

SEA-VBC-78
Distribution: General

Second Regional Training Course on Comprehensive Vector Control

Pondicherry, India, 1 August – 8 September 2000

WHO Project: ICP CPC 001



World Health Organization
Regional Office for South-East Asia
New Delhi
February 2001

© World Health Organization 2001

This document is not a formal publication of the World Health Organization (WHO), and all rights are reserved by the Organization. The document may, however, be freely reviewed, abstracted, reproduced or translated, in part or in whole, but not for sale or for use in conjunction with commercial purposes.

The views expressed in documents by named authors are solely the responsibility of those authors.

CONTENTS

| | <i>Page</i> |
|--|-------------|
| 1. INTRODUCTION | 1 |
| 2. CURRICULUM | 1 |
| 3. TRAINING MATERIALS | 2 |
| 4. TEACHING METHODOLOGY | 2 |
| 5. EVALUATION INSTRUMENTS | 3 |
| 6. RESULTS OF THE EVALUATION OF THE PARTICIPANTS' PERFORMANCE | 4 |
| 7. EVALUATION OF THE COURSE BY PARTICIPANTS | 5 |
| 8. CONCLUSIONS AND RECOMMENDATIONS | 6 |
| 9. ACKNOWLEDGEMENTS | 7 |

Annexes

| | |
|--|----|
| 1. List of Participants | 8 |
| 2. Programme | 10 |
| 3. Guidelines for the Field Exercise | 19 |
| 4. Comparative Results of Pre- and Post-Tests (in percentage) | 26 |
| 5. Frequency Distribution of percentage of Marks Evaluation Results by Subjects | 28 |
| 6. Evaluation by Participants of the Training Course | 31 |
| 7. Satisfaction Index | 48 |

1. INTRODUCTION

The second World Health Organization Regional Training Course on Comprehensive Vector Control was held at the Vector Control Research Centre, Pondicherry from 1 August – 8 September 2000. This course was intended to make the participants get acquainted with the development of Comprehensive Vector Control keeping in mind their country situation. There were 22 participants from seven countries of the South-East Asia Region (SEAR). This included 13 entomologists and nine medical personnel. There were representations from national/regional programme organizations, national institutes and research organizations.

The course was inaugurated by Dr S. Jayachandaran, the Registrar in-charge of Pondicherry University, Dr Chusak Prasittisuk, Regional Adviser, WHO/SEARO, delivered the message of the Regional Director and explained the aims and objectives of the course. Dr Elil Renganathan, WHO/HQ, delivered the keynote address.

The attendance was 100% throughout the course with no absentees for any sessions, no injuries, no serious sickness and no untoward events.

2. CURRICULUM

The training programme was based on five learning modules, each consisting of five units. The Learner's and Tutor's guides of these modules were made available to participants and tutors/facilitators (Annex 1). They were taught in a sequence starting with comprehensive vector control, epidemiology and statistics; Vectors and vector-borne diseases; Vector surveillance; Approaches to comprehensive vector control, and Planning and management of comprehensive vector control programmes (Annex 2). All training modules were trial editions which have been revised on the basis of the first course.

Field exercises were carried out during the Vector surveillance session including Geographical Information System (GIS) and the use of Geographical Positioning System (GPS). During weeks five and six of this course, the

participants moved to three different health districts in Tamil Nadu State and spent five days in carrying out a situation analysis and to develop appropriate comprehensive vector control plan. The participants were divided into three teams of seven/eight persons (Annex 3) and one team went to Thiruvannamalai, another to Vellore and the third to Villupuram. It allowed the participants to develop skills and competence in working together as a team in analyzing a situation, stratify the areas in relation to the problem, setting realistic objectives, and to propose approaches for comprehensive vector control based on the local situation. This was the opportunity to put into practice all that they had learnt during the previous four weeks of the course. In order to facilitate this activity, guidelines for the field exercise were used (Annex 3). The outcome from the field exercises were three very well written and organized reports complete with maps, charts, tables and graphs. Each report was presented in a plenary session, discussed and criticized. The deputy director of health services in each district was involved as local field coordinators, the district entomologists as local field facilitators and one person for each team from the Vector Control Research Centre (VCRC) as field team coordinator. The participants in each team appointed their own team leader and rapporteur.

3. TRAINING MATERIALS

In view of the difficulties expressed by participants of the first course, detailed information was given in the learner guide of all the modules. These materials were reported to be useful in carrying out the small group exercise. However it was felt by tutors that materials given for the module on Planning and Management of Comprehensive Vector Control programmes should be reduced.

4. TEACHING METHODOLOGY

The course was conducted throughout as a participatory, interactive, problem-solving approach to learning. No lectures were planned; however, a few presentations were made on basic statistics. Principally, the course was run as a series of small group discussions and exercises. For the field exercise three different teams were formed, as part of the exercise was to work as a team.

Other learning techniques were used, including a picture quiz, case studies, decision-making problem-solving exercise, laboratory and field demonstrations and field visits. A new approach was tried during this course by introducing a debate on a particular topic. Participants divided into groups and spoke for and against the topic, with one of the participants acting as the moderator. A critical review of published research articles related to the subject of the course, was another new method adopted during this course. Participants were divided into groups of three or four members and each group analyzed two articles and presented a critical review, which was followed by discussion.

5. EVALUATION INSTRUMENTS

The evaluation instruments used were pre-tests in all five modules given on the first two days upon entry into the course before any training materials were distributed. Post-tests were given in the same subjects soon after completing those related to the subject areas. All pre and post tests consisted of multiple-choice type questions and all had 20 questions. Marking was positive since the number of correct answers to be selected out of four possibilities was indicated. Since some questions had either one, two or a maximum of three possible correct answers, the marking was weighted by assigning scores for correct answers.

In view of the importance of the field team exercise, the three reports and the presentation of the findings were evaluated by an independent panel of two specialists, one from the State of Pondicherry and other from WHO/HQ. A standardized marking system was used considering the field activities, contents, analysis, presentation and defence. A maximum of 10 marks could be awarded for each element, giving a total maximum mark of 40. Each participant in the field team was awarded the same mark as the team as a whole.

The evaluation of participants' overall performance was determined by the accumulative marks from all post-tests plus the field exercise. Using the denominator of 225 maximum possible marks, a new final percentage figure was calculated for each participant.

A detailed questionnaire was used to evaluate the course as a whole and each participant invited to score each statement and also to make constructive comments. The questionnaire also included scope to list three aspects of the course that impressed most, three that impressed least and to give recommendations for future courses.

Another important evaluation tool used throughout by the facilitators in the small group sessions and in the field exercises was the assessment of the individual learner's performance and capacity to cope. This helped in identifying participants who needed more attention.

6. RESULTS OF THE EVALUATION OF THE PARTICIPANTS' PERFORMANCE

The analysis of results obtained from the tests using the evaluation instruments mentioned above yielded a considerable amount of information. All pre-test papers were carefully analyzed noting the responses, both correct and incorrect, for each question in each paper. Copies of the analyzed test paper and individual marks were provided to each tutor before the subject was taught. This gave an insight into the subject areas that were well understood, and, more importantly, at those not so well understood. In addition, for every unit in every module tutors began the session with search questions numbering 10 to determine further gaps in the knowledge of participants. This proved to be a valuable guide for the best use of the small amount of time available for each subject.

The percentage of marks obtained by individual participants in the pre and post-tests are tabulated in Annex 4. A feedback on the results of the post-test of each module was given to participants as a group which provided an opportunity for elaborate discussions and for obtaining clarifications. The individual pre and post-test marks were given to each participant in confidence at the time of providing the global feed-back. This enabled the participants to monitor their progress. A graph of the frequency distribution of percentage of marks was made for each subject to compare the results in terms of shift from pre to post-test (Annex 5). The last graph in that annex represents the composite marks of all the pre-tests and all the post-tests and another line representing the marks obtained from the field exercise. If one considers only the difference between the composite pre-tests and the

composite post-tests there is an obvious difference with a marked positive shift. This is statistically significant with $t = 15.35$ and $p < 0.05$. Similarly, the graphs relating to individual modules also showed significant improvement for participants as a whole ($p < 0.05$). Normally the impact of the training can be well understood from the wide spectrum of marks in the pre-test results reflecting the heterogeneity of the group while the post-test should invariably be more focused and shifted to the right, thereby indicating homogeneity and at a higher level than when the participants entered. A significant positive shift was observed in all the modules.

The mean percentage of marks obtained in the pre-tests was 62.88, with the range of 41.67 - 78.03. In the post-tests, it was 81.35 with a range of 67.35 - 94.56. The percentage of final marks ranged between 63.64 - 86.63 with a mean of 75.35%. The tabulation of final marks showed that all participants had scored above 60%.

7. EVALUATION OF THE COURSE BY PARTICIPANTS

The questionnaire designed in the first course was used with necessary modifications for the purpose of gaining an insight into the evaluation of the course as the participants viewed it. This questionnaire along with the results in terms of a satisfaction index for each statement is given in Annex 6, along with the comments/suggestions made by each of the participants whose identity was indicated in the form of a number, as the questionnaire did not carry the names of the participants. The questionnaire is divided into five sections. Due considerations were given during the round-table discussion session on issues that participants considered to be the most and the least important.

The overall satisfaction index was 80.98 % (Annex 7) with a mean score of 4.25 on a scale of one to five. Usually statements with a satisfaction index greater than 60% are considered as being of no concern when developing subsequent courses. Only one statement on finance scored a satisfaction index of less than 60%; all the rest scored above 60%. This was followed by the statement on the usefulness of the modules for developing individual country training programmes which received a satisfaction index of 70%. Though it was emphasized that the modules need to be modified according to the nature of training programmes and type of trainees, some participants

were of the opinion that the applicability of these modules was limited in their respective countries.

The general comments related to the insufficient time for small group exercises; continuation of sessions even during the personal reading time, and the necessity of detailed lectures on basic statistics.

8. CONCLUSIONS AND RECOMMENDATIONS

The second training course has been highly successful. The faculty could complete the course as per the time schedule. The support provided by WHO was adequate enough to strengthen the infrastructure in conducting the training course more successfully. As experienced in the first training course, language was an issue but could be managed by providing relevant reading material in the learner's guide well in advance so as to facilitate the participants to come prepared for a particular session.

The recommendations emerging from the feedback received from participants themselves and post-session discussion with tutors and facilitators include:

- The course contents are relevant for achieving the objectives of the course and should be retained.
- The small group exercises should include other vector-borne diseases so as to provide the participants with related exposure.
- Materials given in the learner's guide for modules four and five should be reduced by editing duplications.
- It should be ensured that participants come with all relevant data for situation analysis, as it is necessary while carrying out small group (country) exercises.
- In module 5, the sequence of units should be changed. Units 4 and 5 should be renumbered as units 1 and 2 as they deal with the introduction to planning and management.
- New health districts in Tamil Nadu should be selected for the field exercise.

- During the field exercise, programme managers/personnel should be involved while carrying out situation analysis, particularly to identify the technical and managerial constraints faced by them.
- More time should be allotted for personal reading.

9. ACKNOWLEDGEMENTS

Thanks are due to Dr A Maniarasan, DDHS, Villupuram, Mr Nagoor Pitchai, District Entomologist, Villupuram, Dr S. Harikrishnan, DDHS, Thiruvannamalai, Dr Moorthy, District Entomologist, Thiruvannamalai, Dr Alphonse Selvaraj, DDHS, Vellore and Dr K.Gopalarathinam, District Entomologist, Vellore for their help during the field exercises conducted for the participants.

Annex 1

LIST OF PARTICIPANTS

Bhutan

Dr Nado Zangpo
Programme Manager
National Malaria Control Programme
Public Health Division Dept. of Health
Gelephu

India

Dr N Balakrishnan
Deputy Assistant Director
National Institute of Communicable Diseases
22, Sham Nath Marg, Delhi

Dr C P Batra
Sr. Research Officer
Malaria Research Centre
22, Sham Nath Marg,

Mr R K Das Gupta
Assistant Director
National Anti Malaria Programme
22, Sham Nath Marg, Delhi

Dr R K Hazara
Technical Officer
Regional Medical Research Centre
Bhubaneswar

Mr R D Joshi
Assistant Director
National Anti Malaria Programme
22 Sham Nath Marg
Delhi

Dr (Mrs) Kalpana Baruah
Deputy Assistant Director
National Institute of Communicable Diseases
22, Sham Nath Marg
Delhi

Dr Nutan Nanda
Sr. Research Officer
Malaria Research Centre
22, Sham Nath Marg,
Delhi

Mr Sukhvir Singh
Assistant Director
National Institute of Communicable Diseases
22, Sham Nath Marg
Delhi

Mr T G Thomas
Deputy Assistant Director
National Institute of Communicable Diseases
22, Sham Nath Marg,
Delhi

Indonesia

Mr Ali Izhar
Filariasis & Schistosomiasis Control Programme
Officer
Directorate of Vector Borne Disease Control
Directorate-General of CDC & EH, MOH
Jakarta

Dr Gerudug I. Komang
Chief of CDC Division
West Nusa, Tenggara Province

Dr Rita Kusriastuti
Head of Standardization Section
Directorate of Vector Borne Disease Control
Directorate-General of CDC & EH, MOH
Jakarta

Dr Santoso Ludfi
Chief of Tropical Medicine
Diponegoro University
Semarang, Central Java

Maldives

Mr Hassan Samir
Filaria Clinic
Department of Public Health
Male

Myanmar

Ms Daw Aye Aye Myint
Assistant Entomologist
Vector Borne Disease Control, Myanmar

Ms Daw Dolly
Assistant Entomologist
Vector Borne Disease Control

Mr U Than Tun
Assistant Entomologist
Vector Borne Disease Control

Sri Lanka

Dr F. D. Colombage
Medical Officer
Filaria Unit
Fort, Galle

Dr (Mrs) T. S. Liyanage
Medical Officer
Anti Filaria Campaign Headquarters
Colombo South Hospital Complex
Kalubowilla
Colombo

Dr (Mrs) P. K. Gnanakunalan
Medical Officer
DPDHS Office

Thailand

Mr Pissanuvas Panart
Chief
Vector Borne Disease Control Centre
Office of Vector Borne Disease Control No.2
Chiang Mai

Facilitators

Dr A M Manonmani
Vector Control Research Centre
Pondicherry, India

Dr B N Nagpal
Malaria Research Centre
Delhi,
India

Dr C. Sadanandane
Vector Control Research Centre
Pondicherry
India

Dr G Rajendran
Vector Control Research Centre
Pondicherry
India

Dr K Gunasekaran
Vector Control Research Centre
Pondicherry
India

Dr R Srinivasan
Vector Control Research Centre
Pondicherry
India

Dr Suchart Patipong
Thailand

Mr S Subramaniam
Vector Control Research Centre
Pondicherry
India

Dr T Mariappan
Vector Control Research Centre
Pondicherry
India

Dr J Yuvaraj
Vector Control Research Centre
Pondicherry
India

Annex 2
PROGRAMME

| | | Tutors | Facilitators |
|----------------------------|--|---------------|---------------------|
| Week 1 | | | |
| Tuesday, 1.8.2000 | | | |
| 09.00 – 10.00 | Registration | | VCRC |
| 10.00 – 11.00 | Opening ceremony | | VCRC, SEARO, HQS |
| 11.30 – 12.00 | Welcome, orientation and cultural practices | | Course Director |
| 12.00 – 13.00 | Visit Laboratory and Library | PJ, ARR, KK | |
| 14.00 – 15.00 | Pre-test 1 | PJ, ARR, KK | |
| 15.00 – 16.00 | Pre-test 2 | PJ, ARR, KK | |
| Wednesday, 2.8.2000 | | | |
| 16.30 – 17.30 | Pre-test 3 | PJ, ARR, KK | |
| 08.30 – 09.30 | Pre-test 4 | PJ, ARR, KK | |
| 09.30 – 10.30 | Pre-test 5 | PJ, ARR, KK | |
| 10.45 – 12.45 | Current vector control practices | PKD | PJ, KK |
| 13.30 – 15.00 | Vector control problems and constraints | PKD | PJ, KK |
| Thursday, 3.8.2000 | | | |
| 16.00 – 17.30 | Introduction to comprehensive vector control | PKD | PJ, KK |
| 08.30 – 10.30 | Module 1: Unit 1 Comprehensive Vector Control | PKD | PJ, KK |
| 10.45 – 12.45 | Module 1: Unit 1 Comprehensive Vector Control (Contd.) | PKD | PJ, KK |

| | | Tutors | Facilitators |
|---------------------------|---|---------|--------------|
| 13.30 – 15.00 | Module 1: Unit 2 Introduction to Epidemiology | PKD | JY, PJ |
| Friday, 4.8.2000 | | | |
| 16.00 – 17.30 | Module 1: Unit 3 Rates, ratios and proportions | ASV | PV, AL |
| 08.30 – 10.30 | Module 1: Unit 4 Measures of central tendency | AL | PV, ASV |
| 10.45 – 12.45 | Module 1: Unit 5 Measures of variability and normal distribution | PV | AL, ASV |
| 13.30 – 15.00 | Module 1: Unit 6 Data presentation, tables, graphs and charts (includes use of computer programmes) | PV | ASV, AL |
| 16.00 – 17.30 | Module 1: Unit 6 Data presentation, tables, graphs and charts (includes use of computer programmes) (Contd) | ASV | PV, AL |
| Saturday, 5.8.2000 | | | |
| 08.30 – 12.30 | Demonstration and practice of statistical programmes on the computer | AL | PV, KK |
| Week 2 | | | |
| Monday, 7.8.2000 | | | |
| 08.30 – 09.30 | Post test - Module 1 | ARR, KK | |
| 09.30 – 10.30 | Module 2: Unit 1 Knowledge of vector-borne diseases | SKSH | PJ, KG |
| 10.45 – 12.45 | Module 2: Unit 1 Knowledge of vector-borne diseases (Contd) | SKSH | PJ, KG |
| 13.30 – 15.00 | Module 2: Unit 2 Introduction and historical background | SKSH | PJ, KG |
| 16.00 – 17.30 | Module 2: Unit 2 Introduction and historical background (Contd) | SKSH | PJ, KG |

| | | Tutors | Facilitators |
|----------------------------|--|--------|--------------|
| Tuesday, 8.8.2000 | | | |
| 08.30 – 10.30 | Module 2: Unit 3 Vector identification | SKS | ARR, AMM |
| 10.45 – 12.45 | Module 2: Unit 3 Vector identification (Contd) | SKS | ARR, AMM |
| 13.30 – 15.00 | Module 2: Unit 3 Vector identification Lab | SKS | ARR, AMM |
| 16.00 – 17.30 | Feedback on Post-test Module 1 | PKD | PJ, KK |
| Wednesday, 9.8.2000 | | | |
| 08.30 – 10.30 | Module 2: Unit 4 Vectors their biology and implications for control – Exercise 1 | SKSH | SKS, PJ |
| 10.45 – 12.45 | Module 2: Unit 4 Vectors - Exercise 2 | SKSH | SKS, PJ |
| 13.30 – 15.00 | Module 2: Unit 4 Vectors - Exercise 3 | SKSH | SKS, PJ |
| 16.00 – 17.30 | Module 2: Unit 4 Vectors - Exercise 4 | SKSH | SKS, PJ |
| Thursday, 10.8.2000 | | | |
| 08.30 – 17.00 | Module 2: Unit 4 Vectors - Field Exercise | SKSH | CS, GR, KG |
| 17.00 – 18.00 | Module 2: Unit 4 Vectors - Laboratory | SKSH | SKS, PJ |
| Friday, 11.8.2000 | | | |
| 08.30 – 09.00 | Feedback on Post-test Module 1 | KK | PJ, ARR |
| 09.00 – 10.30 | Module 2: Unit 5 Vector borne disease epidemiology -Exercise 1 | RHZ | KK, ARR |
| 10.45 – 12.45 | Module 2. Unit 5 Epidemiology, Exercise 2 | RHZ | KK, ARR |
| 13.30 – 17.30 | Module 2. Unit 5 Epidemiology, Exercise 3 | RHZ | KK, ARR |

| | | Tutors | Facilitators |
|-----------------------------|--|--------|--------------|
| Saturday, 12.8.2000 | | | |
| 08.30 – 09.30 | Module 2. Unit 5 Epidemiology, Exercise 4 | RHZ | SSM, PV |
| 09.30 – 12.30 | Module 2.: Unit 5 Vector borne disease epidemiology - Case Study 1 | RHZ | SSM, PV |
| Week 3 | | | |
| Monday 14.8.2000 | | | |
| 08.30 – 10.30 | Module 2: Unit 5 Epidemiology - Case Study 2 | RHZ | KK, SSM |
| 10.45 – 12.45 | Module 2: Unit 5 Epidemiology - Case Study 3 | RHZ | KK, SSM |
| 13.30 – 15.00 | Module 3: Unit 1 Vector Surveillance | RHZ | PV, SSM |
| 16.00 – 17.30 | Module 3: Unit 1 Vector Surveillance (Contd) | RHZ | PV, SSM |
| Wednesday, 16.8.2000 | | | |
| 08.30 – 09.30 | Post -test Module 2 | RHZ | ARR, PJ |
| 09.30 – 10.30 | Module 3: Unit 2 Survey design | RHZ | SSM, PV |
| 10.45 – 12.45 | Module 3: Unit 2 Survey design (Contd.) | RHZ | SSM, PV |
| 13.30 – 15.00 | Module 3: Unit 2 Survey design (Contd.) | RHZ | SSM, PV |
| Thursday, 17.8.2000 | | | |
| 08.30 – 12.45 | Module 3: Unit 2 Survey design (Contd.) | RHZ | SSM, PV |
| 13.30 – 17.30 | Module 3: Unit 3 Survey methods | RHZ | SSM, PV |
| Friday, 18.8.2000 | | | |
| 08.00 – 12.45 | Module 3: Unit 3 Survey Methods, Field exercise | RHZ | SS, KG, PJ |

| | | Tutors | Facilitators |
|----------------------------|--|---------------|---------------------|
| 13.30 – 17.30 | Module 3: Unit 3 Survey Methods (Contd) | RHZ | SSM, PV |
| Saturday, 19.8.2000 | | | |
| 08.30 – 09.30 | Feed back of Post test – Module 2 | RHZ | KK, PJ |
| 09.30 – 10.30 | Module 3: Unit 5 Geographical Information System (GIS) and Simulation Model Technologies | RHZ | SS & SSM, PV |
| 10.45 – 12.30 | Presentation of 'analysis and interpretation of research papers on Comprehensive Vector Control and its components | RHZ | SS & SSM, PV |
| Week 4 | | | |
| Monday, 21.8.2000 | | | |
| 08.30 – 10.30 | Module 3: Unit 5 Geographical Information System (GIS) and Simulation Model Technologies | RHZ | SS & SSM, PV |
| 10.45 – 12.45 | Module 3: Unit 5 Geographical Information System (GIS) and Simulation Model Technologies (Contd.) | RHZ | SS & SSM, PV |
| 13.30 – 15.00 | Module 4: Unit 1 Principles of vector control | PJ | KG, DA, SP, BNN |
| 16.00 – 17.30 | Module 4: Unit 1 Principles of vector control (Contd.) | PJ | KG, DA, SP, BNN |
| Tuesday, 22.8.2000 | | | |
| 08.30 – 10.30 | Module 4: Unit 2 Individual protection and other vector control options | DA | KG, CS, SP, BNN |
| 10.45 – 12.45 | Module 4: Unit 2 Individual protection and other vector control options (Contd.) | DA | KG, CS, SP, BNN |

| | | Tutors | Facilitators |
|-----------------------------|--|---------------|---------------------|
| 13.30 – 15.00 | Module 4: Unit 3 Community action in vector control | SS | KG, GR, SP, BNN |
| 16.00 – 17.30 | Post test – Module 3 | ARR, PJ | |
| Wednesday, 23.8.2000 | | | |
| 08.30 – 10.30 | Module 4: Unit 3 Community action in vector control (Contd.) | SS | KG, GR, SP, BNN |
| 10.45 – 12.45 | Module 4: Unit 3 Community action in vector control (Contd.) | SS | KG, GR, SP, BNN |
| 13.30 – 15.00 | Module 4: Unit 3 Community action in vector control (Contd.) | SS | KG, GR, SP, BNN |
| 16.00 – 17.30 | Module 4: Unit 4 Partnership in vector control | KK | ARR, TM, SP, BNN |
| Thursday, 24.8.2000 | | | |
| 08.30 – 10.30 | Module 4: Unit 4 Partnership in vector control (Contd.) | KK | ARR, TM, SP, BNN |
| 10.45 – 11.45 | Module 4: Unit 4 Partnership in vector control (Contd.) | KK | ARR, TM, SP, BNN |
| 11.45 – 12.45 | Feed back of Post test Module 3 | RHZ | PJ, ARR, SP, BNN |
| 13.30 – 15.00 | Module 4: Unit 5 Application of CVC | PKD | PJ, KK, SP, BNN |
| 16.00 – 17.30 | Module 4: Unit 5 Application of CVC (Contd.) | PKD | PJ, KK, SP, BNN |
| Friday, 25.8.2000 | | | |
| 08.30 – 10.30 | Module 4: Unit 5 Application of CVC (Contd.) | PKD | PJ, KK, SP, BNN |
| 10.45 – 12.45 | Module 4: Unit 5 Application of CVC (Contd.) | PKD | PJ, KK, SP, BNN |
| 13.30 – 17.30 | Module 4: Unit 5 Exercise | PKD | KG, SS, RS, SP, BNN |

| | | Tutors | Facilitators |
|-----------------------------|---|---------|---------------------|
| Saturday, 26.8.2000 | | | |
| 08.30 – 12.30 | Module 4: Unit 5 Presentation of exercise | PKD | KG, SS, RS, SP, BNN |
| Week 5 | | | |
| Monday, 29.8.2000 | | | |
| 08.30 – 10.30 | Module 5: Unit 1 The planning process, planning for individual countries | PKD | KK, PJ, BNN |
| 10.45 – 12.45 | Module 5: Unit 1 The planning process, planning for individual countries | PKD | KK, PJ, BNN |
| 13.30 – 15.00 | Module 5: Unit 1 The planning process, presentation and discussion of country plans | PKD | KK, PJ, BNN |
| 16.00 – 17.30 | Post test – Module 4 | ARR, KK | |
| Tuesday, 29.8.2000 | | | |
| 08.30 – 10.30 | Module 5: Unit 1 The planning process, setting priorities | PKD | KK, PJ, BNN |
| 10.45 – 12.45 | Module 5: Unit 1 The planning process, general discussion on Unit 1 and summary | PKD | KK, PJ, BNN |
| 13.30 – 15.00 | Module 5: Unit 2 Implementation of CVC | PKD | DA, KG, BNN |
| 16.00 – 17.30 | Module 5: Unit 2 Implementation of CVC (Contd.) | PKD | DA, KG, BNN |
| Wednesday, 30.8.2000 | | | |
| 08.30 – 10.30 | Module 5: Unit 3 Monitoring, evaluation and feedback – group presentations | PKD | PJ, KK, BNN |
| 10.45 – 12.45 | Module 5: Unit 3 Monitoring, evaluation and feedback – group presentations (Contd.) | PKD | PJ, KK, BNN |

| | | Tutors | Facilitators |
|----------------------------|---|--|--------------|
| 13.30 – 15.00 | Module 5: Unit 4 Framework of programme management | PKD | KK, PJ, BNN |
| 16.00 – 17.30 | Module 5: Unit 4 Framework of programme management (Contd.) | PKD | KK, PJ, BNN |
| Thursday, 31.8.2000 | | | |
| 08.30 – 09.30 | Feed back of post test Module 4 | PKD | KK, PJ, BNN |
| 09.30 – 10.30 | Module 5: Unit 5 Principles and practice of management | PKD | KK, PJ, BNN |
| 10.45 – 12.45 | Module 5: Unit 5 Principles and practice of management (Contd.) | PKD | KK, PJ, BNN |
| 13.30 – 15.00 | Module 5: Unit 5 Principles and practice of management (Contd.) | PKD | KK, PJ, BNN |
| 16.00 – 17.30 | Module 5: Unit 5 Principles and practice of management (Contd.) | PKD | KK, PJ, BNN |
| Friday, 1.9.2000 | | | |
| 08.30 – 09.30 | Post-test - Module 5 | KK, ARR | |
| 09.30 – 10.30 | Briefing for the field project | PKD | KK, KG, CS |
| 13.00 | Participants depart in three teams for the field: | | |
| Saturday, 2.9.2000 | | | |
| 09.00 – 10.30 | Briefing and orientation to Health District by DDHS and District Entomologist | Field Team Coordinators, Field Team Facilitator | |
| 11.00 | Field Project | Field Team Coordinator, Field Team Facilitator | |
| Week 6 | | | |
| Monday, 4.9.2000 | | | |
| 08.00 – 17.30 | Field Project | Field Team Coordinators, Field Team Facilitators | |

| | | Tutors | Facilitators |
|----------------------------|--|--|--------------|
| Tuesday, 5.9.2000 | | | |
| 08.00 – 15.00 | Field Project | Field Team Coordinators, Field Team Facilitators | |
| 15.00 | All teams return to Pondicherry | Field Team Coordinators | |
| Wednesday, 6.9.2000 | | | |
| 08.30 – 17.30 | Writing up report and preparing presentation of team field work | | KK, KG, CS |
| Thursday, 7.9.2000 | | | |
| 08.30 – 10.30 | Writing up report and preparing presentation of team field work | | KK, KG, CS |
| 10.45 - 12.45 | Writing up report and preparing presentation of team field work | | KK, KG, CS |
| 13.30 – 15.00 | Presentation in plenary of team reports on field project | Faculty VCRC, WHO | |
| 16.00 – 17.30 | Presentation in plenary of team reports on field project | Faculty VCRC, WHO | |
| 17.30 – 18.00 | Feedback of post test - Module 5 | KK, ARR | |
| Friday, 8.9.2000 | | | |
| 08.30 – 10.45 | Round table discussion on outcome of course evaluation and feedback of final marks | Faculty, SEARO, HQ | |
| 11.00 – 12.00 | Closing session | VCRC, WHO SEARO & HQ | |
| 12.00 – 13.00 | Course evaluation and planning meeting of organizers and faculty | VCRC, WHO SEARO & HQ | |

Annex 3

GUIDELINES FOR THE FIELD EXERCISE

Introduction

One of the aims of this course is to provide you with the opportunity to develop skills and competence in planning a national comprehensive vector control programme within the existing health structure and budget.

You will spend five days in a health district in Tamil Nadu State of India, and have the opportunity to analyze the situation in that district, carry out a stratification and suggest objectives and approaches to a successful comprehensive vector control.

The participants in your training course will be divided into three new field teams. The three districts that have been selected for this exercise are Vellore, Villupuram and Thiruvannamalai. During this part of the course you will be expected to conduct a thorough situation analysis of vector borne diseases in your assigned district, relative to the general health situation. In carrying out the situation analysis it is expected that you will develop skills which will be useful to you for preparing a comprehensive vector control plan in your own country.

The outcome from this exercise will be assessed by members of the faculty who will consider not only the content and conclusions and recommendations but also how the team has organized the written report and how well it was presented in a plenary session within the allotted time frame. Each member of the team will be allocated the same mark awarded to the team as a whole. This mark will be added to your individual accumulated marks for the post-tests and will be used in awarding the certificate issued by the World Health Organization and the Indian Council of Medical Research.

This information sheet provides you with the following:

- Some guidance on how the field team could function as effectively as possible

- Some information on how this part of the training might proceed
- Some guidelines on approaching a situation analysis

Effective learning as a small team

A great deal of the preparatory work for your situation analysis and stratification will take place in the classroom and in the field. You will be working as a member of a small team of seven persons. Each team will have a Local Field Facilitator from the District Health Department and a Field Team Coordinator from the Vector Control Research Centre in Pondicherry. Their task is to ensure the smooth running of the local arrangements and to assist your team to work as effectively as possible. They will also be the source of basic information and statistics that you may decide, as a team, that you need in order to complete this exercise.

Working as a team is both interesting and demanding for learner, tutor and facilitators. Small group sessions are useful and helpful in many different ways, including:

- Helping learners to become actively involved in a task (compiling data and writing a situation analysis)
- Developing skills in team work
- Applying knowledge to the solution of problems

It will be your task to apply knowledge and skills you have acquired in the course, and in your previous work, to the solution of a real life problem. The brief sections that follows set out some guidelines which will help your team to function effectively and usefully as a problem-solving group.

Setting the team climate

It would be best if you would come to an agreement amongst yourselves on the selection of a team leader. A team leader plays a very important part in developing the "climate" of the group. Some of the important tasks of the Team Leader that are necessary for the effective functioning of the group as a team are:

- Ensure that the team members become quickly acquainted with each other

- Help develop an atmosphere of informality so that all participants can say what they really feel, ensuring a frank discussion on all issues
- Encourage the active participation of all team members, without exception
- Stimulate a critical attitude to problem-solving

Encouraging team work

Active participation in the group's discussions can be promoted if:

- The task of the team is clearly understood and agreed upon by all members
- Discussions are kept to the task at hand and are not allowed to wander off track
- Individual members do not try to monopolize discussions and decision-making
- All members of the team are willing, and prepared, to listen to the contributions that all other participants are making to the question that is being discussed.

Using all the team resources

In most teams it will be found that different participants have special knowledge and skills which are useful to the group as a whole and would be useful for completion of the tasks and for the teams purposes. Early on in your teamwork try to find out what are those special interests, skills and experience of the members of the team.

Arriving at a consensus

It will help your work if you were to periodically review the progress made. This will help you to keep the following kinds of questions in mind:

- What are the objectives of the exercise

- How can the remaining time be organized, managed, so that further issues can be dealt with
- How have the discussions and work to date contributed to the overall task of conducting and writing up a good situations analysis and stratification and making appropriate recommendations for comprehensive vector control

Asking and answering questions

There are several ways in which questions may be asked, and these vary in terms of their purpose in asking them. Examples include:

- Actual questions, where a member is seeking to ascertain facts, information and data
- Open questions, where an opinion may be sought in broad terms and is open to a wide variety of different answers e.g. "What are the advantages and disadvantages of promoting the use of larvivorous fish as a control method?"
- A redirected question, where a member of the team might put a direct question to the team leader and rather than answering the question directly, the Team Leader redirects the question to another member of the team (or to the team as a whole), thus promoting further thought and more active participation.

If your team is careful in:

- Setting the climate for productive and critical discussions
- Encouraging all members to contribute and participate
- Using all of the group's resources and talents
- Summarising and seeking consensus in order to keep the discussions on track and relevant to the development of the situation analysis, stratification and recommendations
- Seeking to ask and answer questions in the most productive way

Then, your teamwork should be lively, informative, interesting, personally rewarding and should lead to the development of a valuable

situation analysis, stratification and recommendations for comprehensive vector control in the assigned district.

Procedures

Each team will be briefed before leaving the Vector Control Research Centre for their assigned district, and again by the Deputy Director of Health Services of the District when they arrive.

The objectives of the field exercise are:

- To analyze the vector-borne disease situation and the means for disease control through a comprehensive vector control programme in their assigned health district
- To propose a stratification of the district in the light of the situation analysis
- To propose objectives and approaches designed to achieve these objectives for each stratum
- To make appropriate recommendations for a comprehensive vector control programme for the district

It is the responsibility of the team to identify, and recognize the need for, specific items of detailed information in order to accomplish the objectives listed above. Information will only be provided to the Team Leader of your team, by your facilitator and coordinator, if the following criteria are satisfied:

- The team is very specific about the information required
- The team states the reasons why the information is needed
- The team is able to identify how the information will be used when it has been provided.

Each team is expected to verify, to the extent possible, the information provided and to be aware of limitations with respect to its interpretation. This may be accomplished by analyzing in detail a sample or by collecting information in the field or by asking questions from the health services personnel. It will be important to determine what "checks and balance"

systems are in operation that would lead you to rely upon one piece of information more than another. Is there a good supervisory system in operation that would also add value to the data?

Some guidelines on situation analysis

One way in which the team can organize its thinking about situation analysis is to perceive it as having a “beginning”, a “middle” and an “end”. Below are a series of questions (not by any means exhaustive) that you and your team members might ask yourselves or answer, for each of the suggested parts of the analysis that you already learnt from the learning module.

The beginning

- What is the vector-borne disease problem in the district? Where is it? To what extent? In what context? (These questions set up the framework for analysis)
- What are the major factors and variables at issue in this situation? (This will refine your framework and help you focus on essential issues)
- What is the relationship between these variables and factors at the beginning of the analysis? (E.g. how do the main epidemiological factors relate to the control methods which are being employed?)

The middle

- Are we now aware of any new issues, and if so how do these affect our original framework and what are the influencing factors and variables?
- What events and factors have helped us to appreciate the importance of these issues that we have newly identified? Why did we not think of these in the first place?
- Are the relationships between the factors and the variables the same as we thought they were at the beginning of the analysis? If they are different why is this so?
- If there are new issues, and changes in the relationship between variables and factors, what new or additional information will need to be requested in order to produce a well-balanced and realistic analysis for the situation?

The end

- What is the status of the original problem now? (e.g. has our understanding of its complexity been altered? Deepened? Expanded? Changed its focus?)
- How will I use the experience of this particular exercise to improve my competence in conducting a situation analysis?

Annex 4

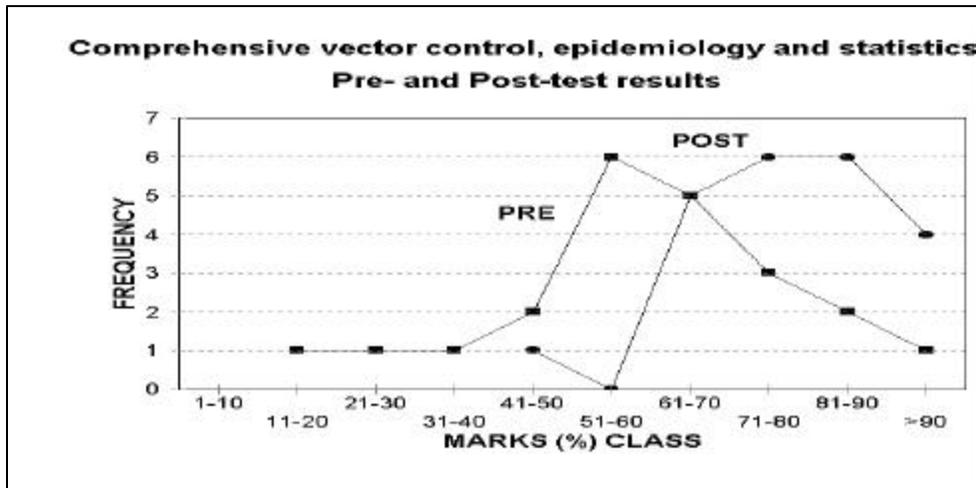
COMPARATIVE RESULTS OF PRE - AND POST-TESTS (IN PERCENTAGE)

| Sl. No | Name | Comprehensive Vector Control, epidemiology and statistics | | Vectors and vector borne diseases | | Vector Surve | | Approaches to comprehensive vector control | | Planning and management of comprehensive vector control | | Total | | Field exercise | Final marks (in %) |
|--------|------------------------|---|---------------|-----------------------------------|-------|--------------|-------|--|--------|---|-------|-------|-------|----------------|--------------------|
| | | Pre | Post | Pre | Post | Pre | Post | Pre | Post | Pre | Post | Pre | Post | | |
| | | 1 | Mr. Ali Izhar | 52.17 | 65.22 | 33.33 | 68.00 | 42.86 | 59.26 | 71.43 | 83.33 | 75.86 | 69.44 | | |
| 2 | Ms. Aye Aye Myint | 47.83 | 73.91 | 58.33 | 92.00 | 47.62 | 85.19 | 65.71 | 86.11 | 48.28 | 66.67 | 54.55 | 80.27 | 50.00 | 73.80 |
| 3 | Dr. Balakrishnan, N. | 73.91 | 69.57 | 62.50 | 76.00 | 76.19 | 88.89 | 80.00 | 94.44 | 75.86 | 80.56 | 74.24 | 82.99 | 52.50 | 77.54 |
| 4 | Dr. Batra, C.P. | 34.78 | 82.61 | 70.83 | 84.00 | 47.62 | 81.48 | 77.14 | 97.22 | 72.41 | 80.56 | 62.88 | 85.71 | 57.50 | 78.07 |
| 5 | Dr. Colombage, F.D. | 65.22 | 78.26 | 50.00 | 68.00 | 57.14 | 77.78 | 60.00 | 91.67 | 58.62 | 72.22 | 58.33 | 78.23 | 50.00 | 72.19 |
| 6 | Mr. Das Gupta, R.K. | 56.52 | 69.57 | 66.67 | 84.00 | 61.90 | 70.37 | 80.00 | 100.00 | 86.21 | 88.89 | 71.97 | 84.35 | 57.50 | 77.01 |
| 7 | Ms. Dolly | 52.17 | 73.91 | 50.00 | 60.00 | 23.81 | 70.37 | 54.29 | 72.22 | 48.28 | 63.89 | 46.97 | 68.03 | 57.50 | 65.78 |
| 8 | Dr. Gerudug I.Komang | 65.22 | 95.65 | 54.17 | 76.00 | 61.90 | 77.78 | 85.71 | 88.89 | 82.76 | 86.11 | 71.97 | 85.03 | 52.50 | 78.07 |
| 9 | Dr. Gnanakunalan, P.K. | 73.91 | 86.96 | 54.17 | 88.00 | 57.14 | 74.07 | 71.43 | 83.33 | 72.41 | 80.56 | 66.67 | 82.31 | 52.50 | 75.94 |
| 10 | Mr. Hassan Samir | 17.39 | 43.48 | 33.33 | 64.00 | 33.33 | 62.96 | 65.71 | 75.00 | 44.83 | 80.56 | 41.67 | 67.35 | 50.00 | 63.64 |
| 11 | Dr. Hazara, R.K. | 56.52 | 78.26 | 75.00 | 92.00 | 42.86 | 81.48 | 82.86 | 88.89 | 72.41 | 80.56 | 68.18 | 84.35 | 57.50 | 77.54 |
| 12 | Mr. Joshi, R.D. | 60.87 | 73.91 | 58.33 | 84.00 | 57.14 | 70.37 | 80.00 | 94.44 | 72.41 | 86.11 | 67.42 | 82.99 | 52.50 | 77.54 |
| 13 | Dr. Kalpana Baruah | 65.22 | 86.96 | 79.17 | 96.00 | 52.38 | 85.19 | 68.57 | 94.44 | 68.97 | 86.11 | 67.42 | 89.80 | 50.00 | 81.28 |

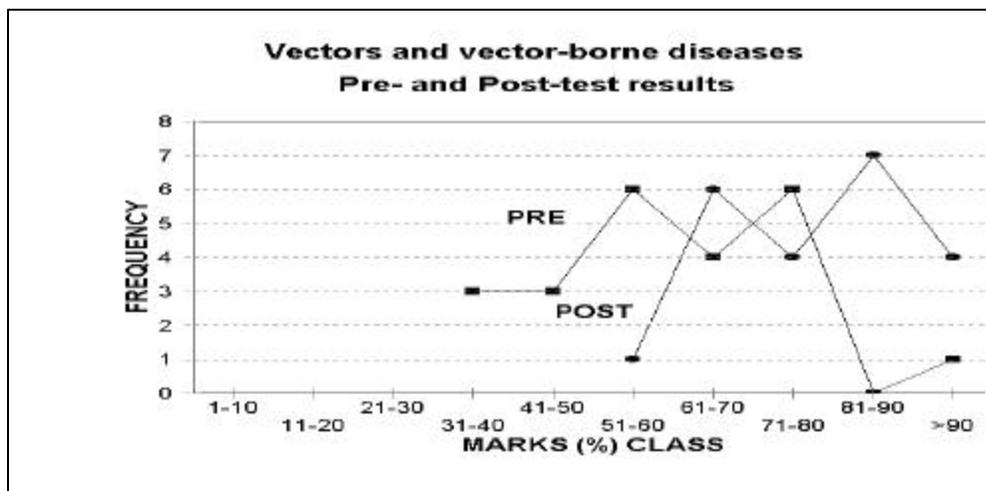
| Sl. No | Name | Comprehensive Vector Control, epidemiology and statistics | | Vectors and vector borne diseases | | Vector Surveillance | | Approaches to comprehensive vector control | | Planning and management of comprehensive vector control | | Total | | Field exercise | Final marks (in %) |
|-------------------|------------------------|---|--------|-----------------------------------|-------|---------------------|-------|--|--------|---|-------|-------|-------|----------------|--------------------|
| | | Pre | Post | Pre | Post | Pre | Post | Pre | Post | Pre | Post | Pre | Post | | |
| 14 | Dr. Liyanage, T.S. | 82.61 | 82.61 | 45.83 | 64.00 | 47.62 | 85.19 | 65.71 | 94.44 | 79.31 | 86.11 | 65.15 | 83.67 | 57.50 | 78.07 |
| 15 | Dr. Ludfi Santoso | 86.96 | 95.65 | 62.50 | 84.00 | 47.62 | 85.19 | 68.57 | 88.89 | 65.52 | 77.78 | 66.67 | 85.71 | 50.00 | 78.07 |
| 16 | Dr. Nado Zangpo | 43.48 | 82.61 | 33.33 | 64.00 | 23.81 | 74.07 | 68.57 | 94.44 | 82.76 | 91.67 | 53.79 | 82.99 | 50.00 | 77.54 |
| 17 | Dr. Nutan Nanda | 73.91 | 100.00 | 70.83 | 96.00 | 66.67 | 92.59 | 82.86 | 94.44 | 89.66 | 91.67 | 78.03 | 94.56 | 52.50 | 86.63 |
| 18 | Mr. Pissanuvass Panart | 65.22 | 82.61 | 70.83 | 88.00 | 42.86 | 77.78 | 74.29 | 97.22 | 55.17 | 77.78 | 62.88 | 85.03 | 52.50 | 78.07 |
| 19 | Dr. Rita Kusriastuti | 91.30 | 95.65 | 54.17 | 76.00 | 61.90 | 85.19 | 74.29 | 91.67 | 96.55 | 83.33 | 76.52 | 86.39 | 57.50 | 79.14 |
| 20 | Mr. Sukhvair Singh | 52.17 | 65.22 | 62.50 | 84.00 | 57.14 | 66.67 | 62.86 | 88.89 | 72.41 | 80.56 | 62.12 | 78.23 | 57.50 | 72.73 |
| 21 | Mr. ThanTun | 26.09 | 60.87 | 58.33 | 72.00 | 42.86 | 62.96 | 65.71 | 75.00 | 58.62 | 66.67 | 52.27 | 68.03 | 52.50 | 64.71 |
| 22 | Mr. Thomas, T.G. | 52.17 | 78.26 | 70.83 | 68.00 | 42.86 | 88.89 | 54.29 | 91.67 | 58.62 | 86.11 | 56.06 | 83.67 | 50.00 | 77.01 |
| Mean (arithmetic) | | 58.89 | 78.26 | 57.95 | 78.55 | 49.78 | 77.44 | 70.91 | 89.39 | 69.91 | 80.18 | 62.88 | 81.35 | 53.30 | 75.35 |
| Range | Lower | 17.39 | 43.48 | 33.33 | 60.00 | 23.81 | 59.26 | 54.29 | 72.22 | 44.83 | 63.89 | 41.67 | 67.35 | 50.00 | 63.64 |
| | Upper | 91.30 | 100.00 | 79.17 | 96.00 | 76.19 | 92.59 | 85.71 | 100.00 | 96.55 | 91.67 | 78.03 | 94.56 | 57.50 | 86.63 |

Annex 5

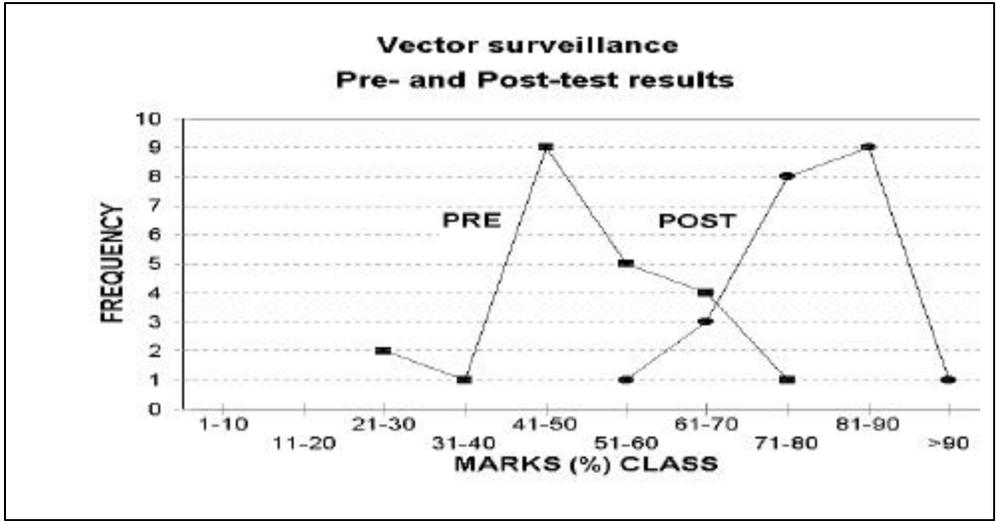
FREQUENCY DISTRIBUTION OF PERCENTAGE OF MARKS
EVALUATION RESULTS BY SUBJECTS



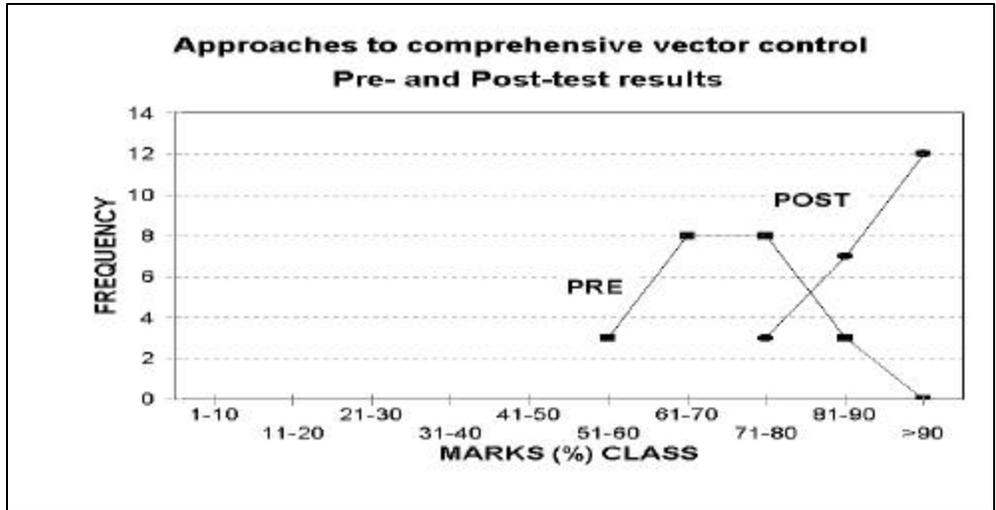
Significant; $t=7.27$; $p<0.05$



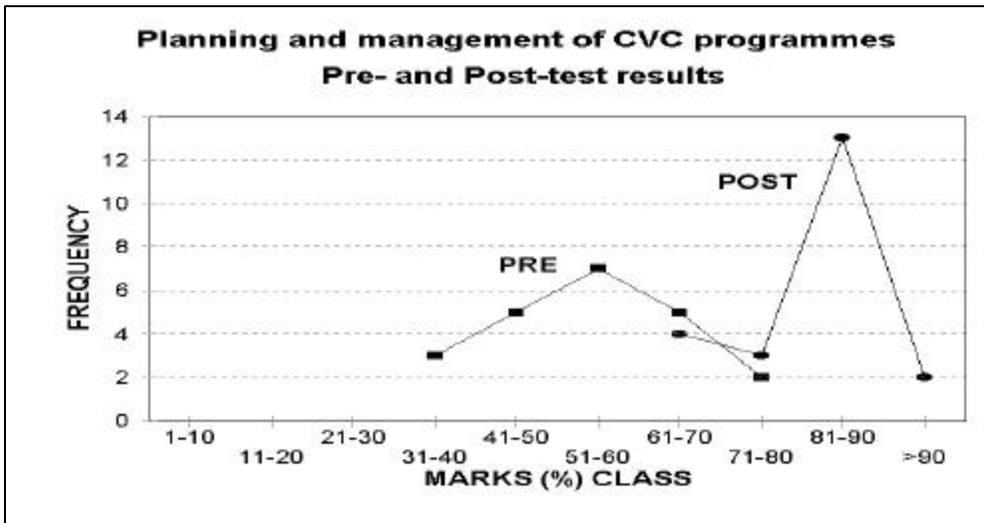
Significant; $t=10.81$; $p<0.05$



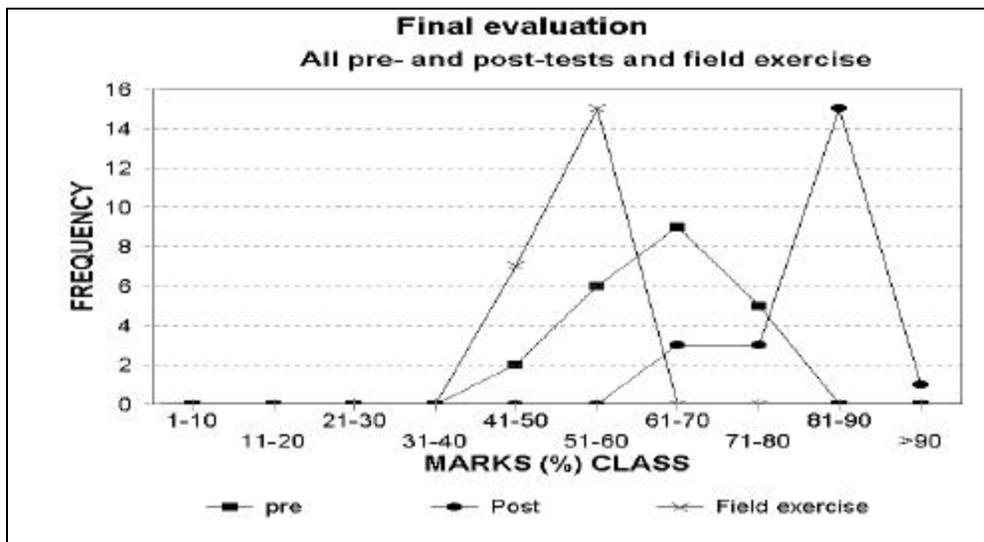
Significant; $t=10.23$;



Significant; $t=10.06$;



Significant; $t=4.57$; $p<0.05$



Significant; $t=15.35$; $p<0.05$

Annex 6

EVALUATION BY PARTICIPANTS OF THE TRAINING COURSE

Instructions : Use the following code to indicate the extent to which you agree or disagree with each of the statements made below:

Code: *Strongly disagree* = 1
Disagree = 2
Agree = 4
Agree strongly = 5

Note: The difference between 1 and 2 or between 4 and 5 is a matter of degree only.

| | | | |
|---|---|---|---|
| 1 | 2 | 4 | 5 |
|---|---|---|---|

Example 1: If you want to express your complete disagreement with the statement, put an X in the box "1" as follows:

Your comments*:

.....

* Please take adequate time for completing this questionnaire.

I. ASPECTS RELATING TO THE PLANNING OF THE COURSE.

1. I was given sufficient information on the aims and methods of the course before and upon my arrival.

S.I¹=68.18

| | | | |
|---|---|---|---|
| 1 | 2 | 4 | 5 |
|---|---|---|---|

Please give us your constructive comments, if any, below:

5. The detailed information about the course should be communicated to the candidate well in advance so as to enable him/her to come prepared with the necessary country data.
9. Please send the information of the course to the participant directly.
12. The aim is clear, the methods used also clear.

¹ S.I. = Satisfaction Index

- 13. *I got letter of selection of course 25th August without sufficient information.*
- 15. *Information must be received "in hand" by the candidate participant minimum three months before the course.*
- 16. *No information was provided by my institution to keep copies/transparencies of country profile.*
- 22. *I did not get any information regarding the course before I came.*

2. It was clear from the beginning of the course that I was expected to actively participate in it.

S.I=80.91

| | | | |
|---|---|---|---|
| 1 | 2 | 4 | 5 |
|---|---|---|---|

Please give us your constructive comments, if any, below:

- 5. *The need for active participation has been made amply clear. But to what extent the participant is expected to participate should also be made clear from the beginning.*
- 12. *Agree. As an andragogic (teaching to adult) must be sharing experience rather than lecture. But on the first day it must been a "defrosting activities" among participants, because not all participants have an experience on such teaching methods.*
- 15. *Information not only about "learning objectives" and "the shedule" but also on the "complete syllabi". Active what for?*

3. The objectives of the course were clearly related to my present or future professional activities.

S.I=87.27

| | | | |
|---|---|---|---|
| 1 | 2 | 4 | 5 |
|---|---|---|---|

Please give us your constructive comments, if any, below:

- 7. *There sh ould have been few classes on the development of teaching skills.*
- 12. *Before joining the course my knowledge on VBDC only on disease aspect. This training broadened my knowledge and skill on vector bionomics and control. It is very useful related to my present or future position.*
- 13. *Yes. I am medical officer of antifilarial unit in my country.*

4. The following administrative aspects of the course have been adequate and satisfactory:

Please give us your constructive comments, if any, below:

(a) Finances:

S.I.=48.18

| | | | |
|---|---|---|---|
| 1 | 2 | 4 | 5 |
|---|---|---|---|

- 7. *Some advance should have been given upon arrival to meet day to day expenses.*
- 8. *Not adequate to meet all expenditures*
- 14. *I know the delay in payment was due to administrative delay in ministry (approval of selection). But to overcome such situation some advances should have been given on arrival day please.*

(b) Travel arrangements:

S.I=83.64

| | | | |
|---|---|---|---|
| 1 | 2 | 4 | 5 |
|---|---|---|---|

- 5. *In keeping with the general rule the confirmation of the ticket should be done free of charge.*

(c) Accommodation and ar rangements:

S.I=87.27

| | | | |
|---|---|---|---|
| 1 | 2 | 4 | 5 |
|---|---|---|---|

- 1. *Except field*
- 16. *Being a rigorous course, the financial benefits may be increased.*

5. The training modules and other materials provided were sufficient and adequate for this course. Please give us your constructive comments, if any, below:

(a) The module on Comprehensive Vector Control, Epidemiology and statistics

S.I=84.55

| | | | |
|---|---|---|---|
| 1 | 2 | 4 | 5 |
|---|---|---|---|

- 7. *Different aspects of quantitative epidemiology should have been included.*

(b) The module on Vectors and vector borne diseases

S.I=81.00

| | | | |
|---|---|---|---|
| 1 | 2 | 4 | 5 |
|---|---|---|---|

- 1. *Unit 3 could have some practical demonstration.*

7. Since the group was heterogenous, the morphological aspects of vector identification should also be included.
8. Providing more references regarding VBD (either reference, book name, or photocopy of these) will be helpful to get more knowledge.
14. Live demonstration at different cycles would help for participants those not entomologists.
15. Lack material on biology and bionomics of mosquito. Also on sibling species techniques analysis (simple practices).

(c) The module on vector surveillance

S.I=84.55

| | | | |
|---|---|---|---|
| 1 | 2 | 4 | 5 |
|---|---|---|---|

1. Without practical it was difficult to understand all aspects. Should have atleast some discussions on the subjects would be helpful.

(d) The module on approaches to comprehensive vector control

S.I=80.91

| | | | |
|---|---|---|---|
| 1 | 2 | 4 | 5 |
|---|---|---|---|

1. In some aspects tutors/facilitators could not clear some doubts with concrete consensus.
7. A clear distinction should be made between personal protection and vector control methods.
9. Make some correction in terminology.

(e) The module on planning and management of comprehensive vector control programmes

S.I=79.09

| | | | |
|---|---|---|---|
| 1 | 2 | 4 | 5 |
|---|---|---|---|

1. Module was long and elaborated very nice, but the time was short.
5. The contents are too elaborate and confusing. It can be edited and abridged and made more comprehensive.
7. There is lot of repetition in the text, therefore, this module needs to be condensed. The principles and practice of management should be the first unit of this module.
14. Kindly condense, lot of duplication.

6. These training modules can easily be adapted and will be of use for training workers in my country.

S.I= 70.00

| | | | |
|---|---|---|---|
| 1 | 2 | 4 | 5 |
|---|---|---|---|

Please give us your constructive comments, if any, below:

1. Since module 5 is related to the most important aspects of any VBDC programme it should have give more time. At least 5 full days.
4. Some of the training modules need changes. Example: written in a simple way – Methodical – with few pictures, community participation/IEC – charts on vector bionomics.
12. Regarding to the situation in country it is not possible to conduct 8 weeks training. The constraint is on time, budgeting and leaving the responsible jobs, trainers who have been trained on CVC. Conduct separate training on each module also not effective – Solution: Need strong support (financial and technical) from WHO SEARO to conduct such training in the country.
13. I have got sufficient knowledge to apply CVC my country.
15. The messages of the contents of modules are not easy to understand.
16. The training module consists some confusion like CVC and CVDC. This needs to be clarified in next course.

II. ASPECTS RELATING TO THE COURSE OBJECTIVES AND DESIGN.

7. This course has covered all the subjects that I expected.

S.I= 71.82

| | | | |
|---|---|---|---|
| 1 | 2 | 4 | 5 |
|---|---|---|---|

Please give us your constructive comments, if any, below:

1. Course contents were nicely planned.
7. The development of teaching skills has not been dealt with.
8. All the participants are not entomologists. There are about 8 medical officers with less knowledge in entomology. So if cover some important section in entomology it will be more helpful.
10. Epidemiological and entomological parameter which are very important in vector borne disease surveillance may be discussed with its relevance.
13. Not provided sufficient knowledge regarding filariasis.
14. Since course is related to vector control, equipments used in control have not been included. Some aspects, quality, uses, maintenance, etc. are important for

control operation. For example if nozzle of the sprayer is not at quality output of spray may not be more or less and they direct impact on control operation. In this type of cases whether it is CVC or other control, it would fail.

15. I do not understand "teaching methodology" that stressing mostly important in "learning process". Why the learning process had take time until 6 weeks? Why not enough for first week only?

8. Six weeks is the ideal length for such a course.

S.I=61.82

| | | | |
|---|---|---|---|
| 1 | 2 | 4 | 5 |
|---|---|---|---|

Please give us your constructive comments, if any, below:

1. It needs 2 weeks more. Since VBD problem is very high throughout the globe, some lecture/demonstration (e.g. Dr. P.K.Das on filariasis) would have proved helpful to understand the problem very clearly.
3. Make it into 4 weeks.
4. 4 weeks is the ideal length.
7. It should be made 4 week course by reducing number of exercises.
8. I think 6 week is too long. Four week may be adequate to cover all five modules and field work.
9. 4 weeks is the ideal time for this course.
12. Although I feel too long, but the fact that time for group discussion always insufficient. So 6 weeks are proper.
13. Not only malaria, for other diseases should covering with another one or two weeks.
14. Four weeks course by reducing group exercises. Since course is for programme officers/managers are from different concerns/organizations, field oriented staff also. Few offices or organisation would like to relieve right persons for such a long period.
15. Too much discussion on terminology.
16. Since the course is for programme managers, I feel the duration is to be reduced to 2 weeks only covering the chapter 4 and 5 extensively.

9. The time given to each session and the sequence were appropriate considering the total time available.

S.I=69.09

| | | | |
|---|---|---|---|
| 1 | 2 | 4 | 5 |
|---|---|---|---|

Please give us your constructive comments, if any, below:

1. *Unnecessary arguments (irrelevant to the subject) consumes more time without any outcome. Such practice could be avoided.*
3. *Time should be given more for Module 5.*
5. *The time allotment for each exercise should be made according to the nature of the exercise.*
12. *Some are appropriate. Some topics need more time.*
13. *Most of the group works are easy if I have sufficient time to think it about 1 ½ hour for group work.*
15. *Too much exercises discussed, so no time to understand the importance of the material. One day or two day enough one presentation.*
16. *The time was very short for covering all aspects. There was no time for laboratory work. Since the programme officers who are plus 45 needs less strain.*
20. *Time for module 6 should be atleast two weeks, i.e. CVC. Participants should be intimated to bring the country data on VBD while coming to the course. This will help in country exercise.*

- 10. The course tutors and facilitators had sufficient knowledge and teaching capabilities to provide me with the necessary skills and competence in their teaching area.**

S.I=90.00

| | | | |
|---|---|---|---|
| 1 | 2 | 4 | 5 |
|---|---|---|---|

Please give us your constructive comments, if any, below:

9. *Tutors and facilitators sometime made the participants confused with their different suggestions.*
12. *But sometimes, among tutors/facilitators create confusion, especially during group work. One to two tutors need to increase in their capabilities related to the topic. Most of the tutors speak too fast especially when time for discussion/debate we cannot follow/understand.*
13. *Yes. Satisfied.*

- 11. The field training area in Thiruvannamalai was suitable to help me learn how to analyse the vector borne diseases situation at the district level:**

S.I=74.29

| | | | |
|---|---|---|---|
| 1 | 2 | 4 | 5 |
|---|---|---|---|

Please give us your constructive comments, if any, below:

- This area is ideal for improving educational activities of vector borne diseases. Since all the vector borne diseases are prevalent and officials concerned also extending cooperation in all aspects, this area has to be taken on priority.*

12. The field training area in Vellore was suitable to help me learn how to analyse the vector borne diseases situation at the district level:

S.I=88.57

| | | | |
|---|---|---|---|
| 1 | 2 | 4 | 5 |
|---|---|---|---|

Please give us your constructive comments, if any, below:

- This field visit would be very helpful in my future activities – Situation analyse and stratification of area is a major area for VBDC programme. Unless such exposure it is very difficult to do the work accurately with theoretical knowledge – As the trip was time bound, whole exercise, the write up, in such a short span of time would definitely help me in future how to manage the time.*
- Field training are is suitable.*
- Field training is very important to understand and improve skill about actual problem in the field.*
- My suggestion that in future field visit should be carried out only during working days. This time due to three holidays hampers the routine field activities where large numbers of data need to be collected from other agencies.*

13. The field training area in Villupuram was suitable to help me learn how to analyse the vector borne diseases situation at the district level:

S.I=92.50

| | | | |
|---|---|---|---|
| 1 | 2 | 4 | 5 |
|---|---|---|---|

Please give us your constructive comments, if any, below:

- From this field work I personally understand the existing situation and gathered knowledge about situation analysis, planning for CVC with available resources. This field training built up self confidence.*
- Villupuram district is being at low level as far as vector borne disease is concerned, Any other district with high disease problem may be selected for field training, so that the participants will have the enthusiasm in planning for CVC programme.*

12. Agree. Because we put all the knowledge into practice based on fact/reality. It is not easy to make a plan, to put together all information and find the result. It is not one man job, need team work. When come to the implementation plan, CVC approach is not as easy as what written in the module.

20. Question No. 11, 12 and 13 can be put under one question, in place of three.

14. **The field training exercises were a valuable experience which helped me to understand the analysis of the vector borne diseases situation and planning:**

S.I = 90.91

| | | | |
|---|---|---|---|
| 1 | 2 | 4 | 5 |
|---|---|---|---|

Please give us your constructive comments, if any, below:

1. Please refer No.12
2. Field training arrangements were excellent.
4. Due to lack of time and incomplete data the field training exercise does not give any valuable experience.
13. Field training is more valuable. Helps to know about obstacles and how to tackle them.

III. **ASPECTS RELATING TO THE RELEVANCE AND UTILITY OF DIFFERENT TEACHING METHODOLOGIES.**

15. **The use of the different methods of instruction listed below was appropriate. (Please indicate your response for each method of instruction and comment if necessary).**

(a) **Lectures:**

S.I = 75.45

| | | | |
|---|---|---|---|
| 1 | 2 | 4 | 5 |
|---|---|---|---|

1. In areas where ever possible some preliminary lecture should be included (e.g. S.K.Subbarao on sibling species complex).
5. Lecture sessions could be arranged in the early morning hours.
12. Not enough in the preliminary session. Some of tutor only give introduction and straight go to exercise/group work. Participants still do not know what to do.
13. Not given sufficient knowledge.
15. It is important to understand exactly on modules, substances.

(b) Small group discussions:

S.I=80.00

| | | | |
|---|---|---|---|
| 1 | 2 | 4 | 5 |
|---|---|---|---|

1. *It was helpful to judge our own opinion about any topic. What we were having in mind sometime came out to be completely reverse or inadequate. How to come to a common consensus within a short time span through discussion, opinion then present it in a well framed way, all these what I learnt.*
4. *Small group discussions should be done according to a pre planned format, so that all groups will present in a similar way which is more meaningful.*
5. *The group discussions was not as it should be. Facilitators could help to expedite this process. For those participants, poor in English additional time need to be considered.*
12. *Good interaction among participants.*
13. *Not necessary to allocate more than two members of one country to one group.*

(c) Practical demonstrations (laboratory and field):

S.I=72.73

| | | | |
|---|---|---|---|
| 1 | 2 | 4 | 5 |
|---|---|---|---|

1. *Since it was VBDC some more practicals were strongly needed in some areas.*
7. *This aspect was not given due importance.*
12. *To many person so for me not enough time to get information more detail.*
13. *Not sufficient.*
15. *To support and evident about the material of learning/study.*
16. *One day field exercise is to be carried out more during the training.*

(d) The micro-teaching methodology:

S.I=80.00

| | | | |
|---|---|---|---|
| 1 | 2 | 4 | 5 |
|---|---|---|---|

(e) Debate:

S.I=75.24

| | | | |
|---|---|---|---|
| 1 | 2 | 4 | 5 |
|---|---|---|---|

1. Should be increased where ever possible (in different subjects). It helps to come out with varieties of opinions on one subject and help to analyse the pros and cons of the problem.
12. Mostly Indian participants and tutors speak so fast. So non English speakers country couldn't follow. Cannot join the debate as the result we did not know the end of the debate.

(f) Self-study and additional reading:

S.I=79.05

| | | | |
|---|---|---|---|
| 1 | 2 | 4 | 5 |
|---|---|---|---|

1. Helped to gain self confidence and clear.
4. Should give more time to use the library (not after 6 o'clock which is not the ideal time after full days work.
7. Library timing should have been maintained.
13. Not sufficient.
14. Library time was not given except 2 to 3 days.
15. The most relevant materials a manual.
16. No time for additional reading due to tight schedule.

(g) Critical review of research articles

S.I=74.29

| | | | |
|---|---|---|---|
| 1 | 2 | 4 | 5 |
|---|---|---|---|

1. The guidelines provided for the review was very informative, these has helped to improve my knowledge in this field. While in writing any research paper in future I can properly plan the write up, analyse the data and present it in a constructive way.
14. I disagree. Because analysis, comments by facilitators were negative and not positive side. I think the way papers/articles were discussed, not a single paper can be published. Of course, few comments were really good. Statistician would think about statistics only and not contents outcome.
15. The training is not to become a researcher.
16. Not done due to tight schedule.

(h) Country group exercises

S.I=85.71

| | | | |
|---|---|---|---|
| 1 | 2 | 4 | 5 |
|---|---|---|---|

1. Informative.
16. Good.
20. Participants were not informed in advance to bring the country data VBD. If informed well in hand, a good model can be prepared for CVC.

16. The audio-visual materials used were sufficient and adequate:

S.I=76.36

| | | | |
|---|---|---|---|
| 1 | 2 | 4 | 5 |
|---|---|---|---|

Please give us your constructive comments, if any, below:

5. Presentation techniques need to be taught as most of the participants are using too many transparencies.
9. Preparation before class begin will be better.
13. Satisfied.
14. I agree, but if few cassettes related to diseases and methods are shown on big screen, it is better.
15. Lack of audio video teaching aids.
20. It is suggested to prepare a film on dengue outbreak and other on JE outbreak for demonstration. Partnership among different departments if taught by a audio visual approach will have a better impact.

IV. ASPECTS RELATING TO THE WAY THE COURSE WAS IMPLEMENTED AND TO THE ATTITUDE OF THE TEACHERS AND ORGANIZERS.

17. The general atmosphere of the course was conducive to serious work:

S.I=85.45

| | | | |
|---|---|---|---|
| 1 | 2 | 4 | 5 |
|---|---|---|---|

Please give us your constructive comments, if any, below:

2. The work culture and dedication of the all concerned need to be complimented.
5. The comments like "you have not learnt anything", "you are not thinking", "you should know this", etc. by the tutors/facilitators should not be made as it acts as demoralising effect on the outcome of the learning process (especially with the senior participants). Since the course is based on the enquiry based learning process the facilitators and tutors should refrain from taking positions. Participants

should be given enough opportunity to raise questions/put up arguments so long the statements are well defended. Taking strong stand does not give room for argument.

13. *Satisfied.*

18. **Every effort was made to help me reach my objectives of the course:**

S.I=84.76

| | | | |
|---|---|---|---|
| 1 | 2 | 4 | 5 |
|---|---|---|---|

Please give us your constructive comments, if any, below:

19. **The course was organized in such a way that it promoted "team" effort and a cooperative approach**

S.I=89.09

| | | | |
|---|---|---|---|
| 1 | 2 | 4 | 5 |
|---|---|---|---|

Please give us your constructive comments, if any, below:

4. *The participants who does not understand must be identified by the teachers and must try to give a helping hand.*

12. *Good team work among O.C., tutors/facilitators and participants.*

13. *Satisfied.*

20. **The course helped me improve my knowledge of comprehensive vector control and has adequately prepared me to teach this in my own country:**

S.I=90.91

| | | | |
|---|---|---|---|
| 1 | 2 | 4 | 5 |
|---|---|---|---|

Please give us your constructive comments, if any, below:

12. *To teach still need more knowledge specially in vector aspects.*

13. *Satisfied.*

21. **The course has made me more confident as a teacher and implementer of comprehensive vector control activities.**

S.I=90.91

| | | | |
|---|---|---|---|
| 1 | 2 | 4 | 5 |
|---|---|---|---|

Please give us your constructive comments, if any, below:

12. Yes, I feel confidence on CVC approved. But need suggest from other experts.
13. Yes, I agree and have good positive mind to do it in my country.

V. OVERALL EVALUATION OF THE COURSE AND ITS IMPLEMENTATION.

22. I would give an overall rating to this course as follows:

Please circle your response:

S.I=86.00

Lowest <=== 1 2 3 4 5 ===> Highest

23. Please note below and give actual examples of:

(a) The three aspects which impressed you most favourably:

1. Mode of teaching, self learning – situation analysis, planning and implementation of hypothetical programme – investigation of outbreak – critical review of research paper.
2. Teaching methodology and curriculum – sincerity, devotion and commitment of VCRC officials – teaching materials distributed for the course.
3. Very good Organisation for conducting course – Working group discussion team – Learning processes are excellent.
4. Method of teaching – Participant teacher relationship – Dedication by all categories of staff .
5. Field exercises – Class room exercises – Accommodation
6. The knowledge and response of facilitators – Behaviour of Director – Selection of field areas for three groups.
7. Teaching ability and hard work of tutors and facilitators – Individual attention given to participants – Accommodation and transport arrangements at Pondicherry and Thiruvannamalai.
8. Teaching method simple and clear – Providing modules prior, made easy to understand – Tutors and facilitators were all the time with the participants to clear the doubts and guide.
9. Learning processes are excellent – Working in a team – Very good Organisation for conducting course.
10. Teaching methods – Dedication of teachers – Well planned course structure.
11. Planning and management of CVC programmes – Vector surveillance – Approaches on CVC.
12. Teaching method – Learning facilities – Skill development.

13. *New knowledge – Effectiveness of control method according to situation analysis – Cost effectiveness.*
14. *Clarity in definitions, teaching ability – Accommodation and transport arrangements at Pondicherry.*
15. *The atmosphere is very conducive – High competence of teaching staff of VCRC – I need knowledge and skill on CVC.*
16. *Discipline – Good teaching skills – Availability of papers related to subjects.*
17. *Teaching method was simple and clear – Teaching ability and hard work of tutors and facilitators – Accommodation and participant arrangement at Pondicherry and Thiruvannamalai.*
18. *Comprehensive vector control epidemiology and statistics – Vector and vector borne diseases – Vector surveillance.*
19. *New approaches of training – Procedure is very scientific – Field exercise.*
20. *Teaching by lecture cum demonstration method – Cooperation from tutors, facilitators and library – Use of computer in teaching process for various programmes.*
21. *I like the training method – Highly satisfied with the training staff of CVC – Satisfy the CVC & Hotel.*
22. *Blank,*

(b) The three aspects which impressed you least favourably:

1. *Arrangement of field accommodation – planning the field trip on holidays – not informing the health authorities well in advance, seeking their cooperation during the field activities.*
2. *Fellowship grant is not adequate – Time allotted for exercises and small group discussion not sufficient – Prior information should be given to help bring country material.*
3. *Sometimes confusing information from some tutors and facilitators – The length of the course – Search questions.*
4. *Wasting time on unnecessary arguments – Not allocating adequate time for group exercises – Continuing after 4.30 pm.*
5. *Sight seeing – Entertainment facility/time – Methods of group discussion*
6. *Food arrangements – Timings of training – Schedule of the training*
7. *Timings are not strictly adhered to – Laboratory and field demonstrations are not given much importance – Too much is expected from the participants in terms of understanding capability and output.*
8. *Duration is long – Continuing the session until 5.00 pm. made us very tired and unable to do personal work – No adequate information given before we came to Pondicherry.*
9. *Food and accommodation in field training – Confusing information from some tutors and facilitators – The length of the course.*

10. *Lack of practical classes on vector identification – Time management – Facilitators should have uniqueness in approach while dealing with discussion among the participants, so that confusion can be avoided.*
11. *Blank.*
12. *Topics to be discussed – Discussion especially with Dr. Das, create confusion at the beginning, but happy ending – Tour or field exercise.*
13. *Knowledge given more by tutors – Low laboratory identification of mosquitoes – Time for group exercise not sufficient.*
14. *Accommodation at Vellore at Park Avenue – Facilitators called from outside VCRC were not involved much in teaching experience, contribution, etc.*
15. *I don't get material course on methods and technical aspects of vector control – I don't meet a material course enough on ecological and bionomic, also ecological aspects about mosquito – I still have lack of knowledge on sibling species as a basic tool in CVC.*
16. *Tight schedule of course – Food – Less interaction between participants and faculty.*
17. *Timing were not strictly followed – Laboratory and field demonstrations were not given – Too much expected from the participants in understanding capability and output.*
18. *Blank.*
19. *Period of training too long – More field work should be there.*
20. *No North Indian type of food facilities which are liked by other country participants also – Sight seeing should be financed by WHO or VCRC instead of participants. This will encourage motivation.*
21. *Blank.*
22. *Blank.*

24. Please note below any recommendations you may have to improve the course for participants who may follow you.

1. *No doubt the course could be very helpful as we are in the way of decentralisation of health sector, CVC would be of very help at this juncture. If the course contents are to be kept as such the time of the course needs to be increased. Otherwise contents should be reduced.*
2. *Fellowship grant needs to be increased; Some portion of modules need to be revised; More time for group presentations; Prior intimation of selection to bring country data.*
3. *Participants should be prepared with complete information from VCRC.*
4. *All modules should be written in a simple way. Extra pages should be included for exercises in a preplanned format. The teaching should not create uncertainty among trainers as most of the topics are not new. Selection of participants should be done in a proper way so that the proper person should understand and take back the objectives of the training.*

5. *In order to keep the participants in high mood, some entertainment need to be arranged at week ends or in the evenings. Dinner at resort places, venues could also be arranged so as to keep away the monotony of routine activities.*
5. *No comments please.*
6. *A good briefing before carrying out group exercises should be provided – Facilitators should maintain uniformity in their approach while dealing with different groups – Their should be few lectures for each module for providing better understanding since participants are from different background and specialization.*
7. *Provide more references. One month duration would be adequate. Increase the number of lectures. Model of exercise should be given before the group work to avoid misunderstanding of the questions. Entomology section should be covered with basic and important lectures.*
8. *Participants should be prepared by complete information to bring data or information which is important during the course.*
9. *Individual assignment may be given to improve individual capability – Hypothetical situations may be given for drawing out conclusions for CVC implementation – The financial support given to the participant is very low – One or two entomology practical classes may be included to acquaint the participants with major vectors of SEAsian region.*
10. *Inform participants to bring enough data for country exercise – This course suitable for participants who have experience about entomology and epidemiology, so WHO has to screen participants before coming to join this course – Please give enough time to do exercise.*
11. *Need the English proficiency test.*
12. *Better to give module after covering it so not depend on ideas related to module – Give sufficient knowledge regarding diseases like filariasis, JE.*
13. *Highly recommended.*
14. *Too more discussion and presentation don't help us to more understand the material of the course more properly, but more confusing.*
15. *This course should be reduced for programme manager (younger age group) who can bear the extensive field works at VCRC and field.*
16. *A good beginning before carrying out group exercises should be provided to participants - Facilitators should maintain uniformity in their approach while dealing with different groups - Only Entomologists.*
17. *Only entomologists.*
18. *Blank.*
19. *Prepare a booklet on CVC and handover to participant at the end of the course. This will help in planning, monitoring, evaluation of CVC programme. – Fellowship allowance is very less, need to be enhanced in order to meet escalating price and cost of living, should be at least 2 lac per participant.*
20. *First priority is entomologist and second in medical officer.*
21. *Blank.*

Annex 7
SATISFACTION INDEX

