Applied Epidemiology Training in Cambodia

Communicable Disease Control Department, Ministry of Health
Background

• Cambodia Early Warning and Response (CAM EWARN) system
  – Indicator or case-based surveillance
  – Event-based surveillance

• Rapid Response Teams
  – National
  – Provincial or Municipal Health Department (24)
  – Operational Districts (77)
Vision

• A national network of competent and dedicated field epidemiologists at national, provincial and district levels
Pyramidal Training Strategy for Surveillance and Response

- **Central**
- **Province or Municipality**
- **Operational District**
- Health Center/Post

**Type of Training Course**

1. **Rapid Response Training (1-3 days)**
2. **1 month didactics of Applied Surveillance & Outbreak Response Course**
3. **6 months Applied Surveillance & Outbreak Response Course**
4. **FETP**
5. Others (e.g. Animal Health, Hospital Services, Food Safety Bureau)

**Job Location of Staff**
CAET Organizational Structure

Interim Program Advisory Group
(CDC Dept. + WHO, IPC, U.S. CDC)

AET Management Team (AMT)
- AET Director
- Deputy (Training Strategy)
- Deputy (Operations)
- Training Staff
- Support Staff
- Resident Advisor

Faculty for Didactics
(CDC, NIPH, WHO, IPC, US CDC)

Field Supervisors
(local FETP graduates, Cambodia-based international epidemiologists)

Trainees

Graduates (National Network)
CAET Management Team

Director: Dr. Sok Touch
Deputy Director for Operations: Dr. Ly Sovann
(Acting) Deputy Director for Training Curriculum: Dr. Bun Sreng

Technical Officer: Dr. Has Phalmony
Resident Advisor: Dr. Conchy Roces

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Ministry of Health, Phnom Penh
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Functions of CAET Advisory Group

• Provide guidance and support to AET Mgt Team on policies, strategies and other issues related to the training
• Approve the AET work plans and training curriculum
• Screen and select applicants for applied training course (six months)
• Evaluate training course and make recommendations for future training activities
Target Participants

• Provincial level staff with surveillance and response functions
  – OD staff (RRT member)
• Graduates of medical or paramedical course
• At least one year work experience
• Some fluency in English (1st 3 cohorts)

➢ Will return to post and commit to stay for at least one year post-training
Main Course Objective

To give health staff the appropriate knowledge and skills and opportunities to develop the competencies necessary to carry out effective surveillance and outbreak response.
Course Objectives

By the end of the course, trainees will be able to:

1. Detect and report cases of priority conditions or unusual clusters
2. Analyze and interpret surveillance data
3. Investigate and respond to suspected outbreaks
4. Be prepared for disease outbreaks
5. Provide feedback to the community and concerned government agencies on surveillance, outbreak investigation and response
Course Objectives

6. Assess the status of surveillance and outbreak response functions in their province

7. Develop and implement plans to improve surveillance and outbreak response capacity in their province

8. Communicate to a scientific audience the results of an outbreak investigation or surveillance project

9. Use available ICT in performing surveillance and response activities

10. Improve their English language proficiency
Competencies

• Epidemiologic methods
• Biostatistics
• Public Health Surveillance
• Laboratory and Biosafety
• Communication
• Information Technology
• Prevention and control of priority diseases
• English language proficiency

“learning by doing” or “training through service”
Applied Epidemiology Course: Outbreak Surveillance and Response

- Six months duration (2 mos. didactics and 4 mos. field work)
- Target: RRT members at Provincial and National Levels
- 1st month include OD and other staff
Expected outputs

• 1 surveillance project
• Weekly/Monthly surveillance reports
• Outbreak investigations (at least one)
• Oral and poster presentations
• Written reports
Didactic Sessions

- Lectures
- Group exercises
- Computer lab
- Field exercise
- CDC duty - hotline
- Meeting with field supervisors
- Presentations
- English lessons
Modules in Introductory Didactic Course

Module 1
Overview of outbreak surveillance and response strategy or EWAR

Module 2
Identifying and reporting cases of priority conditions

Module 3
Analyzing and interpreting surveillance data

Module 4
Investigating suspected outbreaks

Module 5
Implementing outbreak control measures

Module 6
Providing feedback on surveillance and outbreak response

Module 7
Evaluating and improving surveillance and outbreak response
Field Activities

• Surveillance (in province)
  – Case-based surveillance (CAM EWARN)
  – Event-based surveillance
  – Project (set-up new system or evaluate existing system)
• Outbreak investigations (anywhere in Cambodia)
  – With debriefing session
• Supervisory visits
• English lessons
Field Supervisors

• National field supervisors - Cambodian graduates of International Thai FETP
• International field supervisors – Cambodia or regional based epidemiologists working with international agencies
• Supervisory teams
  – National FS + International FS matched with one trainee
Applied Epidemiology Training

Milestones

2009

– Training proposal drafted with WHO support
– Obtain donor funding (World Bank)
  • Avian and Human Influenza Prevention and Control Project

2010

– Additional support obtained from SAFETYNET and US CDC
– AET Advisory Group created
– Training plan approved
– AET office at CDC Dept., MOH
– Recruit field supervisors (national & international)
– Recruit 1st cohort (N = 5)
Cambodian AET Milestones in 2011

Feb: Training of 1st cohort begins

- One month didactic course
  - 5 AET Officers + 10 District RRT staff
AET Course Field Work
March to July 2011

• Supervisory visits
• Surveillance reports
• Surveillance projects
• Outbreak investigations
Outputs of AET Officers

• Surveillance reports
  – Weekly and monthly
• Surveillance evaluation projects (5)
• Field investigations (5)
  – Acute diarrhea
  – Dengue fever
  – Human H5N1 cases (3)
Impact of AET Surveillance Project in Oddar Meanchey, Cambodia

Timeliness and completeness of reporting by Health Facilities in OMC, Weeks 1-26, 2011

Meeting & Training
Graduation of 1st AET Cohort (N=5) August 2011
Oral Presentations during TEPHINET Conference in Bali, Indonesia (Nov 2011)

Avian Influenza Cases  Evaluation of SRI Reporting
Poster Presentations during TEPHINET Conference in Bali, Indonesia (Nov 2011)
2012 Activities

• Cohort 2 (Feb to Aug 2012)

• Develop local faculty pool
  – Lecturers and field supervisors

• Evaluation of AET in Oct 2012
Thank You