Epidémiol. santé anim., 1997, 31-32

TRAINING IN EPIDEMIOLOGY OF PRIVATE AND PUBLIC VETERINARIANS IN PORTUGAL

Almeida V.S. [1], Louzã A.C., Melo M.A., Vaz Y.M., Fonseca I.N., Boinas F.S.

To respond to a highly demand on education and training in epidemiology our Unit has prepared and performed twelve courses in the last six years which have been taken by 142 veterinarians from public and private sectors. The general aim of these courses is to establish a sound understanding of quantitative aspects of disease as a mass phenomenon in animal populations. The performance of students has shown a considerable variation. The students attending courses using a problem solving action-oriented approach have shown a considerably higher performance when compared with the students given a classical sequence of basic themes as measured by drop out ratio, attendance level and student evaluation. We think this final result is highly affected by training within a structured environment based on the use of appropriate computorized materials for self directed learning-developed at the Unit.

In the last six years, education and training in epidemiology has become an attractive subject for a significant number of Portuguese veterinarians. One of the main reasons for such demand might be related to the fact that none of the curricula of the veterinary medicine courses presently offered by four Portuguese universities has Epidemiology as a discipline or a separate course for the undergraduate students. However, the new roles required to the veterinary professionals in fields such as animal health, public health and environmental protection create a need for epidemiological approaches and methodologies.

To respond to such demand our Unit has prepared and performed twelve courses covering three main different contents which have been taken by 142 veterinarians from public and private sectors. The general aim of these courses is to establish a sound understanding of quantitative aspects of disease as a mass phenomenon in animal populations. In some of these training activities, elements of other U.E. groups, *e.g.* Reading University, Alfort Veterinary School and the Universitat Autònoma Barcelona were invited to teach particular course contents. The courses were specially addressed to veterinarians responsible for co-ordination of prevention programmes of Animal Health Defence Groupments, to competent vet authority officials and to private professionals working for dairy co-operatives, diagnostic laboratories and field clinics. The course duration included 60 to 90 hours of lectures, tutorials and practical sessions either run in two consecutive five-day weeks or in three to five modules of three days each in consecutive or alternate weeks. Three different types of course syllabus were prepared, performed and updated according to the needs of the would-be students. Seven of the courses were mainly a basic introduction to epidemiology - with a module on Biostatistics and Data Processing - and aimed to give a general background of epidemiological methods on need to specific field or diagnostic laboratory tasks. In general, these were courses of 60 hours given in two to four consecutive or alternate weeks. Three courses were aimed to give a specific training to colleagues both in public and private decision-making roles most of them which have already taken the basic epidemiological education. These courses varied between 60 and 80 hours both in one module of ten days to four consecutive or alternate modules of three days each. Two courses were designed at demand to cover a specific topic of epidemiosurveillance and were organised in five three-day modules given in monthly intervals for a total of 90 hours.

The performance of students has shown a considerable variation. The students attending courses using a problem solving action-oriented approach have shown a considerably higher performance when compared with the students given a classical sequence of basic themes as measured by drop out ratio, attendance level and student evaluation. We think this final result is highly affected by training within a structured environment based on the use of appropriate materials for self directed learning to ensure realistic practical training in handling mass data with epidemiological computer programmes, e.g. *Epi Info, HandiStatus, Win Episcope* and deterministic disease models running on commercial spreadsheets - developed at the Unit.

Finally and according to our team experience - reinforced by Adult Education *Experts* - five basic principles should be uppermost in our minds when designing adult education courses: 1) Adults like to plan their own education; 2) Adults must see relevance of the instruction to their work; 3) Adults want practical skills that they can use immediately; 4) Experiential learning is a more useful model than the didactic methodology; 5) A collegial relationship between a facilitator/learner is more useful than a professorial/student relationship.

BIBLIOGRAPHY:

York P., 1991. Extent of training: Preventive Medicine, Health Management. Recruitment and Development Animal and Plant Inspection Service U.S. Department of Agriculture, 6-8

World Health Organization, 1992. ISS/WHO-FAO-CC/IZST Seminar on Veterinary Epidemiology. WHO/CDS/VPH/92.107, 6-8

[1] Faculdade de Medicina Veterinária de Lisboa, R. Gomes Freire, 1199 Lisboa Codex, Portugal