

MAKING EPIDEMIOLOGY A CORE SKILL FOR PROFESSIONAL SPECIALISATION

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Veterinary epidemiology is now part of the undergraduate curriculum of many veterinary colleges around the world. While this does provide the veterinary graduate with a set of basic skills and a general epidemiological understanding, there is a need for postgraduate courses to allow specific skill development in veterinary epidemiology. Courses offered as short intensively taught modules provide veterinarians the opportunity to undertake the studies without having to take long-term leave from employment. This teaching mode also ensures tight integration of the academic and field activities.

Veterinarians in the 21st century will spend a considerable amount of time analyzing large amounts of information to diagnose health and productivity problems in animals. Epidemiology is a discipline which is aimed at providing the skills the veterinarian requires in order to fulfill this task. A majority of veterinary schools in the world now have incorporated epidemiology into the undergraduate curriculum. It is the general experience of most lecturers that undergraduate students approach this particular subject rather unenthusiastically. In part, this is the consequence of misconceptions regarding the activities of modern veterinarians. But it is also influenced by the frequent lack of integration between the different disciplines taught at the undergraduate level. Depending on the production systems common in a particular country many veterinarians realize the importance of quantitative and systems analysis (=epidemiological) skills once they have spent a couple of years in veterinary practice or regulatory veterinary service. These veterinarians interested in specific skill development are the target group for postgraduate courses in veterinary epidemiology. At Massey University in New Zealand undergraduate veterinary students are being taught veterinary epidemiology during their fifth year of study. Teaching consists of 15 lectures and a four hour tutorial per group of eight students. During a slaughter house practical students are required to conduct a field study which allows them to apply some of the skills they have learned during the epidemiology lectures. This combination of activities provides the veterinary graduate with a set of basic skills and a general understanding of epidemiological concepts. At the postgraduate level, advanced studies in veterinary epidemiology can be pursued at the Master's and Doctor of Philosophy level. Since 1995, a new modular Master's degree is being offered consisting of a condensed intensive teaching programme which requires the students to come to Massey University about three times per year for a three week period on each occasion. This allows postgraduate students to remain in employment while completing their postgraduate study programme. The papers offered range from epidemiological methods for investigation of animal health problems, through methods for analysis, interpretation and subsequent application of data derived from field studies to principles for the design and operation of animal health services at local and national level. As part of the programme it is also possible to conduct a research project at dissertation or thesis level. The three-week teaching sessions consist of morning lectures and the afternoons are available for work on case studies. These intensive case studies provide practical experience in the application of concepts taught during the lectures. One of the objectives of the programme is to teach the students how to make effective use of information technology and modern computer software during epidemiological investigations. Eventually the degree programme will be extended to provide postgraduate skill development in selected species animal medicine. In New Zealand the degree can be used to fulfill one of the criteria required for specialist registration. This new Master of Veterinary Studies course has been able to attract veterinarians from New Zealand, Australia, Germany and Italy working in private practice, as well as for veterinarians in government services. The students have found the teaching sessions very demanding, as most of them left university a number of years ago, but seem to enjoy the close interaction between the students and the lecturers during the relatively short, but intensive teaching sessions. Experience in working with these postgraduate students has been extremely positive for the lecturers as the students bring in a high degree of motivation and field experience.

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