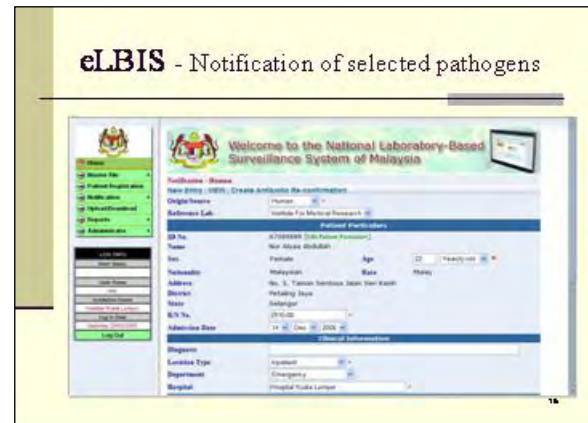
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eLBIS - Business processes

- 10 Functional Requirements:
 - Homepage
 - Notification of selected pathogens
 - Specimen reception
 - Laboratory result entry
 - Laboratory report / tracing
 - Surveillance and monitoring report
 - System management
 - Management report
 - File transfer (for WHONET)
 - User management

12





eLBIS - System management

No.	Lab Organization	Address	Contact	Status	Action
1	Lab 1	Address 1	Contact 1	Active	...
2	Lab 2	Address 2	Contact 2	Active	...
3	Lab 3	Address 3	Contact 3	Active	...
4	Lab 4	Address 4	Contact 4	Active	...
5	Lab 5	Address 5	Contact 5	Active	...
6	Lab 6	Address 6	Contact 6	Active	...
7	Lab 7	Address 7	Contact 7	Active	...
8	Lab 8	Address 8	Contact 8	Active	...

19

eLBIS - File transfer (for WHONET)

20

eLBIS - User management

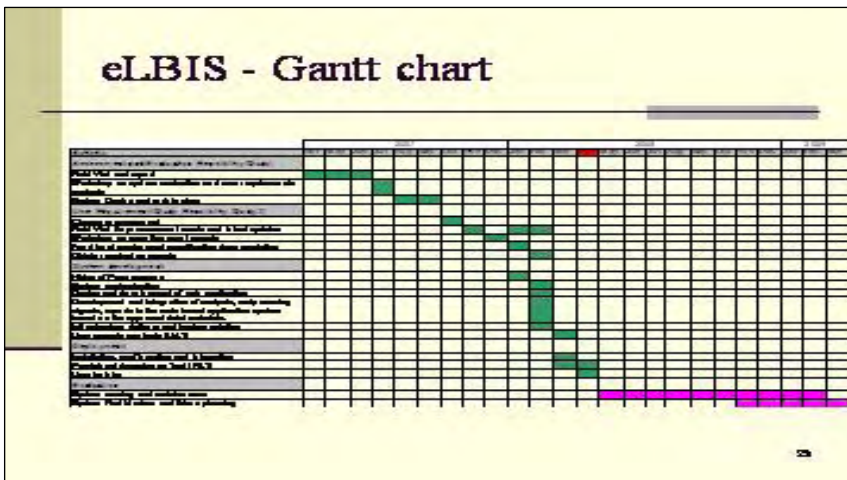
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eLBIS - Progress

- Final stage of application development (as of 28.03.08)
 - All business processes developed.
 - Some users had preliminary tested eLBIS.
 - Plan for user acceptance test on 4 April 08 and user training on 17 and 18 April 08.
- Still awaiting approval from ADB for hardware procurement.

22





Lessons Learned

- IHR: ESR
 - Scope is very broad.
 - Possible to be creative and innovative in a short period of time – Component C.
- LBS
 - Feasibility study of an innovative project take longer time than expected.
 - Project management team (technical and administration).

What's Next

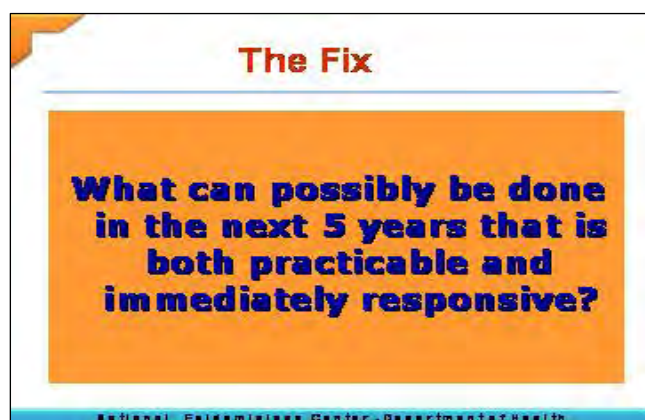
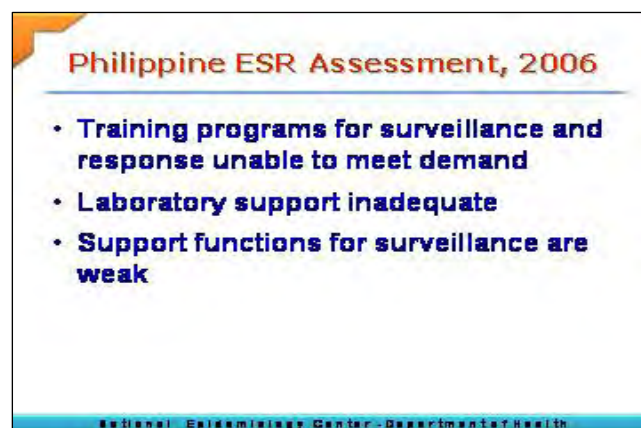
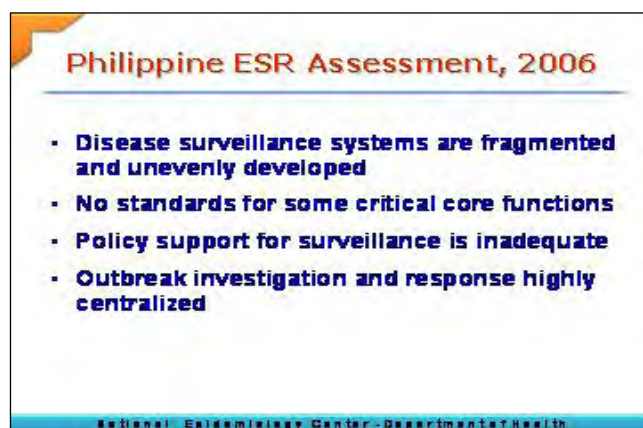
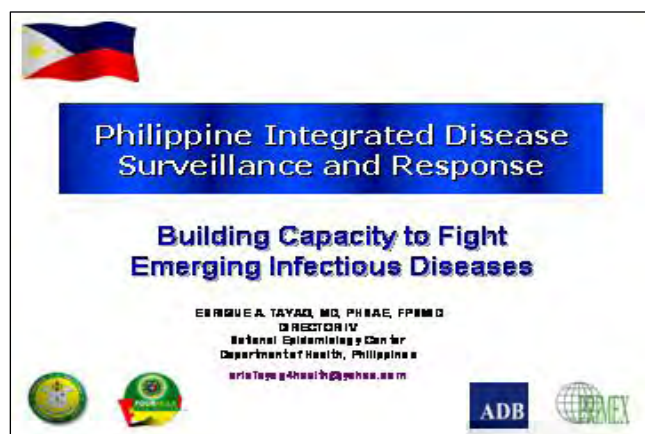
- IHR: ESR
 - APSED
- LBS
 - Expansion of scope i.e. to integrate serological and virological tests.
 - Increase number of sites and later to all laboratories.
 - Integrate into mainstream of Lab Information Networks

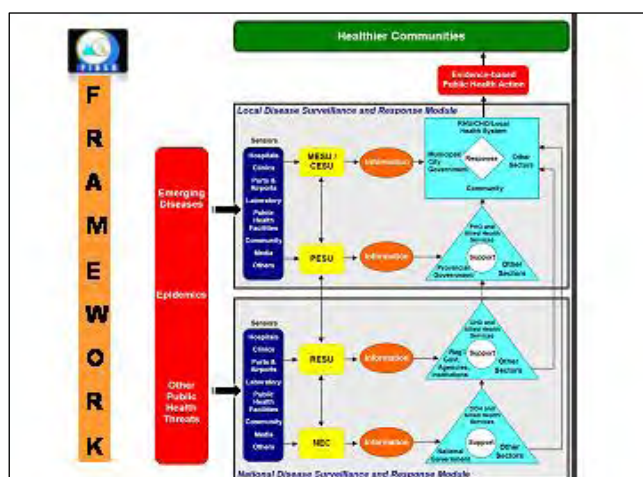
THANK YOU

ADB
Primex
Health Solution

Annex H**PHILIPPINE INTEGRATED DISEASE SURVEILLANCE AND RESPONSE****Enrique A. Tayag, MD, PHSAE, FPSMID**

Director IV, National Epidemiology Center, Department of Health, Philippines





Vision

A Philippines protected from health, economic and social impact of diseases of public health importance.

National Epidemiology Center - Department of Health

Mission

To provide the whole country and all its component communities with the benefits of functional and integrated institutional capabilities for preparedness, prevention, prompt detection, characterization, containment and control of diseases of public health importance.

National Epidemiology Center - Department of Health

Goal

To establish an institutionalized, functional integrated disease surveillance and response system nationwide

National Epidemiology Center - Department of Health

PIDSR Strategic Plan Surveillance Subsystem

- KRA 1.** Support for legal, administrative, institutional mandates for sustainable disease surveillance and response system secured
- KRA 2.** Network of disease professional workforce within a stable nationwide structure created
- KRA 3.** Existing disease surveillance systems enhanced and integrated

National Epidemiology Center - Department of Health

PIDSR Strategic Plan Response Subsystem

- KRA 1.** Functional systems for command, control and coordination necessary for effective integrated disease response (multi-sectoral / multi-level) established
- KRA 2.** Disease response capabilities and performance systematically improved

National Epidemiology Center - Department of Health



PIDSR Strategic Plan Support Functions

- KRA 1: Access to lab services for ESR increased**
- KRA 2: Training Program in place to support surveillance and response**
- KRA 3: Adequate resources mobilized for surveillance and response at all levels**

National Epidemiology Center - Department of Health

The Journey

What has been done so far with the assistance of RETA 6305?

National Epidemiology Center - Department of Health

NEC as National IHR Focal Point



- **A.O. 2007-0002**
- **Setting up of NFP support office**
 - Hiring of NFP technical support staff

National Epidemiology Center - Department of Health

PIDSR Strategic Plan



- **Blueprint for the future**
- **Specifies strategies, approaches and resource requirements**

National Epidemiology Center - Department of Health

DOH Financial Commitment for PIDSR



- **PIDSR presented to DOH Executive Committee**
- **Php120 Million (\$3 M) for the year 2008**

National Epidemiology Center - Department of Health

Legal and Policy Review



- **Identified policy gaps and issues**
- **Identified the appropriate policy instruments**

National Epidemiology Center - Department of Health



PIDSR Manual of Procedures



- a general reference for surveillance activities
- a resource for developing training, supervision and evaluation
- a guide for improving early detection and preparedness

National Epidemiology Center - Department of Health

PIDSR AO 2007-0036



- Provides the framework for PIDSR to guide its implementation at all levels of the health care delivery system as well as both the public and private sectors

National Epidemiology Center - Department of Health

PIDSR Data Entry and Analysis Software



- Data Entry using Visual Basic
- Data Analysis using Epi Info
- Automatic Report Generation
- Online Data Management System

National Epidemiology Center - Department of Health

Upgrading of Computer Hardware



- 5 computer packages for NEC
- 1 server with peripherals
- Wireless Router and access point
- 17 computer packages for CHDs
- 6 computer packages for PHOs

National Epidemiology Center - Department of Health

PIDSR Training of ESUs



- 17 Regional Epidemiology and Surveillance Units
- 5 Provincial Epidemiology and Surveillance Units

National Epidemiology Center - Department of Health

Revised Surveillance Forms and Case Definitions



- 24 Diseases and Syndromes
- Case Investigation Forms
- Case Report Forms

National Epidemiology Center - Department of Health



Remaining Gaps

Areas for technical and financial support

National Epidemiology Center - Department of Health

Surveillance Subsystem

- PIDSR module development for LGUs and testing
- PIDSR training roll out
 - 79 Provinces
 - 140 Cities
 - 1500 Municipalities
 - 30,000 Barangays
- Establishment of more ESUs at the provincial level
- Development of events-based surveillance

National Epidemiology Center - Department of Health

Response Subsystem

- Creation of Rapid Response Teams
- Efficient stock piling of drugs and medicines
- Conduct of simulation exercises to determine country capacity to meet the requirements of IHR
- Multi-country and sub-regional level coordination
 - Test ESR system and its ability to meet IHR specially in collaboration with other countries

National Epidemiology Center - Department of Health

Support Subsystem

- Laboratory function:
 - Improve lab infrastructure (equipments, reagents, etc)
 - Improve human resource capacity
 - Develop funding mechanism to access lab services in support of ESR

National Epidemiology Center - Department of Health

Support Component

- Training function:
 - Review existing training programs (FETP, FMTP, Basic Epi, etc.) which support surveillance & response
 - Systematize training program / modules to support ESR at each level

National Epidemiology Center - Department of Health

Where do we go from here?

Setting new priorities

National Epidemiology Center - Department of Health

In the next 18 months...

- Law amending Notifiable Diseases Act prioritized in health legislative agenda
- National and regional capacity for event based surveillance developed
- Field Health Service Information System revitalized and put in place
- Field Epidemiology Training Short-Course launched and carried out for several batches

National Epidemiology Center - Department of Health

Options for ADB

- Nothing
- Something
- Everything

National Epidemiology Center - Department of Health

Lessons Learned

- A dream starts with an idea, a plan limits mistakes, actually committing mistakes moves the idea closer to the dream
- Managing change to effect change ensures change
- It was not about the MONEY; it was about strategy, organization, execution and then MONEY

National Epidemiology Center - Department of Health

Much has been accomplished...

...but so much more remains to be done.

**Together, Important Things
Happen Faster and Better**

Thank you

National Epidemiology Center - Department of Health



STRENGTHENING EPIDEMIOLOGICAL SURVEILLANCE AND
RESPONSE FOR COMMUNICABLE DISEASES IN
INDONESIA, MALAYSIA, AND THE PHILIPPINES
(TA NO. 6305-REG)



Annex I

PROJECT ADMINISTRATION REPORT RETA 6305

Jose R. Rodriguez, MD, MPH

Component C Funds Utilization

TA No. 6305-REG

	DOH Philippines	MOH Indonesia	MOH Malaysia
Component C Funds US\$	200,000.00	200,000.00	200,000.00
Less: Project Expenses US\$	186,660.52	49,771.10	131,480.06
Balance/ Unallocated US\$	13,339.48	150,228.90	68,519.94

A Few Observations & Some Lessons Learned

-  Flexible Approach: Responding to Evolving Needs
-  Value For Money: Squeezing The Most Out Of Limited Funds
-  Facilitating Admin Work: The Value Of Strong And Capable Local Partners
-  Collaboration woes with key partners

A Few Observations & Some Lessons Learned

-  Sub-regional Activities: Quo Vadis?
-  Simple Tools And Complicated Systems
-  In organizing international events it is always desirable to have a plan B or even C and D

Thank You



Annex J**MEMORANDUM FOR ACTION: CONCLUDING REMARKS FROM ADB****Dr. Vincent de Wit***Principal Health Specialist, SESS, ADB*

This RETA came at an opportune time and, for ADB, it dealt with an important topic. The RETA had limited buy-in at the start, including from our partners like WHO, that I had to go to WPRO several times. There was some kind of concern that we were taking off on our own considering that ADB was not looked up to as a technical partner in this field. The countries were a little bit hesitant because the money available was such a small amount. ADB should have done more of a stakeholder analysis to understand the positions of the various stakeholders. ADB obviously had a planning constraint. I have to be very frank. We did not spend enough time in planning the RETA, and so, there was an inadequate assessment of where the countries were in their process of implementing things. That partly resulted in pressure to change the TA. We did have a TA, which was perhaps a bit standardized, not tailor-made to the needs of the countries. Fortunately, ADB was able to recognize that and made adjustments based on the outcome of the first workshop in Jakarta. But, of course, all that took time, so we had quite a bit of an issue in the reassessment process. Also, we had a rapidly changing situation with AI, APSED, and IHR, all of which needed adjustment.

If we could plan now, if we could plan this with what we know now, let's assume, if at all, that there will be a second round, maybe some of you will still say, *'Well, the money is not big enough. We do not want to go through this. Maybe we would rather work with some big donor bringing us 20 million dollars because this is just not worth the effort.'* And I would understand that. But at least, we are now in a much better position to see where you would want to go next, and I think that is very important. I think all this dialogue has also helped to clarify where we are in the process and what next to do, not so much with ADB, but, in general, where governments want to proceed.

In terms of implementation, it is quite complex as there are multiple partners involved – and that is a bit scary. Whenever we submit a new project of 200 million dollars to the board and it has eight partners, the board gets worried. They say that is far too much. They say that you should have two or three (partners). Here we have many – we have four consulting firms, ADB, three governments – that's eight. That is a lot of partners but we somehow managed, thanks to PRIMEX and its partners. I particularly think that having the local partners in the countries was very important. Sometimes, there was some kind of silence, but there were people moving on the ground and communicating things. We do not need a formal network, which I think is extremely important as you mentioned yesterday. I sense a lot of confidence that the governments can go ahead as it wants to go ahead. There are no secret agenda. There is no unnecessary exposure or putting people at risk. Unless there is that confidence, it is very hard to do this kind of work because after all, it is very sensitive. You are building a new road for ESR, which is very sensitive. I think that was very well handled. Thanks also to our consultants in the three countries for managing the Project quite well, including Dr. Lim, for example, who is always so quiet – a secret force!

As was mentioned just now by Joe, because of the complex procedures in ADB, PRIMEX had to be on top of things in terms of communication and applying simple tools. Timeliness was of the essence, and now we are, in a way being penalized, for that because of our forms of keeping time. Flexibility, once we change the scope, we remain flexible. Component C, in particular, allowed us considerable flexibility in terms of adjusting to country needs.

I do think, in the end, that the RETA was over-ambitious in terms of the time frame and available funds. These also caused some frictions and issues in terms of communication and in terms of supervision, etc. as Bob mentioned this morning. He called himself the coach. Did you win the game or not, as the coach?

Some areas like ESR assessment and plans, we actually added work, and one of the constraints we had was additional work. We also did not do certain things, but we added quite a bit of work. Normally, when ADB would add work to a consulting firm, the consulting firm would really complain. But I should say that PRIMEX was really willing to do good. They had a personal commitment, not just being a consulting firm, but really being dedicated to help the governments in this Project. I should give thanks to the consultants for being so committed. I think the consultants were very good in that they were personally interested in the topic. We do not always see that. We get people who just do it, to feed their kids, and that's it. But I feel that our consultants had a strong commitment to the technical aspects, and I am grateful for that.

We did notice that regional cooperation was more difficult to get going. This is something I intend to do more about also, through ADB support in the future, particularly like FETP, as we discussed yesterday. I am very happy that FETP came out as a big topic that we even said, *'this time, let's have a two-day special forum on FETP.'* I think that is very important. Maybe we did not accomplish so much, but I think we started a process of regional cooperation in FETP, and all are trying to be realistic about things, which, I think, is extremely important for sustaining this kind of capacity in the region.

This Project was driven by governments and, I think, that is the big secret for the success of this RETA. Not just because we were flexible but also because the governments made the time available. We all know how busy they are. They made the commitment, they did say what they wanted and what not, and that helped us a lot. The moment we have that kind of guidance, we can support them, because the one thing that ADB and consultants cannot provide is the leadership and guidance. That really has to come from the governments. In this case, that was quite clearly in place. We really are appreciative of governments saying, *'This is what we want.'* This is so important because the moment you say *'No, I don't want this, but I want that,'* we know that there is a commitment. If I go to you and you say, *'yes, yes, everything is wonderful,'* you won't buy me with that. I don't believe that. I know I make mistakes, I come with the wrong things. I want you to tell me what you want, and also what you don't want. That's the time I feel very comfortable because that's the time we have reached a level of trust.

Thank you very much to the governments for making this incredible effort, and not so much thinking about this RETA, but thinking about how to strengthen the surveillance system and use it as an opportunity, as a catalyst, for trying to review the entire ESR and how that can be strengthened. Then also, we think about other governments. This is not an issue with ADB. It is about having a surveillance system. Let us use that opportunity to see how we can strengthen systems. I think that has happened very nicely. I am very happy about that part of this process.

So, where do we go next? We hope we become clearer about the remaining activities of the RETA and what you would like to do in terms of budget. I can see there is quite a bit of money left. I think each country could possibly write to ADB in terms of what you would like to do and how long that would take, and we would try to get the support of ADB. You know what money is left. I also should warn you that we would not want to extend the RETA for a long time. We are quite worried if we extend it. Also you should have to keep in mind, this is not much money. Even if you want to look for a future activity, it will be difficult to move on if you are still implementing this one.

So, you can make your suggestions to ADB, including your general views of issues and constraints and why you think it is just viable to move on a bit further. If you think you are done, that is also great! I am happy to report that you are done. I leave it up to you. I think ADB should also hopefully be realistic about

this, that these things do take time. And this was quite a short time frame, by any standard, as was mentioned earlier by Eric.

In the future, I am going to explore again with ADB what opportunities there could be. I am particularly interested in FETP and in what area the lower level of training or the district-level training falls. If, anyhow I get the signal from ADB that there could be some funding for something similar or something different – a grant to fund capacity building in general, I will send a signal to the governments to get their guidance in terms of what they want. I won't make any specific discussions with ADB until I have your guidance on this. However, my view is that it is not so much the money, as was said earlier, it is the kind of collaborative spirit and also being able to discuss things, to present things, which I think is also very important. I hope you all appreciated seeing what the other countries are doing and to be able to compare, to feel a bit challenged, to think, *'Oh, this looks rather straightforward, we can have this,'* or *'This is very complicated.'* That kind of thinking is also very important.

Stephane is not here, but we have a similar experience in Mekong where the countries are even more different, in many ways, than here, as your countries are quite different. So how can you compare, that is one issue. But in the Mekong, they are even more different. It does provide some opportunity to learn from other countries. I do think we succeeded in that. Tomorrow, I have asked for two of you to actually meet us at ADB, at about 9 o'clock or so, if you don't mind. You can come with more people, you are most welcome. Everyone can come if you want to. We hope to get your official request if you want an extension, and basically that should include what you want to do with the budget. I hope you also consider that to manage this, PRIMEX will need to keep their office open as well.

Again, thank you very much. It was great working with you.

Appendix 7:
**COMPARISON OF ORIGINAL PROJECT COSTS
AND ACTUAL EXPENDITURES**

COST ESTIMATES AND FINANCING PLAN
(\$'000)

Item	Original TA Paper			Actual Expenditures		
Asian Development Bank Financing^a	Foreign Exchange	Local Currency	Total	Foreign Exchange	Local Currency	Total
1. Consultants						
a. International	250.0	0.0	250.0	372.5		372.5
b. Local	0.0	200.0	200.0		0.0	0.0
c. International and Local Travel	15.0	10.0	25.0	50.5	7.5	58.0
2. Secondment and Exchange Program ^b	60.0	0.0	60.0	0.0		0.0
3. Simulations and Testing	0.0	30.0	30.0		0.0	0.0
4. Website Development, Software, and Portal	20.0	0.0	20.0	0.0		0.0
5. Conference and Workshops ^c	40.0	15.0	55.0	52.5	6.0	58.5
6. Translation, Printing, and Supplies	15.0	5.0	20.0	8.0		8.0
7. Component C ^d	500.0	0.0	500.0	470.5		470.5
Land Transportation, Vehicle Rental, Others					7.5	7.5
Equipment				3.5		3.5
Office Operations, CPMO and PMU Philippines					144.0	144.0
Office Operations, PMU Indonesia					30.5	30.5
Office Operations, PMU Malaysia					42.0	42.0
8. Contingencies	25.0	15.0	40.0	0.0		0.0
Subtotal (A)	925.0	275.0	1,200.0	957.5	237.5	1,195.0
Government Financing						
1. Office Space	0.0	150.0	150.0			
2. Local Transportation	0.0	100.0	100.0			
3. Counterpart Staff ^e	0.0	250.0	250.0			
Subtotal (B)	0.0	500.0	500.0			
Total	925.0	775.0	1,700.0	957.5	237.5	1,195.0

^a Financed by the Asian Development Bank technical assistance funding program.

^b Includes travel, accommodation, and per diem for official participants.

^c Includes travel, accommodation, per diem for official participants, and honoraria for resource speakers and/or facilitators.

^d Includes activities, equipment, case studies, research, and training materials.

^e Including salaries and benefits of staff during secondments.



Appendix 8:
**COMPARISON OF ORIGINAL AND
ACTUAL CONSULTANT TIME INPUTS**

COMPARATIVE MATRIX OF CONSULTANTS' TIME INPUT

Consultant	ORIGINAL CONTRACT	REVISED CONTRACT
	No. of Person months	No. of Person months
International Consultants		
Epidemiological Surveillance Specialist/Team Leader(ESS/TL)	5.00	5.00
Epidemiological Surveillance Specialist/Co-Team Leader (ESS/CTL)	9.00	19.00
Information Technology Specialist (ITS)	2.00	7.00
Project Administration Coordinator/Team Leader for the Extension Phase	-	7.37
National Consultants		
Surveillance Specialist/Deputy Team Leader (HSS/DTL), Indonesia	8.00	11.00
Surveillance Specialist/Deputy Team Leader (HSS/DTL), Malaysia	8.00	11.00
Surveillance Specialist/Deputy Team Leader (HSS/DTL), Philippines	8.00	8.00
Short Term Specialists		
IHR Secretariat Support Specialist, Senior Consultant, Indonesia		14.0
IHR Secretariat Support, Junior Secretary		14.0
IT programmers (3), Malaysia 2 pax x 6 pm/pax = 12 pm 1 pax x 8 pm = 8 pm		20.0
National IHR Focal Point Support Specialist in the Philippines, Philippines	-	14.00
IHR Legal Specialist, Philippines	-	0.50
ESR Policy Specialist/Capacity Building Specialist	-	2.00
ICT Specialist, Philippines	-	2.00
TOTAL person months	40.0	134.87



Appendix 9:
LIST OF PROCURED EQUIPMENT

LIST OF PROCURED EQUIPMENT

No.	Description of Equipment	Quantity/ Unit	Unit Price	Total Price (Rp)
A. INDONESIA				
1	Notebook Fujitsu P1610	1	18,000,000	18,000,000
2	PC/Desktop Computer Hp dx2200	4	11,000,000	44,000,000
3	Printer HP Laserjet 1022	4	2,500,000	10,000,000
4	Facsimile Machine Panasonic KX-FT933	1	2,500,000	2,500,000
TOTAL				8,232.0442
B. MALAYSIA				
1	HP compaq DX2700M Desktop Computer	17	3,599.00	61,183.00
2	HP Compaq Business Notebook	2	4,999.00	9,998.00
3	Application Server: IBM eServer xSeries 3650 + Samsung 17' Wide LCD Monitor, incl. Red Hat Enterprise Linux Software	1	42,808.00	42,808.00
4	Data Server: IBM eServer xSeries 3650, incl. Red Hat Enterprise Linux Software	1	36,059.00	36,059.00
5	IMR: IBM eServer xSeries 3650 + Samsung 17' Wide LCD Monitor, incl. Red Hat Enterprise Linux Software	1	33,234.00	33,234.00
6	Back-up: HP ML110T05 Series Server, incl. Red Hat Enterprise Linux Software	1	12,617.00	12,617.00
7	ATEN 4 Port KVM Switch	1	570.00	570.00
8	D-Link Network Storage Enclosure	1	1,720.00	1,720.00
9	Datalogic Barcode Scanner	13	577.00	7,501.00
10	Datamax Barcode Printer, incl. Codesoft Pro software	2	4,988.00	9,976.00
11	Labels (35mm x 20mm – 1" core, Art Paper, 2UP)	10	30.00	300.00
12	HP LaserJet Printer P1006	2	599.00	1,198.00
13	Epson Dot Matrix Printer	1	499.00	499.00
14	Dell LCD Projector	1	2,188.00	2,188.00
15	Adobe Acrobat Pro	1	1,620.00	1,620.00
TOTAL				69,209.69



No.	Description of Equipment	Quantity/ Unit	Unit Price (US\$)	Total Price (US\$)
C. PHILIPPINES				
1	Laptop computer and software	1	1,536.00	1,536.00
2	Color laserjet printer	1	378.00	378.00
3	LCD Projector	1	1,002.00	1,002.00
4	Digital Camera	1	559.00	559.00
5	Laptop computer and software	1	1,252.75	1,252.75
6	Portable colored printer	1	362.64	362.64
7	Desktop computers with LCD monitor	22	868.478	868.478
8	Desktop computers with CRT monitor	6	716.305	716.305
9	Colored printers	28	54.348	54.348
10	Tower server	1	3,693.48	3,693.48
11	Networking operating system	1	869.46	869.46
12	Database software	1	2,607.61	2,607.61
13	SCSI hardisk	2	266.305	266.305
14	Broadband router	1	81.52	81.52
15	Wireless accesspoint	1	103.26	103.26
16	Laptop computer with software	1	1,433.00	1,433.00
TOTAL				39,337.42
GRAND TOTAL (US\$)				116,779.15

Appendix 10:
CERTIFICATES OF EQUIPMENT TURNOVER

ADB Regional Technical Assistance No. 6305:**Strengthening Epidemiological Surveillance and Response for
Communicable Diseases in Indonesia, Malaysia, and Philippines**

Jakarta, 29 August 2008

DR. Hari Santoso, SKM, MEpid.

Program Manager ADB RETA 6305

Directorate General of Disease Control and Environment Health

Ministry of Health

Jl. Percetakan Negara No. 29, Jakarta 10560

**Subject: ADB RETA 6305, Strengthening Epidemiological Surveillance and
Response to Communicable Diseases in Indonesia, Malaysia, and the
Philippines**

Dear Pak Andi,

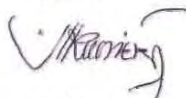
We are pleased to turnover to your office the following office equipments and furnitures purchased under the above mentioned project:

Item/Description	Quantity	Unit
Notebook Fujitsu P1610 Serial No. C07405016	1 unit	Equipment
PC/Desktop Computer HP dx2200 CPU: Serial No. SGH71205GQ Serial No. SGH71205GG Serial No. SGH7120536 Serial No. SGH7120505 Monitor: Serial No. CNC7012VM7 Serial No. CNC7012VM5 Serial No. CNC7110GT6 Serial No. CNC7110FXB	4 units	Equipment
Printer HP Laserjet 1022 Serial No. VNRJ75W070 Serial No. VNRJ76F075 Serial No. VNRJ76Q04H Serial No. VNRJ76Q038	4 units	Equipment
Facsimile Machine Panasonic KX-FT933 Serial No. 7EAWA038928	1 unit	Equipment
Rack-Expo	2 units	Furniture
Rotary Chairs-Stylart	2 units	Furniture

We hope you will find everything in order.

Thank you very much and we hope that we could work together again in the future.

Sincerely yours,


Noor Arief MuzadiDeputy Project Director
Indonesia

**STRENGTHENING EPIDEMIOLOGICAL SURVEILLANCE AND
RESPONSE FOR COMMUNICABLE DISEASES IN
INDONESIA, MALAYSIA, AND THE PHILIPPINES
(TA NO. 6305-REG)**




DELIVERY ORDER AND HANDING OVER DOCUMENTS

Site: Hospital Pulau Pinang

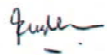
No.	Item Description	Qty.	Remarks (if any)
1.	Hewlett-Packard (HP) Desktop Computer Model: HP Compaq DX2700M	3	Monitor, CPU, keyboard & mouse
2.	Datalogic Barcode Scanner Model: Heron D130	2	

End User



Received and Accepted by:
(In good working condition)


 Name: NOORLELA BINTI ABDUL MALIK
 Designation: JURUTEKNIK KOMPUTER (FT17)
 Date: JABATAN TEKNOLOGI MAKLUMAT
 Stamp: HOSPITAL PULAU PINANG
 19/6/08

Ministry of Health Malaysia (Project Owner)
Witnessed by:


 Name: MOHD ADDIN BIN RUSLAN
 Designation: Penolong Pegawai Teknologi Maklumat F29
 Date: Makmal Kesihatan Awam Kebangsaan
 Stamp: Kementerian Kesihatan Malaysia
 19/6/08

RETA 6305 Consultant
Witnessed by:


 Name: LONG SHURA FAWC
 Designation: DEPUTY PROJECT DIRECTOR (MALAYSIA)
 Date: 19/6/08
 Stamp: ABB RETA 6305




Handing Over Documents

Site: Hospital Pulau Pinang

No.	Code	Model	Serial No.	Product/Part No.	Location	Date Received	Received by
1.	eLBIS/HPP/001/08/DT	Desktop Computer HP Compaq DX2700M	Monitor: CWC81334TX CPU: SCH8190F00	Monitor: GP536A#AB4 CPU: GP405PT#AB4	Medikal Bakteriologi	19/6/08	NOORLELA BINTI ABDUL MALIK JURUTERNAK KOMPUTER (FT17) JABATAN TEKNOLOGI MAKLUMAT HOSPITAL PULAU PINANG
2.	eLBIS/HPP/002/08/DT	Desktop Computer HP Compaq DX2700M	Monitor: CWC81334TZ CPU: SCH8190F01	Monitor: GP536A#AB4 CPU: GP405PT#AB4	Bilik Reguman Suris	19/6/08	NOORLELA BINTI ABDUL MALIK JURUTERNAK KOMPUTER (FT17) JABATAN TEKNOLOGI MAKLUMAT HOSPITAL PULAU PINANG
3.	eLBIS/HPP/003/08/DT	Desktop Computer HP Compaq DX2700M	Monitor: CWC81334Z0 CPU: SCH8190F04	Monitor: GP536A#AB4 CPU: GP405PT#AB4	Medikal Bakteriologi	19/6/08	NOORLELA BINTI ABDUL MALIK JURUTERNAK KOMPUTER (FT17) JABATAN TEKNOLOGI MAKLUMAT HOSPITAL PULAU PINANG
4.	eLBIS/HPP/001/08/BS	Heron Kit D130 USB Black	E08A09855	901801013	Bilik Reguman Suris	19/6/08	NOORLELA BINTI ABDUL MALIK JURUTERNAK KOMPUTER (FT17) JABATAN TEKNOLOGI MAKLUMAT HOSPITAL PULAU PINANG
5.	eLBIS/HPP/002/08/BS	Heron Kit D130 USB Black	E08A09739	901801013	Medikal Bakteriologi	19/6/08	NOORLELA BINTI ABDUL MALIK JURUTERNAK KOMPUTER (FT17) JABATAN TEKNOLOGI MAKLUMAT HOSPITAL PULAU PINANG

Page 1 of 1





PACIFIC RIM INNOVATION AND MANAGEMENT EXPONENTS, INC.

23 August 2007

Dr. Enrique A. Tayag

Director

National Epidemiological Center (NEC)

Department of Health

San Lazaro Compound, Sta. Cruz, Manila

Attention: Dr. Marlow Niñal, Chief, Public Health Surveillance

Subject: TA No. 6305-REG: Strengthening Epidemiological Surveillance and Response for Communicable Diseases – Equipment Turn over

Dear Dr. Tayag:

We are pleased to turn over to your office the following office equipment purchased under the abovementioned Project:

Qty	Particulars	Serial Numbers
17 Units	Intel Core Duo Desktop Computer - Intel LGA775 Pentium 4 CPU (Asus P5VD2-MX) - 1.6 GHz Core Duo Processor - 1GB DDR2 Memory - 160GB SATA Drive 7200 RPM Seagate HDD - 1.44MB FDD Samsung - 56K Internal Modem - 16x Asus DVD-Writer - Built LAN 10/100 LAN and audio - Asus EN6200-TC 512 PCI-E Video Graphics - ATX Casing with 350 Watts Power Supply - Keyboard & Optical Mouse with pad - Multimedia Speakers - Support CDs (Drivers, Asus PC Probe 2, ASUS LiveUpdate Utility, Antivirus Software)	1) 73M0AD228192 2) 75M0AD252012 3) 75M0AD251765 4) 75M0AD251764 5) 75M0AD252010 6) 75M0AD251763 7) 75M0AD251766 8) 76M0ACR34603 9) 76M0ACR34607 10) 76M0ACR34601 11) 76M0ACR36598 12) 76M0ACR34605 13) 73M0AD228193 14) 74M0AD220172 15) 74M0AD219967 16) 74M0AD228192 17) 74M0AD220164
17 Pcs	Windows XP Professional Licensed OEM Product Keys: 1) VDJCVC-J3F8-8896G-7B922-MJGHY 2) PJ7YX-TMTGD-T4P7R-G7P39-DFHMG 3) XQ4XR-XPQHT-D6JC2-B2GVW-V7JXW 4) C747X-8Y8BC-WY3V4-TVGRF-V9X4J 5) FM6VH-Q8MFG-G3M7W-9KYFJ-VT886 6) RBB07-PGKJY-WWBHH-Y2CJ8-2CFDD 7) WFGPR-Q4MQK-HPGVY-KY8DP-P6DRW 8) KM78P-64KXP-9P2Q3-G7DVR-8YH6Y 9) M2W3Q-TRQWV-2FQC8-CPTHW-6G94G 10) V4RG6-HTTXB-YWVYK-QM342-T98XT	

502, Manila Luxury Condominium, 30 Pearl Drive, Ortigas Center, Pasig City, Philippines
 Tel. Nos. (632) 633-9052 • 633-3717 • 634-7338 • 635-2924
 Fax Nos. (632) 634-7340 • Email: primexinc@primexinc.org
 Website: www.primexinc.org

1



**STRENGTHENING EPIDEMIOLOGICAL SURVEILLANCE AND
 RESPONSE FOR COMMUNICABLE DISEASES IN
 INDONESIA, MALAYSIA, AND THE PHILIPPINES
 (TA NO. 6305-REG)**

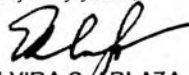


	11) TKXGT-KTQYT-GK8VG-MR624-2FTH3 12) QHPGT-6W8PY-GKRDJ-8J4FR-YBBDQ 13) R76CQ-68HDD-RXD4P-J2CY3-YXXRY 14) KJPMW-966YK-XHRTJ-PVK3T-KM48Q 15) GGQ8M-9Y74J-22VG7-TQF7M-344PB 16) QT768-RVC6X-29Y63-FCK69-KJQ9M 17) R7WYH-778F8-69TTC-CJT48-J3WYG	
17 Units	15" AOC LCD Color Monitor	1) A9374JA022604 2) A9374JA022605 3) A9374JA022607 4) A9374JA022641 5) A9374JA022515 6) A9374JA020532 7) A9374JA022635 8) A9374JA022611 9) A9374JA022618 10) A9374JA022624 11) A9374JA022625 12) 41576JA005219 13) 41577JA008474 14) 41577JA008454 15) 41577JA008473 16) 41577JA008466 17) 41577JA008460
17 Units	APS UPS 500Va/300Watts	1) 5B0715T82948 2) 5B0715T61937 3) 5B0715T82945 4) 5B0715T84922 5) 5B0715T84921 6) 5B0715T45649 7) 5B0715T33917 8) 5B0715T33909 9) 5B0715T46504 10) 5B0715T46255 11) 5B0715T34746 12) 5B0715T34749 13) 5B0716T45444 14) 5B0716T45768 15) 5B0716T45609 16) 5B0716T51653 17) 5B0716T51686

We hope that you will find everything in order.

With best wishes.

Very truly yours,


ELVIRA C. ABLAZA
 President and CEO

502, Manila Luxury Condominium, 30 Pearl Drive, Ortigas Center, Pasig City, Philippines
 Tel. Nos. (632) 633-9052 • 633-3717 • 634-7338 • 635-2924
 Fax Nos. (632) 634-7340 • Email: primexinc@primexinc.org
 Website: www.primexinc.org

2



**STRENGTHENING EPIDEMIOLOGICAL SURVEILLANCE AND
 RESPONSE FOR COMMUNICABLE DISEASES IN
 INDONESIA, MALAYSIA, AND THE PHILIPPINES
 (TA NO. 6305-REG)**



TA No. 6305-REG: Strengthening Epidemiological Surveillance and Response for Communicable Diseases in Indonesia, Malaysia, and Philippines

CERTIFICATE OF TA EQUIPMENT DISPOSAL/TURNOVER

This is to certify that the equipment listed below have been disposed of/turned over to the Department of Health in accordance with ADB instructions.

Qty	Particulars	Serial Numbers
17 Units	Intel Core Duo Desktop Computer - Intel LGA775 Pentium 4 CPU (Asus P5VD2-MX) - 1.6 GHz Core Duo Processor - 1GB DDR2 Memory - 160GB SATA Drive 7200 RPM Seagate HDD - 1.44MB FDD Samsung - 56K Internal Modem - 16x Asus DVD-Writer - Built LAN 10/100 LAN and audio - Asus EN6200-TC 512 PCI-E Video Graphics - ATX Casing with 350 Watts Power Supply - Keyboard & Optical Mouse with pad - Multimedia Speakers - Support CDs (Drivers, Asus PC Probe 2, ASUS LiveUpdate Utility, Antivirus Software)	<ul style="list-style-type: none"> 73M0AD228192 75M0AD252012 75M0AD251765 75M0AD251764 75M0AD252010 75M0AD251763 75M0AD251766 76M0ACR34603 76M0ACR34607 76M0ACR34601 76M0ACR36598 76M0ACR34605 73M0AD228193 74M0AD220172 74M0AD219967 74M0AD228192 74M0AD220164
17 Pcs	Windows XP Professional Licensed OEM Product Keys: <ul style="list-style-type: none"> VDJCV-CJ3F8-8896G-7B922-MJGHY PJ7YX-TMTGD-T4P7R-G7P39-DFHMG XQ4XR-XPQHT-D6JC2-B2GVW-V7JXW C747X-8Y8BC-WY3V4-TVGRF-V9X4J FM6VH-Q8MFG-G3M7W-9KYFJ-VT886 RBBD7-PGKJY-WWBHH-Y2CJ8-2CFDD WFQPR-Q4MQK-HPGVY-KY8DP-P6DRW KM78P-64KXP-9P2Q3-G7DVR-8YH6Y M2W3Q-TRQWV-2FQC8-CPTHW-6G94G V4RG6-HTTXB-YWVYK-QM342-T98XT TKXGT-KTQYT-GK8VG-MR624-2FTH3 QHPGT-6W8PY-GKRDJ-8J4FR-YBBDQ R76CQ-68HDD-RXD4P-J2CY3-YXXRY KJPMW-966YK-XHRTJ-PVK3T-KM48Q GGQ9M-9Y74J-22VG7-TQF7M-344PB QT768-RVC6X-29Y63-FCK69-KJQ9M R7WYH-778F8-69TTC-CJT48-J3WYG 	
17 Units	15" AOC LCD Color Monitor	<ul style="list-style-type: none"> A9374JA022604 A9374JA022605 A9374JA022607 A9374JA022641 A9374JA022515

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 Website: www.primexinc.org

3



**STRENGTHENING EPIDEMIOLOGICAL SURVEILLANCE AND
 RESPONSE FOR COMMUNICABLE DISEASES IN
 INDONESIA, MALAYSIA, AND THE PHILIPPINES
 (TA NO. 6305-REG)**

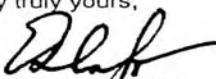


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17 Units	APS UPS 500Va/300Watts	<ul style="list-style-type: none"> • 5B0715T82948 • 5B0715T61937 • 5B0715T82945 • 5B0715T84922 • 5B0715T84921 • 5B0715T45649 • 5B0715T33917 • 5B0715T33909 • 5B0715T46504 • 5B0715T46255 • 5B0715T34746 • 5B0715T34749 • 5B0716T45444 • 5B0716T45768 • 5B0716T45609 • 5B0716T51653 • 5B0716T51686


We hope that you will find everything in order.

With best wishes.

Very truly yours,


ELVIRA C. ABLAZA
 President and CEO

Equipment received by:


RICKY PANGINDIAN
 Admin Officer, NEC-DOH

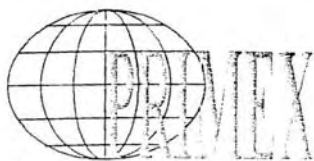
502, Manila Luxury Condominium, 30 Pearl Drive, Ortigas Center, Pasig City, Philippines
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**STRENGTHENING EPIDEMIOLOGICAL SURVEILLANCE AND
 RESPONSE FOR COMMUNICABLE DISEASES IN
 INDONESIA, MALAYSIA, AND THE PHILIPPINES
 (TA NO. 6305-REG)**





PACIFIC RIM INNOVATION AND MANAGEMENT EXPONENTS, INC.

24 August 2007

Dr. Enrique A. Tayag
Director
National Epidemiological Center (NEC)
Department of Health
San Lazaro Compound, Sta. Cruz, Manila

Attention: Dr. Marlow Niñal, Chief, Public Health Surveillance

Subject: TA No. 6305-REG: Strengthening Epidemiological Surveillance and Response for Communicable Diseases – Equipment Turn over

Dear Dr. Tayag:

We are pleased to turn over to your office the following office equipment purchased under the abovementioned Project:

Qty	Particulars	Serial Numbers
6 Units	Intel Core Duo Desktop Computer - Intel LGA775 Pentium 4 CPU (Asus P5VD2-MX) - 1.6 GHz Core Duo Processor - 512MB DDR2 Memory - 80GB SATA Drive 7200 RPM Seagate HDD - 1.44MB FDD Samsung - 56K Internal Modem - 16x Asus DVD-Writer - Built LAN 10/100 LAN and audio - Asus EN6200-TC 512 PCI-E Video Graphics (256MB) - ATX Casing with 350 Watts Power Supply - Keyboard & Optical Mouse with pad - Multimedia Speakers - Support CDs (Drivers, Asus PC Probe 2, ASUS LiveUpdate Utility, Antivirus Software)	1) 74M0AD220168 2) 74M0AD220165 3) 74M0AD220906 4) 74M0AD220907 5) 74M0AD220167 6) 74M0AD220166
6 Pcs	Windows XP Professional Licensed OEM - Product Keys: 1. DQJP8-RG8MV-H74RK-CY8PP-9JQ8B 2. DBFYM-KM6HG-WVQ86-JY8GR-9RG23 3. V3M6J-6CT6T-PGYWP-PYV2T-WRR6W 4. VQ36T-PWBFM-RXTTG-HMPX7-W9MKG 5. R83C2-WHMJX-TKCP8-W8RPT-MF4PD 6. F9BQB-T339P-F3VYV-QFBI2-PCFPG	
6 Units	17" MAG CRT-type Monitor	1) FA1164O261546 2) FA1164O261564 3) FA1164O261553 4) FA1164O261555 5) FA1164O261545 6) FA1164O261148

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1



**STRENGTHENING EPIDEMIOLOGICAL SURVEILLANCE AND
RESPONSE FOR COMMUNICABLE DISEASES IN
INDONESIA, MALAYSIA, AND THE PHILIPPINES
(TA NO. 6305-REG)**





PACIFIC RIM INNOVATION AND MANAGEMENT EXPONENTS, INC.

10 April 2008

Dr. Enrique A. Tayag

Director
National Epidemiological Center (NEC)
Department of Health
San Lazaro Compound, Sta. Cruz, Manila

Attention: Mr. Vidal Pantilano, System Developer

Subject: TA No. 6305-REG: Strengthening Epidemiological Surveillance and Response for Communicable Diseases – Equipment Turn over

Dear Dr. Tayag:

We are pleased to turn over to your office the following office equipment purchased under the abovementioned Project:

Qty	Particulars		Serial Numbers/ MB Version
1 Unit	Model :	Asus A8J Series (SN: A8JR-4P005C-A)	Model : A8J
	System/Hardware:	Intel Core Duo Technology	MB Ver: A8JR ID: 1A
	Processor:	Duo T5500	S/N: 74N0AS176480
		14.1 WXGA LCD	
		1024 MB Memory	
		120 GB Hard Drive	
		DVD Super Multi Drive	
		802.11a/b/g wireless LAN	
		5 in 1 Card Reader	
		1.3 Megapixel Web Camera	
	Software Pre-Installed:	Windows Vista Home Premium (PK: 7Q6R3-VC9VT-6FRD6-HX2R2-XVHRH)	
	Accessories:	Asus Recovery Disc	
		Asus Optical Mouse	
		Auto AC Plug (100-240v)	
		Asus Bag	

We hope that you will find everything in order.

With best wishes.

Very truly yours,

ELVIRA C. ABLAZA
President and CEO

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**STRENGTHENING EPIDEMIOLOGICAL SURVEILLANCE AND
RESPONSE FOR COMMUNICABLE DISEASES IN
INDONESIA, MALAYSIA, AND THE PHILIPPINES
(TA NO. 6305-REG)**



TA No. 6305-REG: Strengthening Epidemiological Surveillance and Response for Communicable Diseases in Indonesia, Malaysia, and Philippines

CERTIFICATE OF TA EQUIPMENT DISPOSAL/TURNOVER

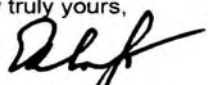
This is to certify that the equipment listed below have been disposed of/turned over to the Department of Health in accordance with ADB instructions.

Qty	Particulars		Serial Numbers/ Product Keys
1 Unit	Model :	Asus A8J Series (SN: A8JR-4P005C-A)	Model : A8J
	System/Hardware:	Intel Core Duo Technology	MB Ver: A8JR ID: 1A
	Processor:	Duo T5500	S/N: 74N0AS176480
		14.1 WXGA LCD	
		1024 MB Memory	
		120 GB Hard Drive	
		DVD Super Multi Drive	
		802.11a/b/g wireless LAN	
		5 in 1 Card Reader	
		1.3 Megapixel Web Camera	
	Software Pre-Installed:	Windows Vista Home Premium	
	(PK: 7Q6R3-VC9VT-6FRD6-HX2R2-XVHRH)		
	Accessories:	Asus Recovery Disc	
		Asus Optical Mouse	
		Auto AC Plug (100~240v)	
		Asus Bag	


We hope that you will find everything in order.

With best wishes.

Very truly yours,


ELVIRA C. ABLAZA
President and CEO

Equipment received by:


RICKY PANGINDIAN
Admin Officer, NEC-DOH

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