Workshop Report

Third Workshop on Field Epidemiology Training Programmes: Opportunities to Strengthen International Collaboration

Bali, Indonesia
8 November 2011

World Health Organization
South-East Asia Region
Western Pacific Region

WPDSE1206256-ESR
Report series number: RS/2011/GE/71(INO) English only

REPORT

THIRD WORKSHOP ON FIELD EPIDEMIOLOGY TRAINING PROGRAMMES: OPPORTUNITIES TO STRENGTHEN INTERNATIONAL COLLABORATION

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Convened by:

World Health Organization
Regional Offices for the South-East Asia and the Western Pacific

Not for sale

Printed and distributed by:

World Health Organization
Regional Office for the Western Pacific
Manila, Philippines

July 2012

NOTE

The views expressed in this report are those of the participants who attended the Third Workshop on Field Epidemiology Training Programmes: Opportunities to Strengthen International Collaboration and do not necessarily reflect the policies of the Organization.

This report has been prepared by the World Health Organization Regional Offices for the South-East Asia and the Western Pacific for governments of the Member States in the Regions and for those who participated in the Third Workshop on Field Epidemiology Training Programmes: Opportunities to Strengthen International Collaboration, which was held in Bali, Indonesia on 8 November 2011.

CONTENTS

Keywords:

/Epidemiology – education/International cooperation/Health personnel – education/Epidemiologic methods

SUMMARY

During the review of the progress of the Asia Pacific Strategy for Emerging Diseases (APSED), it was agreed that a common framework for the national and regional system development was necessary in order to manage Emerging Infectious Diseases (EIDs) and other public health emergencies. As the development of the system would require competent staff or sustainable human resources (HR), a well-managed Field Epidemiology Training Programme (FETP) would be an effective mechanism to produce such capable HR within the public health system.

There is considerable variety in existing FETPs in the Asia Pacific region, reflecting diverse needs and national priorities. For instance, the Western Pacific Region has developed a concept of modified FETPs (FETs) for resource-limited countries. Two-year international FETP course at Thailand FETP and three months international course in India accept fellows from Western Pacific and South-East Asia Regions.

Three Member States in the South-East Asia Region have established FETPs while 11 Member States in the Western Pacific Region have established either FETPs or FETs. These FETPs/FETs have been recognized as effective tools for human resource development needed by various public health systems in their tasks of surveillance and response. Some countries in the South-East Asia Region (e.g. Bangladesh, Bhutan and Nepal) have also shown an interest in establishing some form of FETP.

Although these ongoing programmes are progressing in the right direction, the Forum advocated for sustainability as well as the framework of sustainable model and assessment tool. These initiatives were piloted in the Lao People's Democratic Republic and have shown promising results on sustaining and improving FET.

APSED emphasized importance of developing surveillance, risk assessment and response capacities in the Member States and endorsed the workplan on strengthening the field epidemiology capacities. In addition, the Forum advocated that the same objectives be included into the national APSED workplans.

The Forum identified the need for continuing training and recommended the establishment of "FET-plus" within public health system as the built-in system. The creation of the *Western Pacific Surveillance and Response (WPSAR),* an open access journal, has provided an effective tool to improve FET and FETP quality, and World Health Organization's (WHO) initiative and effort on WPSAR were appreciated. The development of the complementary open access journal, *Outbreak Surveillance and Investigation Reports*, based on the Thai FETP, was also acknowledged. These journals have editorial board and receive contribution of papers from both regions. At the end, the support provided by donors and partners was appreciated, and the Forum requested for continuous and coordinated support at the country and regional levels.

It was agreed that WHO should continue to identify and support countries that wish to establish and/or strengthen capacity in field epidemiology. Regular assessment and evaluation of the existing and newly-established programmes were recommended. The Western Pacific Regional Office was requested to carry out the assessment of sustainability of FET in Mongolia and Cambodia. The Member States were encouraged to review the APSED workplan and to include FET activities in their national workplans. WHO was requested to develop the concept of "FET-Plus" in consultation with the Member States, technical experts and partners. WHO should support and coordinate with donors, partners and existing networks for the effective support of FETP/FET.

1. INTRODUCTION

Field Epidemiology Training Programmes (FETPs) are competency-based training and service programmes in applied epidemiology and public health. The programmes aim to develop capacity of public health systems in countries by building competencies through on-the-job mentorship and training.

A two-year FETP is the "gold standard" for training of field epidemiologists. At present, Australia, China, India, Indonesia, Japan, Malaysia, the Philippines, the Republic of Korea, Singapore, Thailand and Viet Nam have two-year FETPs in the South-East Asia and Western Pacific Regions. The programme in Thailand is offered as international FETP two-year course to provide training opportunities for the trainees from the WHO South-East Asia and the Western Pacific Regions' Member States.

However, a two-year FETP requires a significant amount of time, material, and human resources. As a result, the conventional FETP training model needed to be modified, especially for some developing countries with limited human resources and the need to rapidly build capacity. An Informal Consultation of Modified FETP held in Manila, the Philippines, in October 2008, recommended a modular type of training using a pyramidal competency-building approach. Following this consultation, a modified FETP (FET) was introduced in Cambodia in 2009, the Lao People's Democratic Republic, and Mongolia in the Western Pacific Region. In the South-East Asia Region, India launched a three-month modified international FETP which accepted trainees not only from India but also from other counties.

A modified FETP (or FET) is defined as a shorter course compared to the conventional two-year course. It adapts to country situations and needs, and yet maintains the basic and important concepts of training through on-the-job mentorship and training. A short course without well-designed field activities (e.g., two weeks of didactic epidemiology training) is not included in the concept of FET in this report. The term of FETP is used to indicate only two-year conventional training models in this report.

The first workshop on FET/FETP was held in November 2009 during the Training Programme in Epidemiology and Public Health Interventions Network (TEPHINET) Biregional Conference in Seoul, the Republic of Korea, to share the progress of newly-developed FETs/FETPs. At this workshop, the Western Pacific Regional Office made a commitment to conduct an annual FET/FETP workshop to document experiences and achievements of newly-developed programmes and conduct ongoing assessment of programmes.

The sixty-first session of the World Health Organization Regional Committee for the Western Pacific, held in Putrajaya, Malaysia, endorsed the Asia Pacific Strategy for Emerging Diseases (APSED 2010), which provided countries and partners with a common strategic framework to develop the core capacity or system to detect, assess, and respond to emerging disease and other public health events. Capacity-building under APSED is undertaken through a system development approach. For system development, human resource is vital. Field epidemiology training to include FET and FETP is considered a key component of surveillance, risk assessment and response in APSED (2010).

The second workshop for FET/FETP was organized in November 2010 in Manila, the Philippines, to (i) share current progress on newly-developed programmes, and (ii) develop FET assessment framework inviting FET/FETP delegates and partners. The workshop also developed

a sustainable model for FET which indicates that advocacy, qualified programme components, programme-related output/outcome and national/international partnerships are essential components for programme sustainability to have long-term political support. Indicators for programme assessment were identified through the process of developing a sustainable model. Based on the recommendations of the workshop, a joint assessment mission was conducted in May 2011 to pilot the assessment framework in the Lao People's Democratic Republic.

1.1 Objectives

The third workshop on FET/FETP (referred to as Forum later) was held in conjunction with the TEPHINET 6th Biregional Scientific Conference in Bali, Indonesia, on 8 November 2011. It focused on how each participant could contribute to the newly-developed FETs/FETPs in order to strengthen the public health system of each country. The objectives of the workshop were to:

(1) share and document experiences and achievements of newly-developed programmes and conduct ongoing assessment of programmes;

(2) refine and finalize the FET assessment framework based on the experience of a pilot assessment and to agree on the next steps for assessment activities for FETs;

(3) develop an action plan and define roles based on the sustainable model for international partners to support FETs/FETPs; and

(4) foster mutual partnership among FETs/FETPs.

1.2 Opening session

Dr Nyoman Kandun, Director of FETP, Indonesia, opened the meeting and Dr Rick Brown, Regional Adviser, Disease Surveillance and Epidemiology, Regional Office for South-East Asia, welcomed the participants to the forum.

In the opening remarks, Dr Dionisio Herrera, the TEPHINET Director, indicated that TEPHINET had 50 member programmes around the world and WHO, an important partner, works closely with TEPHINET. One of the objectives of TEPHINET is to support programmes and countries in building epidemiological capacity.

Dr Chuleeporn Jiraphongsa (South-East Asia Regional Director, TEPHINET Advisory Board), and Dr Fadzilah Kamaludin (Western Pacific Regional Director, TEPHINET Advisory Board) were selected by the participants to co-chair the meeting.

2. PROCEEDINGS

2.1 Plenary 1: Setting the scene (current situation)

2.1.1 Asia Pacific Strategy for Emerging Diseases (APSED) and Field Epidemiology Training/Field Epidemiology Training Programme (FET/FETP)

– Dr Li Ailan, Medical Officer, WHO Regional Office for the Western Pacific

Emerging diseases such as severe acute respiratory syndrome (SARS) and avian influenza H5N1 and the adoption of the International Health Regulations (IHR) 2005 spurred the development of APSED as a common framework for capacity development.

APSED (2005) had five focus areas: surveillance and response; laboratory; zoonoses; infection control; and risk communication. Implementation of the APSED plan led to significant improvement in surveillance capacities of the Member States leading to more timely outbreak detection. Implementation of the APSED plan also helped the Member States deal with the influenza pandemic in 2009/10.

The new APSED (2010) has eight focus areas: (1) surveillance, risk assessment and response; (2) laboratories; (3) zoonoses; (4) infection prevention and control; (5) risk communications; (6) public health emergency preparedness; (7) regional preparedness, alert and response; and (8) monitoring and evaluation. It continues to focus on emerging diseases but also seeks to maximize the benefits by widening its scope to include other acute public health threats.

Focus Area 1 (surveillance, risk assessment and response) has a component of field epidemiology training and FET/FETPs play an important role in human resource development for the health systems of the Member States.

2.1.2 FET/FETP in the South-East Asia Region

– Dr Yogesh Choudri, Medical Officer (Epidemiology), WHO Regional Office for South-East Asia

In 2003, WHO Regional Office for South-East Asia developed a road map to combat Emerging Infectious Diseases (EID). The road map included strengthening epidemiologic capacities of the Member States by promoting and strengthening existing two-year FETPs and assisting the Member States to conduct short-term field epidemiology training.

Two-year FETPs have been established in India, Indonesia and Thailand. India has two programmes: one at the National Institute of Epidemiology (NIE) in Chennai and another at the National Centre for Disease Control (NCDC/IP) at the University of Delhi. Indonesia also has two FETPs: one at Gadja Mada University in Yogyakarta and the other at University of Indonesia in Jakarta. Thailand FETP accepts international trainees and provides six months' training for supervisors from other programmes. In addition, FETP-V hasalso been established to train veterinarians in Thailand on a two-year course.

The two-year FETPs also run short epidemiology courses ranging from two weeks to six months. Three-month regional courses in NCDC accepts fellows from South-East Asia Region/Western Pacific Region. The MD in Preventive and Social Medicine, a three-year course

in selected Member States, incorporates extensive training in epidemiology and has a considerable field component. Short–term training courses in field epidemiology, ranging from one month (at NCDC) to two to four weeks in a Member State such as Bangladesh, Bhutan, Myanmar, Sri Lanka and Nepal, incorporate basic epidemiology learning and are usually provided to in-service health care providers.

WHO Regional Office for South-East Asia will continue to assist the Member States in developing and conducting field epidemiology training courses that meet their own needs and are suitable for their respective health systems. Whenever possible, joint training of human and animal health professionals are encouraged to promote and foster the "One Health" concept.

2.1.3 FET/FETP in the Western Pacific Region

– Dr Li Ailan, Medical Officer, WHO Regional Office for the Western Pacific

As of 2008, there were six FETPs in the Western Pacific Region; Australia, China, Japan, Malaysia, the Philippines and the Republic of Korea. In 2008, an informal consultation was held on field epidemiology training in the Region. It was agreed that a modified FETP model may be more suitable for some countries with limited resources. In 2009, one year FETs were established in the Lao People's Democratic Republic and Mongolia while a two-year FETP was established in Viet Nam. Singapore began its own two-year FETP in 2010. In 2011, a six-month Applied Epidemiology Training course was conducted in Cambodia.

During the annual FET/FETP workshop in 2010, a sustainable model for modified FETs and an assessment tool were developed. The assessment tool was piloted in the Lao People's Democratic Republic in May 2011. Results of the assessment were shared in this bi-regional meeting.

The Western Pacific Regional Office has been accepting FETP/FET fellows or graduates for an eight-week rotation to do event-based surveillance and risk assessment together with WHO staff. This mechanism detected more than 300 events of public health importance in 2010 in the Western Pacific Region.

An on-line journal named the *"Western Pacific Surveillance and Response Journal"* (WPSAR) has been launched by the Regional Office for the Western Pacific for sharing of information on surveillance and response to acute public health events. It can be utilized as a tool for capacity-building through peer review process and workshops on surveillance data analysis and scientific writing targeting FETP fellows.

2.1.4 Question and answer session (open forum)

The representative from Bhutan asked whether public health system development through FET/FETPs can link with academic institutions, e.g. universities.

A representative from China suggested that it might be helpful for WPSAR to provide a forum for on-line discussions among peer-to-peer or/and peer-to-trainer in the future.

2.2 Plenary 2: Programme assessment of FET in the Western Pacific Region

2.2.1 Sustainable model and programme assessment framework for FET in the Western Pacific Region

- *Dr Tamano Matsui, Medical Officer/FETP coordinator, WHO Regional Office for the Western Pacific*

Dr Tamano Matsui presented a sustainable model (Annex 1) and programme assessment framework for FET in the Western Pacific Region, as a revisit of discussions of the 2nd workshop for Field Epidemiology Training Programme in the Western Pacific Region. The 12 indicators agreed for FET assessment are shown in the following table. Qualifications for receiving assessment mission are having more than two cohorts of graduates and a voluntary request from the programme.

1	Ministry of Health or Ministry of Health-related agency's ownership of the training programme
2	Budget and planning
3	Training plan
4	Logistics
5	Applicants to the training programme
6	Competencies required of training programme graduates
7	Supervisor/mentor system
8	Involvement in acute health events
9	Involvement in surveillance activities
10	Planned investigation related to priority public health issues
11	Post-graduate follow up
12	Public health action in response to the recommendations by the training programme

2.2.2 Programme assessment for FET in the Lao People's Democratic Republic based on the assessment framework and development of future plan

- *Dr Fadzilah Kamaludin, WHO Temporary Adviser*

Dr Fadzilah Kamaludin gave a presentation on programme assessment of FET in the Lao People's Democratic Republic based on the assessment framework and development of future plan. The assessment team was jointly composed of the Lao government, namely: Ministry of Health and Ministry of Agriculture and Forestry; and external evaluators from FETP in Japan and Malaysia, Public Health Agency of Canada, United States Centers for Disease Control (USCDC) coordinated by the Regional Office for the Western Pacific.
Dr Fadzilah explained the scope and objectives of the assessment, methods of the assessment, findings, and recommendations. The scope and the objectives are: (a) to assess the progress of the Lao People's Democratic Republic FET programme; (b) to provide recommendations to strengthen the Lao FET; and (c) to provide recommendations for a long-term and sustainable FET in the Lao People's Democratic Republic. The assessment was conducted from 9 to 11 May 2011 through document review and interviews to FET trainees, graduates, supervisors, provincial health directors where FET graduates work and FET directors using standard questions based on the above indicators. Findings were summarized in four parts as follow: (i) programme management; (ii) funding; (iii) recruitment and curriculum; (iv) level of competency; (v) supervising and mentoring; (vi) utilization of graduates. She summarized the four recommendations to the Lao FET for further improvement. These are:

(1) Programme management: to create an advisory committee to provide guidance to the FET.

(2) Strategic planning: to formulate a strategic plan to ensure long term sustainability.

(3) Supervising/mentoring system: to define and endorse a realistic roles and responsibilities by Ministry of Health.

(4) Utilization of graduates: to create a career path for graduates to optimize their skills and to demonstrate and share their achievements/outputs.

She concluded her presentation by encouraging continuous support to the Lao FET.

Ms Bouaphanh Khamphaphongphane presented responses to recommendations from the evaluation team on behalf of the Lao FET. With regard of programme management, the Lao FET will organize consultation meetings to create advisory committee and technical body for day-to-day technical support. The Lao FET is committed to develop a strategic plan to ensure long-term sustainability of the programme. The plan could include short courses, human and financial resource allocation, and continuous investment of professional development. Supervisory system is linked to establishment of the advisory committee and the Lao FET needs to clarify their roles and responsibilities of the various types of supervisors and mentors. With regards of graduates utilization, she mentioned several ways of graduates utilization, such as supervisory roles of current trainees during field activities, development of interactive training material (case studies), provision of lectures to FET course in the Lao language, presentations at national and international meetings and conferences, and epidemiology training for provincial and district officers.

In order to make these goals possible, designated funding, administrative support of graduate network, workshops to increase supervision and other skills, equipment to enhance outbreak documentation and communication are necessary. In addition, it is suggested that consultation meetings should take place to discuss appropriate position for FET graduates according to their competencies with continuous carrier planning support.

There were several questions about programme management and supervision. It was recognized that many countries face similar challenges. The facilitator advised continuous discussion during group works in the afternoon.

2.3 Newly-developed FET/FETP programmes in the Asia Pacific region

2.3.1 Cambodia

Dr Bun Sreng gave an update on the progress of Applied Epidemiology Training (AET) in Cambodia. The host institution for the training is the Communicable Disease Control (CDC) department of the Ministry of Health.

After a proposal for a modified FET was drafted and approved by the Ministry of Health in 2009, funding was received from the World Bank, SAFETYNET and US CDC in 2010. For the 1st cohort, five trainees were recruited, who were trained in 2011.

The main course objective is to provide Rapid Response Team (RRT) staff with appropriate knowledge and skills and opportunities to develop the competencies necessary to carry out effective surveillance and outbreak response.

An interim programme advisory group was created which included representatives from the CDC department and partners such as WHO, Pasteur Institute, and US CDC. The main functions of the advisory group are: (1) to provide guidance and support to the AET management team on policies, strategies, and other issues related to the training; (2) to approve the workplan and training curriculum; (3) to screen applicants and select trainees for the course; and (4) to evaluate the pilot training course and make recommendations for future training activities. The AET management team is composed of a director and two deputy directors, training and support staff and a resident advisor. The AET Management Team runs the training programme.

Qualified applicants for the AET course are Rapid Response Team (RRT) members who are medical or paramedical graduates with at least one year experience working in the Ministry of Health. Accepted applicants are asked to return to their post and work there for at least one year from completion of the course.

The AET course is of six months duration, two of which are didactic, and the remaining four months are devoted to field work. By the end of the six-month course, each trainee is required to complete one surveillance project, write surveillance reports, and at least one outbreak investigation. The training cycle starts with a one-month didactic course, followed by two months of field work, then trainees come again for another two-week didactic session followed by field work for two months, and come again for a third two-week didactic session. In between the didactic sessions, they are visited in their respective provinces by their assigned field supervisors. During the introductory didactic course, district level RRT staff are also invited to attend.

To assist the trainees, each one is matched with a national and an international field supervisor. All national supervisors are International Thai-FETP graduates and the international supervisors are EIS or FETP graduates working for WHO, Pasteur Institute, or US CDC in Cambodia or in the region. Pairing the national supervisor with an international supervisor to support each trainee helps to overcome the language barrier and also helps develop the mentoring skills of the national supervisors.

The first AET cohort graduated in August 2011. They wrote several surveillance reports and completed five surveillance evaluation projects. They were involved in investigating an acute diarrhea outbreak, a dengue fever outbreak and three human H5N1 cases. As an example of the AET's impact, completeness and timeliness of weekly reporting for early warning surveillance improved significantly in a province as a result of an evaluation and action taken by an AET Officer.

Recruitment of the 2nd cohort is on-going. The training will be conducted from February to August 2012. After the training of the 2nd cohort is completed, the Ministry of Health will be interested in having an external evaluation using the framework developed for modified FET/FETPs. In order for the training to be sustainable, there is a need to develop a national pool of trainers and field supervisors and advocacy for budgetary support from the Ministry of Health, donors and partners.

2.3.2 Mongolia

Dr Khurelbaatar Nyamdavaa, Mongolian Field Epidemiology Training Programme (MFETP) director/State Secretary of Ministry of Health, gave an update on the progress of the programme.

Following the Ministry of Health-WHO joint assessment in November 2007, the Ministry of Health submitted the proposal to WHO for support of MFETP in August 2008. In

July 2009, the Ministry of Health established the MFETP Advisory Committee. In August 2009, the MFETP Office was established in the National Centre for Communicable Disease (NCCD), which is an institution under the Ministry of Health. In 2009, eight fellows were trained as the 1st cohort, 10 fellows were trained in 2010 (the 2nd cohort) and six trainees were recruited as the 3rd cohort in 2011.

The main course objectives are:

(1) to produce high-level field epidemiologists and core disease prevention and control staff, and equip them with technical competencies;

(2) to promote more effective and efficient epidemiological surveillance and outbreak response system; and

(3) to support operational research leading to better public health services.

The MFETP Advisory Committee is chaired by State Secretary of the Ministry of Health, Director of the MFETP, and has 10 members including Director of the Department of Public Administration and Management of the Ministry of Health, Director of the Department of Public Health Policy Implementation and Coordination of the Ministry of Health, Chair of Public Health Advisory Committee of the Ministry of Health, Director of National Centre for Communicable Diseases, Director of National Centre for Infectious Diseases with Natural Foci (NCIDNF), Director of Public Health Institute (PHI), Dean of School of Public Health, Health Science University of Mongolia and WHO ESR Medical Officer of WHO Mongolia. The terms of references are: (1) to provide overall guidance on MFETP ; (2) to supervise the development and approve course curriculum; (3) to provide guidance on the selection of trainees; (4) to monitor and assess the progress of the MFETP regularly; and (5) to perform final assessment on the achievements of trainees.

Qualifications of trainee are: (1) to be a medical or health related graduate; (2) to have sufficient English proficiency; (3) to have commitment to country public health; and (4) to have recommendation from affiliated institutions. Affiliated institutions for MFETP are NCCD, NCIDNF, PHI, National Centre for Maternal and Child Health (NCMCH), National Special Professional Inspection Agency (NSPIA) and provincial health departments.

The MFETP course is of one year duration: two months are didactic followed by nine months of field placement and one month for finalizing reports with assessment. During the nine months of field placement, weekly seminars are held at NCCD for reporting progress by trainees. Some domestic and expatriates experts are also invited to give lectures on different public health issues during the weekly seminars. By the end of the course, trainees are required to complete surveillance project, outbreak investigation and operational research.

Second cohort trainees were involved in 37 projects including outbreak survey and response (e.g. national survey of neonate cares and injection practices, water supplies and hepatitis A outbreaks, anthrax outbreak and risk assessment, mumps outbreak and its risk assessment), surveillance (e.g. surveillance of hepatitis A in Ulaanbaatar, birth defect in Mongolia, sentinel surveillance of tick-borne diseases, injury surveillance data analysis in Mongolia, 2006 – 2010) and operational research projects (e.g. pandemic influenza H1N1 vaccine efficacy, case-control study; risk factors of perinatal death and stillbirths in Mongolia, January-May 2011, case control study; cross-sectional survey on physical education among school children in Ulaanbaatar city, rapid assessment of antibiotic use in Ulaanbaatar).

To assist the trainees, each one was assigned with a national field supervisor. All national supervisors are the MFETP first cohort graduates and the WHO medical officer is responsible for overall supervision. The WHO medical officer also mentors skills of the national supervisors. Besides, an expatriate from Japan FETP also provided supervision support and mentoring as the WHO consultant.

Regarding 'impact' of MFETP, outbreak investigation for hospital-acquired infection outbreak among neonates resulted in revising the Ministry of Health order on infection control and neonate care guideline. Following anthrax outbreak investigation, standard operational procedure (SOP) for anthrax control policy was revised. Survey result of linking dumping rubbish near water sources to hepatitis A outbreak in a province led to local government taking actions to ban rubbish dumping near water sources in the province.

Strengths of MFETP are political commitment from government, support from NCCD as a hosting institute, technical and financial support from WHO, and trainees' commitment. MFETP trainees have been learning not only from "learning by doing" but also" learning by teaching." MFETP graduates are expected to continue learning from "learning by teaching."

NCCD will establish an FETP unit to manage MFETP in 2012, headed by a programme director and two full-time supervisors (two first cohort graduates). MFETP will be an integrated part national surveillance department in NCCD. The Ministry of Health will gradually provide fund to support the programme

As MFETP already has had two cohorts of graduate, so MFETP director has expressed interest in having an external evaluation using the framework developed for modified programme.

2.3.3 Viet Nam

Dr Phan Trong Lan, Director of FETP, Viet Nam, gave an update on the progress of the programme.

In 2008, the FETP office opened and the management structure and staff were in place to develop training curricula and materials. First Field Epidemiology Short Course (FESC) was conducted in 2008. In 2009, five FETP fellows were enrolled as the 1st cohort of a two-year course.

The aim of FETP, which delivers three types of training, is to strengthen preventive medicine (PM) staff capacity to conduct communicable disease surveillance and response through: (1) a two-year FETP fellowship for selected PM staff at regional and central levels; (2) a three-week FESC for PM staff at provincial/district levels; and (3) a three-month Applied Epidemiology Training for PM and veterinary staff at the provincial level.

The programme was implemented by the General Department of Preventive Medicine (GDPM), Ministry of Health, through the FETP Office. FETP has political support from Ministry of Health and international partners. Institutional supports are provided by FETP National Steering Committee in the Ministry of Health, FETP Management Board in GDPM and FETP office. FETP staff in FETP office, staff in field bases, supervisors, and international experts provide training resources. Financial support is provided from Government-United Nations Joint Programme, AusAID, USAID, US CDC and WHO.

The Ministry of Health is responsible for all FETP training activities through directions of the National Steering Committee, as follows: (1) coordinating all activities related to FETP

training; (2) giving direction in programme development, management, conducting training courses and workshops; (3) cooperating with other ministries, sectors, partner organizations in training programme nationally and internationally; and (4) proposing solutions for developing and expanding activities of the Programme.

Roles of FETP Management Board are: (1) residing and coordinating with other institutes in developing and implementing activities; (2) developing and issuing regulations of the Programme; (3) co-operating with implementing institutes and medical universities to implement activities of training courses; (4) planning to strengthen knowledge and skills for trainers, training staff; (5) spending and managing budgets in accordance to objectives of the Programme; and (6) response to the result of the programme, making sure that it is compliant to the programme's objectives.

The Viet Nam FETP course has 10 modules (one month for each module with classroom teaching and field work): (1) introduction to field epidemiology; (2) outbreak investigation; (3) public health surveillance; (4) biostatistics; (5) epidemiologic study designs; (6) communication; (7) emergency response; (8) management and leadership; (9) informatics; and (10) teaching and facilitation.

Each trainee of the two-year course is expected to complete two to four field responses to disease outbreaks and other public health (PH) emergencies, one surveillance project and one applied epidemiologic study on a topic of importance at regional or national level as minimum requirement.

Impacts of the Viet Nam FETP are: (1) strategic placement of graduates with specified competencies; (2) enhanced PH services by timely and effective response to outbreaks and implementing recommendations from FETP projects; and (3) strengthened PM system by evidence-based approach to decision-making, development of guidelines for surveillance and control of communicable diseases and enhanced partnership and networking in PH.

Fellows of the 1st cohort of the two-year course are all MD with Masters in Public Health and based in four regional CDC institutes and one in the Ministry of Health and all fellows graduated in August 2011. Six fellows (three of them have MPH without MD) in 2nd class started training in 2010 are based in five regional CDC institutes and one is in the Ministry of Health. Seven fellows in the 3rd class started training in 2011 and they are full time resident fellows to be based in the FETP office.

The following post graduate follow up mechanism to strengthen expertise of graduates are provided: (1) membership in regional and national epidemiology or public health organizations; (2) participation in regional and national surveillance networks; (3) participation in enhance capacity-building in epidemiological skills at all levels; and (4) teaching FETP graduates at universities.

Challenges facing the programme are as follows:

(1) technical supervision in the field (fellows have been supervised by local field supervisors, mainly managers of local government, as the FETP office can support only from a distance);

(2) accessibility to the field (within PM system, limited resources are available);

(3) country ownership (Ministry of Health provides staff and facilities but no budget yet); and

(4) long-term funding (funding beyond 2012) remains to be secured.

Future planning of the programme includes: (1) training and providing consultants and technician on epidemiology methods; (2) capacity-building on surveillance, outbreak response, outbreak prevention and control; (3) expansion of target area (e.g., noncommunicable diseases, food safey); and (4) developing the network of FETP participated from central to local; and (5) attending international outbreak response.

2.3.4 Indonesia

Dr Nyoman Kandun, Director of FETP, Indonesia, gave a presentation outlining the revitalization of the programme.

FETP began in Indonesia in 1982 as a two-year, full-time, non-degree programme conducted by the Ministry of Health and with consultant tutors from US CDC. However, the programme found out that a non-degree programme could not compete with other two-year master programmes to attract the best-qualified candidates in the country.

In 1990, collaboration with two universities started to re-model Indonesia FETP into a degree programme. However, it emphasized course work rather than field work and secretariat function of Ministry of Health was disbanded in 1992 when funding from WHO ended.

In 2007, the Ministry of Health began revitalization of Indonesia FETP through renewing oversight for the programme, better aligning with the Ministry of Health's workforce goals/needs, and restoring a greater field component (70%) to achieve the goal of at least one graduate in each province (33) and district (495).

In November 2007, international assessment was undertaken to assess current programme as well as to make recommendations for revitalization. The European Union and Australian Agency for International Development started funding support while WHO provided technical support for the revitalized programme.

To use Continuous Quality Improvement (CQI) tool developed by TEPHINET for evaluation of a two-year programme, a programme evaluation by a team consisting of international experts was conducted in July 2011.

Key findings of the evaluations are:

- FETP has made considerable progress;
- Secretariat office, created and already staffed, now manages FETP;
- Curriculum was developed to re-emphasize field projects and maintain a 70/30 field to classroom ratio;
- Provincial Health Offices would co-pay cost of the FETP training;
- Efforts are being made to recognize epidemiology as a profession;

- FETP has several donors to support the programme; and
- Universities receive many qualified applicants for the programme.

2.3.5 Questions and clarifications

Dr Alden Henderson pointed out that the success of Indonesia FETP depended on combining academic with field activities and granting a degree.

Question from Bhutan: Since, with the population of only 700 000, the opportunities for outbreak investigation are rare, how could the country compensate for field work?

Dr Henry Walker asked whether the six months' programme of the Cambodia AET will be extended to one year in the future.

2.4 Group work

2.4.1 Group 1: Workplan development for FET/FETP in the Western Pacific Region

Based on a 'sustainable model,' four key action areas were discussed to have effective and sustainable FET/FETP as in-house programme of the Ministry of Health.

A. To strengthen public health systems through field epidemiology training

The Ministry of Health's involvement, strategic field assignment, career path development for graduates and further or advanced training of graduates/field supervisors ("FET-Plus") were identified as key components to strengthen public health systems through FET/FETP.

- FET/FETPs should be institutionalized within the ministries of health to link programme activities directly with the public health system.
- In line with strategic field assignment, group work participants suggested that FET/FETP need to explore other placement or field sites (e.g. noncommunicable diseases, maternal health) for trainees to be able to gain a broader experience (beyond just communicable diseases) in the application of field epidemiology methods to fulfill increasing demands.
- Career path development of graduates involves appointing them to appropriate positions in the Ministry of Health, depending on their competencies, where their skills may be utilized to strengthen a country's public health system.
- Post-graduation training opportunities should also be provided for FET/FETP graduates to further develop their skills and competencies. On the other hand, making surveillance work more attractive for public health professionals (e.g. giving incentives and recognition for the work of surveillance officers) may be helpful.
- Training for field supervisor should cover basics of field epidemiology and these field sites should be carefully followed-up by a core staff of FET/FETP for technical issues especially in the implementation phase.

B. To facilitate advocacy for institutionalizing and sustaining FET/FETPs

Decision makers including senior management of the Ministry of Health were identified as primary targets of advocacy. To increase visibility of FET/FETP to decision makers, branding of or creating a 'trademark' for FET/FETPs through several opportunities will be useful.

- FET/FETPs generally have very good technical competencies, but their staff tend to be less conscious of the need to keep decision makers informed about programme achievements and outcomes. Improving visibility and 'selling' FET/FETP to the government (Ministry of Health) is very important for the programme to be sustainable.

- Suggestions offered by the participants to increase awareness by decision makers include the following:

  - FET/FETP staff and trainees to give presentations during high-level meetings;
  - Link FETs to whatever is perceived by the Ministry of Health as priority public health programmes or projects;
  - Use outbreaks as opportunities to showcase contribution of training programme to effective outbreak response and disease prevention and control;
  - Good documentation of their outputs in a visible way for decision makers; and
  - FET/FETPs should network with other programmes in order to increase their visibility and demonstrate their usefulness to the Ministry of Health.

C. To maintain or improve the quality of FET/FETPs

Periodic assessment of the programme, providing qualified supervision, sufficient full-time dedicated and skilled FET/FETP core staff to run the programme with adequate programme management skill and peer-review process were identified as important factors to maintain/improve the quality of the programme.

- Periodic assessments will contribute to improving quality of the programmes. For FETPs, the Continuous Quality Improvement (CQI) approach developed by TEPHINET is applicable (http://library.tephinet.org/document/continuous-quality-improvement-cqi-manual). On the other hand, FETs have been created to meet diverse country needs, so any assessment should be done according to the 'objectives' of the programme. This issue was already discussed in the previous meeting in Manila, the Philippines, in 2010, and indicators have been developed for assessment that respect the objectives of each FET.

- Quality of field supervision was pointed out to be critical to maintain/improve the quality of the programme. Professional training on effective supervision should be provided for field supervisors. Also, to have a mechanism of incentives for supervisors to consider their work attractive/important may be important.

- Sufficient full-time dedicated and skilled human resources at the country level are required to run a successful FET programme. Therefore, it is crucial that the Ministry of Health and/or international agencies assign sufficient numbers

of national (if available) and international expert epidemiologists to run the programme. Adding more and more tasks and requirements to the existing FET programmes would over-stretch the limited human resources and have a negative impact at the end.

- The core staff of FET/FETP who run the programme should have opportunities to be trained on generic concept of programme management (e.g. planning and budgeting) and FET/FETP specific programme competencies (e.g. how to guide field supervisors, curriculum design, and teaching material development).

- Process of presenting programme achievements (e.g. outbreak investigations, surveillance project) in scientific conferences or publishing them in peer-reviewed journals will contribute to quality improvement. These opportunities will encourage not only trainees but also graduates to continue working for 'field epidemiology' with a 'scientific' mindset. TEPHINET Scientific Conferences provide good opportunities for FET/FETPs to show their achievements.

D. To strengthen coordination and partnership at the country and regional levels

To include FET/FETP in the government plan, facilitate collaborative activities among programmes, and harmonize FET/FETP-related networks were identified as important to strengthen coordination and partnership at the country and regional levels.

- Group work participants pointed out that incountry coordination was necessary to incorporate FET/FETP into government plans (e.g. a five-year plan). FET/FETPs should foster cross-disciplinary linkages (e.g. between human and animal health sectors) especially to deal with public health emergencies. Forming an alumni network of FET/FETP graduates, formalizing linkages between graduates and the training programmes, and finding out how the ministries of health could utilize FET/FETP graduates are helpful.

- Collaborative activities among programmes (e.g. sharing training materials, developing common materials for case studies, cross-border joint surveillance projects) will contribute to improving quality of each programme and strengthening networking for farther collaboration. Participants felt it would help upgrade the skills of FET/FETP staff if opportunities were provided for them to spend some time working with another training programme. For example, FET training staff from country A could participate in didactic sessions of FET/FETP in country B or trainees from one country can join investigations or surveillance evaluations in another country.

- “Harmonizing" activities of various FET/FETP-related existing networks (e.g. ASEAN+3 FETN, TEPHINET, SAFETYNET) should be considered in order to (i) avoid duplication and (ii) focus on a particular area depending on characteristics/expertise of each network. WHO could utilize the opportunity of FET/FETP annual forum to invite country programme representatives of various networks to map out and reach an agreement on focus areas for the networks to work with other programmes.

- Establishing a regional alumni network with individual graduates as members (not another network of training programmes) may be beneficial for advocacy, expanding career options for graduates, and creating a common public health vision/perspective that will facilitate communication and better understanding across different countries and territories. The network can also foster mentoring of junior or newer graduates by more senior and experienced graduates.

2.4.1 Group 2: Establishing FET in the South-East Asia Region

Nominated participants from the South-East Asia Region Member States, including Bangladesh, Bhutan, Nepal and Sri Lanka, discussed their experiences with field epidemiology training currently being undertaken and deliberated on in their respective countries. Although very short-duration field epidemiology training (including courses of just two-week duration) is being conducted in their countries, there is a clear need to initiate and/or strengthen more substantial courses. Current constraints include a lack of both human and financial resources. Countries have varied capacity to address these issues. For instance, the National Institute of Preventive and Social Medicine (NIPSOM) in Bangladesh has adequate human resources but lacks political advocacy and financial resources. Bhutan has started a Bachelor's in Public Health which has a six months' field epidemiology component. Short courses are being conducted in Sri Lanka (where there is also a felt need for long duration field epidemiology training). Levels of participation in regional-level courses and intercountry collaborations also vary. Strengthening field epidemiology training should, therefore, involve undertaking a structured training needs assessment in different Member States, beginning with the outlining of what currently exists in terms of training and infrastructure. It could articulate the training needs at different levels of the health care system and help to map the existing resources. This action might lead to the development of a plan presenting a number of different options to present to identified 'stakeholders'. Consideration should also be given to exploring the possibilities for advocacy and resource mobilization. It was suggested that more was needed to build on the existing systems and to institutionalize training in the ministries of health. The duration and contents of the training courses would depend upon a country's vision, context, and available resources.

3. CONCLUSIONS AND RECOMMENDATIONS

3.1 Conclusions

(1) There is significant diversity in existing field epidemiology training programmes in the Asia Pacific region, reflecting different needs and national priorities.

(2) Modified FETP or the Field Epidemiology Training (FET) in the Western Pacific Region was initiated through the APSED (2005). The aim of the programme was to respond to the need of competent human resources in order to strengthen the national system required for tackling emerging diseases and other public health threats. As a result, FET or FETP was successfully introduced or established in four countries in the WHO Western Pacific Region.

(3) In the South-East Asia Region there are three established FET Programmes, but many other countries have expressed a wish to strengthen capacity in field epidemiology. An action plan to achieve this aim is being developed.

(4) While there are rooms to improve, the FETs and FETP have started producing quality outputs. The Forum confirmed that these newly-established programmes are progressing in the right direction. The importance of sustaining and further improving the newly established FET and FETP was re-emphasized at the Forum.

(5) The Framework of Sustainable Model and the assessment tools were further developed and tested in the Lao People's Democratic Republic, following the recommendations from the last year's forum. The pilot assessment concluded that the assessment tool was useful to identify gaps to ensure sustainability of FET. The assessment also confirmed that the Lao FET was on the right truck, despite several challenges identified for improvement. The assessment process provided a good opportunity to further improve the national efforts on the Lao FET.

(6) The Forum recognized that the newly established FETs were facing similar challenges which were also identified in the Lao pilot assessment, including an unclear long-term vision, and limited supervisory availability within the ministry of health.

(7) FET/FETP is identified as one important component of the newly updated APSED. The APSED (2010) workplan has been developed and reviewed by the Asia Pacific Technical Advisory Group (TAG) in July 2011. The workplan includes priority activities relevant to FET that were developed on the basis of gaps identified, in order to ensure sustainability and to further improve quality of the training. The Forum supported overall direction of the workplan and agreed to provide further comments to improve the workplan.

(8) Participants recognized the importance of integrating the FET and FETP-related activities into the national APSED workplan to ensure visibility and sustainability of the programme.

(9) Advocacy was reconfirmed as one of the most important components of the Sustainable Model as identified in the previous discussions. They include advocacy on important outputs produced by trainees, and advocacy on contribution to public health system strengthening. Examples of advocacy activities include using media to show FET's involvement in outbreak investigation, demonstrating that FET has been further utilized in other activities such as training of the Rapid Response Team in the field.

(10) The Forum identified the need for continuing training for FET graduates. Meanwhile, the potential for establishing a more formal system to provide continuing training ("FET-Plus") was also recognized; such training ("FET-Plus") can be sustained through utilizing the FET programmes that are built in the system.

(11) The creation of the WPSAR, an open access journal, would provide an effective tool to improve FET and FETP quality. WHO's initiative and efforts on WPSAR were appreciated.

(12) The development of the complementary open access journal *Outbreak Surveillance and Investigation Reports*, based on the Thai FETP, which has an editorial board and receives contribution of papers from both regions, was also acknowledged.

(13) While various efforts made to support FET and FETP by donors and partners were appreciated, participants also reported the need to coordinate these supports. Coordination effort made at the country level has been vital. Meanwhile, the Forum would also be expected to play an important role to coordinate various activities. The APSED workplan could be utilized for such purpose.

3.2 Recommendations

(1) WHO continue to identify and support countries that wish to strengthen capacity in field epidemiology. The process should involve the following steps: situation analysis, needs assessment, identification of existing technical and human resources, development of a plan of action, and advocacy for implementation.

(2) Assessment and evaluation of the existing and newly-established programmes be further conducted, as appropriate.

(3) In the Western Pacific Region, assessment for sustainability of FET be conducted in Mongolia and Cambodia, and assessment results reported back to the next Forum in 2012.

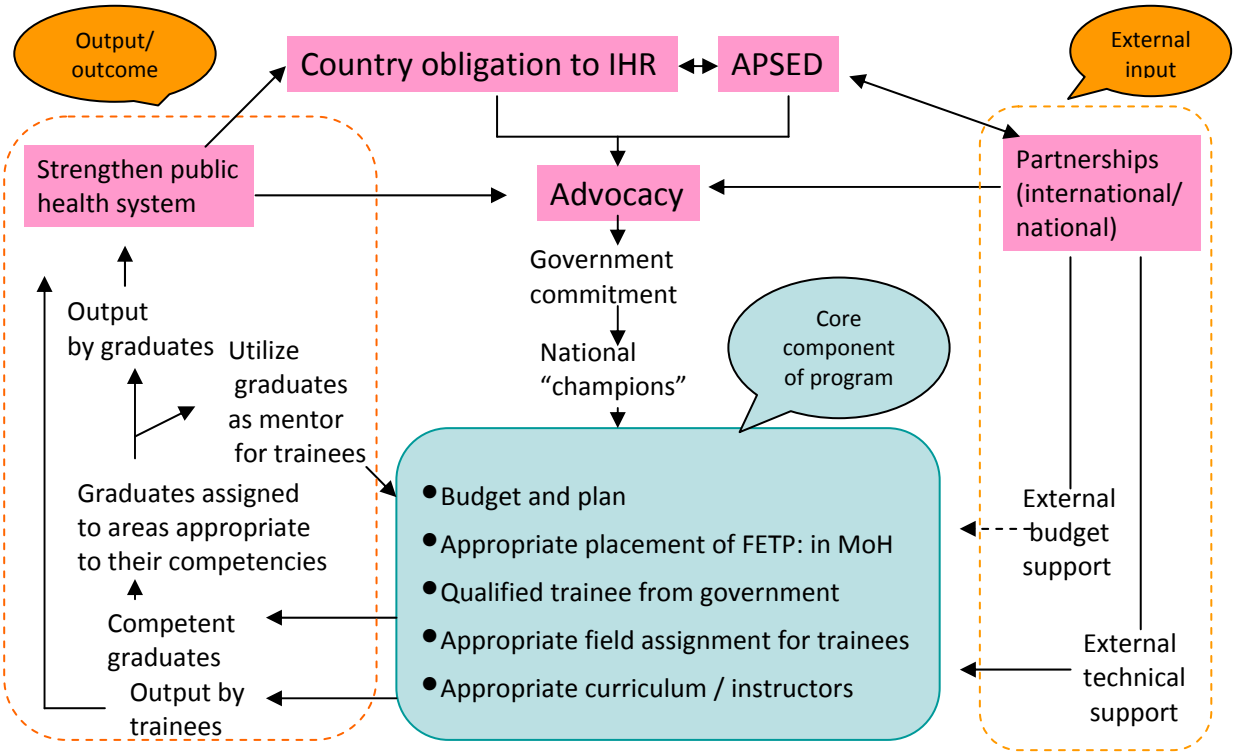
(4) The Member States be encouraged to review the APSED workplan relevant to FET and advised to include FET-related activities into their national APSED workplans.

(5) WHO further develop the concept of "FET-Plus" in consultation with the Member States, technical experts, and partners.

(6) WHO enhance the mechanism to coordinate effective support to FET and FETP, in consultation with other partners, including annual regional forums, and the existing networks.

ANNEX 1

SUSTAINABLE MODEL FOR MODIFIED FETP PROGRAMMES



ANNEX 2

World Health Organization

South-East Asia Region Western Pacific Region

THIRD WORKSHOP ON THE FIELD EPIDEMIOLOGY TRAINING PROGRAMMES: OPPORTUNITIES TO STRENGTHEN INTERNATIONAL COLLABORATION

WPR/DSE/ESR(14)/2011.1b
5 November 2011

Bali, Indonesia
8 November 2011

ENGLISH ONLY

PROGRAMME OF ACTIVITIES
TENTATIVE

08:00 – 08:30	Registration
08:30 – 09:00	**Opening session**
	Opening remarks *WHO/SEARO* *Indonesia FETP programme director* *TEPHINET director* Self introduction Objectives and agenda Administrative announcements
09:00 – 09:45	**Plenary 1: Setting the scene**
	Asia Pacific Strategy for Emerging Diseases (APSED) *- Dr Li Ailan, Medical Officer, WHO/WPRO* Field Epidemiology Training Programme (FETP) in the South-East Asia Region *- Dr Yogesh Choudri, Medical Officer, WHO/SEARO* Field Epidemiology Training (FET) in the Western Pacific Region *- Dr Li Ailan, Medical Officer, WHO/WPRO* Questions and clarifications
09:45 – 10:15	*Coffee break*

10:15 – 11:00	**Plenary 2: Programme evaluation/assessment for FET/FETP in the Western Pacific and South-East Asia Regions**
	Sustainable model and programme assessment framework for FET in the Western Pacific Region - *Dr Tamano Matsui, Medical Officer/FETP coordinator, WHO/WPRO*
	FET programme assessment in the Lao People's Democratic Republic based on the assessment framework - *Dr Fadzilah Kamaludin, WHO Temporary Adviser* - Lao People's Democratic Republic
	SEARO: Re-model and programme evaluation -Indonesia
	Questions and clarifications
11:00 – 12:00	**Plenary 3: Newly developed FET/FETP programmes in the Asia Pacific Region**
	Cambodia Mongolia Viet Nam
	Questions and clarifications Plenary discussion on future planning for programme assessment
12:00 – 13:00	*Lunch*
13:00 – 15:00	**Group work: future direction** *Group 1: workplan development for FET in the Western Pacific Region* *Group 2: setting up new FET in the South-East Asia Region*
15:00 – 15:30	*Coffee break*
15:30 – 16:30	**Plenary 4: Group work feedback**
16:30 – 16:45	**Plenary 5: Conclusions and recommendations**
	Conclusion and recommendations Closing session

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World Health Organization

South-East Asia Region Western Pacific Region

THIRD WORKSHOP ON THE FIELD EPIDEMIOLOGY TRAINING PROGRAMMES: OPPORTUNITIES TO STRENGTHEN INTERNATIONAL COLLABORATION

WPR/DSE/ESR(14)/2011/IB/2
Bali, Indonesia **ENGLISH ONLY**
8 November 2011

INFORMATION BULLETIN NO. 2

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