

***Transition of Veterinary Students to Rural  
Practice, Continuing Professional  
Development and Sustainable Rural  
Veterinary Practices***

***Phase 1 – Identification of key issues and  
proposals to mitigate their effects***

***Report to the Australian Veterinary Association Ltd and  
Australasian Veterinary Boards Council Inc***

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#### **Acknowledgment**

The author acknowledges the support of the Steering Committee for this project and the many willing contributions by individuals in numerous organisations, the universities and veterinary practice and hopes that implementation of the suggested initiatives will help resolve concerns and justify their involvement in shaping this report.

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## EXECUTIVE SUMMARY AND RECOMMENDATIONS

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Major issues examined in this report are associated with the transition of new graduates to rural veterinary practice and the development of rewarding and sustainable careers. These issues are neither new nor unique to Australia.

The report focuses on rural veterinary activities that service the sheep and cattle industries including mixed rural practice and the various consultancy services to these industries.

While considerable broad information is provided on the above and many other issues, it is not an exhaustive analysis because much of the available information is either historical or based on anecdotal opinion.

The report provides a basis for the next phases of this project where wide consultation and further detailed work will be needed.

It also provides a basis for making a series of recommendations. These vary in importance and are numbered in a priority order to provide guidance to their implementation.

Many of the recommendations are proposed for implementation by the AVA as the body representing the profession in Australia but it is important to understand that, in many instances, success will be heavily dependent on effective engagement of other organisations such as the AVBC, AVDC and rural industry leaders.

### **Primary Recommendations**

There is a lack of focus by the veterinary profession on the future of its members in the food animal industries. Leadership is needed to develop potential employment opportunities.

The report also identifies several existing programs that could have mitigated some concerns that continue to affect the viability of rural veterinary practices and the development of the careers of new graduates.

Responding to these management concerns and developing a strategic perspective on the future of the profession is a high priority and a national process to identify future directions is proposed as the mechanism to initiate real progress.

**Recommendation 1:** *The AVA initiate a process leading to a foresight project that will assist in clarifying the future of the livestock industries and the role of veterinarians servicing all aspects of those industries.*

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Associated with this proposal are two important precursor actions to acquire information essential to developing an understanding of the current status of the livestock industries and the rural veterinary profession.

The first of these relates to the lack of robust information on livestock producers' attitudes to veterinary services and importantly where the industries believe their future lies. Without such understanding, it will continue to be difficult to assess how the profession should respond to the changing nature of the industries and provide appropriate services that will support and sustain them in the long term.

Implementation requires a carefully constructed and executed survey that will provide information of value to the veterinary profession as well as the livestock industries, agricultural colleges and universities.

**Recommendation 2:** *The AVA seek funding to commission a survey of the attitudes and needs of cattle and sheep producers for veterinary services in rural areas of Australia.*

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Despite the significant published work of Professor Trevor Heath on the status of veterinary graduates in Australia, there remains inadequate knowledge of the veterinary profession in rural Australia.

Without accurate information the profession cannot assess the effectiveness of current programs or manage problems as they arise.

Professor Heath's work provides a model for a national veterinary graduate monitoring program that would not only provide an on-going record of the experiences of rural veterinarians but information useful to long term planning and the activities of the universities, AVA, post graduate educators and government.

Linking such a survey to annual veterinary registration is strongly promoted as a practical way to guarantee the high response rate essential for a comprehensive and accurate picture of the profession.

**Recommendation 3:** *The AVA and AVBC work cooperatively to seek funding for the design and implementation of a survey of veterinary graduates in rural areas to be conducted annually and linked to veterinary registration.*

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While of lesser importance and priority than the above, the recent development of maps relating livestock numbers to rural veterinary activities provides a further useful way in which information on the profession and its relationship to the livestock industries can be examined.

**Recommendation 4:** *Funding be sought for an investigation into the potential to develop a series of maps similar to the AVMA "Food Supply Veterinary Medicine Data Maps" and for a coalition of veterinary interests to manage such a project.*

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Closely associated with the preceding recommendations is consideration of the funding of these and other initiatives. While some proposals are clearly related to

the public interest in sustainable and productive livestock industries, others are primarily of veterinary interest.

Negotiation on funding with governments and other potential funding organisations would be assisted by the development of arguments for project funding based on the costs and benefits of the proposed actions to the veterinary profession, government and the industries.

**Recommendation 5:** *The AVA/AVBC consider commissioning a report to identify the beneficiaries of the initiatives contained in this report to provide a basis for negotiation with government and potential funding organisations.*

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The remaining recommendations arising from this report involve actions that will provide various levels and types of assistance to rural practice. They have been placed into four groups to provide a better picture of the key issues and the suggested response.

### **Government Support for Rural Veterinary Practice and the Livestock Industries**

Governments have engaged Australian non-government veterinarians for a range of disease control activities over many years and as a result have provided critical support to many rural practices.

The Frawley Report stimulated several new Commonwealth Government programs with opportunities for rural veterinarians including the *Rapid Response Team*, the *Australian Veterinary Reserve* and the *Rural Veterinary Practice Surveillance Scheme*.

Such programs have helped sustain the relationship between government and private veterinarians in rural practice and indirectly provided support to the livestock industries. The continuing development of these programs and participation by rural practitioners should continue to receive active encouragement and support from the profession.

**Recommendation 6:**

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*The AVA continue to encourage the development of government funded programs that utilise rural practitioners and support the ongoing viability of rural practices, and reinforce to the profession the advantages of such programs.*

The APAV is a significant program for some rural practices providing a national framework for various programs that accredit veterinary practitioners for work in government programs.

It has subsequently proved a valuable way to achieve a degree of consistency in practitioners' understanding of government programs and their requirements.

However, the financial impost of joining the program and the cost of annual registration alienate many practitioners that have little regular income derived from the associated work, yet need to belong to the APAV to gain access to the accreditation programs and to satisfy the needs of their clients.

The APAV provides many public and livestock industry benefits and it appears illogical that it should continue to be managed and funded in such a way that discourages participation.

**Recommendation 7:**

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*The AVA examines the APAV, its effectiveness and impact on practitioners and if warranted, approach government for on-going funding to cover the costs of administration by AHA so the initial accreditation and annual fees for those serving the livestock industries can be removed.*

Government and/or industry funding to engage veterinary practitioners to provide advice to livestock producers on farm biosecurity should also be pursued. A program based on this concept would build livestock producers' knowledge and understanding of biosecurity and its importance in limiting disease spread.

It would also promote the role of veterinary practitioners in disease prevention and provide opportunities for interaction on other health and production issues.

**Recommendation 8:** *The AVA examines the potential for a government and/or industry funded farm biosecurity program that would support veterinary practitioners providing advice on farm biosecurity.*

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## Continuing Education and Rural Practice

Providing satisfactory CE to rural practitioners is especially difficult because of the widely distributed nature of rural practice in Australia.

While there are a number of suppliers of suitable CE, it is difficult to assess how well their efforts meet the needs of rural veterinary practitioners and whether modern communications technology is being used effectively to provide appropriate materials.

Logically CE should be developed by existing organisations providing modules that address priority issues associated with successful practice.

Consideration should also be given to successful completion of appropriately structured CE providing credit towards other post graduate qualifications.

This investigation finds that the available information is inadequate to provide further direction on how to assist rural practitioners fulfil their needs for CE.

**Recommendation 9:** *The AVA develop a workshop to investigate the CE needs of rural veterinarians.*

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The ACV and ASV have developed annual conferences that provide popular programs of CE, support new graduates in rural areas and develop bonds with the rural veterinary profession.



However, the growth and success of these annual conferences has reduced demand for courses on production animal issues by the Sydney PGF and other providers of CE. Discussions between the SIGs and CE providers could be mutually beneficial in developing world class programs that will further benefit rural veterinarians.

**Recommendation 10:** *The AVA provide support for discussions between the relevant production animal SIGs, the University of Sydney PGF, other CE providers and the relevant industry service organisations, with an aim to their working cooperatively to produce CE relevant to rural veterinarians.*

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The ACVSc provides a framework that should appeal to veterinarians interested in developing their knowledge and skills in cattle or sheep medicine. However, few attempt either Membership or Fellowship in these subjects.

Reasons for this include the time needed to study effectively and the lack of any pecuniary advantage to rural practitioners who obtain advanced or specialist skills.

The ACV and ASV could work with production animal members of the College to identify issues constraining rural practitioners studying for Membership and/or Fellowship and investigate the potential to use the College membership system as a core way to acquire the knowledge and skills to support a move into more advisory work.

**Recommendation 11:** *The production animal SIGs work with the ACVSc to provide training programs that will facilitate more rural practitioners attempting Membership and/or Fellowship of the College.*

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### **Support for New Graduates in Rural Practice**

While the AVA has programs designed to support new graduates they do not appear to be uniformly effective.

The *Post Graduate Support Seminars* and the *New Graduate Friendly Practice Accreditation Program* taken together have the potential to resolve most of the concerns with the transition of new graduates to rural practice.

In particular, the Post Graduate Support Seminars program is a well conceived and executed program that if fully operational across Australia would provide significant support to new graduates, especially those entering rural veterinary practice. However, the program appears to only operate fully in WA and receives little support in terms of either resources or funding.

**Recommendation 12:** *The AVA review its New Graduate Support Program and if it is agreed it continue, funding be provided to ensure it achieves its objective across Australia.*

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The *New Graduate Friendly Practice Accreditation Program* is a well conceived and managed program that if implemented in all rural practices would effectively ease the transition of new graduates to rural veterinary practice.

However, despite the program existing for several years, only a small number of (mostly rural) practices participate.

Given its potential to resolve many concerns, the AVA should review this program and survey its members to identify reasons why the uptake is so poor.

**Recommendation 13:** *The AVA review its New Graduate Friendly Practice Accreditation Program, survey its members to identify reasons for the low uptake and consider implementing actions to make the program more attractive.*

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The report finds that the provision of information relevant to the transition of new graduates into rural practice can be improved.

A first step would be to add an entry level “New Graduates Site” to the AVA website that incorporates links to information relevant to early professional life.

This could provide information to all new veterinary graduates with special assistance measures for those who become members.

This would provide professional leadership to new graduates while ensuring that members receive additional benefits.

**Recommendation 14:** *The AVA reviews its website with a view to including a “New Graduates Site” that provides information and a level of assistance to all new veterinary graduates.*

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Several other sources of information for new graduates are noted that could assist their transition to practice. However, their production appears *ad hoc* with universities, AVA National and Branches and others producing information of variable quality and usefulness.

If these resources were combined and their maintenance and further development coordinated, any concern over inadequate sources of information could be resolved, while the participating bodies could benefit from the resulting efficiencies.

**Recommendation 15:** *The AVA take a lead role in promoting the concept of developing national information resources to assist new veterinary graduates.*

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Easing the transition into practice by way of a “new graduate development phase” has been successfully implemented in the UK. However, this report finds that such a formal program would not be acceptable in Australia, primarily because of the costs involved.

Arguments for any change from existing arrangements would need to establish that, at graduation, veterinarians are sufficiently lacking in skills to prejudice the outcome for animals in their care.

Craven<sup>1</sup> recommended that a coordinated group of veterinary interests convened by the AVBC should develop and implement strategies to improve the transition of veterinary graduates from university to practice.

This report supports that proposal, especially professional development tailored to the needs of new graduates in rural practice.

**Recommendation 16:** *The veterinary profession, particularly the AVA and AVBC continue to investigate the development of programs to assist the development of skills in new graduates appropriate to employment in rural practice in Australia.*

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### Other Support for Rural Veterinary Practice

The following recommendations are of lower priority but are actions that will assist some rural veterinary practices.

Some concerns have been raised over rural practice management and especially the development of formal business plans and marketing of services.

Enhancing processes that assist rural practitioners to assess their business against key management principles will help to eliminate unproductive attitudes and activities and optimise the efficient delivery of veterinary services.

**Recommendation 17:** *The AVA review its business advisory services to members with a view to enhancing the availability of advice to ensure optimum business practice advice is readily accessible to rural practitioners.*

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Rural Branches of the AVA provide strong support to members and often provide the only regular contact that some rural practitioners have with the AVA and other colleagues. Increasing financial support to Branches would enable more expert speakers to attend meetings and activities.

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<sup>1</sup> Craven (2004)

**Recommendation 18:** *The AVA review the level of financial support provided to its rural Branches especially that which assists speakers to attend who can discuss issues associated with the success of rural veterinary practice.*

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Poor marketing skills and the unwillingness of veterinarians to promote their practice skills were identified by Frawley as factors constraining the development of rural practices.

He proposed that the AVA promote industry wide initiatives to help individual veterinarians address this problem. Further consideration of such an extension program should be part of the proposed development of a strategic plan for the future.

**Recommendation 19:** *The AVA gives further consideration to the promotion of rural veterinary services to livestock producers by a formal marketing program as part of the development of a comprehensive strategic vision for the profession in rural Australia.*

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Arguments against the use of paraprofessionals in rural practice include reduced disease surveillance, fear of compromising standards of delivery of animal health services, potential effects on Australia's international standing and opportunities for productive contact with producers.

However, there are also potential advantages to many practices in employing trained assistants to carry out activities that do not require professional veterinary qualifications. A program to build a sustainable role for paraprofessionals would require wide consultation and strategies to overcome the negative perceptions.

Integral to acceptance of the model would be the need to develop (or accredit) suitable training programs.

**Recommendation 20:** *The AVA form a working group to investigate programs providing knowledge and skills to technicians that could enable registration as a veterinary technician (when available) available to assist rural veterinary practitioners.*

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## INTRODUCTION

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This report is the first outcome of a project commissioned by the Australian Veterinary Association Ltd. (AVA) and the Australasian Veterinary Boards Council Inc. (AVBC) to address two recommendations of the 2003 Frawley Review of Rural Veterinary Services [Recommendations 10 and 14 (Appendix 1)], dealing respectively with sustaining rural practice including new practice models, professional assistance and broadening of the skills base; and the conduct of a review of veterinary science education and registration requirements. The project has longer term aims of implementing actions to address the problems identified in this report.

The report has focussed on providing a contemporary perspective and a plan for implementation of initiatives that address any deficiencies associated with the following:

- The clinical training and preparation of prospective graduates and their transition to rural practice;
- measures to provide continuing support, mentoring and development in their early professional life; and
- the opportunities to promote enhanced practice models that will expand the scope of agricultural practice and provide greater support to the profession in rural areas.

This first phase report documents the current status of the veterinary schools, the views of those involved in post graduate continuing professional development (CPD), rural veterinary practitioners and their producer clients on the key issues. It also documents existing initiatives and provides an international perspective as a basis for identifying practical solutions wherever possible. The report then provides an assessment of the current status of initiatives and proposes actions that will help resolve problems and support sustainable rural veterinary practice.

The report is based on information from the Review of Veterinary Services as well as specific consultations, research of the literature and evaluations of responses to similar problems identified elsewhere. It has been prepared with the guidance and support of a Project Steering Committee (Appendix 2) with substantial information inputs from the following:

- consultation with veterinary educators and others involved in the clinical training and preparation of students for work in rural practice, their transition into practice and their subsequent post graduate education and continuing development;
- discussion with rural stakeholders of the nature of rural veterinary practice with the aim of establishing the needs of livestock producers and how veterinarians might best meet those needs;

- examination of additional information from rural veterinarians on their early experiences in rural practice, clarifying the issues that retain their interest in rural practice, identifying issues that have had adverse effects on graduates and identifying the types of practice and practice management models that operate;
- a review the recent literature relevant to the above issues: and
- an evaluation of the approaches being adopted in like countries to address the above issues.

As the Frawley Review is the instigator for this report a brief summary of the relevant areas of that Report is provided. The outcome has then been reviewed and where possible enhanced by discussions with livestock producers and practicing veterinarians. This has helped refine the critical issues, provide a basis from which to identify gaps in current systems and facilitate the development of alternative ways in which such gaps can be addressed.

An effort has been made in this report to restrict the issues discussed to those most important to the outcome and avoid undue reference to the many other issues that impact on rural veterinary services. The focus is to provide practical actions that may improve the lifestyle and professional experience of veterinarians and thus the quality of service provided and ultimately the sustainability of the food animal industries.

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## BACKGROUND

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### ***The agricultural sector and the role of rural veterinary practice***

The livestock industries are one of the largest sectors of Australia's agricultural industries and with a major focus on export markets their continued success depends on maintaining an internationally acceptable animal health status. Veterinarians have a significant role in ensuring that the systems are in place not only to enable the collection of appropriate surveillance information but to investigate and resolve any outbreak of disease.

Rural practices are a significant component of these systems providing services that investigate and resolve outbreaks of disease, report on the health of livestock and improve productivity. Any failure of the provision of services threatens Australia's disease status and thus exports and impacts on the prosperity of the livestock industries. It was concern over the ongoing availability and capability of veterinary services in rural areas that resulted in the Frawley Review.

### ***The Review of Rural Veterinary Service***

Frawley found that Australia's animal health system would need to be enhanced to meet future requirements and that while there was no immediate crisis in availability of veterinarians there were many issues associated with rural practice that adversely impact on the willingness of veterinarians to become rural practitioners. These included the reluctance of producers to use veterinary services, rising costs, long hours, poor pay and limited social opportunities. He also found that long lasting solutions would only be provided by policies that built up the demand for services rather than increased the supply of veterinarians.

Frawley found that only relatively small numbers of producers (20-30%), regularly use the services of a veterinary practitioner and that this was primarily to treat an individual animal with whole herd or flock consultations uncommon. Because the livestock industries are so diverse the reasons for this were found to be complex and not generic across the industries.

#### **Extensive grazing industries**

Issues of broad significance but often quoted as especially influencing the success of rural veterinary services to the extensive grazing industries include:

- the ever increasing cost of services in relation to the decreasing value of the animals being treated;

- the low occurrence of disease in most Australian herds and flocks resulting from the extensive nature of production with producers often tolerating a low incidence of disease and mortalities and thus having a low requirement for veterinary intervention;
- the success of major disease control programs and the development of anthelmintics, vaccines and other controls resulting in low disease incidence;
- cultural factors associated with the "do-it-yourself" mentality, the ready availability of information on managing animal health problems and the increased skills of many farmers;
- services provided by paraprofessionals that may compete at uncompetitive prices.
- failure of some veterinarians to adapt services to meet the needs of producers;
- lack of veterinarians in many areas reducing the ability to respond to changing needs for services;
- the substantial distances that must often be travelled to examine an animal(s) with subsequent costs to the producer;
- a lack of experience in marketing available services.

### **Intensive industries**

The intensive nature of the pig, poultry and dairy industries means there is better communication and increased awareness of the importance of animal health on production and a greater willingness to use veterinary services. In many cases where there has been an increase in advisory services an improvement in profitability has followed.

In both intensive and extensive industries these types of services have grown over time to include advice on nutrition, mastitis and milk quality, reproductive management and farm business management. However, while there appear to be significant advantages in developing these types of service there is great variation between different industries in their adoption.

Despite the opportunities, the commercial returns from livestock veterinary services are generally poor and the viability of rural veterinary practice is generally dependent upon fees generated from companion animals. On the other hand, Frawley pointed out that the livestock industries get the level of veterinary services that they are prepared to pay. He also pointed out that while there could be improvements in the range of commercial services and their delivery, the commercial benefits accruing to individuals from such services provided no "in principle" arguments for public intervention.

### **Preparation of undergraduates**

In terms of preparing students for rural veterinary practice the Review recognised the high standard of Australia's veterinary schools and the training they delivered but identified relevant areas of concern related to course funding, content and entry conditions. With respect to course funding, Frawley recommended this be further investigated as it was beyond the Terms of Reference of the Review. Frawley recognised the need for veterinary schools to produce graduates with a broad education covering all

species and aspects of veterinary endeavour but found a declining emphasis on production animal health in favour of companion animals. He concluded that it was in Australia's interests to ensure the livestock industries were serviced by well trained production animal veterinarians and there needed to be an assessment of the scope to increase production animal content at undergraduate level. Entry requirements for veterinary science were found to be very high and alternative ways of facilitating the entry of students who had a focus on production animals was suggested as one potential solution. These education and training issues were sufficiently complex that Frawley recommended a separate review of the overall scope of veterinary education and registration requirements.

Frawley's investigation found that while many graduates commenced their professional life in rural areas, most leave after several years and do not return. While the reasons for this were found to be complex, there was no doubt that the preparation of students for rural practice was critical and that some practices had particular difficulty in attracting and retaining veterinarians. One submission felt that it was not the rural lifestyle as such that was a problem but the particular lifestyle of a veterinarian in rural mixed practice that underlies any disaffection.

### ***Relevant issues raised during the Review***

This examination of issues relevant to sustaining rural veterinary practice is provided as a starting point for assessing the initiatives of government and the veterinary profession in the four years since publication of the Review so that the remaining gaps can be identified. It is derived from information provided in the Review and in submissions to the Review.

#### **Preparing undergraduates for a career in rural practice**

All of Australia's veterinary schools have a common objective of producing graduates who can deal with the animal health concerns of all species and have the knowledge and skills to pursue careers in all parts of society. The schools must also ensure that their graduates are acceptable to state registration authorities and meet standards necessary for mutual recognition with other countries.

Frawley examined veterinary education and training from a wide perspective and the matters he raised have largely been dealt with in a subsequent review<sup>2</sup>. This discussion recognises that work and as far as is possible focuses on the issues associated with preparing students for rural practice.

Many submissions to Frawley thought the problems raised concerning the skills and knowledge of new graduates reflected a failure by veterinary schools to provide graduates with the skills needed to service the livestock industries and sought a restructuring of

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<sup>2</sup> Craven (2004)

veterinary science courses to make them more relevant to their needs. There was thought to be an emphasis on companion animals to the detriment of livestock animal health and production and there was a common view that graduates lacked experience in handling and treating large animals, had poor exposure to rural issues with few having a career commitment to the large animal industries. The reason for the bias to companion animals was thought by some to be due to the higher fees they generated, the impact of the Higher Education Contribution Scheme, the expanding knowledge in companion animal medicine and surgery and the desire of students to be competent small animal practitioners. It was noted that competency in companion animals is also important in rural practice.

While all veterinary schools covered herd health, large and small animal medicine and surgery in their curricula, practical training in handling production animals is costly. Students gained exposure to the environment of rural practice during extramural activities including practical experience on farms during vacation periods, but the specific requirements for these activities varied between the schools. Several submissions proposed changing curricula to make them more relevant to agricultural practice and the introduction of a wider range of electives so that graduates interested in rural practice could gain the competences required, have exposure to high standard rural practices and become comfortable with handling farm animals. While this would have some obvious benefits there are practical limitations because veterinary schools must include all core subjects and clinical training to meet accreditation standards.

Frawley found that the introduction of a “post graduation training phrase” would meet many of the objections about specialist streaming within the undergraduate course. In a model proposed for the UK, such training would be undertaken in accredited practices with the cost burden for the additional phase falling on the new graduate. However, in Australia many graduates are unhappy with the remuneration offered in rural practice and the cost of an additional year with a potentially reduced salary could undermine acceptance of such a scheme. While the introduction of a structured training phase could be seen as a positive step, without supporting measures it could also be a substantial disincentive for young graduates to enter rural mixed practice.

A fundamental problem reported to Frawley was the ability of rural practices to retain experienced veterinarians. It was reputedly common for recent graduates to leave once they achieved the skills and experience that made them fully effective as a rural practitioner. However, the low starting salaries of new graduates may also contribute to this situation. The Review was also advised that the dissatisfaction expressed by young veterinarians often resulted from a lack of support and guidance by practice principals.

Frawley found there was a need for more postgraduate training opportunities for veterinarians in animal production areas and this should include both formal and informal courses and practical training opportunities

## **Transition to Rural Practice**

The environment that newly graduated veterinarians enter when they commence a career in mixed practice and the nature of the associated rural community are critical to the level of their satisfaction. Without support, they can easily feel isolated and overworked. Many of the issues raised here are seen by new graduates as an integral part of rural practice and reasons why many are not interested in a career in that sector and others leave after several years experience.

However, despite the difficulties outlined below, many new graduates have positive experiences and rapidly adapt to life in rural practice.

## **Lifestyle and Social Issues**

Submissions to Frawley clearly indicated that new graduates have much more than their professional life to contend with when they first enter a small community.

Many rural communities are shrinking in size, have ageing populations, limited education and medical services and limited employment opportunities for partners or spouses. Other drawbacks cited include the lack of anonymity/privacy in small county towns, reduced entertainment opportunities and other problems associated with raising children where the range of amenities is often limited.

While these problems are common to almost all professions needing to attract and retain graduates in rural areas, they are particularly significant for new veterinary graduates who not only have to adapt to life without the support of family and friends but learn to cope with the demands of a new professional role, long days and after hours work and personal issues such as managing a debt accumulated during their undergraduate years and household matters where their time is limited.

These factors add up to an environment where new graduates may feel inadequate and isolated and result in the unattractive lifestyle young veterinarians identified as a major deterrent to a career in mixed practice.

Lifestyle issues continue to be important in later years in retaining veterinarians in rural practice. In addition to the continuing pressure of the disadvantages cited earlier, some (or their partners) may experience growing concern over social isolation while there may be more limited opportunities for a career and to participate in continuing veterinary education.

## **Professional Issues**

Previous discussion has indicated that veterinary schools have different priorities and approaches to preparing students for rural practice and thus graduates have varying capabilities and experience in managing livestock. Added to this are a range of issues

associated with their rural or city background and their personal attributes that assist them cope with the professional demands placed on them during their early years.

New graduates with cutting edge knowledge and newly gained skills in using sophisticated equipment and procedures are likely to become disillusioned with life in a rural practice where these skills are generally not required or where there is limited use for modern technology.

On the other hand, the pressures of undergraduate curricula are such that most graduates will not have had an opportunity to experience the range of procedures they are likely to meet in mixed practice. They may also have poorly developed manipulative skills because they require techniques and experience that are difficult to teach or provide in the university environment. In addition, many issues they may face require a knowledge of farming systems, management, nutrition and economics that is greater than that taught during their undergraduate years.

Comments to Frawley indicated that some new graduates did not appear physically or mentally prepared for the physically hard nature of some of the tasks in rural practice or the long hours that are often involved. This can adversely affect personal relationships and preclude participation in sporting or other interaction with their community. Adding to this work load is the ethical obligation to respond to after-hour's calls for livestock, injured animals and wildlife treatments that cannot be offset on weekends and at night to emergency centres as occurs in the capital cities. These after-hour's calls are often not only a significant additional workload, but the operational circumstances are such that new graduates may have the potentially daunting task of attending to such calls without support.

### **Nature of Rural Veterinary Practices**

Rural practices face many challenges not least of which is the nature of the farm work environment, the clients and the animals they deal with. There are problems inherent in treating livestock that have limited value and thus the costs of treatment and the inefficiency and costs of travelling to farms to examine and treat animals are significant issues. In addition, many rural dwellers do not have the same wealth as city based people and they are not as likely to invest large amounts in the health of their animals.

The size of a rural practice also affects the ability to provide a satisfactory lifestyle in terms of hours worked and amount of after-hours work. Many rural practices only have 1 or 2 experienced veterinarians and find it difficult to manage the demands of employing a new graduate. Larger practices are able to cope more easily and provide a more supportive environment for new graduates and opportunities to diversify and specialise.

The nature of Australia's rural areas is such that producers in some areas have little experience in the use of veterinary practitioners and even established practices in these areas find it difficult to expand their veterinary advisory services or demonstrate to producers the benefits they can bring. In some marginal farming areas climatic factors



have a particularly adverse effect resulting in fluctuating incomes that make it difficult to establish a viable long term consultancy practice or provide job security.

The sum result of these influences is that rural practices are generally less financially rewarding than urban practice, cannot afford the same facilities or remuneration and find it more difficult to expand the scope of their services. This inevitably makes them less attractive to graduates seeking an income and lifestyle comparable with that enjoyed by their colleagues working in metropolitan areas.

To help overcome some of these effects and the presence of several small practices in a rural centre, Frawley felt that the profession should examine the business structure of veterinary practices with a view to facilitating the formation of larger practices by amalgamating smaller ones and with using business strategies to accommodate the personal nature aspects of smaller veterinary practice. In addition, the option of ownership of veterinary practices by non-veterinarian business people rather than veterinarians, sharing of facilities and other strategies would help rural practices achieve a critical mass that would allow a wider range of services.

There appeared to have been some prejudice against employing female veterinarians in rural practice because of perceptions they could not handle the physical demands of large animal work including the number of farm visits that can be completed in a day. Consequently there was some feeling that work in rural practice is unattractive (or may be made unattractive) to female graduates and if practices were more flexible in their approach to employment, and considered job sharing, part-time work and work without a commitment to after hours this would help. Reportedly, many female graduates would prefer part-time employment or employment as a practice associate rather than practice ownership although some young female veterinarians expressed an interest in purchasing a practice. Irrespective of the nature of their employment, there are many competent and highly valued female practitioners in rural practice and it is often the negative attitude of individual principals that can have a significant and detrimental effect.

### **Practice Principals**

New graduates are generally isolated from the support of their family and friends and often from their contemporaries. While practice principals can provide support to new graduates to develop their life away from the practice by introducing them to their new community and providing assistance in finding jobs for partners and/or spouses, Frawley had reports that appropriate support and encouragement, stimulation and reasonable rewards were often lacking.

Some of these problems can be ascribed to the attitude and capability of practice principals. Some were reported to lack business and people management skills, or to have poor interpersonal skills and be abusive, belittling or overcritical of recent graduates. Some also believed the Veterinary Surgeon's Award to be irrelevant to rural work and only a basis for negotiating remuneration and employment conditions with increased annual leave and rostered days off used to compensate for the extra hours worked during busy seasons.

Some problems resulted from the tension inherent to the relationship between an established professional managing a successful practice and a new graduate with little experience or capacity to increase practice income or even cover their costs of employment. As a result of concerns over competence, principals may protect valuable large animal clients from new graduates and only give them the routine or easy jobs. While new graduates should be continually challenged and encouraged to continually improve their knowledge and skills, directing them to take on work that is beyond their experience and capability without active support is unhelpful.

### **Providing support and encouragement to new graduates**

Frawley pointed out that in addition to making a career in rural practice more attractive, attention was needed to the social and professional support for new veterinarians in their new community and within the profession. He noted the importance of mentoring in the first few years of practice to help in adapting to the professional environment and in terms of becoming more comfortable with working in a rural community. He felt that the *AVA new graduate friendly practice scheme* and the mentoring schemes run by the profession and universities were extremely valuable. However, more needed to be done to provide assurance to students and new graduates that help and support is readily available.

Many ideas were proposed to Frawley to help reduce the professional isolation of new graduates and assist them adapt to a lifestyle in rural practice. Mentoring schemes received considerable support as well as improving communication between new graduates, for example by getting rural practices to take collective responsibility for all new graduates in a region and helping to decrease their sense of isolation by facilitating social interaction. Another suggestion was to introduce a formal induction process to introduce new graduates to professional bodies and veterinarians in neighbouring practices. State divisions could also help by producing an information “starter” pack for new graduates that include contact details for the AVA, other professional bodies, relevant government departments and counselling services. AVA local Branches could help to reduce isolation by providing opportunities for social interaction, informal mentoring and continuing education.

Some felt that principals should be encouraged to be more active in supporting new graduates by showing them the diversity and challenges of rural life and work and by building teamwork in the practice with nurses and other lay staff and being receptive to new ideas and methods.

### **The relationship between livestock producers and rural veterinarians**

Frawley investigated each of the livestock industries and found that in general the larger producers tended to have ongoing relationships with veterinarians whereas those with small operations had minimal engagement. He was concerned over the number of larger operations that did not regularly use veterinary services and found a range of contributing factors. While some producers objected to the withdrawal of government subsidies for

routine laboratory testing and were reluctant to use veterinarians on principle, many did not feel that veterinarians added value to their business especially given the cost of a visit could exceed the value of the livestock being treated. Some producers indicated they would prefer to dispose of sick livestock rather than bear the cost of involving a veterinary practitioner.

Frawley found a significant shift in the source of income to rural mixed practice that indicated that it was predominantly (70%) from companion animals. One of the significant factors contributing to a reversal of proportions over the last three decades was the attitude of producers that led to a low demand for farm based services. He also found that many veterinarians were poor marketers of their services and there would be value in repositioning their services. Because owners of companion animals were willing to pay for the care of their animals this translated into a greater demand for companion animal services and as a result these have become more profitable and convenient for veterinarians.

Submissions to Frawley pointed out that most livestock health problems are a responsibility of the affected producer but for a range of reasons many are reluctant to pay for animal health services and in general have little interest in increasing their use of veterinary services. However, they want private practitioners to be available in case they are needed should there be an outbreak of an emergency animal disease. Some submissions from practices advised they have some clients who are only interested in veterinarians performing essential clinical work and feel that such attitudes have been reinforced by the reduction in free government services.

While these views appear to relate to all types of livestock production they were more obvious in the grazing industries where producers were reportedly reluctant to use paid veterinary services let alone those of strategic value that could assist health and production. This contrasted with the intensive industries where there was comparatively good acceptance of the value of strategic advisory services and where those that used them were more profitable as a result. This was particularly noticeable in the dairy industry.

The livestock industry peak councils also want a high level of assurance that emergency animal diseases will be detected early and thus they seek increased surveillance capability. However, it was submitted that they do not readily recognise the importance of practitioners to such surveillance and the associated costs. Nor did they appear keen to contribute to the cost of such surveillance.

Some submissions felt that the industries should play a greater role in supporting rural veterinary practice by for example identifying areas that the industry thought should be serviced by a veterinarian, by providing career paths for veterinarians within their industries, scholarships to promote engagement and by having an input into the structure and content of information in the undergraduate curriculum that related to their industry. Other ideas on promoting engagement with the industries included improving the marketing to producers of strategic veterinary services, encouraging producers to discuss

with their veterinary practitioner the range of services that could be provided and by assisting in finding work experience for undergraduates. Some felt that rural communities should also be aware of the need to provide support to professionals entering their community and assist their general integration into the community.

Frawley concluded that Australian livestock producers make little use of the services of veterinarians and there were significant advantages in reversing this situation. This would improve disease surveillance, support Australia's animal health status and lift the productivity of the livestock industries. He found opportunities for rural veterinarians to widen their client base and provide professional advice on a whole herd/flock basis but noted veterinarians were not good marketers of their professional knowledge and skills. He proposed several ways to increase veterinary coverage including an increased role for private practitioners in disease surveillance, producer organisations more actively promoting quality assurance programs and linking such plans to surveillance and payments to veterinarians for health information; and for the AVA to prepare a special marketing campaign to assist members promote their services.

### **Alternative Models and Expanding the Scope of Rural Practice**

Frawley found rural mixed practice generally comprised small practices with relatively low income, poor profitability and low capitalisation and concluded this model resulted in inefficient service delivery. He also noted the growing number of paraprofessionals who perform routine procedures traditionally the domain of veterinarians and that rapid advances in technology and increased availability of drugs also reduced the demand for traditional veterinary services and placed the traditional model under severe stress. Given none of the factors discussed above are likely to disappear, Frawley felt a new model of rural practice was required that would result in better economic returns and working conditions. He felt rural practices needed to become larger, multi-person and multi-skilled as well as service wider areas to obtain the flexibility and income needed to be able to update equipment and facilities, and attract and retain staff and allow an expansion of the scope of a practice.

While the proposed development of new practice models is important, successful adoption depends on geographical location, size and nature of a practice. It is also likely to require a significant broadening of skills. Much of the advice to producers on animal health and production follows access to farms for routine procedures so successful expansion requires maintaining both types of services. Pregnancy diagnosis for example, facilitates opportunities to monitor reproductive performance, calving management and genetic improvement.

Building on these opportunities and providing programs to support practice and keep veterinarians in rural areas was the basis for many submissions. However most accepted that this was a complex issue and that first there had to be meaningful work. Many suggestions were made for ways in which the traditional role of rural practice could be expanded to include involvement in a strategic or whole of farm approach directed at improving herd health and production by monitoring and benchmarking. This includes

activities such as parasite control including chemical residue control programs, reproductive management, preventative medicine including mastitis management and milk quality control, lameness prevention and feedlot production medicine.

In some rural areas, greater involvement of practitioners in roles traditionally the province of government veterinarians would provide efficiencies and support the viability of rural practice. Some proposed an even more flexible approach to servicing the animal health needs of producers by considering job sharing between the state government and rural practices.

### **Utilising paraprofessionals and working with other professionals in rural practice**

Frawley found considerable scope for veterinarians, paraprofessionals and professionals in allied fields to work more cooperatively and closely as this could free veterinarians to undertake more specialised tasks and expand the opportunities for veterinarians and agricultural scientists to broaden the focus of mixed practice and potentially establish joint farm consultancy practices. He proposed the veterinary profession should promote such new models and that rural practices should become larger multi-person, multi-skilled practices that actively promote their skills to animal production enterprises and service larger areas.

Mutual benefits were identified where veterinary practitioners worked as part of multi-disciplinary teams with other professionals such as agronomists and economists to improve animal health and provide other farm advice. If practices were to amalgamate this would facilitate specialisation and the multi-disciplinary approaches become more practical.

Advice was provided to Frawley that some producers favour the training and accreditation of lay persons in some routine procedures as a way of reducing costs. However, without care in implementation such a step could reduce veterinarians access to farms to give advice, detect problems and improve health and production and has implications for disease surveillance.

The Review received a range of other views on working with paraprofessionals in rural practice. While some felt that an increase in paraprofessionals had contributed in part to the existing problems and had made it harder for veterinarians to gain entry to farms and maintain contact with their clients and animals, others favoured development and widening of the role of nurses and animal technicians to operate in a broadly based service providing services such as blood testing, reproduction programs including bull testing, pregnancy diagnosis, cattle spaying and artificial insemination. Frawley noted that in WA nurses are registered with the Veterinary Surgeons' Board and can legally undertake a wider range of procedures compared to the other jurisdictions. An accreditation system that would allow paraprofessionals with animal technician training (including nurses) to provide basic diagnostics, surgical care and emergency care without direct veterinary supervision could support greater use of paraprofessionals and support veterinary practice.

Some felt that paraprofessionals could be especially valuable where the workload is high and sustained as a practice could provide a broader and more integrated service that could free up veterinarian time for more strategic advisory work and career development. However, in such a role paraprofessionals would need to be appropriately authorised and accredited. Their use would also have implications for the legal liability for procedures on animals, recognition of exotic and emerging diseases and for farm animal welfare.

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## CONTEMPORARY PERSPECTIVE

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### ***Current status of Australasian veterinary school training related to rural practice***

#### **Murdoch University, School of Veterinary and Biomedical Sciences<sup>3</sup>**

“The course at Murdoch is designed as a double degree and offers the breadth and depth to graduate with the Day One Competencies required by the RCVS. Students are required to undertake two separate periods of extramural work. During years 2 and 3 students experience a range of farming activities through the **Vacation Farm Experience** during vacation and study breaks for at least a total of 5.4 weeks. This enables a “grass roots” look at farming enterprises through working alongside the producers. This is a valuable insight for city students into country life as it is an opportunity to understand farming and the social and economic environment in which farming occurs and to develop the animal handling skills expected.

A further 10 weeks of **Extramural Practical work** is expected in various fields of Veterinary Science between 3<sup>rd</sup> and 5<sup>th</sup> year. The objectives are to gain practical experience and insight into practice dynamics and economics, client-patient-practitioner interaction, and to experience a variety of veterinary pursuits to allow them career direction. A minimum of 2 weeks is spent in equine and/or mixed practice and another 3 week block in the area of the student’s own choice. From 2007 a unit, Veterinary Professional Life, was established to flow from year one through all years of the course to expose students to as many aspects of life in veterinary practice as possible. This unit incorporates opportunities to experience first hand a variety of veterinary situations including practice from the first year of the course.

**Veterinary Practice Management** in 5<sup>th</sup> year provides students with professional knowledge and skills to prepare them for the transition into veterinary practice and for the first three years as an employed veterinarian. Many external lecturers present topics ranging from time management, taxation, client communication skills, legislation matters and career development. This diverse range of talks includes presentations from rural veterinarians from other states eg NSW & SA.

As part of the final weeks of 5<sup>th</sup> year, students are offered the choice of further study in a particular area of interest in **Special Assignments Unit**. This assignment is of 3 week duration and consists of lectures, practical work, clinical practice and self-instruction. Several students have used this time to experience a range of rural practices – including international experiences.

#### **Student groups:**

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<sup>3</sup> Information provided by Professor John Edwards

Over the last couple of years there has been growth in special interest groups among the students. Students have diverse interests and the groups formed include a wildlife, equine, porcine and cattle group with discussions underway to establish a practice management group.

The **Equine group** has been organised by the students to have experience of a wide range of extracurricular activities with strong support of the Equine Veterinarians of Australia and a **Cattle Group** has been formed and offers experience in activities including preparation of cattle for show, meat judging, visiting feedlots, extra calving and pregnancy testing experience.

### **Veterinary Leadership Experience (VLE):**

In recent years staff and students have travelled to the United States to participate in the AVMA Veterinary Leadership Experience co-ordinated through by Washington State University College of Veterinary Medicine and supported by Hill's Pet Nutrition, AVMA and industry. In 2007 two staff and four students participated in VLE.

### **Richard Lee-Gray Memorial Prize for the most promising rural practitioner:**

This monetary prize was established in memory of Richard Lee-Gray by his classmates and is awarded on Registration Day to a graduating student who shows the greatest potential for success as a rural practitioner.

### **Hill's Career talks:**

During lunchtime talks are organised by the student representatives of companies such as Hills Pet Nutrition to give students the opportunity to discover life in variety of veterinary career paths.

### **AVA WA Division:**

Opportunities for students to mix with practising vets are vitally important to ease the students into the profession. Several opportunities occur such as AVA WA Practitioners seminars, CVE courses, and local AVA Special Interest Groups functions such as cattle vets Happy Hour. There are some difficulties in holding functions on campus at the current time however these are critical opportunities for the students to mix with the profession. Waiting until they graduate will keep them isolated and it is important that at graduation they feel part of the profession.

In WA, the AVA has an active mentor scheme for New Graduates. It works because AVA volunteer organisers are keen and enthusiastic. Murdoch provides assistance in facilitating opportunities for the 5<sup>th</sup> year students to hear about the mentor scheme and the collection of contact details for the allocation of mentors. Activities to allow the students and the mentors to mix are encouraged. The current role of the mentor is a contact point



for the new graduate should they require advice, veterinary or personal. At this stage the structure ensures contact is open and it is a responsive approach rather than offering career guidance or continuing education direction.

### **AVA Murdoch Trade Fair**

In September each year the students and the practitioners of WA are invited to the AVA Murdoch Trade Fair which provides an opportunity for the students to mingle with the profession and the trade. The focus in 2007 is to encourage interaction between the profession and the graduating class.”

### **University of Sydney, Faculty of Veterinary Science<sup>4</sup>**

A flexible and adaptive curriculum has been designed to fit the changing needs in veterinary education. The curriculum is enquiry-based and research led, with a strong emphasis on developing a range of generic graduate attributes. Life-long learning skills are embedded in the curriculum allowing adaptability for students post graduation. A set of principles and practices that underpin learning and teaching within the Faculty contribute to the provision of a first-class veterinary education and ensure students are prepared for life after graduation in whichever endeavour within veterinary science they may choose.

The Faculty is committed to the development of a learning community that has an atmosphere of intellectual excitement and is research-led. Teaching material is organised to demonstrate how the basic and paraclinical sciences are applicable to veterinary practice with delivery frequently based around clinical cases and methods of dealing with real-life veterinary problems emphasised. A strong emphasis on animal handling skills is incorporated into the competency driven curriculum.

The Faculty has adopted the series of “Essential Clinical Competencies required of the New Veterinary Graduate” as outlined by the Education Strategy Steering Group of the RCVS with the “day one skills” integrated into clinical teaching in Years 4 and 5 and competency in these techniques assessed during this period. A number of the skills listed in the “Essential Competencies required after approximately one year of further Professional Training” are addressed within the clinical curriculum.

Extramural animal husbandry placements aim to develop many of these attributes and in particular those relating to Animal Management and Professional Practice. Specific aims are: to enable students to master animal handling and manipulative techniques, to introduce students to activities in the various animal industries and practical management problems and to develop effective professional standards of behaviour and to develop effective working relationships with members of the (rural) community engaged in the animal industries. The minimum period of extramural experience in animal husbandry is 25 days (horses: 5 days; dairy cattle: 5 days; beef cattle: 5 days; sheep: 5 days; pigs: 3

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<sup>4</sup> Information provided by Professor Leo Jeffcott

days; poultry: 2 days) and students may only commence this work after successful completion of Year 2. An additional 4 weeks of work may be performed at the student's discretion, e.g. brushing up particular animal skills, work with wildlife, at veterinary clinics, etc.

During Year 5 each student (intern) must complete at least 5 extramural rotations in addition to 4 intramural rotations (9 units of study). A minimum of 2 of the external and 1 of the internal rotations (increased to 2 in 2009) is focused on large or production animals. At these Extramural Practices students encounter a wide range of disease conditions in production animals, and gain insight into how these are managed by veterinarians operating in different roles at local, regional and state levels. Students experience veterinary public health issues hands-on during their rotations at the University Clinics and at Partner Clinics. In particular, 2 extramural rotations – Rural Mixed Practice-2 and Rural Public Practice - provide students with an opportunity to apply and enhance their VPH knowledge and skills to real-life situations affecting animals, livestock producers and the community.

Professional development occurs throughout the curriculum through the Professional Practice units of study. Professional Practice 2 focuses on veterinary practice management and this is enhanced through continued Education Support Practice visits. Professional Practice 3 provides students with a understanding of financial and legal perspectives in their management of cases through a variety of scenarios typical of veterinary practice life. Finally, Preparation for Veterinary Practice in Year 4 provides a vital introduction to the transition to Year 5 and veterinary practice.

The Faculty has established a number of important contacts with outside groups that support undergraduate teaching including arrangements with a wide variety of farms and studs and a strong relationship in general with the veterinary profession through a Partner Practice program. Many local practitioners participate in this program, together with veterinarians from around Australia.

In 2000 the Faculty implemented a new curriculum which has now been in place for all 5 years of the degree since 2004. One of the major driving philosophies of the curriculum review was greater integration of topics within the curriculum, and a need for more contextual learning. The Faculty committed to earlier introduction of units of study that cover animal behaviour, animal handling skills, clinical problems and diseases and the vertical integration of these of concepts throughout the curriculum. In addition, new topics were introduced that deal with some of the core elements of veterinary practice, such as communication and business skills. Finally, the Faculty committed to ensuring a better transition to veterinary practice by implementing a lecture free final year with significant intramural and extramural components.

The majority of practical, hands-on clinical experience is provided during Year 5 placements (5 placements of 24 days including 2 in rural practice and 2 electives) which on the basis of face-to-face teaching time currently represent 35% of the curriculum. From 2009, this will be increased to 38%. Clinical instruction and practice during the

final year of the curriculum is achieved through a program of intramural and extramural rotations. The program encourages final year students to take responsibility for their learning and offers opportunities in a wide range of career options as well as in-depth experience in companion and production animal practice settings.

Supervising practitioners are also provided with this material via the “Educational Partners” website, hard copies of intern handbooks and Faculty correspondence. In addition, an annual “Partners in Veterinary Education Conference” is organised by the Faculty to update practitioners on changes to the program and gather feedback. Supervising practitioners are also encouraged to discuss expectations, requirements and intern defined learning outcomes during clinical rotations.

The Faculty maintains two specialist veterinary teaching hospitals, the University Veterinary Centres at Sydney (UVCS) and Camden (UVCC). These centres aim to provide quality care for large and small animals, excellent clinical instruction for veterinary students and internationally recognised clinical research.

The Bovine and Small Ruminants Unit at the UVCC services the University and commercial dairies, including herd health programs, providing ample teaching opportunities. The regional practice comprises herd health and intensive production animal management as well as routine work on small farms and rural acreages. There is adequate access to other production animal species including sheep, goats and the occasional pig. A strength of this service is that interns get ample practical instruction in pregnancy diagnosis, assisted calving, Caesarean section and other routine surgical procedures. Interns participating in the Bovine Service are heavily involved with the history taking, animal handling, clinical procedures and data collection for herd health or individual animals. The service is primarily ambulatory and cases or herd visits are discussed during transit to and from the farm.

The purpose of this clinical training program is to better prepare graduates for veterinary practice through the final transition year. Feedback from students during final year and in exit surveys as well as feedback from intramural and extramural supervisors supports the achievement of this goal. The main challenges for the program relate to the availability of resources as the cost of clinical teaching is a continuing difficulty for the Faculty and the program has added significant administration costs. For students, the costs of accommodation travel and decreased opportunities for work during final year are a continual difficulty. Ultimately, the complementary program of extramural rotations relies upon sustaining the goodwill of the profession and successful partnerships with industry.

These challenges are being met through a number of initiatives and opportunities. There is continued interest in sponsorship of benefits to Educational Partners and a number of organisations are providing scholarships and awards for final year students due to increased awareness of the problems faced by students. The number of Educational Partners however continues to increase and the program is attracting greater interest from overseas organisations hopeful of employing our graduates.

The importance of establishing a validated survey, supported with selected interviews and focus groups to monitor graduates experiences of the transition to practice, career development, satisfaction and longevity in the veterinary profession has been recognised. The 2005 graduates of the new curriculum have already been part of an intensive study of their final year and new graduate experiences and will be the first year to be surveyed, most likely at 3, 5, 10 and 20 years after graduation.

The Faculty's mentoring program has been voluntary driven by graduate needs and a more intensive, structured mentoring program for students in final year rotations and new graduates is under consideration.

### **Massey University, College of Veterinary Medicine<sup>5</sup>**

*Preceptorship and externship* programmes are undertaken as practical work experience with farmers and 'seeing practice' with veterinarians. They are compulsory requirements for completion of the degree. A set of guidelines and regulations regarding practical work is made available to students in the Practical Work Handbook.

The practical work required by Regulation 1(c) for the BVSc course regulations, is not less than 14 weeks practical farm work and not less than 6 weeks veterinary practical work during years 3 and 4 of the programme. There is a further requirement for 2 weeks of dairy cattle practice in the Spring of 4<sup>th</sup> year, 7 weeks of veterinary practical work in 5<sup>th</sup> year and 1 week of meat processing experience as a part of Veterinary Public Health requirements in 5<sup>th</sup> year.

The aim of the practical farm work is to give some experience in animal production, and familiarity with the environment of farming. The students are expected to obtain varied experience, particularly with sheep, horses, beef and dairy cattle. They are required to carry out their work on approved farms, to supply satisfactory reports, and to provide certificates from employers stating the periods of employment.

The veterinary practical work provides experience of veterinary practice and the disease control and meat hygiene activities of Government Regulatory Authorities. The students are required to carry out this work at approved places and to provide certificates from suitable persons stating the periods spent in each class of work.

*Contracted clinical teaching* is used to supplement the clinical instruction available through the Veterinary Teaching Hospital. The contracted clinical teaching contrasts to the 'seeing veterinary practice' experience described above in that it is a learning outcome-driven (i.e. learning outcomes are agreed in advance), structured, educational programme including assessment. The veterinary practices are paid for their teaching services and there are regular meetings between veterinarians from the practice and IVABS staff. Student experience at the practices is assessed formally (interviews and

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<sup>5</sup> Information provided by Professor Norm Williamson

surveys) and informally (student feedback to clinical staff). Students may spend up to 2 weeks of their final year at each of these practices. Please see Section 5.5 for more information.

### **Ambulatory (Production Animal) Service**

Production animal case load is provided through:

- The “Farm Service Clinic” of the VTH, whose main function is to provide primary accession services to local dairy herds
- Animal Health and Sheep and Beef rosters, which provide primary accession (e.g. service testing of bulls) and referral (e.g. parasite resistance problems), services to dairy, sheep, beef and deer herds/flocks; together with exposure to pig herds
- Contracted externships with two mixed (predominantly farm-animal) practices
- The 12 weeks spent in extramural studies in Years 3-5 of the programme
- The 2 weeks spent in the spring (August) of Year 4 undertaking extramural study in dairy practices (to provide them with experience in obstetrics and peri-partum disorders of dairy cows)

The ambulatory service of the VTH provides a first-line ambulatory veterinary service to about 60 dairy farms (15,000 cows), 25 sheep and beef farms (40,000 sheep and 3,000 cattle, respectively) and 2 deer farms (500 deer). The sheep, beef and deer farms are predominantly serviced by staff teaching the clinical rosters that underpin the herd/flock programmes of the Veterinary Teaching Hospital (see section 5.3 below). The dairy work, both individual animal and herd investigations, is predominantly handled by the “Farm Service” clinicians. These clinicians also contribute to the planned dairy health programmes along with staff teaching the Animal Health roster (see below).

In recent years, the caseload of the Farm Service clinic has been modestly increasing. Various steps have been undertaken to ensure the caseload is adequate for educational purposes. These include a significant expansion of the case-based tutorial time (to gain better educational value from each clinical case), successful changes led by the current Farm Service Chief to improve the competitiveness of the practice and its ‘service ethic’, an expansion of the Herd Health programme, introduction of a free transport service to bring sick cattle to the VTH, and the introduction of a rebate scheme and a “patrons’ seminar day” for farmers making a significant contribution to our teaching programme.

To supplement the cases seen through Massey’s ambulatory clinic, contracted externships have been set up with two, large, multi-centre clinics in the Waikato region. These practices, work predominantly with production animals (mainly dairy) and have very substantial case loads. These take students at busy times of year (i.e. autumn, when herds are being pregnancy tested and dried off; and spring, when herds are calving). The cases seen by students at these practices are mainly primary accessions, that are augmented by herd health visits and tutorials in production animal/preventative medicine practice on each day of the externship.

## **Herd and Flock Health Programmes**

The Herd and Flock Health programmes conducted by the Institute occur in the fifth year of the curriculum. The programme is compulsory for all students as part of the core rosters but students who follow mixed or production animal tracks undertake a more extensive programme. Herd and flock health are primarily taught by way of two clinical rosters (the “Animal Health roster” and the “Sheep and Beef roster”) aspects of which are conducted during different seasons to ensure the seasonality of the farming system is understood by the students. The Herd and Flock health programmes are described in Chapter 8.

## **Practical Work and Extramural Requirements**

The clinical training that students receive at the VTH in their 5<sup>th</sup> year is augmented by extramural practical work requirements. The farm practical work includes at least 4 weeks on a commercial sheep farm, 4 weeks on a commercial dairy farm and 3 weeks of equine stable, stud or farrier work and up to 3 weeks work in piggeries, poultry units, zoos or other livestock units. Clinical extramural study (seeing practice) in the 3<sup>rd</sup> and 4<sup>th</sup> year must include at least 6 weeks supervised practical experience in not less than two veterinary practices one of which must be a large animal/rural New Zealand practice. Extramural study in the clinical rosters must include two weeks dairy practice during the spring of Year 4 and seven weeks supervised practical experience in not less than two veterinary practices during 5<sup>th</sup> year (one of which must be a large animal/rural New Zealand practice). The numbers of patients seen by each student during their veterinary practical work are not recorded.

## **Contracted Teaching Practices (Externships)**

The Institute has successfully used contracted teaching practices over the last three years to augment the clinical training provided by the VTH. These experiences have been very well received by the students. Four leading veterinary practices have been selected to be part of this programme. The goals of the contracted teaching programme were to:

- improve the number and variety of first-opinion companion animal, equine and production animal clinical cases available for veterinary student learning
- increase the exposure of veterinary students to leading rural private practices to help inspire students about rural veterinary careers
- increase the influence of leading practitioners on student learning to demonstrate the high standards that can be achieved in private practice and to educate the students in the practical realities of day-to-day practice

Students spend up to 2 weeks at each practice in numbers ranging from one to five students at any one time. The responsibilities of all parties (students, University and practice) are clarified in a written contract. The provisions of the contract include the agreed learning outcomes, supervision, assessment and financial arrangements. A

standard teaching contract will be available to the site team in the supplemental documents available on site.

The adequacy of the education provided at the practices is reviewed through student feedback surveys and focus groups. Suggestions for improvement are fed back to the practices at meetings. Meetings to debrief the preceding teaching period and to plan for the forthcoming period are held once or twice a year with each practice. These meetings may include structured sessions on teaching-skill development.

Students are provided with a skills book that they have signed off for both production and companion animals that lists skills and techniques defined by the special interest branches of the NZVA as core skills and are required to compile evidence of having completed these skills by getting them signed off.

### **University of Melbourne, Faculty of Veterinary Science**

The BVSc degree at the University of Melbourne is a four year undergraduate course. A small number of students are accepted into the veterinary course direct from secondary school, but the majority of students enter after at least one year of tertiary education in which they have undertaken approved prerequisite subjects. (Students entering directly from secondary school undertake the equivalent of a first year BSc course prior to their four years of BVSc so, regardless of route of entry, all students complete the same curriculum.)

The curriculum consists of two years of preclinical training based in Parkville. The curriculum at this stage is initially targeted towards an understanding of the structure and function of the normal animal (anatomy, physiology, biochemistry, pharmacology etc), and then an understanding of animal systems (agricultural systems) and an introduction into health and disease (parasitology, microbiology, introductory clinical sciences etc).

For the last two years of the course students are based at the clinical centre at Werribee (30 minutes drive from Parkville). During these years the course concentrates on the student's understanding of health and disease orientated around either individual body systems or individual species.

The philosophy of the entire course is to provide each student with a sound understanding of fundamental principles of veterinary science and clinical medicine in all species. While the course in its latter stages is heavily focussed on clinical practice, this is built on a foundation of a good understanding of basic veterinary sciences.

In addition to lectures and practical classes on animal husbandry, all students are required to complete 12 weeks of extramural experience in animal husbandry during their first two years in the veterinary course. Students are expected to gain experience across the range of animal industries (cattle, sheep, horses, poultry etc). Students are required to document their experiences and submit this to staff for review and assessment.

During the final two years students must complete 13 weeks of extramural clinical experience within accredited veterinary practices (known as “Academic Associates”). Many of the Academic Associate practices are located in rural or regional Victoria and provide students with excellent exposure to rural practice. Students are expected to gain experience in a range of practice types (urban and rural). Within the 13 weeks, at least one of the weeks must be at the University’s Rural Veterinary Unit in Maffra. (The University retains a tutor who works in clinical practice within the Maffra Veterinary Centre.)

The veterinary school at Werribee has a large and active equine hospital. Students spend two weeks rostered into this section of the hospital, closely involved in the diagnosis, treatment and management of medical and surgical cases (including after hours responsibilities). There is very little bovine clinical caseload around Werribee (as the campus has been engulfed in urban sprawl) but a herd of 10 – 50 cattle is kept on site and used for hands-on cattle teaching (handling experience for junior years, clinical procedures and pregnancy testing for senior years).

Students receive formal training in basic practice management during their third year course, provided by an external lecturer, as lectures and small group tutorials. Economics and business management is also discussed within the context of agricultural production systems curriculum.

The University has a very active herd/flock health program operating on a commercial basis through the Mackinnon Project at Werribee. Staff members of the Mackinnon project provide some of the formal curriculum (lectures and tutorials) and students are also able to attend farm visits with Mackinnon Project consultants as part of their agricultural animal rotations in third and fourth years.

For many years the University has also run a “Practitioner in Residence” program in which fourth year students have close interaction with an experienced practitioner. The range of topics covered in this program varies a little from year to year (depending on the background of the practitioner) but cover many aspects of professional life and practice.

In recent years the veterinary curriculum has been substantially restructured to allow the second semester of final year to be ‘lecture free’. During this semester, students undertake up to four elective placements in veterinary practices or other professional settings (diagnostic or research laboratories, zoos etc). Students have had all their formal training by this stage. These placements act as a transition period between undergraduate and graduate.

One of the most active student groups within the veterinary school is the Bovine Appreciation Group. A highlight of this group’s activities is the annual BAG Dinner, held in the second half of the year, when students (of all years) who are contemplating rural practice as a potential career path are able to meet and chat with invited rural practitioners. This has been a very successful event in recent years, encouraging students to consider rural practice as a career.



It is an important aspect of teaching that the majority of teaching staff have had experience working in private practice. During tutorials these staff are able to broaden discussion beyond clinical medicine into aspects of rural practice as appropriate.

### **University of Queensland, Faculty of Natural Resources, Agriculture and Veterinary Science, School of Veterinary Science**

The School of Veterinary Science at the University of Queensland (UQ) has a staff establishment of 100 and operates the Pastoral Veterinary Centre at Goondiwindi (350 km from St. Lucia campus), the farm animal practice at Dayboro (50 km from campus) and shares facilities at the Gatton Campus (160 km from campus) and the Pinjarra Hills farm.

Veterinary Science students must complete at least 8 weeks vacation practical work prior to commencement of 4th year. A minimum of 3 weeks is required on an extensive animal enterprise (2 weeks beef, 1 week sheep or vice versa) and a minimum 3 weeks on an intensive animal enterprise (1 week dairy, 1 week horses and others - pigs, poultry and goats). A minimum 2 additional weeks on one or two of the above type properties or on other animal enterprises such as deer, fish, wildlife park, kennel or cattery. Limits on the size of enterprises are set to ensure that a property of adequate commercial size and specialisation is selected.

The first of two 4 week periods of rural practice is divided onto two parts, for the first 3 weeks the group is divided into 3 sections – one spends a week in an abattoir, one a week (full 7 days) at Dayboro and one clinical skills practicals at Pinjarra Hills and Gatton. The 4th week does tutorials and problem solving sessions at St Lucia, C-section and cattle anaesthesia practicals at Pinjarra Hills and the clinical viva at Gatton on the last day. In the second 4 week period, half the group goes to the Pastoral Veterinary Centre for 2 weeks and the other half spends 2 weeks in a rural practice chosen from a list of co-operating practices located throughout Australia, chosen on the basis of agreement to ensure that students visiting their practice achieve a set of learning outcomes.

Vacation Practical Work of 8 weeks is also important and in order to gain a broad cross section of experience students are encouraged to plan a mixture of small and large animal or companion and pastoral animal experience. It includes 2 weeks at the Veterinary Teaching Hospital, a maximum of 2 weeks at any one practice, 4 weeks must involve small animals experience and 4 weeks must involve large animals experience and a maximum of 2 weeks in small animals and a maximum of 2 weeks in large animals can be undertaken outside Australia. Other exceptions may apply.

While working in Small Animal Clinic and Hospital in 4th year vacation practical work and 5th year Small Animal Clinics students are required to undertake two weeks of intern duty (in groups of four students/week) that cover the after hours treatments of hospitalised patients.

A list of common veterinary and husbandry procedures is provided to students at the beginning of 5th year and students endeavour to ensure that they are capable of adequately carrying out the majority of listed procedures.

A final year course (Practice management and professional life) is designed to equip students with non-technical competencies linked to professional success as a veterinary practitioner and to ease entry into clinical practice. It focuses on the professional roles and responsibilities of veterinarians to each other, our clients and the community as a whole. In addition, competencies associated with individual success within this industry are explored. Although a general approach to this material is taken, these concepts are applicable to a rural veterinary setting, and compliments technical rural veterinary competencies specifically developed in concurrent courses

### **Charles Sturt and James Cook Universities**

These two universities have veterinary schools established in 2005 and 2006 respectively and will not graduate any veterinary students until 2010. They have both established selection processes, veterinary curricula and extra mural work placements that focus on their graduates being suitable for careers in the livestock industries. They thus present a new perspective on undergraduate selection and preparation for rural practice that while untested, appears to have great potential to resolve many of the problems identified with existing rural veterinary services.

### **Charles Sturt University, School of Agriculture and Veterinary Sciences**

The School of Agricultural and Veterinary Sciences teaches courses and conducts research in fields such as agribusiness, agriculture, agronomy, livestock production, animal science, equine science, horticulture, irrigation, and veterinary science. The BVSc is a six-year double degree program designed to develop skills in the diagnosis and management of disease in all common species of farm animals (cattle, sheep, pigs, poultry and fish) and companion animals (horses, dogs, cats, and others).

To gain entry to the course, applicants are required to demonstrate:

- a high level of academic ability through previous studies
- an interest in, and commitment to, rural Australia, veterinary science and animal production
- an understanding of the unique ethical and practical issues that confront veterinarians involved with rural practice and animal production
- the capacity to communicate effectively both orally and in writing

Subsequent research<sup>6</sup> indicates that these selection criteria have resulted in the selection of students who at least plan to enter rural practice and to remain for at least 10 years with no students from CSU indicating an intention to enter companion animal practice.

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<sup>6</sup> Heath et al (2006)

To capitalise on the particular aptitude, skills and knowledge for working in the farm animal industries, the structure of the CSU course provides a solid grounding in agricultural production systems and the integration of nutrition, genetics, economics and epidemiology into the management of herds and flocks. The course recognises the role of veterinarians in ensuring the safety of animal products for human consumption and the welfare of animals in livestock production systems and also develops a range of life and business skills to help graduates work as rural veterinarians.

Training in the early years emphasises analytical skills and develops practical skills in computing, communication (both oral and written), business acumen and the use and critical analysis of published literature. First year students also study animal behaviour and welfare and how to handle animals and a subject called veterinary practice 1, which develops learning, communication and animal handling skills, and supervises attendance at veterinary practices in the region for workplace experience in common with all years in the course.

Some subjects are studied with students of agriculture, animal science, equine science or biomedical sciences, giving students a broad exposure to the university, other students and their interests. In year two, in addition to veterinary pre-clinical subjects, the study of animal production systems focusing on beef cattle, dairy cattle and sheep is continued and the development of life and professional skills in veterinary practice extended. Year two students are also introduced to some practical veterinary skills such as manual pregnancy diagnosis of cows and equine dentistry.

Extra-mural studies are completed during the University vacation time in years one to five and in the first three years is carried out on farms and in the later years in clinical practice and professional settings. At all levels of the course some time is spent in veterinary practices, providing a link between theory and its application in professional practice. Regular visits are made to veterinary practices to prepare for formal training in clinical subjects which commences in year four.

In year five, formal instruction will prepare students for off campus work placements comprising a series of ten external clinical rotations which will include equine, small animal, farm animal and other workplaces, some of which are elective and will allow students to pursue their special interests. This will include an option of experience in research training and conducting a small research project. Clinical rotations continue into year six.

### **James Cook University, School of Veterinary and Biomedical Sciences**

The School of Veterinary and Biomedical Sciences within James Cook University (JCU) has a staff of around 40 academics and researchers and has research expertise in tropical animal science, veterinary science, medical laboratory science and applied microbiology and food microbiology. The five year BVSC degree program was introduced in 2006 and will allow students to acquire the knowledge and skills to diagnose, treat and prevent disease in a wide range of animals including companion animals, farm animals, aquatic

species and native fauna and will capitalise on the university's knowledge of animal production systems, particularly tropical animal husbandry and aquaculture.

The first three years of the program focus mainly on the foundation knowledge necessary to underpin further professional studies but with an early introduction to the veterinary profession through profession-specific subjects in Levels 1, 2 and 3. Level 1 of the program has a high degree of commonality with the Bachelor of Tropical Agricultural Science degree program within the Faculty of Science, Engineering and Information Technology. Levels 2, 3 and 4 of the program will focus on developing the knowledge base and basic clinical skills in an integrated format, while Level 5 will be a lecture free year devoted entirely to clinical and professional training.

JCU's unique location plus the University's strengths in microbiology and medicine offer excellent facilities and opportunities for veterinary science students to gain practical experience throughout their studies.

Clinical placements form a key component of the course, utilising the university's facilities at Townsville, the Atherton Tableland, Mackay, Cairns and research cattle station, plus farms, veterinary hospitals and practices, and government agencies within the region.

The final year of the course will be devoted to clinical and professional training and delivered by a series of clinical rotations through veterinary hospitals, practices, laboratories and government agencies in Mackay, Townsville, Cairns, Charters Towers and Malanda.

### ***Post graduate continuing professional development relevant to rural practitioners***

The following description is intentionally restricted to programs relevant to new graduates or those early in their professional careers and thus does not consider formal training programs leading to university post graduate qualifications.

#### **Post Graduate Foundation in Veterinary Science University of Sydney**

The Post Graduate Foundation in Veterinary Science (PGF) has to varying extents provided post graduate support for rural practitioners for 40 years based on demand and the availability of funding. This has included continuing educational programs as well as selling a variety of publications that include Course Proceedings, Vade Meca, Perspectives, Monographs, Reviews, one-off texts and "Control and Therapies". Recently this has also included veterinary nurse education as well as on-selling books from outside publishers such as Teton New Media and Blackwell and encouragement for interactive information-sharing.

While the continuing educational programs are increasingly targeted at companion animal practice this does not entirely exclude the interests of rural practices as there has been increasingly interest by rural practitioners in upgrade their companion animal skills. Other services for production animals are variable and depend on the geographical region. The PGF is currently developing some new forms of Distance Education that can be better accessed by time-poor rural practitioners and that will compliment the face-to-face courses (conferences, Time-Out seminars and workshops) run in various cities around Australia, as well as occasionally in New Zealand and Hong Kong. These courses are supported on the WebCT platform and termed "TimeOnLines" and are essentially short on-line seminar-length courses that, face to face, would occupy a weekend maximum but which are set on-line for 6 week stretches to give busy practitioners or those with slow or unreliable internet connections an opportunity to log on at their own pace over the 6 week period. They are interactive but not necessarily interactive in real-time. There are discussion forums and self-assessment questions and quizzes plus access to the tutor who heads each one up for the entire 6 week period. The subjects thus far are in Arthritis, Wildlife, and hopefully soon anaesthesia and pain management, Avian, Rabbits and Rodents.

However, the costs to set-up these courses are very high and there is a limit to the rate of their production depending on the availability of funding and willingness of tutors to write the courses. The aim is to create about three new courses per year with equine reproduction, dermatology, dairy cattle medicine and dairy practice management in the pipeline.

The PGF is a subscriber-funded organisation and as such tends to respond to what the membership requests, allocating funding to those providing support while recognising that this doesn't always fit with the needs of rural veterinarians. When possible they do subsidise the rural sector from funds received from more solvent companion animal practitioners. Feedback indicates which services are of the greatest value and the PGF is concerned at the lack of interest in courses that are expensive to deliver such as equine dentistry and cattle and sheep pathology workshops and conferences. As a result it is not inclined to continue such courses on a regular basis.

While interested in finding a way to better address the needs of rural practitioners by perhaps re-engineering the style and presentation modes of such courses, the PGF also recognises that the Special Interest Groups of the AVA and the Australian College of Veterinary Scientists provide substantial conference-type continuing veterinary education (CVE) material that tends to address rural veterinary issues and practitioner's needs for face to face, networking and social needs. Notwithstanding this, the PGF is keen to investigate more combined conference and funding opportunities that might provide alternative pathways to sustainable partnerships.

### **Murdoch University, Office of Continuing Veterinary Education**

The Office of CVE is component of the School of Veterinary and Biomedical Science and provides non-award CVE such as face to face one day courses or evening seminars in

WA, SA and NT. It offers its courses to all veterinarians and promotes them on the webpage and by post to all registered veterinarians in these states. It does not run courses longer than a weekend and while its role in any Murdoch Masters programs has been unclear but is expected to be clarified.

The Office does not offer any distance courses although veterinarians can enrol for a single unit of the Masters program. (Currently Small Animal, Veterinary Surveillance, Conservation Medicine). CVE provided to regional veterinarians is mainly through Rounds around the state videoconferences every second month (5 times a year), although the topics requested have been predominantly small animal topics. At least one regional CVE event is held each year such as a Surgery afternoon in Bunbury or radiology in Geraldton. This year the surgery team will do at least 3 trips.

There is local competition for the programs from wholesalers and Perth surgery specialists other than Murdoch who may provide regional CVE as an evening or weekend talk.

### **Australian College of Veterinary Scientists**

The Australian College of Veterinary Scientists (ACVSC) (and its production animal members) noted an apparent disparity between the number of members/fellows in companion and production animal subjects but felt this was an aberration and that proportionally more in rural than in small animal practice attempted membership examinations.

A major issue that affects interest in the College membership examinations is that especially for cattle veterinarians there is a perception the qualification does not assist careers or incomes. There is also a difference from small animal practice in that referral practices where those with higher qualifications may work, are not a feature. Other contributing factors to the perceived lack of interest include changes in the industries, the wide range of professional interests of veterinary practitioners in rural practice and the alternative opportunities for CPD provided especially by the Australian Cattle Veterinarians (ACV) and Australian Sheep Veterinarians (ASV). The nature of these SIGs may also be such that they better serve the social/fellowship interests of rural practitioners.

A major problem in stimulating interest in cattle and sheep subjects at the Fellowship level has been the registration requirements for veterinary specialisation that effectively exclude cattle and sheep practitioners who cannot fulfil the minimum contact requirements of 76 weeks. A committee has been established to develop a revised process that will fit better with rural practice including improved electronic communication, group supervisors and reduced contact time. The examination process would be used to ensure that those seeking Fellowship attained a standard equivalent to that of international accreditation authorities.

## **AVA Vet Ed Program**

This program is included here as it is one of the major ways in which the profession records the effort applied to CVE. The AVA expects all its members to engage in continuing education activities to ensure the maintenance of the highest professional standards and the AVA Vet Ed continuing education scheme has an objective *"to be the provider of the pre-eminent continuing education scheme to enhance the quality of the professional services provided by A VA members"*.

The Vet Ed scheme is voluntary and uses a system of continuing education (CE) points that can be achieved through various learning activities. In order to have points recorded, members provide evidence of learning to the AVA to record. AVA Vet Ed is designed to assist members to maintain appropriate CE records and learning can be pursued at home, in the city or the country, alone or with others, in or outside of working hours. Whatever activities are undertaken in order to further professional competence as part of a planned development program can be counted towards AVA Vet Ed points. This includes courses and seminars offered by AVA or other external providers, informal networks or group learning activities and in-house training or mentoring arrangements. Private, self-directed learning such as keeping up with *Australian Veterinary Journal* articles can also be incorporated and research and clinical audit activities that add to professional development can be used if there is accounting for how they contributed to personal learning.

Completion of 120 AVA Vet Ed points within a triennium (three year period) entitles members to use the post-nominal - Chartered Member AVA (CMAVA) that can be used to market themselves as a professional who is maintaining high quality standards in their field of endeavour.

## ***Other initiatives of the profession to assist new graduates***

The veterinary profession has recognised many of the problems involved in the transition of veterinary graduates into practice in general, but also issues specific to rural practice and developed programs to help address them. The result has been a series of activities and specific programs designed to ease the transition period by actively encouraging mentoring of new graduates and developing appropriate support networks.

## **AVA New Graduate Friendly Practice Accreditation Program**

The objective of the AVA New Graduate Friendly Practice (NGFP) Accreditation Program is to ease new graduates' transition into practice and support them during their formative years recognising their importance to the future of the veterinary profession. It is based on the premises that employing a new graduate carries responsibilities and requires greater input from a practice than the employment of an experienced graduate; and that not all practices have the resources to employ and properly support a new graduate.

Recognised benefits that flow from positive new graduate support include:

- *The employer can train the new graduate to appropriate practice culture and standards. Direct gains result for the practice if the graduate progresses to partnership within the practice, or returns to the practice in later years.*
- *New graduates have recently been exposed to the newest knowledge, techniques and trends through their veterinary education. The fresh outlook, new knowledge and process improvements that a new graduate can bring to a practice are considerable.*
- *Good support during a new graduate's formative years benefits the profession as a whole. Graduates nurtured during the first year in practice tend to be more positive toward the profession and tend to be better trained and skilled than those receiving little support.*
- *Properly nurtured graduates provide positive role-models for younger veterinarians who follow in their place. This process is self-perpetuating and to the obvious benefit of the profession.*
- *New graduates who have received good support are also important from a succession planning perspective. New graduates who are happier and more positive towards the profession are more likely to remain in the profession.*

Three key factors have been identified as contributing towards a new graduate's satisfaction in their workplace; a supportive and encouraging boss, reasonable working hours and conditions, and the ability to develop and maintain personal contacts for friendship and support. The new graduate's workplace clearly has a significant impact on the first two factors.

*“A good boss will be supportive and fair and encourage the new graduate to learn and become progressively independent. They will promote a high standard of professional work, ethics and interpersonal interactions, develop a comfortable working relationship and ensure the Award is adhered to and all veterinarians are subject to reasonable working hours and conditions”.*

The program increases employer awareness of the needs of new graduates, provides a logo for NGFP accredited practices to market them, actively promotes NGFP accredited practices to new graduates and current students and recognises NGFP accredited practices in appropriate AVA forums (Australian Veterinary Journal, AVA E-line, AVA Web Site etc). It provides new graduates with increased awareness of their employment needs and their impact on a practice, equips them with the tools to make better employment choices and promotes the value of new graduates to the veterinary profession and NGFPs to students.

The program is supported by administrative tools including a *NGFP Practice Checklist* that assist the practice assess itself as complying with the program requirements, a *New Graduate Assessment Form* that two new graduates must independently complete and provide to the AVA, and a *NGFP Practice Process Form* that the AVA uses to manage



the required accreditation process. The specific requirements of both practices and new graduates are provided in Appendix XX.

In August 2007, 21 practices across Australia with a high proportion of rural practices were accredited under the program with reportedly an additional 2 per month joining.

### **AVA New Graduate Support Programs**

The AVA has a program of Post Graduate Support Seminars with multiple objectives of providing an opportunity for new and recent graduates to assess their work conditions, learn techniques for work/life balance, communication with work colleagues and clients, grief and financial management. They can also discuss openly and freely without fear of retribution their feelings and experiences in practice and access effective practical techniques for self preservation in the veterinary profession.

The program established by the WA Division of the AVA is used here as an example of such programs conducted by some other Divisions. The program in WA is available to both members and non-members of the AVA although graduates are strongly encouraged to join the AVA.

The WA Graduate Support Scheme (Appendix 4) was established in 1996 to ease the transition for veterinary graduates from university to professional life by providing a more formalised channel of support through experienced veterinarians. Experience had indicated that most graduates with problems were likely to encounter them in their first three to four months of employment. As a result the WA Division holds a “Graduates in Practice” seminar in conjunction with Murdoch Alumni in April each year to provide an opportunity for new graduates to catch up with classmates, meet their mentors and share collective experiences. Informative speakers are provided to discuss ways to make transition into employment easier and an example of the nature of such assistance is provided in a program attached as Appendix 5. Other social and information events are held throughout the year to provide ongoing support.

The nature of such support takes several forms. Practical assistance in diagnosis or management of cases, assistance to resolve practice problems such as employee/employer relationships or identifying areas stressful situations requiring support, providing a sympathetic ear and providing a conduit for more difficult problems to be channelled to an appropriate professional counsellor.

### **Mentoring of New Graduates**

While there is a current plan being developed by the AVA’s Membership Strategy Committee to centralise its mentoring activities, the only specific information on mentoring programs provided to this investigation relates to the WA New Graduate Support Scheme and a report by on that program by the previous coordinator, Dr Paul Davies to the AVA National Office. The Veterinary Faculty at the University of Sydney

has voluntary mentoring program driven by graduate needs and a more intensive, structured mentoring program for students in final year rotations and new graduates is under consideration. Reportedly UQ also conduct mentoring programs but little specific information has been provided.

The (WA) Graduate Support Scheme helps ease the transition for veterinary graduates from university to professional life by providing a more formalised channel of support through experienced veterinarians. Mentors are chosen from veterinarians with significant experience who are not too far removed from the age group graduates are most likely to identify with. Each participating graduate is provided with the contact details for a mentor veterinary surgeon. Both parties are encouraged to make contact and maintain that throughout the year.

WA experience indicates that most graduates who encounter problems do so in their first three to four months of employment and hence the “Graduates in Practice” seminar held in conjunction with Murdoch Alumni in April that provides an opportunity to catch up with classmates, meet mentors and share collective experiences.

The aim of the mentoring scheme is to provide independent, confidential and caring professional and social support to practising veterinary surgeons, and in particular recent graduates. This can provide practical support in the way of outside advice in the diagnosis or management of cases and help to identify areas where support in stressful situations within the practice would be of assistance and to address any other practice problems.

The mentor can also provide a sympathetic ear where a graduate may find that their chosen career can be a lot more stressful and hard to cope with than they imagined. More difficult problems are directed to an appropriate professional counsellor such as via the AVA Telephone Counselling Service.

The graduate support scheme is made available to all newly graduated veterinary surgeons in WA and is used as an example of how the AVA assists the profession and graduates are encouraged to join.

Dr Davies report provides a number of insights into the practicalities of managing a mentoring scheme for new graduates and makes several recommendations on improving the scheme. Given recent wide interest in a mentoring scheme for new graduates interested in rural practice (See page 42: Academy of Rural Veterinarians), several of these are examined here.

The current selection of mentors is largely informal via AVA networks and coordinators personal knowledge or recommendations of other mentors with limited opportunities for training, development and on-going support. As pointed out by Dr Davies, this is inconsistent with the increasing level of responsibility and the litigious nature of the community. Combined with the apparent lack of resources provided by the AVA to

develop the program it also suggests a lack of proper consideration of the role of mentor and the potential for adverse effects that could arise.

Maintaining an appropriate relationship between mentor and graduate is seen as the key issue in determining the success of the WA mentoring program and the following suggestions were made by Dr Davies.

- *If possible, mentors need to meet students on a number of occasions PRIOR to being assigned.*
- *Providing students with education in what a mentor-mentored relationship entails would help strengthen this bond and make it more immediately functional*
- *Students need the opportunity to choose their mentor*
- *Further opportunities need to be provided for mentor and graduate to meet (and for that matter, graduates to catch up with their classmates) after graduation.*
- *The program needs to be flexible to account for the different personalities of people involved.*
- *Mentors need ongoing education on how to maximize the value of the relationship*
- *Boundaries need to be set “terminating” the official component of the program.*

There are a range of other human resource management issues associated with the mentoring program including recognition of the work of mentors and the processes to assign them that suggest considerable care is needed to ensure that while appropriate support is provided by the mentor, the mentor and the Association are not exposed to unacceptable risk.

Interestingly, while most impending graduates indicate they would like to have a mentor, reportedly about 50% do not maintain contact. While this may, as pointed out, be because they have found alternate support mechanisms, lack of information on the operational effectiveness of the program currently makes effective management impossible.

### **AVA HR Advisory Service**

The AVA Members Human Resource (HR) Advisory Service is designed to meet the specific needs of veterinarians who are members of the AVA and offers access to information and practical advice from a team of human resource and industrial relations experts on all facets of contemporary human resource management and industrial relations.

Confidential advice can be provided in a broad range of areas from improving staff productivity, understanding legislation, interview skills, career development, contract review and advice on Occupational Health & Safety. The program commenced at the end of 2006 and is accessed via a free call number (1300 788 977)

Although actual data on usage is not available the service has reportedly proved popular.

## **AVA Telephone Counselling Service**

The AVA Telephone Counselling Service commenced in 2007 and provides fully qualified male and female professional counsellors who provide unbiased strategies and ideas to help members of the AVA deal with their problems. Discussing problems with an AVA Telephone counsellor can help identify and resolve issues that may be causing difficulty, especially where a member may be feeling stressed or overwhelmed with work or personal commitments and not know what to do or who to talk to.

The AVA has contracted a company with 46 years experience in counselling to provide the service and follow-up face to face counselling at city and country locations throughout Australia. This is another free call service (1800 337 068).

## **Special Interest Group Support Programs**

The AVA Special Interest Groups (SIGs) with the closest relationship to rural mixed practice have several initiatives designed to attract students and develop their interest in production animals and help retain veterinarians with such interest in rural areas.

The ACV offered the first Rural Practice Scholarship in 2001 offering up to \$5000 for a bovine project that would help build a young veterinarian's career and in 2002 Coopers (the rural arm of international research and development pharmaceutical company Schering Plough), joined the "ACV partner plan" and provided sponsorship support that doubled the funds available from 2002. In 2004, the unused balance of funds was used to provide several young veterinarians with complimentary registration at the ACV conference and "at cost" registration to any veterinary students who wished to attend and assistance with accommodation. These young veterinarians formed strong bonds with their peers at this conference and subsequently formed an informal young cattle practitioners' peer network. It is hoped to expand and formalise this group in the near future. To access the incentives it was necessary to become a member of this group and as a result ACV recent graduate membership numbers increased dramatically. The ACV also provides financial assistance to speakers at ACV conferences and in 2006 called for papers from young veterinarians who were under seven years from graduation to present case studies or other papers at that year's program. The ACV offers concessional registration to students and new grads wishing to attend the annual ACV conference.

Another initiative has been the formation by a group of veterinary students interested in cattle medicine of the university Bovine Appreciation Groups (BAG). The ACV supports the group by providing funding for refreshments at functions and speakers who present aspects of rural and cattle practice to the students. Students build relationships with each other and with ACV members and this helps develop an association with the ACV and its leaders. Having ACV members address the group and offering avenues for communication and support also helps to allay any concerns students may have about entering rural veterinary practice.

The ACV also provides an annual prize at each university for students in an area of bovine medicine with a focus on the practical cattle medicine aspect of the course. Winners of this award from 1999 to 2005 have remained in rural practice.

The ASV has created the Hugh Gordon Scholarship that annually offers \$2000 for CPD to assist young veterinarians enter sheep practice. In 2006 at the ASV conference was held near CSU and the ASV offered reduced conference registration to veterinary students to allow students to mix with current rural practitioners and to build relationships with them.

The Australian Reproduction Veterinarians (ARV) has also encouraged the attendance of students and young graduates at their conferences. Applications are sought from interested individuals and the ARV offers complimentary registration and assists them with their costs. The majority of assisted students and graduates have subsequently entered practices specialising in artificial reproduction.

### **The BJ Lawrence Veterinary Career Support Program (2000)**

The BJ Lawrence bequest has been used in Western Australia since 1986 to fund the *BJ Lawrence Veterinarian in Residence*. This was awarded to Dr Paul Davey in 2005 for a project with two aims relevant to this report, to examine the need for ongoing veterinary undergraduate and graduate career support and if required to seek sustainable support, infrastructure and funding; and; to create a sustainable method of gathering information on undergraduate expectations and educational perspectives that could be compared with their actual career paths and achievements.

The first phase involved interviewing undergraduates from each undergraduate year both singly and in groups to determine their views on their chosen career. An independent stand-alone website was set up to enable students to communicate to one another and comment on-line on various issues related to the program's scope. Phase two involved establishing a series of brief informal presentations from a range of veterinarians and other professionals to highlight the many and varied career opportunities for graduates of the Murdoch Veterinary School. Phase three was planned to create an ongoing method of measurement such as a survey so the School could assess the quality of education provided and its appropriateness to rural practice. This proved to be a significant hurdle both in gaining approval and in developing a suitable survey document.

These components were based on the precept that the veterinary community has a very poor understanding of the market's requirement for veterinary services with little data on where and how veterinary graduates choose to work. A second aim was to enhance the support and information services already offered to under-graduates and new graduates and gather information that would be invaluable to the profession in making ongoing decisions regarding curriculum, resources and market opportunities.

Specifically, information was to be sought in the following areas:

- 1) *Initial career aspirations of undergraduates – where do they see themselves post-graduation?*
- 2) *Initial perceptions of their undergraduate training – is it appropriate for their perceived needs?*
- 3) *Peer and mentor support as undergraduates – is it adequate for the intensity of the course?*
- 4) *Do any of these perceptions change over the duration of the course?*
- 5) *Career opportunities – are undergraduates offered enough diversity in career options post-graduation?*
- 6) *Post-graduate Support- is this adequate for their needs?*
- 7) *Post-graduate competencies – are veterinary graduates adequately prepared for practice?*
- 8) *Post-graduate career paths – do they end up where they expected? Are there enough career options? Are there job shortage pressures?*
- 9) *Mental, physical and emotional health. How does this change from first year, to fifth year, to new graduate and beyond?*
- 10) *Job security and satisfaction. Do they earn what they expect? Is it adequate compensation? Do they plan to stay on their chosen career path?*

Key outcomes to date (2006) are outlined as:

- Construction of a purpose-made website dedicated for use by individual year groups to enable discussion and improved communication within the year-group.
- Establishment of closer ties between the AVA, Murdoch administration and students group.
- Identification of key issues in the education strategy, career expectations and readiness for practice of the average Murdoch veterinary graduate.
  - Need for more “real practice” experience earlier in course,
  - More contact with “real” veterinarians, again - earlier,
  - Concerns regarding gender-related challenges in the workplace,
  - Concerns regarding levels of support through the transition to practice,
  - Lack of information about alternative career paths,
  - Lack of structure to veterinary practice placements
- Identification of a suitable model for ongoing assessment of educational outcomes and career pathways.

Issues identified as requiring additional work were:

- implementation of a longitudinal study involving students and graduates looking at career paths and educational outcomes.
- ongoing promotion and maintenance of the dedicated website.
- Increasing social opportunities for undergraduates and opportunities to mingle with experienced vets.

- Development of ongoing relationships between Murdoch staff, students, AVA, VSB and the AVBC.

## **Internship Programs**

While there are no current internship programs applying to rural practice, the following programs were recently proposed or implemented and as they have features relevant to addressing issues raised later in this report a description is included here.

### **WA Vet Internship pilot Program (WA Division AVA)**

In 2002 the concept of an internship was considered by members of the AVA (WA Division) with the cooperation of Murdoch University Veterinary School, the Veterinary Surgeon's Board and rural veterinarians to provide a mechanism that:

- *encourages newly graduated veterinarians to seek rural employment;*
- *provides adequate support for the newly graduated veterinarians in their first 12 months out, through a very stressful and difficult period which aims to reduce drop out from the profession, particularly in the rural sector;*
- *encourages ongoing education and training for graduate and employer alike, directed towards production animal management and exotic disease control in addition to other business issues related to working in a practice such as computer use, customer relations etc;*
- *financially supports the owners of practices providing this proposed level of support by contributing part of the recently employed new graduate's salary; and*
- *encourages newly graduated veterinarians to stay within Western Australia.*

The proposed pilot scheme was initiated prior to the release of the Frawley Report and involved \$16,000 salary support for six months and educational, emotional and life-skill support strategies lasting for 12 months. Five internships were proposed and were to be only available for Country locations more than 100 kilometres from Perth. Both the practice owner and potential intern were to be AVA members and required to conform to a set of commitments (Appendix 6). Web site support and marketing of internships to students was to be administered by Murdoch University.

The WA Division of the AVA was to provide ongoing administration of the pilot internship program including liaising with practices to ensure all conditions of the program were being adhered and to determine the success of the placement and program.

Unfortunately this program did not proceed as the required annual funding of \$60,000 could not be found. Principal proponent of the internship program, Dr Paul Davey, believes the concept remains sound and could be modified into a 1-2 year voluntary program.

## **AQIS Rural Veterinary Scholarships**

The four year Australian Quarantine and Inspection Service (AQIS) Rural Veterinary Bonded Scholarship Program announced in 2002 aimed to increase the number of veterinarians in rural veterinary practice by providing selected undergraduates with the opportunity to combine paid employment in their field of study with their final year tertiary commitments and year of initial employment. The five successful scholarship holders announced each year received \$10,000 at the start of their final academic year, and a further \$15,000 on the successful completion of the work experience program.

While working in a selected rural veterinary practice, on-the-job development involved spending four to six weeks at a combination of government agencies. Scholarship holders also undertook a professional development program to enhance their understanding of animal health issues while a mentoring scheme ensured regular liaison with a more senior veterinary officer to share professional skills and experience.

The AQIS initiative confirmed the WA research that had identified an urgent need to support new veterinary graduates in rural practice; however, program funding was only available for four years and on review it was no longer seen as an efficient way to address the problems identified in the Frawley Report.

## **Australian Veterinary Practice Management Association**

The Australian Veterinary Practice Management Association (AVPMA) is a special interest group of the AVA committed to the improvement of veterinary practice management through the promotion and development of it as a legitimate discipline and worthwhile veterinary activity. Its mission is:

*To enhance quality of life in Australian Veterinary Practices, by enabling AVPMA members to develop personal skills in veterinary practice management and by providing resources and networks that enhance veterinary practice management through knowledge sharing and knowledge creation and through the fostering of relationships and personal support that comes from belonging to the association.*

The AVPMA evolved from a group originally formed in response to the Veterinary Surgeons Award case. The association's focus has expanded considerably since its inception and membership numbers continue to grow rapidly, with over 650 members. The association is focussed on delivering quality service to its members who come from rural, suburban and city locations and represent companion, mixed and large animal practices.

The AVPMA's Aims and Objectives are to improve the standard of veterinary practice management, particularly in the areas of human resources, business management, marketing, industrial relations, finance and strategic and operational management; and to increase awareness of management issues and improvement of management standards through providing information and educational opportunities,



being a resource centre and support group, acting as an advocate for members, and liaising with other relevant organisations.

The AVPMA has delivered seminars in regional and rural areas throughout Australia for the last 3 years and will continue to do so. A Summer Series of seminars occurs in seven locations each year and focuses on practice management techniques that are applicable to a wide variety of practices where owners are open to change. The group also organise and deliver a range of small seminars at various branches of the AVA and facilitate a stream at the AVA National conference, in addition to their own 3 day stand-alone event.

The Diploma in Practice Management which is available as a distance delivery course via the University of New England is actively promoted. The AVPMA also provides members with a range of tools that aid in improving performance and understanding of business principles that are available on line as well as in hard copy.

The AVPMA believes that a focus on education is the key to long term change in the veterinary profession to move practitioners from a focus on day to day issues to a wide view of their business environment.

### **Additional Resources to Assist New Graduates**

Two initiatives designed to assist the transition of new veterinary graduates into the workforce are mentioned here. Others may be found following a more in-depth search for such information but these serve to illustrate the nature of readily available information not mentioned elsewhere in this report.

#### **Ten tips to ease the transition from student to veterinarian.**

This “Short Contribution” to the Australian Veterinary Journal<sup>7</sup> was developed from the comments of recent graduates of the Queensland Veterinary School and their employers and subjected to numerous drafts prior to publication. It comprises two pages of condensed advice provided by as ten “tips” to help graduates minimise the effects of stress in their transition to life as a veterinarian.

#### **BVSx – Beginning Veterinary Success**

This 99 page manual was compiled in 2007 by Drs Eric Allan and Oliver Wilkinson as part of the Practitioners in Residence Scheme of the University of Melbourne Veterinary Clinic and Hospital. Many others made contributions. Funding for the Practitioner in Residence Scheme is provided by a range of sponsors including the Melbourne Metropolitan Practitioners Branch of the AVA.

The manual provides practical advice and suggestions to new graduates arranged as a series of chapters on: *selecting the right practice, CV/resume writing and job*

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<sup>7</sup> Heath (2000)

*applications, top 10 practical tips, communication skills, grief and euthanasia, stress management, career and life balance, locuming in the UK and thoughts and advice from last years graduates.* A number of appendices support the above topics.

## ***International Perspectives***

### **United States**

Information in this section has been obtained from several sources and is not intended to provide a comprehensive picture of all activities but serve as an overview of some of the programs and activities that operate in the US. The first section concerning US internship programs is a direct quotation from a WA Report<sup>8</sup> and was referred to the AMVA to ensure it retained a current perspective.

“The United States has similar difficulties in attracting and retaining vets in rural areas.

Dr Rosemary LoGiudice, American Veterinary Medical Association, notes in correspondence with us that "Many of the work related issues you mention are truly globally related to the practice of veterinary medicine, especially the seasonal items of lambing, calving, foaling, etc. [this relating to the long hours required during such times].

Most of the veterinary schools/colleges in the US hope to determine during the admissions process that the applicants are aware of the demands of our profession. Most of the institutions require that the applicants have had experience in veterinary medicine as student assistants, kennel help, etc., in the belief that the student applicant will have some knowledge of the requirements in the area of veterinary medicine in which they are interested at the time.

Interests do change during the student's veterinary education, and encouragement is made at the institutions for the students to get "hands on" experience in the area(s) of interest while still in school. Information on how to gain this experience is usually made available to the students through the Associate or Assistant Deans for Student or Academic Affairs at the institutions."

Dr Rosemary LoGiudice also advised that the National Veterinary Medical Services Act (NVMSA) became law (Public Law Number 108-161) in December 2003. This was formerly known as the Veterinary Health Enhancement Act until March 2003. The act provides for student loan repayment for veterinarians agreeing to work for a specified period of time in areas of the US that are underserved by veterinarians. (Further and ongoing information is available on this Act at the American Veterinary Medical Association web-site, [www.avma.org](http://www.avma.org)).

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<sup>8</sup> Business Horizons (2003)

There is also work in the US being undertaken to improve the economic base of the profession by the National Commission on Veterinary Economic Issues (NCVEI). Information on that work and plans for the future can be found at [www.ncvei.org](http://www.ncvei.org). Further, there is also a US intern programme. Internships and residencies and the associated matching programme (ie. matching of interns with employers) are managed by the American Association of Veterinary Clinicians (AAVC).

Tom King from the AAVC advises that their association is involved in the matching of interns with employers, but that the internships themselves are offered, and their conditions established, by the various employer organisations offering internships. Usually, these positions are paid, but generally at a lower rate than for other vets that may be employed at the practice. Some institutions do offer unpaid internships. The individual programme or institution providing the internship determines the salary offered for each position.

No incentives are paid to institutions or private hospitals to offer internships. Those institutions pay to have their programme listed in the Veterinary Internship and Residency Matching Programme (VIRMP) run by the AAVC.

It appears that the incentive to offer internships is that the employer gains a fully qualified veterinarian at a less expensive rate. In return, people apply for intern positions as an internship offers a chance to learn different areas of medicine and presumably therefore provides them with a competitive edge over those not granted an internship position. There are approximately as many private practice internships offered as there are academic institution internships.

Further information on the American Internship programme and internships offered is available at [www.virmp.org](http://www.virmp.org). A useful tool found on that site is a questionnaire that is completed by those organisations offering internships that provides details of the organisation, staffing (including numbers of qualified veterinarians), types of duties/work conducted at the practice and experience likely to be gained by the graduate, equipment available, working hours and other information that may be relevant to an intern looking to select an employer.”

### **Academy of Rural Veterinarians**

The Academy of Rural Veterinarians (ARV) is a group of concerned rural practitioners keen to ensure that US veterinary students recognise that rural practice is a viable career alternative that offers personal, professional and financial rewards. To accomplish their mission they:

- 1. Make regular visits to the veterinary colleges and give presentations about the rich variety of possibilities a career in the country can offer. A vital part of the visit will be question and answer sessions in which we will be able to interact on a first hand level with students and simultaneously educate students and become informed ourselves about issues students feel are important.*

2. *Mentor students interested in rural practice both via the use of our website as a communication medium and personally through arranged clinic visits and other means of communication.*
3. *Recruit like-minded rural veterinarians who like what they do and are willing to offer themselves as student mentors and make visits to their alma maters to participate in student presentations.*
4. *Widen the audience. Encourage all rural veterinarians to become positive role models in their communities and become engaged at the high-school level and earlier and participate in career days, 4-H, and other youth organizations.*

### ***Mentorship Program***

The ARV mentorship program provides a network of mentors to interact with students and at least one annual visit to each veterinary college by mentors to describe the program and advise on mentorship opportunities and present rural practice in a positive light to the student body. This is managed via a website database of motivated veterinarians willing to act as mentors that students can search and select practices/veterinarians that provide the types of opportunities they wish to explore. ARV mentors can seek mentees via the website and there can be a mentor-mentee matching service done at school meetings when students fill in a request form for mentorship and a mentor is assigned to contact that student where a student is shy about initiating first contact. Mentors are regularly provided with information to help them be effective mentors.

Travel and lodging expenses in lecturing are substantial and timing requires lecturers to be absent from their practices on weekdays resulting in a substantial loss of income to practitioners. Annual membership fees of \$100.00 per individual or \$150.00 per practice, regardless of the number of veterinarians in that practice help cover out-of-pocket expenses.

Students seek advice and contact mentors about summer jobs, externships, and associate positions. Mentees have access to a "Jobs" link to post positions available in participating practices at no charge. Mentors can send and receive e-mail with other ARV mentors on the Rural Vets List Server and are kept up to date with electronic newsletters and emails.

### ***Externship Program***

The ARV also has an externship assistance program available for veterinary students as part of a plan to promote rural lifestyle to veterinary students and awards financial assistance for two students of up to \$250/week, for a maximum of \$1000/student. The intent is to provide an opportunity to sway someone who is not sure about where they want to practice. The practice must have at least one ARV member and it must be a multi-species practice in a community in which agriculture is a major contributor to the economy, and/or a veterinary practice that is economically sustainable in that community.

The ARV provides an interesting model for Australia with some common features with existing initiatives but with a more proactive and positive focus on the advantages of rural practice and living in rural communities (“*The opportunities are endless*”). Dr Bob Gentry’s recent visit to Australia provided an opportunity for many rural veterinarians to hear the messages this group spreads including, “*We didn’t leave for the country to practice a lesser quality of medicine – rather we wanted to blend the quality of medicine we had been taught with a lifestyle we deserved*”. Members of the ARV strive to reach students at an early age and to take every opportunity for interaction with prospective veterinarians. This enthusiasm for their profession and commitment to imbue new graduates with aspirations for a career in rural areas has elements that could readily be adapted to existing mentoring schemes.

Dr Gentry also spoke about the difficulty of attracting veterinarians to rural practices that were financially struggling. He believed that fees needed to be raised to a level that provide an attractive lifestyle to owners and employees, and kept in line with inflation. In his experience this resulted in a loss of a small proportion of clients but an overall substantial increase in practice income, prosperity and enjoyment.

### **The Veterinary Training Program for Rural Kansas**

This recently introduced program is designed to increase the number of students entering rural veterinary medicine and provides for five graduates to receive up to \$20,000 per year for four years through the forgiveness of student loans while they practice in rural Kansas counties with 35,000 people or less. Kansas is the first state to allocate public funds to support a loan forgiveness program of this type.

The program was introduced to counter negative perceptions of the rural lifestyle that is exacerbated by perceived lower salaries and high student debt loans estimated at about \$122,000. The program also provides advanced training public health and the handling of emergencies.

### **Veterinary Public Health Workforce Expansion Act**

This Act was approved by the US Senate on July 23 2007 and authorises a competitive grants program to increase the capacity of the 23 US veterinary colleges to alleviate a critical shortage of veterinarians in public health and in rural areas. US veterinary medical colleges were found to not have the resources necessary to meet the demand for veterinarians who are vital to maintain public health preparedness.

The Association of American Veterinary Medical Colleges (AAVMC) worked closely with the AVMA, allied veterinary medical association groups, and industry and government partners to pass the legislation. Additional resources will be provided to entities offering residency training programs or academic programs that offer postgraduate training for veterinarians.

## Food Supply Veterinary Medicine Data Maps

The American Veterinary Medical Association (AVMA) has recognised that, *while our nation's food supply is one of the safest in the world, it is at risk because fewer veterinary school graduates are pursuing a career in food-animal veterinary medicine, and many aging practitioners are finding it difficult to hire help or sell their practice. Today, only about 17 percent of veterinarians work in food animal medicine, while more than 70 percent of veterinarians work with companion animals.*

In response the AVMA has recently developed (September 2007) a series of web pages - <http://www.avma.org/fsvm/default.asp> - dedicated to “Solving a Critical Shortage in Food Supply Veterinary Medicine”. These are based around “*food supply veterinary medicine data maps*” that provide a unique perspective on the state of food animal veterinary medicine and how a lack of practitioners is hitting some areas of the USA much harder than others. The maps are based on data from the AVMA and the US Department of Agriculture and highlight areas in each state where few, if any, food animal veterinarians reside or have a practice located. It also identifies counties where veterinarians may be located but their numbers are insufficient to support the concentration of food animals located in that area.

This initiative is expected to provide a valuable resource for legislators, educators and veterinarians interested in the challenges involved in keeping food animals and the food supply healthy and safe and was made possible via a coalition of many veterinary medical professionals from public, private, industrial, and academic sectors.

## New Zealand

Information in this section has been obtained primarily from a WA Report<sup>9</sup> and the first section is a direct quotation from that report. The content was referred to the NZVA to ensure it retained a current perspective.

“The consultants wrote to the NZ Veterinary Association indicating that it would appear that, amongst other factors, the following issues affected the ability to attract and keep vets in rural practice:

- A lack of guidance for new vets wishing to establish themselves in country practices;
- Potentially unrealistic expectations about what being a vet in country practice entails;
- The isolation of such practices (especially from other practitioners who may be able to provide advice, assistance or just share their experience);
- Little business or interpersonal training to accompany their vet training;
- Long hours during peak seasons (for example, during lambing/calving time);
- Relatively low salaries hindered by the unwillingness of farmers to spend large amounts on income producing animals.

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<sup>9</sup> Business Horizons (2003)

The reply received from Murray Gibb, CEO, NZ Veterinary Association, indicates that:

"The litany of possible causes of a reluctance of veterinarians to enter a rural practice strikes an absolutely familiar chord here. There is a shortage of veterinarians in New Zealand generally, but more particularly in rural practice. We believe the reasons for reluctance on the part of veterinarians to enter rural practice matches those you describe in your communication".

Murray Gibb also indicated that there was not any internship type programmes at all for new graduates at this stage in New Zealand. However, to address some of the issues raised, the following services were provided to assist in the transition from student to practice:

**Prelude to Practice** - A 1½ day seminar held in September each year for 5<sup>th</sup> year vet students prior to graduation. This seminar covers issues including:

- Client expectations
- Real life practical experiences
- Financial life
- Getting started in employment
- Employer expectations of new graduates in clinical practice
- Becoming a professional
- Where to get help

As part of the *Prelude to Practice* programme, in March each year the 5<sup>th</sup> year vet students also receive instruction on preparation of a curriculum vitae and employment contract negotiation.

### **Mentor scheme**

All new graduate members of the NZVA are given the opportunity to be matched up with a mentor (an experienced vet who works in a similar locality, but different practice). Surveys indicate that this is only variably successful in assisting new graduates.

### **In Practice**

A short session designed as a debriefing to support new graduates on the day prior to graduation (generally not more than 6 months after completing their Bachelor in Veterinary Science).

It covers such issues as looking after your mental and physical health and includes presentations and a panel discussion of the following questions:

1. How much of your life does your boss really own?
2. Who do you talk to about your day's work with regards to client confidentiality, ie is it ok to talk to your flatmates as long as names aren't mentioned?
3. Who do you ring when you need help after hours? For example, an extra pair of hands or for more experience?

4. The speed in which you carry out consults, whilst being methodical (as Massey teaches you) - impossible?
5. How do we handle quotes - when surgery ends up costing more than quoted - who pays the difference?
6. Where to get help - personal and professional?
7. How do we deal with bad payers (who act sincere and promise prompt payment, but end up in debt collection)?
8. How do we deal with difficult clients?
9. Coping when things go wrong
10. How do we deal with clients/counsel clients for animal deaths / euthanasia?

### **Veterinary Practice Standards Scheme**

This scheme sets standards for facilities and services offered by veterinary practices, with the object of improving veterinary facilities and services. Accredited practices are subject to external audit and are required to provide an appropriately supportive environment for new graduates at a critical stage in their careers.

This would appear to match with the AVA "new graduate friendly" practice scheme in some respects.

### **Informal Support**

The NZVA offers informal support for new graduates through its regional branches and National Office, as the AVA does.

### **Vets in Stress Scheme**

A 24/7/365 freephone manned by trained counsellors engaged by a commercial service provider - available to stressed vets via self referral or referral by colleagues. The first half hour of counselling is free to vets (financed by the NZVA and the NZ Veterinary Surgeons Board)."

### **Report on Rural Practice in New Zealand**

NZ has reportedly experienced rural practice issues that are similar to those experienced by the UK and Canada. New practice models for rural practice have been promoted via the NZVA and some amalgamation of new practices has occurred.

The NZVA recently commissioned a report into rural veterinary practice in NZ in the face of changes to the prescribing and dispensing of PARS (allowing non-veterinarians to dispense). This report is expected to be released soon.

### **Canada**

Recent Canadian work<sup>10</sup> examined the changing demographics of the veterinary profession in western Canada by surveying students and practicing veterinarians and

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<sup>10</sup> Dr Murray Jelinski (2007) Pers Comm



found a similar situation to Trevor Heath's research in Australia. In western Canada over 50% of graduates of the Western College of Veterinary Medicine are interested in a food animal oriented career (mixed or exclusively food animal), but within 2 years of graduation this decreases precipitously. When asked why they leave, the top three answers are: too many hours and too many nights on-call; lack of support and mentorship; and poor remuneration.

Dr Jelinski's view is that regardless of the jurisdiction the most important reason for leaving practice is the same – too many hours of work. While changing entrance requirements or curricula may mitigate some of the attrition these measures fail to address the fundamental issue of long working hours and he supports the use of paraprofessionals to perform task oriented work such as bull evaluations, pregnancy checking and many simple dystocias.

The Canadian province of Alberta has recently established its own veterinary college (University of Calgary) to resolve the issue of the shortage of food animal practitioners but does not yet know if they will receive accreditation allowing them to accept students next year. The veterinary school will provide research into the detection, containment and eradication of diseases that can spread from species to species and affect humans, prepare veterinary medical practitioners and researchers focused on food supply safety and specialise in producing large-animal veterinarians to address shortages in the province.

Other interesting observations were the logic of producing more veterinarians when there was an ever declining population of producers (and this observation is backed up by official data showing a glut of baby boomers about to retire with very little follow through of younger producers that will inevitably result in farm consolidation). Also, given there is little differentiation in wages between large animal and companion animal practitioners (at least in Canada), based on the principles of labour economics (supply and demand) the shortage is more of a perception than reality.

## **United Kingdom**

### **Royal College of Veterinary Surgeons**

The Royal College of Veterinary Surgeons (RCVS) has introduced from 2007 the Professional Development Phase (PDP)<sup>11</sup> that all new graduates will be required to complete. This aims *to provide a structure for new graduates to develop their professional and clinical skills, reflect on their progress and plan their future professional development.* The system will also be useful for veterinary surgeons returning to work after a career break or moving to a different area of work.

The scheme recognises that a new graduate's professional competence *needs to be further developed in a structured manner during the first year or so in practice until they can perform confidently as an effective professional.* Thus the scheme assists new graduates

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<sup>11</sup> Additional information on the PDP can be viewed on the RCVS website, [www.rcvs.org.uk](http://www.rcvs.org.uk)

move from the essential "Day One Competences" needed for safe practice immediately on graduation that are provided by their veterinary degree to "Year One Competences" developed by the RCVS that includes a list of clinical skills covering small animal, equine, and farm animal practice. The expectation is that a Year One graduate *"will be able to perform a range of common clinical procedures, or manage them without close supervision, in a reasonable period of time and with a high probability of a successful outcome"*.

The RCVS has developed a web-based database where new graduates can log their clinical skills and experience and this record helps them reflect on their development against the list of Year One Competences and assists discussions about their ongoing training needs with their employer. When the graduate believes that they have gained sufficient experience they submit a declaration to this effect to the RCVS and a senior colleague or other mentor in the practice confirms that there has been a discussion about their performance. The PDP database not only provides a record of clinical skills but allows benchmarking against others in their year group. From 2007, the PDP website will also have an on-line mentoring facility with an RCVS appointed postgraduate dean available online to provide guidance.

The PDP is supported by a Practice Standards Scheme whereby practices register and have to comply with a number of conditions including having appraisals and contracts which gain help to provide a support framework for new graduates. *PDP works best when the new graduate is supported by senior colleagues in practice, and when the new graduate is able to discuss their performance and development with their employer or other senior colleague.* RCVS recommends that *PDP should be built into practice appraisal systems so that the new graduate's professional development can be structured and focussed towards achieving the Year One Competences.*

### **British Veterinary Association**

The BVA has a number of initiatives to assist new veterinary graduates.

- The Young Vet Network (YVN) was launched on 23 May 2007 to provide additional support and services to BVA members in their final year and first 8 years after graduation. It incorporates many different elements including *The BVA New Graduate Guide* available free to all final year and new graduate members.
- Graduate representation on the BVA Council – two recent graduates now join the Council and have full access to all meetings and activities
- An online support network, where final year and graduate members are on hand to offer advice and support, answer questions, or even set up informal meetings with others in their areas.
- Useful advice on a dedicated section of the BVA website where members can click on the links to find advice on preparing a CV, writing applications, interviewing, job

hunting, first job, consultation process, managing complaints, insurance and financial advice and lifelong learning.

- A Graduate Support Scheme launched in March 2007 that is led by the regional divisions and is open to both members and non-members that are one to five years qualified. The BVA's divisions host the meetings but they are run by trained veterinary facilitators with the main aim of supporting new graduates and providing a forum where they can share their concerns. Attendance at these BVA regional support meetings for recent graduates attracts CPD points.

Other support provided in the UK includes a weekend course run by the Society of Practising Veterinary Surgeons (SPVS) for final year students to help prepare them for working life and let them know the pitfalls that may await them.

The UK also has a veterinary helpline that offers support for veterinarians with issues related to depression, drinking, drugs and a website provides supportive information and advice.

### ***Relevant Information from Recent Literature***

Survey work carried out by Trevor Heath continues to dominate information on the aspirations and careers of Australian veterinary graduates, the changing nature of rural mixed practice and the declining proportion of farm animal work. Recent published work on the longitudinal study of UQ students after 20 years provides important insights into the state of rural veterinary practice.

He found<sup>12</sup> that after 15 years, 85% of his sample of 134 graduates were in private practice in Australia and of these 75% only saw small animals and most saw no horses or farm animals and of those that did, they formed only 10% of their case load. Only 19% of those in practice were in mixed practice compared to 25 % 10 years after graduation (19% to 12% of the total sample). The importance of small animals to the economic success of mixed practices was marked, practitioners in small centres with populations <10,000 35% saw almost only dogs and cats, 40% no horses, 52% no cattle, 75% no sheep and 100% no pigs or poultry. The importance placed on farm animal work was even more startling when the average number of days worked each week was examined along with the distribution of each species in caseloads with 88% of the workload of those in practice devoted to dogs and cats, 6% to horse and 5% to farm animals.

This study did not examine the reasons for the move from rural mixed practice to small animal practice but the general reasons for the shift from “practice” per se were a result of wanting greater challenges, to undertake further study, poor remuneration, loss of interest in veterinary work and lack of career opportunities. Factors reported by those who left veterinary practice that resulted in a happier lifestyle included, *regular working*

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<sup>12</sup> Heath (2007) (1)

hours, better income, more predictable work and the absence of potentially stressful interactions with clients. These factors have all been associated with the adverse aspects of rural practice and it could be inferred from this assessment that they continue to have an important effects. Satisfaction with pay was a significant issue with 78% agreeing strongly with the statement that “*Considering all the factors associated with my work . . . my pay is low*” and for those working full time 75% of owners and 100% of employees agreed that their income was low.

In a second paper<sup>13</sup> examining family and gender issues of the cohort, issues relevant to rural practice found by Heath included 30% of males and 24% of females in smaller centres of < 10,000 people compared to 61% of males and 54% of females in centres > 100,000. There were no real differences between the proportions doing veterinary work after 15 years with 51% of males and 59% of females in private practice in Australia. 76% of the work of males in private practice and 88% of females was with small animals but these differences were not significant.

Significant differences between males and females with respect to earnings was found with the median income for all males being \$100,000 and for females \$68,000 and for male owners of practice, \$140,000 and for female owners \$76,000. More than 75% of the whole group agreed their income was low but there was a tendency for the level of agreement to be greater among females.

A third paper<sup>14</sup> examined the extent to which the career paths of veterinarians were related to whether they grew up on farms with animals. This assessment was directly related to concerns about maintaining effective services in rural areas and whether a background in the industries was more likely to result in a career in those industries. After 15 years, veterinarians from farms with animals had a different employment pattern from others and this was evident in several employment categories including working in mixed practice versus small animal practice. After 15 years 15% of those with a farm background were in mixed practice compared to 9% from other backgrounds and 38% from farms and 57% of others were in small animal practice. Veterinarians with a farm background were also more likely to be practice owners. Also 58% of those from farms lived in centres with < 10,000 people compared to 20% who had not. The change over time was marked with 83% from farms versus 55% from other backgrounds having their first job in mixed practice changing to 15% versus 9% after 15 years. While these differences were not significant they were consistent with the view that veterinarians with a farm background make a greater contribution to the livestock industries. However, importantly, the vast majority of the potential working time of all these veterinarians was directed at small animals and not farm animals.

The fact that most of those who started in mixed practice left over the following few years is important. Heath’s previous publications identified many reasons for leaving mixed practice including low income, the hours of work, after hours work and the

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<sup>13</sup> Heath (2007) (2)

<sup>14</sup> Heath (2007) (3)

associated lack of private time, as well as social and professional isolation and limitations in educational and medical facilities.

Heath's most recent publication<sup>15</sup> aimed to describe the location, type, support and effects of the first veterinary position for the graduates of 2005 and found that this cohort were *less likely than their predecessors to start in mixed practice or to work with cattle or horses*. He also found that more *were in small animal (48%) and less in mixed practice (48%) than in previous decades, and they spent more time (79%) with dogs and cats, and less with horse (9%) and cattle (8%), and other production animals (1%)*. The percentage in mixed practice varied from 39% for Sydney graduates to 56% for UQ graduates.

None of the respondents worked only with cattle or other production animals but 9% spent >30% of their time with cattle and the whole cohort of 214 respondents contributed the equivalent of 23 full time equivalents to work with cattle, 2.3 for sheep and 0.9 full time veterinarians for pigs and poultry.

The size of practice varied greatly with 12% working with one other veterinarian, 27% with 2, 41% with 3-5, 12% with 6-10 and 7% with > 10 veterinarians. No significant relationships were found between the number of veterinarians and the size of the centre, the State or veterinary school. Disadvantages of working in small practices were mentioned in comments to include more after hours work, *greater likelihood of being left alone and having fewer experienced veterinarians to learn from especially if those veterinarians had not kept up-to-date*.

Heath found that those in mixed practice had more after hours duty with 50% of mixed practitioners compared to 24% in small animal practice being on duty at least once every 3 days/weekend and on the opposite side, 8% in mixed practice having no after hours commitment compared to 40% of those in small animal practice.

The importance of a supportive employer for new graduates has been repeatedly raised in this report. Heath's report confirmed that while most employers were highly regarded there remain too many who do not provide a satisfactory level of support. While 45% found their boss excellent and a further 34% *very supportive*, 9% reported their boss as *moderately supportive* (given some opportunities to learn, not very satisfied), 7% described their boss as *not very supportive* (given little encouragement and few opportunities to learn, dissatisfied) and 2% found their boss was *not at all supportive*. He also found a close relationship between support from the boss and that from the workplace generally. A close relationship was also found between the level of support and the time spent in that job with all of those giving a score of *very dissatisfied* with either boss or workplace leaving within the first 12 months and 82% and 71% respectively of those who were *dissatisfied* with either boss or workplace also leaving within 12 months. A strong relationship was found between support provided by the boss and lay staff with 67% of those who strongly agreed that the boss took plenty of time with them also strongly agreed that they were well supported by staff.

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<sup>15</sup> Heath (2007) (4)

Whether employers provided a positive role model was assessed against a statement of, *“My boss demonstrated desirable ethical/professional standards”*. Three quarters of those surveyed strongly agreed or agreed *but one quarter were either neutral (11%), disagreed (9%) or strongly disagreed (5%)* and most of those bosses (over 50), *who were not seen to demonstrate desirable ethical and professional behaviours were also seen to be deficient in providing help and support*. No differences were found between mixed and small animal practices though those who worked in larger practices were more likely to report that their boss had desirable standards. The level of help and support from the boss figured prominently as a significant factor in the 75% of females and 57% of males reporting *significant and regular stress*. Other significant factors were the *balance between personal life and work* and perceptions of *adequacy of compensation*. A significant relationship was also found between stress and *my boss demonstrated desirable professional/ethical behaviour* and *the level of support from the workplace*. No significant relationship was found between the level of stress and the type or size of practice or the hours worked.

The proportion of time spent with the different species in mixed practice was similar to that found in 2000 but there was a decrease in the percentage of cattle seen by recent graduates since 1980 and a progressive increase in dog and cat work. *Until about 1970 recent graduates spent 40% or more of their time with cattle, but by 1980 this had decreased to 22%, and by 2000 to 11%. It was 8% for the graduates of 2005.*

Hours worked per week (apart from after hours) progressively decreased from 51 in 1970 to 43 in 2005 and the proportion rostered on no more frequently than one in three (1/3<sup>rd</sup>) increased to 2/3<sup>rd</sup> between 2000 and 2005.

Interestingly the level of support from boss and workplace that had deteriorated between 1950 and 1980 and then improved between 1990 and 2000 did not continue the trend of improved support between 2000 and 2005. While veterinarians graduating in 2000 had more positive attitudes to their initial experiences than those in previous decades this was not continued into the 2005 graduates. In Heath's view, most graduates enjoy *better support and lower stress than their counterparts* in previous decades but, *a significant number of them still do not receive the support necessary to make a smooth and effective transition to competent and confident veterinarian.*

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## FINDINGS

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### ***Veterinary and livestock producer perspectives***

This section encapsulates the results of recent discussions with rural practitioners and livestock producers about the status of rural practice and the services that are, or could be provided. As with other information-gathering exercises discussed elsewhere in this report the outcome suffers from the same uncertainties because of the anecdotal nature of the opinions provided. Nevertheless, it offers some insights into the views of a select group of persons interested in the delivery of veterinary professional services.

To properly examine these issues and gain a truly useful picture of the many issues surrounding rural veterinary practice will require a broad based survey of the profession and its activities in Australia's agricultural areas as proposed in Recommendation 6 (page 63).

### **Veterinarians**

#### **Viability of Rural Veterinary Practice**

Discussions with rural veterinary practitioners identified two opposing perspectives on the viability of rural veterinary practice. The first identified a range of issues impacting adversely on rural veterinary practice and in some cases offered solutions. In the second the overriding impression was one of optimism for the future of their veterinary business. These starkly different perspectives highlight the importance of accurately identifying the issues impacting on rural veterinarians so that effective, efficient and sustainable solutions can be applied.

The identified differences in practice attitudes most likely relate to issues such as:

- General environment issues resulting in differences in the nature and intensity of livestock production and thus the potential number of clients, their wealth and attitudes, the distances to be travelled and the ability to develop multiple veterinarian practices.
- The size of the regional centre in which the practice is located and thus the companion animal population that provides critical support to most rural practices and the opportunities for social contact and spouse or partner interests.
- Differences in individuals, their professional and social interests, their initiative, ability to manage themselves and others and handle change.

No doubt there are many other issues that could be added to this list. The critical issue is that there is great variability among practices and practitioners and those differences need to be recognised. This also indicates the multifactorial and complex nature of the issues

and that in addressing them the profession needs to avoid being overwhelmed by tasks and identify and concentrate its resources and efforts on issues it can affect and where the likelihood of success is greatest.

### **Using paraprofessionals in rural practice**

The use of paraprofessionals in rural veterinary practice continues to be contentious with some identifying opportunities to reduce the drudgery involved in many routine procedures while others view any paraprofessional as a competitor.

These perspectives should not be unexpected given the aforementioned variability in the rural veterinary profession. Veterinarians have seen the gradual erosion of their exclusive rights to conduct some procedures. The removal of control over procedures that they have long regarded as their right, has greatly offended many rural practitioners. In some areas competition for procedures such as pregnancy diagnosis is intense and reportedly competition has excluded some veterinarians. In addition, there are some reports that some paraprofessionals are carrying out specific procedures that even the veterinary boards would consider to be of a veterinary nature. The undercutting of traditional veterinary fees by these technicians impacts on the viability of rural practices. This in turn, leads to reduced contact with producers and thus opportunities for disease surveillance and monitoring and importantly the professional investigation of disease outbreaks that may have significant impacts on the viability of a producer. It also affects the potential to provide a wider range of services; reduces opportunities to employ more veterinarians' and ultimately impacts on the veterinarian's lifestyle.

However, these arguments consider paraprofessionals as competitors to the rural veterinary practitioner. In the meantime, in contrast to what appears to be a common view, some practices already employ paraprofessionals to conduct more routine aspects of practice. The alternative, of directly employing paraprofessionals does not appear to be a highly popular option and little formal work appears to have been done to examine the potential for integrating them into veterinary services in rural areas and the best way to go about this.

But as pointed out by one correspondent, the veterinary profession is one of the last professions to fully utilise paraprofessionals. Part of the reason for the lack of action may lie in the perceptions engendered in undergraduate training where the assistance of veterinary nurses is well accepted for companion animal clinical work but almost totally absent in the case of large animal work, where the capability and independence of the veterinarian to carry out all procedures is encouraged. That is, there is no culture developed of using assistants and no real appreciation of the pros and cons of doing so.

There are of course many counter arguments against using paraprofessionals including concerns over reduced disease surveillance and opportunities for productive contact with producers. Some feel that training people would provide them with the skills to leave a veterinary practice once proficient and set up as yet another independent competitor. However, this would not occur if the training and employment of paraprofessionals



provided for their registration as persons who can operate under the supervision of a veterinary surgeon.

To implement a program to build a sustainable role for paraprofessionals would require wide consultation and the development of strategies to overcome the negative perceptions and especially the fear of compromising standards of delivery of animal health services. The availability of such an adjunct to rural veterinary practice would then need to be weighed by each practice according to their specific operating conditions.

As a concept it appears a logical and progressive step for the profession that would provide an additional option for practices wishing to pursue such a change. Integral to acceptance of the model would be the need to develop (or accredit) suitable training programs.

The employment of paraprofessionals as envisaged requires the responsibility for a defined range of veterinary interventions to be delegated and carried out under the 'supervision' or 'direction' of a registered veterinarian. However many of these activities are currently classified as 'acts of veterinary medicine or surgery' and thus a significant shift in attitude of both rural veterinarians and the registration boards would be required. Ultimately such people could be registered under veterinary surgeons legislation to perform tasks - both unsupervised and under direct or indirect supervision as is the case with veterinary nurses in WA.

Concerns have also been raised that a move in this direction may affect Australia's international standing and potentially limit access to international markets for livestock and livestock products. Whether such concerns are real needs to be examined within the context of a broadly based discussion within the veterinary profession.

**Recommendation 20:** *The AVA form a working group to investigate programs providing knowledge and skills to technicians that could enable registration as a veterinary technician (when available) available to assist rural veterinary practitioners.*

### **Relationship to other professionals**

This is largely of interest to those veterinarians who are engaged, or interested in becoming engaged in more strategic advisory and consultancy work with their clients. In some cases, veterinary practitioners appear to have developed sound working relationships with agricultural and nutritional consultants and work cooperatively with them to service the needs of their clients. However, this appears to be the exception and most veterinarians consulted view other consultants as competitors. This is not always the case with at least one consulting group employing non veterinary graduates as part of its suite of services. This is partly in recognition of their abilities but also because they have great difficulty in attracting suitably qualified veterinary graduates for the type of consulting work in which they are engaged.

Veterinarians will have to recognise that they compete with other professionals who have probably received far greater grounding in the essentials of nutrition, genetics, etc than they have and may have vastly more experience and be more skilled in change management and extension. Unfortunately the “bundling” of such services with the merchandising of products has a negative impact on many practices and harms the potential to build good relationships.

## **Livestock Producers**

One of the important components of this project in terms of providing future directions and opportunities for rural veterinary practitioners was to ascertain the views of livestock producers as to the veterinary services they would like and be prepared to pay for.

A number of cattle and sheep producers were contacted for this purpose but it quickly became clear that their responses depended upon the area that they lived in, the type of livestock production they were undertaking and the veterinary services they were familiar with. On reflection this is hardly surprising given the wide diversity of individuals undertaking livestock production, the types of enterprise and their financial viability and the environmental, geographic and climatic variation across the country.

In addition, there is a lack of information from the industries on where they believe their future lies. Without such understanding, it will continue to be difficult to plan a strategic response by the profession and ensure that the new skills and knowledge that may be needed by rural veterinarians are acquired.

Some of their comments may still be of interest. One was quite uncomplimentary advising that in his view there were few veterinarians capable of providing good advice on production systems and that the overlap in role and functions with district veterinarians in NSW was wasteful.

## **Surveying the attitudes of livestock producers**

Determining the views of livestock producers will be no easy task given the above factors. A survey of livestock producers’ attitudes to veterinary services could be conducted across the country but would only provide meaningful information if the sample was stratified across the major areas and types of livestock production. This would require a large survey and thus be expensive.

Dyson’s<sup>16</sup> finding from the response of the farming community involved in Countdown MAX was a keen interest and a desire to be involved that suggested that farm businesses were supportive of the veterinary profession developing “*a more proactive and holistic approach to servicing clients*”.

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<sup>16</sup> Dyson (2007) (2)

Nevertheless, if the profession wants to gain a better understanding of the livestock producing clients it serves, the types of services they want and will pay for and their future plans, such a survey is the only way in which a reasonably robust perspective on their needs can be obtained.

The information would also be valuable to the livestock industries, agricultural colleges and universities and form one basis for understanding the future of rural veterinary practice. On this basis such a survey is considered justified.

**Recommendation 2:** *The AVA seek funding to commission a survey of the attitudes and needs of cattle and sheep producers for veterinary services in rural areas of Australia.*

### **Marketing veterinary services to livestock producers**

Frawley identified the poor marketing skills of veterinarians and their unwillingness to promote their practice skills as one factor constraining the development of rural practices. He proposed that the AVA should be able to promote industry wide initiatives to help individual veterinarians address this problem. The reasons why the AVA has not developed an extension program to improve the understanding of livestock producers of the range of services rural veterinarians can provide is unknown.

It could be argued that the veterinary profession has a responsibility to the livestock industries to ensure that producers are aware of the role of veterinarians in disease surveillance, detection and control and the available services.

Accordingly, it is proposed that further consideration of such an extension program be considered as part of an overall strategic plan for the future as proposed in Recommendation 19 (page 80).

**Recommendation 19:** *The AVA gives further consideration to the promotion of rural veterinary services to livestock producers by a formal marketing program as part of the development of a comprehensive strategic vision for the profession in rural Australia.*

## ***Preparation of prospective graduates for rural practice***

### **Undergraduate training specific to rural practice**

A condensed outline of the information provided by the 5 Australasian veterinary schools currently graduating students is provided in Appendix 7. This compares in tabular form the various strategies used to ensure their undergraduates develop large animal handling skills and an appreciation of rural veterinary practice. However, it is not feasible to make

any judgement on whether any one approach used by these schools is any more successful than any other in achieving the desired outcome.

What is clear is that while many new graduates entering rural practice successfully adapt and build a lifetime career, the majority do not. In addition, some new veterinary graduates are said to be so poorly prepared for rural practice that principals will not allow them to work unsupervised, often for many months, until satisfied they can operate effectively. In rural practice this is compounded by the need for veterinarians to visit properties often remote and out of contact with their base and diagnose problems and perform procedures completely unsupervised. While this has implications for the standard of training received, it is undoubtedly one of the key stress factors affecting new graduates and their desire to remain working in rural areas.

In an assessment by the AACV quoted by Blackman<sup>17</sup> into why there was a failure to supply graduates with a career commitment to the large animal industries the following factors were noted:

- *traditional views of veterinary education (of) the need to provide all species-skilled veterinarians under current state registration requirements,*
- *failure of the universities to engage the profession and the industries that it serves,*
- *selection criteria of veterinary students biasing selection to students of extremely high academic merit and subsequent narrowing the demographic base for recruitment,*
- *reduction in funding of universities diverting faculty funding to perceived areas of demand-fee for service education has shifted focus to satisfying the students needs rather than the industry and communities, and*
- *poor availability of post-graduate learning opportunities with useful career outcomes.*

The contribution of these and other factors is complex. An examination of the influence of the backgrounds and career aspirations<sup>18</sup> demonstrated the effect of background and the selection processes for veterinary students with 2/3<sup>rd</sup> of CSU students compared to 1/3<sup>rd</sup> of Sydney students planning to enter rural mixed practice and no CSU students but 42% of Sydney students planning to initially enter small animal practice. The authors point out that the long term impact on preparedness for rural practice of such different aspirations will only be determined with further studies.

One correspondent neatly summarised the dilemma facing the veterinary schools with respect to the balance between small and large animal work and its impact on graduates, stating that *educators dismiss the importance of large animal education because so many graduates end up in small animal practice but fail to realise that in order to tackle large animals requires more confidence.*

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<sup>17</sup> Blackman (2002)

<sup>18</sup> Heath et al (2006)

The veterinary schools are aware of criticism of the standards and capabilities of veterinary graduates entering rural practice and all have worked to improve their processes. However, the overriding issues that appear to affect the desire of graduates to develop a career in rural practice are the largely urban background and interests of students entering the schools. Improvements to large animal curricula are unlikely to significantly influence student aspirations. As a result many are likely to continue to be more inclined to companion animal practice or if attempting rural practice, unlikely to make a career of it. Attempting to change the veterinary schools to provide graduates immediately suitable for rural practice thus appears a futile objective.

In a significant discussion about the future of food animal medicine, Chenoweth<sup>19</sup> outlines how the “*success of companion animal medicine has dominated educational decision making*”. This brief assessment supports his view that, “*demographics appears to mandate an increasing proportion of veterinary students from urban areas, and economics appears to point new graduates in the direction of companion animal practice. A cycle ensues whereby aspiring veterinary students are exposed primarily to “patient-centric” veterinary medicine that follows human physician models.*”

### **Preparation of new graduates for rural veterinary practice**

There is no simple way in which the effect of the above forces can be influenced. One way to reduce any differences between the graduates of the existing veterinary schools and increase their fitness for rural practice would be to introduce a “new graduate development phase” specific to the needs of rural practice. This would provide a mechanism whereby a practical nationwide standard for those seeking a career in rural practice could be achieved without any direct assault on the perceived standards of the veterinary schools.

Such a formal scheme could provide a formal set of skills and competencies agreed by rural practitioners that a new graduate could acquire by the end of their first year in rural practice.

However, a compulsory intern phase like the UK scheme carries costs that would not be acceptable in Australia due to the heavy HECS debt carried by most students and while an Australian scheme could be optional, it is unlikely many new graduates would opt to engage in more assessment so early in their careers.

Craven<sup>20</sup> investigated the UK scheme that was at that time under development, observing that implementation of the scheme would affect existing arrangements for registration and require Australian and NZ graduates wanting to work in the UK to undertake such training; and this would likely be at a lower rate of pay making it less attractive for graduates to work in the UK without some agreement on the recognition of prior

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<sup>19</sup> Chenoweth (2004)

<sup>20</sup> Craven 2004 p37

experience. Furthermore, the development of the PDP consolidates the view that newly graduated veterinarians *need to work under supervision for at least a year before they are considered ready for registration.*

While recognising the difficulties a fully developed PDP would create for small practices, particularly in remote areas, he concluded that four options should be further examined:

1. *No change - recent veterinary graduates receive full registration.*
2. *Veterinary graduates are required to demonstrate specified levels of competence before they receive full registration which allows them to practice in any area of veterinary science.*
3. *Adopt the RCVS model which requires a graduate to work in a registered practice until year 1 competencies have been achieved and is then granted a licence to practice within a broad named area of veterinary science.*
4. *Develop a transition to practice program that is based on specialised CPD in the first year or two of practice and is supported by a practice standards initiative that includes a strong emphasis on training and support for new graduates.*

Importantly he felt that to, *argue for a change from existing arrangements it is necessary to establish that, at graduation, veterinarians are sufficiently lacking in skills to prejudice the outcome for animals in their care.* The making of a decision on that issue, the nature of proposed training and the evidence that early professional experience has a significant influence on future career development, were important considerations in developing a recommendation that a coordinated group of veterinary interests convened by the AVBC should develop and implement strategies to improve the transition of veterinary graduates from university to practice.

This report supports that proposal, especially any measures designed to improve the availability of professional development tailored to the needs of new graduates in rural practice.

**Recommendation 16:** *The veterinary profession, particularly the AVA and AVBC continue to investigate the development of programs to assist the development of skills in new graduates appropriate to employment in rural practice in Australia.*

### ***Continuing support, mentoring and professional development***

One of the most significant findings of this investigation has been the lack of accurate information on the current status of rural veterinary practice and the effectiveness of any of the support measures put in place by the profession; nor whether the available

professional development opportunities satisfy the needs of any or all of the rural veterinarians.

### **Improving Knowledge of the Demand for Rural Veterinary Services**

The initiative of the AVMA (page 46) to map the location of rural veterinarians and livestock populations provides a model and a tool that could usefully be investigated for adaptation to Australian or NZ. It may be feasible to produce a series of similar “*Food Supply Veterinary Medicine Data Maps*” from available data with the initiative driven via a similar coalition of veterinarians from public, private, industrial, and academic sectors to provide impetus to such a project and a foundation for an on-going focus on national requirements for food animal veterinarians.

**Recommendation 4:** *Funding be sought for an investigation into the potential to develop a series of maps similar to the AVMA “Food Supply Veterinary Medicine Data Maps” and for a coalition of veterinary interests to manage such a project.*

### **A National System to Monitor Veterinary Graduates**

Without accurate information the profession is in a poor position to manage itself and unable to make any judgment on the effectiveness of current programs or to identify any deficiencies that should be addressed. Accurate information will ensure that often damaging perceptions about the viability of some practices and the experiences of some graduates do not become accepted folklore.

While the information compiled and published by Trevor Heath provides some relevant information and identifies the attitudes and aspirations of a cohort of graduates, it does not provide all the information that would help manage the profession in rural areas and resolve problems as they arise.

It does however provide a concept model for a national veterinary graduate monitoring program that would record the experiences of rural veterinarians. Such a program would provide information useful to the universities, AVA, post graduate educators and government and would place the profession in a position where it could continuously contribute to the management of national veterinary resources.

To ensure the success of such a survey, a high response rate is essential and linking such a survey to annual veterinary registration would guarantee the high response rate essential for a comprehensive and accurate picture of the profession assist. A survey could be provided with registration papers or accessed anonymously via suitable website.

While the costs of survey design, development of a website component, distribution and analysis are likely to be significant, the benefits resulting from access to accurate information would easily outweigh the costs.

**Recommendation 3:** *That AVA and AVBC work cooperatively to seek funding for the design and implementation of a survey of veterinary graduates in rural areas to be conducted annually and linked to veterinary registration.*

### **Specific support for new graduates entering rural practice**

The importance of initial expectations of rural practice and employer relationships was confirmed in a Kansas State University survey mentioned by Chenoweth that “*indicated that the careers of veterinarians were very much influenced by their initial employer and employment conditions.*” Heath<sup>21</sup> also found that comments in that survey and in earlier ones clearly indicated that *the level of support and encouragement they received in their first job had played a major role in their attitude to veterinary practice and to their career overall.*

The importance of the support provided by employers in the first year after graduation cannot be overemphasised. It is significant that 23 of the respondents to Heath’s most recent survey<sup>22</sup> indicated that their boss was “not at all supportive” This indicates the importance placed on new graduates choosing their first practice with great care and the need to continue to develop programs to reduce the potential for new graduates to have to endure such experiences.

### **AVA New Graduate Friendly Practice Accreditation Program**

The New Graduate Friendly Practice Accreditation Program is a well conceived and managed program that if implemented in all rural practices would effectively eliminate many issues to do with the transition of new graduates to rural practice. That the program has been in existence for several years with only a very small number of practices participating is a concern. Reportedly the program is poorly accepted in many areas.

Given its potential to resolve many concerns, the AVA should review this program and survey its members to identify reasons why the uptake is so poor.

**Recommendation 13:** *The AVA review its New Graduate Friendly Practice Accreditation Program, survey its members to identify reasons for the low uptake and consider implementing actions to make the program more attractive to rural practices.*

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<sup>21</sup> Heath (2007) (1)

<sup>22</sup> Heath (2007) (4)



## AVA New Graduate Support Program

The AVA program of Post Graduate Support Seminars is a well conceived and executed program that if fully operational across Australia would provide significant support to new graduates. This especially applies to graduates entering rural veterinary practice. It is a major concern, that a successful program originating from within the AVA to resolve a recognised problem with the transition of new graduates, only operates fully in WA and receives little support in terms of either resources or funding.

The AVA should urgently review its approach to supporting new graduates and determine how it will provide support to this program. This program and the preceding New Graduate Friendly Practice Accreditation Program, as components of a package of measures to assist rural practice, have potential to resolve most of the concerns with the transition of new graduates to rural practice.

**Recommendation 12:** *The AVA review its New Graduate Support Program and if it is agreed it continue, funding be provided to ensure it achieves its objective across Australia.*

## Mentoring of New Graduates

As indicated previously, the aim of mentoring schemes in this context is to provide independent, confidential and caring professional support to recent veterinary graduates such as advice on the diagnosis or management of cases but also to help identify and provide support to stressful personal and practice situations.

However, the current selection, training and development of mentors are inconsistent with the increasing level of responsibility and the litigious nature of the community and in a national sense the current “program” appears poorly resourced, unmanaged and directionless. Previous information has highlighted the importance the US based ARV places on ensuring mentors are suitable for the task and this is supported by Chenoweth<sup>23</sup> who stressed the importance of informed and supportive mentorship for new graduates.

A soundly based national mentoring program has great potential to contribute to resolving many of the problems of rural practice but needs constant and professional management that takes account of the dynamic and changing nature of the profession and has the dedicated resources to develop and maintain it in a consistent manner across Australia.

Current action to review and centralise the AVA’s mentoring activities via the Membership Strategy Committee is appropriate.

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<sup>23</sup> Chenoweth (2004)

## Special Interest Group Support Programs

These programs are an important component of new graduate support in rural areas because they provide professional CPD while engaging young veterinarians and helping to develop bonds with the rural veterinary profession.

However, the growth of annual conferences has “soaked” up so much demand for CPD among rural veterinarians that courses on production animal issues by the Sydney PGF and other providers have effectively ceased due to lack of demand. This is unfortunate as these organisations (and especially the PGF) have a strong historical connection to supporting production animal issues and potentially still have much to offer. It is suggested that further discussions between the relevant SIGs and the PGF and other providers be conducted with the aim of working cooperatively to develop world class programs that will continue to benefit rural veterinarians.

**Recommendation 10:** *The AVA provide support for discussions between the relevant production animal SIGs, the University of Sydney PGF, other CE providers and the relevant industry service organisations, with an aim to their working cooperatively to produce CE relevant to rural veterinarians.*

## Internship Programs

The concept of rural practice internship program was well developed by the WA Division and applied in very similar form by the AQIS four year internship program.

While the AQIS program provided helpful support to new graduate veterinarians and expanded their employment opportunities in production animal medicine, the concentration of available funding into a small group of graduates, most if not all of whom desired a career in rural practice is not an efficient way to redress the lack of interest in careers in rural practice. However the program had positive aspects in that it encouraged great CVE in new graduates and as their remuneration was subsidised, there was less pressure on them to earn their keep from day 1. Consequently principals could comfortably spend more time training them with less financial impost on the practice. As a consequence they were better trained, enjoyed their jobs and could be expected to stay longer in rural practice.

Assessment of the views of the participants in this program was initiated and a small group of responses received (6). These strongly indicated appreciation for the assistance and some found the opportunity to examine other aspects of veterinary endeavour useful. Most (5/6) were members of the AVA and none had used the AVA mentoring or other support services to any extent. Some commented on various aspects of rural practice indicating that the support provided was inadequate and none new that a departmental mentor was available to provide assistance. While some indicated that the pay, hours of

work and safety would need to improve to make rural practice a viable alternative to other alternative career paths, others had very positive and happy experiences suggesting that the placement practice and the attitude of the principal continue to be significant factors in satisfaction with rural practice.

The use of internship programs such as described does not appear to be one that should be pursued as inevitably the selection process will identify students who already have an affinity with rural practice and would commence their professional careers there whether receiving support or not. Selective internships may also distort the market for veterinary assistants because a participating practice effectively receives financial assistance to conduct their business whereas adjoining practices do not.

If financial assistance is made available to promote new graduates entering rural practice it would be better applied as scholarships or cadetships to assist worthy students with poor financial backing complete their undergraduate training.

### **Other AVA support services**

There are several other issues that the AVA could examine as ways in which to assist rural practice.

#### **Website Development**

The AVA website could usefully include an entry level “New Graduates Site” that incorporated links to information relevant to early professional life. This could provide information to both AVA members and non-members as the BVA site does thus providing some form of support for all new graduates with special assistance for those who are members. This would provide professional leadership while ensuring that members received additional benefits.

**Recommendation 14:** *The AVA review its website with a view to including a “New Graduates Site” that provides information and a level of assistance to all new veterinary graduates.*

#### **Other Information Resources**

Documented information to assist new graduates appears ad hoc with universities, AVA National and Branches and others producing information of variable depth and usefulness. While there is reportedly a revised “New Graduate Guide” prepared by the AVA the nature of this has been questioned and documents to assist mentors and provide advice about the Graduate Support Programs are lacking. Several excellent sources of information have been mentioned in this report and no doubt there are others that if combined and coordinated would redress any concern over inadequate sources of information and could provide substantial efficiencies for all of the organisations currently involved in their generation.

**Recommendation 15:** *The AVA take a lead role in promoting the concept of developing national information resources to assist new veterinary graduates.*

### **AVA Branches**

The AVA Rural Branches have provided strong support to members of the AVA for many years and continue to do so. Increasing the camaraderie between rural veterinarians through increased participation in professional meetings and activities is important in providing one level of support. This could be enhanced if additional support was provided by establishing a regular program of support for a greater range of meeting speakers. Given that many Branches provide the only contact that some rural practitioners will regularly have with the AVA, there is a case for the AVA to provide such support.

**Recommendation 18:** *The AVA review the level of financial support provided to its rural branches especially that which assists speakers to attend who can discuss issues associated with the success of rural veterinary practice.*

## **Continuing professional development in rural practice**

Continuing education and professional development are important for rural practitioners as veterinary boards move to develop and implement CPD requirements related to registration. Craven<sup>24</sup> noted that the move to national registration in Australia provided an opportunity for a nationally uniform approach to CPD requirements which currently differ between the states.

While there are a number of suppliers of suitable CPD it is difficult to assess how well they meet the needs of rural veterinary practitioners in terms of quality and substance, opportunities to acquire or attend and delivery methods. The cattle and sheep SIGs provide a level of CVE that is popular and satisfies much of the demand while the PGF no longer provides much that is relevant to production. Universities do provide some CE courses generally aimed at updating and reinforcing simple large animal diagnostic, handling and therapeutic techniques for new graduates or those changing career directions. The ACVSc provides a framework that should appeal to veterinarians interested in changing the nature of their practice or in self development in cattle or sheep medicine. However, this is not a popular mechanism with few attempting membership in cattle or sheep and limited interest in Fellowship. Part of the reason is that there are few advantages to a rural practitioner in terms of additional remuneration for gaining a qualification and considerable time needed to study effectively whereas a conference is over and done with in a discrete time period. The ACV and ASV could work with

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<sup>24</sup> Craven (2004) p43

production animal members of the College to try and address issues constraining greater numbers of practitioners studying for membership and investigate the potential to use the College membership system as one way in which a move into advisory work could be facilitated.

**Recommendation 11:** *The production animal SIGs work with the ACVSc to provide training programs that will facilitate more rural practitioners attempting Membership and/or Fellowship of the College.*

In terms of delivery, the opportunities for cost effective CE for those living in rural areas are likely to be limited even though modern communication technology should make it relatively easy if appropriate materials were available.

Craven<sup>25</sup> also considered it essential that CPD be an integral part of his proposed transition to practice initiative and that in the early professional years it would be most effective if structured to achieve specific competencies. CPD should logically be developed by the existing organisations providing CPD as modules that address specific areas of practice and consideration be given to successful completion of structured CPD providing credit towards other post graduate qualifications. He proposed this be a task for a group proposed to examine transition to practice.

However, this investigation finds that the available information is inadequate to provide direction on how to assist rural practitioners fulfil their needs for continuing education nor the nature of the knowledge, skills or preferred delivery mechanism(s). Without a clear direction it will be difficult to provide assistance. A workshop is thus proposed where these issues can be discussed and a clear direction obtained.

**Recommendation 9:** *The AVA develop a workshop to investigate the CE needs of rural veterinarians.*

### ***Developing and promoting “new” practice models***

The concept of developing a new model for rural veterinary practice that will solve the problems previously described is not new. Frawley encapsulated the discussion at that time (2002), by questioning whether rural mixed practice was a “*dinosaur*” and advocating “*an alternative model of practice*” and proposing that the AVA should take the lead in developing, “*a best practice model for rural mixed practice . . .*”

His primary proposal was that rural practices should “*become larger: multi-person and multi-skilled practices servicing relatively widespread areas*” as such practices would have “*more flexibility to provide, maintain and regularly update equipment and facilities, attract and retain staff and move into new areas of service delivery*”.

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<sup>25</sup> Craven (2004) p 43

However, he noted that that the development of different models including corporate ownership of practices was constrained because “*in some jurisdictions, laws governing the profession prohibit the incorporation of veterinary practices or their ownership by other than registered veterinarians*”. In addition, the requirement in some jurisdictions for practices to provide a 24 hour service resulted in significant additional workload that contributed to the difficulty of implementing any new models.

While the logic of these arguments cannot be disputed, this investigation has identified the difficulty of promoting any one model of rural veterinary practice because there are successful examples of just about any conceivable model. The fact is that veterinarians and the areas in which they choose to work are as varied as any professional group and one model cannot satisfy all.

The alternative is for the profession to ensure that the various business models are well described and available to the profession, and assistance is provided to enable rural practitioners to properly consider their applicability to their situation. The Practice Management Branch already has programs working in this direction.

In respect to business models, a recent report on future practice models in North America<sup>26</sup> provides several useful observations.

### ***Rural models***

*The trend is towards corporate practices made up of multiple veterinarians, supported by teams of paraprofessionals and alternative technical advisers, to address food animal production. The elements of emphasis are towards biosecurity, traceability, and on-farm food safety standards. As well, more veterinarians may be incorporated into vertically integrated production models.*

*Complementary to this could be a growth of the niche practices that address the needs of large companion animals, exotic or non-traditional species, organic or hobby farm operations. Distance technological linkages to networks of specialty expertise may also support these practices.*

### ***General***

*The trend is expected to be towards larger practices with at least three veterinarians in order to realize the desired lifestyles.*

*All models point towards a more business-based orientation with a trend towards the outsourcing of practice management, and other competences such as nutrition, husbandry and engineering.*

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<sup>26</sup> AAVMC (2006) p28

*As well there may well be an increased use of paraprofessionals and supplementary support staff in all forms of practice.*

*There could be a shift to blending aspects of human health and wellness care into all practices of veterinary medicine*

The following discussion expands on several of the issues affecting the viability of rural practice as these are often raised as significant issues that should be further investigated. They include the financial status of the industries, the need to optimise business performance, the apparent shortage of rural veterinarians, amalgamation of practices, a suggested move for rural veterinary practitioners to adopt a more strategic advisory role and the quest for more government funding for activities that would help to support practices in rural areas.

### **The relationship of successful rural practice to the livestock industries**

The economic fortunes of rural veterinary practice are to some extent linked to the status of the livestock industries and many contend that the market for rural veterinarians and the financial success of rural practice is distorted by the inability (or unwillingness) of producers to pay a professional fee for attention to their livestock. Another view is that the distortion arises because rural practitioners tend to empathise with the poor economic circumstances of many of their clients and thus charge a reduced fee. This investigation has found that there are veterinarians in both camps prepared to strongly support their view.

Most of Australian livestock production takes place in environments where drought conditions regularly impact on livestock producer financial returns and thus their willingness to use veterinary services. And, as much of those services is for individual animal attention with potentially high cost and with no additional financial return, it is not surprising that there is some reluctance to use traditional veterinary services. There is an equally strong argument that practices positioned to provide more management based services in an efficient and timely manner (pregnancy testing, disease investigation, nutrition and management advice) experience little downturn (often increased demand for services) in drought times unless drought periods persist for vastly extended periods (2 or more consecutive years).

Nevertheless, a successful way to relieve many of the problems faced in recruiting additional vets and relieving the stressful aspects of rural practice described recently<sup>27</sup> is to take the former line and charge more – and continue to increase fees regularly in line with inflation. In the US this resulted in increased practice income and greater ability to recruit additional veterinarians and pay them more and did not result in a significant loss of clients as some would predict.

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<sup>27</sup> Bob Gentry – Pers Comm

There are other factors affecting the profession in rural areas other than the apparent reluctance of livestock producers to pay for veterinary services. For example, growing urban populations put pressure on peri-urban agricultural activities, livestock numbers decline, rural clients of the veterinary practices servicing such areas also decline and importantly the veterinary skills specific to livestock production also decline. In other areas an aging and declining population of producers results in increasing consolidation of rural properties into larger enterprises as happened with the poultry, pig and dairy industries. While this may mean less clients (and presumably less demand for veterinary services), it also offers another generation of producers that may to have a new perspective on managing profitable agricultural enterprises with a greater willingness to accept professional advice. While significantly larger flocks and herds will lead to a reduced emphasis on individuals, it may also lead to greater interest in the health, welfare and productivity of the herd or flock as a unit and increased interest in herd and flock medicine.

Practices faced by these changes either adapt their business to fit the change in demographics or suffer declining practice income. This investigation gains the strong impression that rural practitioners respond in many ways with some embracing new opportunities and others decrying the change.

We live in a dynamic world with constantly evolving generational changes in knowledge and attitudes to everything associated with livestock health yet many rural practices and practitioners appear to retain an ideal paradigm of veterinary practice and large animal medicine as it existed 40 years ago. If change is not recognised then as Chenoweth stated, *“concerns include fears that veterinarians (and veterinary education) are not keeping pace with industrial and societal changes and needs and the rural, mixed practice practitioner is in danger of becoming extinct”*.

### **The shortage of rural vets**

It is difficult to assess whether the perceived shortage is real because the available information is incomplete and confusing. There is no doubt that some rural practices have difficulty in attracting and retaining veterinary associates, and insufficient new graduates are interested in long term careers or partnerships in rural practice.

However, from the perspective of supply and demand for services, a shortage of veterinarians should lead to increased demand and higher wages. But the indications are that, (with some exceptions), the opposite in fact applies and salaries in rural practice are equivalent or lower than offered in companion animal practices in the cities. This suggests that the demand is met by current numbers – as a shortage would logically lead to higher wages to attract them.

However, this is not always the case. Comments have been received about how difficult it is to attract graduates to rural practice and how competitive it has become with a need to not only offer substantial salaries but ensure the practice has a very high profile amongst students by self promotion such as offering opportunities for practical work etc.



Reportedly some practices aggressively promote their practice to prospective employees at conferences and meetings. This makes it even more difficult for smaller practices with limited capacity to market their practice to obtain assistance.

These arguments are still too simplistic given the overwhelming view that many graduates are not interested in long term employment in rural areas, rural veterinary work is more physically demanding and there are long hours that reduce the attractiveness of the role. Social factors associated with a rural lifestyle also have a negative effect on many graduates (and their partners) especially if their background is in urban areas.

### **Optimising business management practices**

Rural veterinary practices are businesses and the extent of their success (or failure) will depend on how well they follow established business management principles. Some commentary raises concern over veterinarians' interest in business management and especially in developing formal business plans and in marketing of services. There is some feeling that many veterinarians feel they have sufficient technical knowledge to be successful and don't need to use the services of other professionals to make their business succeed. The development of better processes to assist rural practitioners assess their enterprise against key business principles may help to eliminate unproductive activities and optimise the delivery of veterinary services in their area.

Effective business management is especially important where the value of animals is relatively low and long distances must be travelled as in many rural practices. This means professional time is diluted and the returns from such work can be low. To compensate, alternative sources of income such as from merchandising and expanding professional services must be considered.

Common strategies to improve business efficiency include:

- controlling costs – basic business management but needs to be conducted by systematic cost identification and control – implemented by business management seminars etc.
- seeking economies of scale – aggregating property visits and aggregation of practices especially in smaller towns but potentially achievable in many districts – not only lowers overheads but has other professional and social advantages.
- Expanding services to increase practice income and overall service to clients

To assist rural practices some have suggested that tax incentives should be provided for veterinary practices with a proven commitment to and track record in support of the rural animal industries. Another suggestion is for the provision of a HECS debt clearance mechanism for graduates who work for a protracted period in rural practices. While commendable suggestions, such ideas may not receive government support.

It is not the role of this report to provide advice on business management but the profession in rural areas should continue to be urged to obtain professional advice and work to optimise their business practices.

**Recommendation 17:** *The AVA review its business advisory services to members with a view to enhancing the availability of advice to ensure optimum business practice advice is readily accessible to rural practitioners.*

### **Expanding the scope of rural veterinary services**

Significant incentives exist for veterinary practitioners to consider an expansion of services and additional (or alternative) sources of income. Options include seeking amalgamation with adjacent practices, expanding services by providing opportunities for individuals to specialise and additional advisory services.

However, making such changes is not without problems. The nature of some practices is such that they will always be fully occupied servicing the demands of existing clients and thus unable to expand their range of services. While there are opportunities, they may not be easily realised unless practitioners adopt a proactive approach to developing their business. This may require a cleanup of inefficient business practices, working cooperatively with other professionals, acquiring additional knowledge and skills and recognising their personal limitations. It also assumes that the practice is located in an area where a viable market for changed services exists.

While some practices only offer a herd/flock health service or combine this with farm advisory services such as nutritional or breeding/genetic services, there appear to also be opportunities for practices in some areas to work cooperatively with visiting veterinary consultants. This would appear to be particularly valuable option for smaller practices without capacity to expand their own level or scope of services. Partnership arrangements of this sort are operating and suggest a win/win situation as the host practice will inevitably learn from the experience by association with the external expert and can in time carry out some of the on-going work that may result.

Paradoxically, the various services that are proposed as opportunities to provide clients with additional advice on subjects such as economics, nutrition and genetics are those that do not require either a veterinary degree or veterinary registration and are areas of expertise specifically developed during the undergraduate training of agricultural science graduates. Thus veterinarians planning to expand their range of services need to recognise that they may (will) be competing with other well trained professionals and to compete successfully will need to develop superior knowledge and expertise in these areas or recognise their limitations and call in other experts when needed. Given that the prevailing view is that undergraduate training does not provide an adequate basis for veterinary graduates to offer such services, making the transition to their delivery is likely to be difficult.

The dairy industry has pro-actively worked to develop herd and production level programs that involve veterinarians engaging with their clients to produce a new type of service. Working cooperatively with the industries to develop such programs that benefit both livestock producers and veterinarians provides a model for further consideration by the beef cattle and sheep industries.

## **Dairy Industry Initiatives**

### ***Countdown Downunder***

Countdown Downunder was created in 1998 to help Australia's dairy farmers meet new milk quality standards, improve farm profitability and protect export markets. It provided the industry with a clear consistent message derived from a sound technical base to ensure the industry has capacity to deal with mastitis and assists farmers create their own mastitis management plans. The incentive for change followed a ruling by the European Economic Commission that milk or milk products made from raw milk with counts of 400,000 cells/cc and above was unsuitable for human consumption and the subsequent adoption of this standard by other importing countries.

The *Countdown Downunder Farm Guidelines For Mastitis Control* form the basis of the advice and training resources and describe how to prevent and control mastitis in a step-by-step seasonal guide. The scientific and technical accuracy of the farm guidelines was underpinned in 2000 by publication of the *Countdown Downunder Technotes*. Together the two documents have changed the way farmers and advisers manage mastitis. By mid-2001, national cell counts were on the way down and the project had changed the culture of many of the professionals who advise farmers on milk quality.

Since it was launched Countdown Downunder's principles and terminology have been incorporated into the language of dairying and there's wide acceptance that mastitis can be controlled by good management. As pointed out by Dyson<sup>28</sup>, achieving incremental gains and managing the risks in quality require a different approach to the traditional problem-solving approach used by the veterinary profession because the benefits of improved milk quality require farms to closely align their farm practices with best practice using a measuring and monitoring system to detect changes in risk and status. The use of a professional adviser (veterinary and other) increases the likelihood and extent of success.

Significant changes in the dairy industry with fewer farms and larger herd sizes has resulted in less individual clinical work, greater call for herd level problem-solving and a change in the nature of the relationship between a veterinarian and producer client. In Dyson's view, the trend is similar in other food production industries where the use of individual animal attention has declined and in most areas herd level treatment, prevention and advice by a relatively small number of veterinarians is the norm while in many cases the service has moved from rural veterinary practices to become a role for specialised individuals.

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<sup>28</sup> Dyson (2007) (1)

Dairy industry farming clients looking for more strategic herd-level management services will pay for a service that meets their needs. In Dyson's view, farmers in the future are likely to use such services in addition to the traditional problem-solving approach of veterinary practice; agreeing with Frawley's view that veterinary practices need to develop services to improve productivity in the livestock industries. But for a veterinary practice to provide such services requires a fundamental change in the culture of veterinary practice to provide a capability to improve productivity and returns on the day to day business of a dairy farm. In Dyson's view veterinary businesses "*have generally been unable to make the transition to pro-active and advisory service provision*".

### ***InCalf***

The dairy industry has long recognised that infertility is a significant cost to the dairy industry and in the mid 1990s the Dairy Research and Development Corporation accepted that losses from poor reproductive performance could only be reduced if there was a clear understanding of the major causes. An expert group subsequently conducted a major survey of the industry, *InCalf Phase 1* (1996-1998), that identified dairy farmers as having control over many of the factors that affect fertility. An information awareness phase indicated producers needed support to bring about real change and, in particular, the ability to assess reproductive performance of their herd, the scope for improvement, and the likely benefits of improving performance. It was also evident that producers needed assistance to determine and implement the options for change.

The vision for *InCalf* was defined as "*To enable Australian dairy farmers to achieve measured improvement in herd reproductive performance*". The program is a national learning program funded by Dairy Australia. In 2000-2001, the key study findings were communicated to 2000 farmers and more than 400 advisers through a series of seminars and publications (*InCalf Phase 2*) and in 2002, *InCalf Phase 3* commenced producing an innovative package of resources and tools, and training programs – the new *InCalf* learning package to help farmers and their advisers pursue continuous improvements in herd reproductive performance by following the *InCalf* step-by step process. *The InCalf Book* is a practical easy-to-use reference that provides advice to farmers (and professionals) and includes all the accepted knowledge on dairy herd fertility.

Both *Countdown Downunder* and *InCalf* provide operational models for programs that engage the veterinary profession in strategic advice to producers. However they will not provide successful models without action. Dyson<sup>29</sup> clearly expressed his view about the change required by the profession in the following statement:

*"If the veterinary profession can harness and utilise this enthusiasm for this type of service provision, they will ensure their place in the cattle industry into the future, but if the profession fails to take up these and other opportunities to engage with their clients into the future, it is likely that we will continue to see a decline in the utilisation of*

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<sup>29</sup> Dyson (2007) (2)

*veterinary services provided by cattle practices into the future, with little to offer emerging graduates in terms of a career path in the industry.”*

If these words are indeed prophetic, the veterinary profession needs to be proactive in ensuring its members servicing the livestock industries are aware of, and appropriately equipped to deal with the changes and adapt their businesses appropriately.

## **Involvement in government funded programs**

The success of the bovine Brucellosis and Tuberculosis Eradication Campaign (BTEC) in the 1980s had a significant direct effect on many veterinary practices in Australia as government funding for tuberculin testing and strain 19 vaccinations disappeared. Such funding had provided a long term steady stream of underpinning financial support and the loss of the BTEC funding meant that many practices established with the aid of such support had to learn to survive without it. Many found this difficult. While companion animal work filled much of the gap some practices did not have large enough urban populations to provide an alternative source of income and as result suffered.

Subsequent to the BTEC, there have thus been repeated calls for new government programs to help fill the gap and provide support to rural practice. This persistent pressure (as well as the logic of using existing professionals located in rural areas) has resulted in the engagement of practitioners for some tasks including:

- livestock export inspections and testing via the AQIS Accredited Export Veterinarian program (AAVet);
- Market Assurance Programs for Johne’s disease in cattle, sheep, goats and alpaca.
- surveillance for transmissible spongiform encephalopathies (TSEs);
- Enzootic bovine leukosis (EBL) control programs

Following the Frawley report additional opportunities for governments to employ rural veterinarians were provided by the Commonwealth Government including:

- a role in emergency animal disease recognition and response (Rapid Response Team) and training of a national veterinary reserve (Australian Veterinary Reserve).
- Increased involvement in disease surveillance with the continuing development of a national practitioner disease surveillance network that provides payment for monitoring and surveillance information resulting from practice activities;

The Accreditation Program for Australian Veterinarians (APAV) formally commenced in 2001 to provide a framework for accrediting non-government veterinarians under a common program so they could participate in one or more various disease control initiatives or “operational programs” conducted by government agencies. It has subsequently proved a valuable unifying mechanism that provides a degree of

consistency in the understanding of practitioners of government programs and their requirements.

Frawley was also advised of other activities that would assist practice such as:

- encouraging veterinary practitioner involvement in farm biosecurity;
- engagement in livestock industry quality assurance programs and certification on individual farms such as FlockCare and CattleCare;
- government contracting the investigation of disease outbreaks to practitioners;
- disease certification for interstate livestock movements (noting the potential conflict of interest).

In addition to these initiatives, some have suggested that greater funding be provided to enable rural practices to be involved in disease surveillance in a way that could make it economically feasible for them to employ additional veterinarians. This would enable them to spread the workload providing greater leisure time and ability to participate in CPD. Others suggest an even more flexible approach by considering job sharing between the state government and rural practices as in some areas this would provide resource efficiencies while supporting the viability of rural practice.

While the suggestions on ways to engage veterinary practitioners have positive aspects, the reality is that there is little incentive for government to invest in programs for activities that are often being managed by alternative processes. In addition, none of the existing programs provide the scale of support practices would find attractive given the experience with the APAV where the cost of engagement and associated operational programs is often greater than the return from servicing the needs of clients for those programs. Thus the perceived government support can become a burden rather than a boon and results in negative attitudes to the assistance.

There are two of the above suggestions that could reasonably be pursued:

### *Cost of the APAV*

The APAV provides many public and livestock industry benefits and it appears illogical that it should continue to be managed and funded in such a way that discourages participation. The cost of joining the APAV and annual registration is a financial burden that alienates practitioners and works in the opposite direction to assistance.

The costs of AHA managing the APAV are recovered from the practitioners so that the program is not a financial burden to its member organisations. Funding the APAV at no cost to practitioners engaged in livestock industry work would be well received and could be implemented with minimal cost. Such a change in policy should thus be pursued by the AVA as a logical way for government to engage with, and support, the veterinary profession and its activities associated with the livestock industries.

**Recommendation 7:** *The AVA examines the APAV, its effectiveness and impact on practitioners and if warranted, approach government for on-going funding to cover the costs of administration by AHA so the initial accreditation and annual fees for those serving the livestock industries can be removed.*

### ***On-Farm Biosecurity***

The engagement of veterinary practitioners by government and/or industry to provide advice to livestock producers on farm biosecurity is a suggestion made to Frawley that should also be pursued. Such a program could support individual producers taking responsibility for the biosecurity of their enterprise by providing information and professional support to develop practical measures specific to the enterprise.

A program could be developed involving a visit from a veterinarian to check existing biosecurity measures, provide advice on what needed to be done to secure a farm and develop with the producer a farm specific biosecurity plan. In addition to improving biosecurity, such a program would assist the engagement of livestock producers in biosecurity issues and build their knowledge and understanding of its importance in limiting disease spread, promote the role of veterinary practitioners in disease prevention and provide opportunities for discussion on other health and production issues.

**Recommendation 8:** *The AVA examines the potential for a government and/or industry funded farm biosecurity program that would support veterinary practitioners providing advice on farm biosecurity.*

The Frawley Report stimulated several new Commonwealth Government programs with opportunities for rural veterinarians including the *Rapid Response Team*, the *Australian Veterinary Reserve* and the *Australian Veterinary Practitioners Surveillance Network*.

Such programs have helped sustain the relationship between government and private veterinarians in rural practice and indirectly provided support to the livestock industries. The continuing development of these programs and participation by rural practitioners should continue to receive active encouragement and support from the profession.

In addition to the above specific proposals, the AVA should continue to promote and support government initiatives that financially assist rural veterinary practice. It should also encourage rural veterinarians to participate in such programs wherever possible.

**Recommendation 6:** *The AVA continue to encourage the development of government funded programs that utilise rural practitioners and support the ongoing viability of rural practices, and reinforce to the profession the advantages of such programs*

## ***Envisioning the future of rural veterinary services***

The preparation of this report has highlighted deficiencies in the management of existing programs that could have otherwise contributed more effectively to resolving many of the concerns expressed to Frawley by rural veterinarians. Some concerns continue to affect the viability of practices, satisfaction with rural practice and the development of career paths for new graduates.

This in turn indicates a poor focus by the profession and a lack of leadership in developing a wider range of employment opportunities currently requiring veterinary expertise in the food animal industries. These comprise a significant component of veterinary endeavour that will inevitably (at least in part) be taken over by others if ignored. Chenoweth<sup>30</sup> felt that, “*it is apparent that the future direction of the profession is being moulded, by default, within a vacuum created by competing interests and lack of vision*”.

A paper by Blackman<sup>31</sup> neatly summarises key factors involved in moving forward:

*Food animal practice in Australia, USA and Canada is in transition. It is likely that the style of practice and services we provide in the future will be very different to traditional practice.*

*It is now up to the veterinary profession to meet the challenges and to do this we must:*

- 1. Work closely with the industries we serve (the market) to identify the necessary changes to the style of practice and services we provide,*
- 2. Influence government policy makers to establish the right economic, animal health and educational policy settings for veterinary involvement in the livestock production, and*
- 3. Provide the professional leadership and support for existing food animal veterinarians to make the necessary transition.*

The most effective way for the veterinary profession to reverse the declining interest in these areas is to examine them strategically within the context of a national forum that seeks to identify future directions, similar to the North American animal health foresight

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<sup>30</sup> Chenoweth (2004)

<sup>31</sup> Blackman (2002)



project.<sup>32</sup> Several previous recommendations provide a basis for the deliberations of such a group.

**Recommendation 1:** *The AVA initiate a process leading to a foresight project that will assist in clarifying the future of the livestock industries and the role of veterinarians servicing all aspects of those industries.*

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<sup>32</sup> The Norm Willis Group Inc (2005)

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## **PROPOSED IMPLEMENTATION**

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Successful implementation of the recommendations contained in this report will require decisive action by the AVA Board. A process is proposed that follows logical steps of information collection, engagement of the profession and industries and adoption of revised and new processes.

Without a formal approach to resolving the key issues identified by Frawley and described and assessed further in this report, no substantive progress is likely. The major formal steps that have been proposed are a survey of the profession in rural areas, survey of the livestock industries, a formal process (risk assessment is suggested) to identify gaps in existing support and information processes and an implementation step based on the engagement of rural veterinarians.

Following the completion of these steps and completion of a report to the profession, the development of the proposed strategic vision for the future of rural veterinary services should be considered as part of new processes to ensure the veterinary needs of the food animal industries are identified and the profession is equipped to deal with them.

### ***Survey of rural veterinary profession and livestock producers***

These two surveys are critical to the achievement of a robust outcome that will stand up to the scrutiny of the profession and organisations that may assist in the funding of future steps. The AVA should proceed to get these underway promptly as time will be needed to identify the required information, the data set, prepare the survey forms etc, circulate and analyse responses.

In the case of the rural profession survey, a widely based cross section of rural veterinarians, academics and veterinary board representatives should work with a consultant to develop the required information. Special care will be required if, as recommended, this is to become an annual survey. In addition, if the survey is linked in some way to veterinary board registration, considerable consultation may be required to secure this outcome while registration itself is an annual process and is accordingly time specific.

### ***Managing the risks during the transition to rural practice***

A formal systematic risk management process is recommended as an effective way in which to identify gaps as it is a well recognised and accepted way of addressing hazards. A risk assessment is a process of identifying hazards, assessing the risk from the hazard, eliminating the hazard or if this is not possible, controlling the risk from the hazard and reviewing the risk assessment to monitor and improve control measures.

Risk analysis is the formal way of lowering risk and the severity of impacts and could readily be adapted to the nature of the risks facing the profession in rural areas. Socio-economic costs/benefits of selected risk management actions are integral so that the involvement of stakeholders throughout the process is critical. The basic principles of risk analysis are to focus on real hazards, determine the likelihood and severity of risk, work with stakeholders to develop management options, and communicate both the risk and preferred approaches for controls.

In terms of this project there are three issues that should be separately subjected to a formal risk analysis. Each of these risk analyses could be conducted using separate one day workshops, each involving no more than 30 people suggested to be drawn from the following groups:

- Transition to Rural Veterinary Practice (eg., Universities, University post graduate educators, rural veterinary practitioners)
- CE for Rural Veterinarians (eg., Universities, Post graduate educators (including ACVSc), rural veterinary practitioners)
- Engagement of Livestock Producers (eg., Livestock producers, rural veterinarians)

The best outcome from the proposed workshops will result from working to achieve the greatest diversity in those attending. A mix of interests within each group involving consideration of age, institution and nature of practice will help as well as ensuring that where possible people who have expressed or demonstrated a particular interest in an issue are included. Where possible people should not be involved in more than one group to gain fresh perspectives and spread the workload.

An experienced facilitator will need to be employed for each Workshop to assist in developing the program and guide the discussion and prepare a report that identifies future actions.

## ***Funding and Timing***

### **Surveys**

In the absence of documented proposals describing the scope and detail of the proposed surveys it is not possible to provide a precise estimate of their cost. However previous experience indicates ball park figures of \$25,000 for the survey of rural veterinarians and \$40,000 for the industry survey (because of the need for stratification and thus substantially larger sample size) would be reasonable estimates.

Assuming a decision was made promptly to proceed; both surveys could be completed by the 3rd quarter of 2008 (or earlier depending on the process used). This would facilitate holding of the proposed workshops during 2008 but this would require the initial survey

of rural veterinarians to be available to link it to registration as proposed and this timing could not be achieved. Alternatively, the first of the proposed annual surveys could be conducted as a stand alone survey.

### **Risk Assessment Workshops**

The cost of the 3 workshops will be dependent on location, numbers attending and the cost of facilitation and report writing but assuming a central location such as Sydney, 2 nights accommodation per attendee, meals and travel expenses a crude estimate of cost is \$100,000. The basis for this estimate is provided in Appendix 8.

### **Source of funding for future projects**

The veterinary profession should not expect others to provide all of the funds required to implement the recommendations in this report as some of the issues, while related to the public interest in sustainable and productive livestock industries, are clearly of primarily veterinary interest.

However, it should not be difficult to make a case for government funding to assist in resolving those matters that are in the public interest, for example, those affecting international animal health and potentially the economy such as disease surveillance, outbreak response or food safety. Nor is it hard to develop a case for industry funding for issues affecting the viability of the livestock industries, local economies or where a lack of information on an industry's future plans or attitudes constrains actions that would logically assist the long term prosperity of the industries. Some issues may be best approached with funding that combines government and industry (and/or veterinary profession) funding.

Work should be commissioned by the profession to develop a sound basis for negotiation with governments and organisations such as Meat and Livestock Australia (MLA), Dairy Australia (DA), Australian Wool Innovations (AWI) and Animal Health Australia (AHA). Without such a foundation and a willingness by the veterinary profession to invest in the future of veterinary services to the livestock industries resolution of the issues described is unlikely and the debate on such matters will continue.

**Recommendation 5:** *The AVA/AVBC consider commissioning a report to identify the beneficiaries of the initiatives contained in this report to provide a basis for negotiation with government and potential funding organisations.*

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## GLOSSARY

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AAVet	AQIS Accredited Export Veterinarian Program
ACV	Australian Cattle Veterinarians (AVA)
ACVSc	Australian College of Veterinary Scientists
AHA	Animal Health Australia
APAV	Accreditation Program for Australian Veterinarians
AQIS	Australian Quarantine and Inspection Service
ARV	Australian Reproduction Veterinarians (AVA)
ARV	Academy of Rural Veterinarians (US)
ASV	Australian Sheep Veterinarians (AVA)
AVA	Australian Veterinary Association Ltd.
AVBC	Australasian Veterinary Board's Council Inc
AVMA	American Veterinary Medical Association (US)
AVR	Australian Veterinary Reserve
AWI	Australian Wool Innovations
BAG	Bovine Appreciation Group
BTEC	Brucellosis and Tuberculosis Eradication Campaign
BVA	British Veterinary Association (UK)
CE	Continuing Education
CPD	Continuing Professional Development
CSU	Charles Sturt University
CVE	Continuing Veterinary Education
CVO	Chief Veterinary Officer
DA	Dairy Australia
EBL	Enzootic bovine leukosis
HECS	Higher Education Contribution Scheme
HR	Human Resource
JCU	James Cook University
MLA	Meat and Livestock Australia
NGFP	New Graduate Friendly Practice
PDP	Professional Development Phase (UK)
PGF	Post Graduate Foundation (University of Sydney)
RCVS	Royal College of Veterinary Surgeons
SIG	Special Interest Group (AVA)
SPVS	Society of Practising Veterinary Surgeons (UK)
TSEs	transmissible spongiform encephalopathies
UQ	University of Queensland
VSAAC	Veterinary Schools Advisory Accreditation Committee
VSB	Veterinary Surgeon's Board

**Relevant Recommendations of the Review of Rural Veterinary Services  
(Frawley Report)**

*Recommendation 10*

The veterinary profession through the AVA and other related professional organisations, including the post-graduate foundations:

- a) develop and promote a best practice model for rural mixed practice
- b) develop enhanced mentoring schemes and other forms of professional assistance (such as short courses) to improve practice management and working conditions (such as after-hours rostering); and,
- c) develop extension programs that encourage rural practitioners to broaden their skills base as a way to stimulate producer demand for their services .

*Recommendation 14*

The Australasian Veterinary Boards Council initiate a thorough review of veterinary science education and registration requirements, having regard to:

- a) Entry requirements for this veterinary science courses and articulation arrangements between veterinary science and related courses;
- b) The content and balance of undergraduate veterinary science courses, particularly with respect to production animal health, aquatics species health and wildlife health, whole-of-farm issues and practice management issues;
- c) The efficacy of introducing some form of post-graduate training with specialisations in specific areas of animal health as a precursor to full registration;
- d) The efficacy of mandating minimum levels of continuing professional development activity as a condition of maintaining registration; and,
- e) the scope for collaboration between universities, and between schools within universities, in the conduct of veterinary undergraduate courses and veterinary-related post-graduate courses and research.



**PROJECT STEERING COMMITTEE**

Dr Geoff Niethe (Chairman)	AVA
Dr John Craven	AVBC Inc.
Dr Scott Parry	AVA (Rural Practitioner)
Dr Natasha Lees	AVA (Lecturer CSU)
Dr Kevin Doyle	AVA Veterinary Director

## **Requirements for New Graduate Friendly Accredited Practices**

A new graduate's first job can make or break their professional career. The following guidelines have been developed to increase awareness of the employment needs of new graduates to both graduates and employers.

### **1. Adequate support from an experienced veterinarian(s)**

New graduates need access to advice from experienced veterinarians for the first months in practice. This time period varies with the graduate but 3-6 months is average.

Advice provided may be by telephone, however, the physical presence of the experienced veterinarian is often required to provide guidance in diagnostic and treatment procedures.

In small practices there might only be one experienced veterinarian. To overcome this obstacle, it is suggested that adequate arrangements to provide meaningful support to the new graduate be made with a colleague or neighbouring practice.

### **2. A supportive work environment is important**

The principal, nurses and all other staff should develop a positive attitude to the employment of a new graduate. The practice should have regular staff or practice meetings and provide regular opportunities for discussion of cases.

There should be adequate nursing assistance and adequate diagnostic facilities appropriate to case load and species treated.

Veterinarians employing new graduates should be receptive to the new ideas that new graduates bring to the practice; and willing to impart their experience in an educational and constructive manner. All members of the practice should preferably be actively involved in continuing education.

### **3. Reasonable working hours**

“Reasonable” working hours are clearly subjective; however, the APESMA award can be used as a guide. New graduates (like any other staff) will perform well below their abilities if their inexperience and anxiety about developing skills is compounded by fatigue.

The Award outlines the following criteria – Ordinary hours 38 hour week to be worked between the hours of 6 am and 9 pm, Monday to Sunday

### **4. Continuing Education Leave**

Provision of 1 week continuing education leave in addition to normal annual leave (after one year of employment)

## **5. Payment for Continuing Education**

Payment of one week's conference registration (eg AVA Annual Conference) per year (after one to two years of employment).

It has been suggested that this payment be equivalent to one weeks pay at the award minimum rate for the level of experience of the employee concerned.

## **6. Adequate back up for after hours duty and fair sharing of after hours responsibilities**

For those practices that share after hours duty with neighbouring practices, or run their own service, it is important that the burden of after-hours duty not be disproportionately allocated to the new graduate.

New graduates should not be required to attend after hours calls without adequate support for the first 6-12 months of practice. This may involve the attendance of a second vet at difficult calls for the first month. For the first 3-6 months there should be another veterinarian on call by phone for immediate advice, who could physically attend to assist with surgery, etc if necessary. This veterinarian could be from the same or another practice within reasonable distance having regard to the location and type of cases treated.

## **7. Introduction to clients in rural practices**

Introduction to regular or important clients, especially in rural practices, can be combined with initial calls in conjunction with an experienced veterinarian to increase new graduate confidence and assist them in becoming part of the "local community".

## **8. Skills and knowledge should be nurtured**

New graduates should not be inappropriately "thrown in the deep end". They also should not be supervised so closely that they do not get a chance to develop adequate variety of skills and experience in their first year of practice.

The degree of supervision needed will vary with the graduate, and practices should aim to build the new graduate's confidence to increasingly make their own decisions and perform procedures.

## **9. Use employment contracts / individual workplace agreements**

Employment Contracts/agreements avoid considerable misunderstanding and help build a proper employer/employee relationship.

Workplace agreements provisions are beyond those in the Veterinary Surgeons Award and there are also guidelines and sample contract are available from AVA HR Advisory Service on 1300 788 977.

## **10. Active encouragement to join the AVA and payment of AVA fees by the practice**

Encouragement to join their professional association is part of encouraging the new graduate to be part of the professional community, to develop networks and develop a continuous improvement culture.

Payment of professional association fees as part of the benefits for graduates can provide tax benefits to the practice, reinforce a climate of continuous learning and provide marketing opportunities for the practice.

The AVA HR Hotline is available to AVA members for advice and assistance in drafting contracts and finding out about Award matters. For further information or assistance please contact the AVA HR Advisory Service by telephone on 1300 788 977 or email [avahrhotline@wentworth-hr.com.au](mailto:avahrhotline@wentworth-hr.com.au)

## **RESPONSIBILITIES OF NEW GRADUATES**

(Advisable to include with employment contract)

### **1. Realistically assess career needs and interest**

It is important to realistically assess your career needs and interests prior to accepting employment. The wrong employment choice can be very damaging to your professional career due to serious job dissatisfaction.

### **2. Make a fair and realistic commitment to your first job**

You should endeavour to commit to your first job for at least 12 months, unless your situation is untenable or unforeseen circumstances arise. If your situation is untenable and the practice advertises itself as “new graduate friendly” you should notify the AVA in writing as soon as possible.

### **3. Know and understand the practice policies**

You should ensure you are familiar with, respect, and appreciate the reasons for practice policies in relation to payment of accounts, treatment of bad debtors, treatment of injured wildlife, treatment of unowned animals, dress standards, etc.

### **4. Appreciate and respect the lay staff and their responsibilities within the practice**

Lay staffs are an enormously valuable resource in the practice. They are often a useful source of knowledge and experience to the new graduate.

## **5. Appreciate your impact on practice profitability**

Initially you will reduce and not increase practice profitability. This is because of your limited skills and experience and the need for supervision while you develop these. This is an investment made by the practice principal(s) who appreciate the long-term benefits to the practice and the profession of supporting new graduates.

## **6. Take all the opportunities provided to you for development of skills and expertise**

This is your opportunity to rapidly develop skills and experience in a supportive and nurturing environment.

Take the time to ask questions, however “silly”. Accept supervision and use it to develop your skills in a “safe” environment. Discuss concerns with your employer openly and constructively.

Take the opportunity to attend any conferences you are offered and make them count toward your future career. Keep yourself rested as possible to keep your judgement sharp.

Involve yourself in the local community (this is particularly important in rural practices) and maintain a sensible social life. You can avoid “burnout” by maintaining balance and knowing your limitations.

## **7. Understand the working conditions**

Ensure that you fully understand the employment conditions (pay, working hours, after hours responsibilities, holidays, etc) offered prior to accepting a position.

## **8. Appreciate that veterinary science is a profession not just a job**

Veterinary science is not a 35 hours a week, 9am to 5pm job. There are many additional responsibilities. If you feel that this is not for you, seek employment in other areas.

Veterinary science is hard work and can play havoc with your social life but it is enormously rewarding for those prepared to commit to it.

## AVA (WA) GRADUATE SUPPORT SCHEME

So, you have graduated, got a new job, done your first caesarean, 10 healthy pups, and you are just arriving home and all hell breaks loose. Your partner has left a message on the table to say that they are leaving because you are never home, and always getting called out to work, your boss calls to say that she has to go to town tomorrow, and your rostered day off is cancelled, and your phone rings with a call from a pig farm 100kms out of town with two farrowings. What the hell are you going to do?

Well, despite the urge to curl up into a ball and cry till the men in white coats come to take you away, the show must go on, and things are never really as bad as they seem. Once you have seen the pigs, and gone for a jog to let off steam, it is sometimes nice to talk to someone who has been there before.

The Graduate Support Scheme is a programme that was established by the AVA (WA Division) in 1996 to ease the transition for veterinary graduates from university to professional life by providing a more formalised channel of support through experienced veterinarians. The name and address you have supplied to your year-rep will be given to a fellow veterinary surgeon, who will contact you in due course to establish a channel of communication. **Our ability to contact you will depend on having a valid postal and email address and, as such, any changes in address should be directed to the Registrar at the Veterinary Surgeon's Board, the Veterinary Alumni website, or to the Graduate Support Scheme Coordinator.** It is also important that you make an attempt to contact your mentor, both initially, and throughout the year. It is common courtesy, and allows a more natural communication channel in the event you do need assistance.

Our experience suggests that most graduates who encounter problems are likely to do so in their first three to four months of employment. As a result we plan to hold the highly successful "Graduates in Practice" seminar in conjunction with Murdoch Alumni in April to provide an opportunity to catch up with your classmates, meet your mentors and share your collective experiences. Some informative speakers will be on hand to discuss ways to make your transition into employment easier. We also plan to hold other social and information events throughout the year to provide ongoing support.

In recent years there have been a number of tragic suicides, attempts at suicides or veterinarians who, for a host of reasons have become disillusioned with their professional life. The causes of this are many and varied but the most prevalent is a sense of isolation and lack of professional support. This has been recognised by the Australian Veterinary Association and in this state the Western Australian division has supported the development of the Graduate Support Scheme.

**AIM:** To provide independent, confidential and caring professional and social support to practising Veterinary Surgeons, and in particular recent graduates.

**POTENTIAL FOR SUPPORT:**

1. Practical: Assistance in diagnosis or management of cases. It would be hoped that the Veterinarians own practice would have an arrangement whereby this support could be available when required. However there will be times when outside advice may be sought
2. Practice problems: These may be in the form of employee/employer relationships or help in identifying areas where support in stressful situations within the practice would be of assistance.
3. Providing a sympathetic ear: To people who are finding that their chosen career, and one they have been working very hard towards for a long time, can be a lot more stressful and hard to cope with than they imagined.
4. Providing a conduit: For the more difficult problems to be channelled to the appropriate professional counsellor.

The scheme would offer a PRIMARY COUNSELING SERVICE only. This recognises that there are several tiers to a counselling process. Primary counselling provides the initial point of contact for the person with a problem. It is intended that people with situations/problems that the Primary Counsellor will not feel confident to handle will be referred to specialist counsellors e.g. drug/alcohol dependence, marital guidance etc. It is envisaged that a list of such services will be made available.

**PLEASE NOTE: ABSOLUTE CONFIDENTIALITY WILL BE OBSERVED**

**AVA INPUT:**

The graduate support scheme is available to all newly graduated veterinary surgeons in this state. It is however, an AVA driven project, and is yet another example of the manner in which the AVA supports the profession.

We have a responsibility to help our veterinary colleagues especially in their work environment. No-one else can appreciate the stresses of our work nor is better qualified to offer a helping hand. For this reason, all mentors are chosen as veterinarians with significant experience, yet not too far removed from the age group you as graduates are most likely to identify with.

The AVA also offers a huge list of other benefits to it's members, and it should be noted that AVA membership is significantly discounted for new graduates. Please don't hesitate to contact AVA House, on 08 9367 6827 for more information. Alternatively, contact the Coordinator of the Graduate Support Scheme using the details below.

# WELCOME TO WORK

<b>TIME</b>	
<b>8:00AM:</b>	Registration
<b>8:30AM:</b>	“Welcome to Work” Introduction with Dr Ilana Mendels
<b>8:45AM:</b>	“Juggling Life and Work” Presented by Good Health Solutions
<b>9:45AM:</b>	“Brave new world” - Employment rights and obligations under Workchoices Presented by Michelle Gulliver-Smith
<b>10:45AM:</b>	<b>MORNING TEA</b>
<b>11:00AM</b>	‘She's driving me crazy!’ - Managing Performance and Expectation in the workplace Presented by Michelle Gulliver-Smith
<b>12:00PM</b>	“If you don't like clients...” - Alternatives to General Practice Presented by Dr Penny Dobson
<b>12:30PM</b>	<b>LUNCH</b>
<b>1:15PM</b>	“Let’s Talk Money!” - We all know how to spend it, Rob a senior client financial advisor will help us find a way to make it work harder for us!!! Presented by Robert Beutum
<b>3:15PM</b>	<b>AFTERNOON TEA</b>
<b>3:30PM</b>	“How To Help and When to Ask for Help Yourself” Presented by Annette Josipovic
<b>4:30PM</b>	“Techniques for Stress Management” - How to give over your worry. Presented by Dr David Foote
<b>5:30PM</b>	Chaos in the Consult Room Presented by Old Vets
<b>6:00PM</b>	<b>CONCLUSION CANAPÉS</b>
<b>7:00PM</b>	<b>END</b>





**Commitments required for the Proposed WA Internship Program**

**Commitments by Participating Vet Practices**

In return for obtaining a financial subsidy and participating in the pilot internship programme, the participating practice was to agree to certain conditions, including:

- a) Employing the intern for 12 months.
- b) Intern to have a certain % of time spent with an experienced veterinarian on visits, doing surgery etc, i.e. supervised teaching (intern not on own performing tasks)
- c) Intern to be exposed to all aspects of business where possible.
- d) Provision of formal “de-brief” sessions weekly with intern
- e) Allow intern to participate in AVA mentor programme
- f) Formal evaluation of intern every 2 months and at end of internship
- g) Certain procedures (need to be nominated) to be supervised by vet the first time they are performed by intern
- h) Provide information to AVA (WA Division) for evaluation of effectiveness of intern programme / placement of intern
- i) Allow 1 x 2 week visit by intern to another vet practice. The intern will swap with an intern from another country vet practice – the swapped interns to be afforded the same conditions as the original intern while they are at the vet practice.
- j) Allow intern time off for “other skills” education of approximately 2 hrs/wk (eg. business skills, customer relations etc). Nationally accredited courses to be provided where possible. This commitment represents 96 hours per year of time not spent on practice activities.

**Commitments by Interns**

In return for internship, students were to agree to:

- a) Participate in all aspects of internship to be provided / facilitated by vet practice as noted above.
- b) Participate in a journal club via the web
- c) Perform satisfactorily in performance reviews
- d) Obtain “sign off” from vet practice for satisfactory completion of a number of specified tasks (eg. assisted in lambing, attended to billing, etc.)
- e) Encouragement / a suggestion will be made to the intern that they should give thought to working in a country vet practice after completion of their internship (not necessarily in the practice the internship was with).

## Appendix 7

### Comparison of Measures Used by Veterinary Schools to Prepare undergraduates for Rural Veterinary Practice

(This table is derived from information provided by the veterinary schools but has not been specifically verified by the respective faculty)

Veterinary School	Year 1	Year 2	Year 3	Year 4	Year 5
<b>Melbourne</b>	One year of tertiary education or equiv of first year BSc.	Preclinical training at Parkville – structure and function of the normal animal, understanding of animal systems and an introduction to health and disease.		Students must complete 13 weeks extramural clinical experience within accredited veterinary practices known as “Academic Associates” located in rural or regional Victoria to provide students with excellent exposure to rural practice. At least one week must be at the University’s Rural Veterinary Unit in Maffra.	
		12 weeks extramural experience in animal husbandry across the range of animal industries		<p>The veterinary school at Werribee has a large and active equine hospital. Students spend two weeks rostered into this section of the hospital, closely involved in the diagnosis, treatment and management of medical and surgical cases.</p> <p>Very active herd/flock health program operating on a commercial basis through the Mackinnon Project and students can attend farm visits with consultants as part of their agricultural animal rotations in third and fourth years.</p> <p>A “Practitioner in Residence” program provides fourth year students with close interaction with an experienced practitioner.</p>	

Veterinary School	Year 1	Year 2	Year 3	Year 4	Year 5
			<p>External lecturer provides training in practice management and economics and business management also provide in agricultural production systems.</p>		<p>Second semester of final year is 'lecture free' allowing students to undertake up to four elective placements in veterinary practices or other professional settings (diagnostic or research laboratories, zoos etc). These act as a transition period between undergraduate and graduate.</p> <p>Bovine Appreciation Group is very active and helps students contemplating rural practice to meet and chat with invited rural practitioners and encourages students to consider rural practice as a career.</p>
<b>Murdoch</b>	<p>Veterinary Professional Life exposes students to as many aspects of life in veterinary practice as possible and incorporates opportunities to experience first hand a variety of veterinary situations including practice from the first year of the course.</p>				
		<p>At least 5.4 weeks experience of a range of farming activities through the "Vacation Farm Experience during vacation and study breaks</p>			
			<p>10 weeks of extramural practical work in various fields of veterinary science. A minimum of 2 weeks is spent in equine and / or mixed practice and another 3 week block in an area of the student's own choice.</p>		
					<p>Veterinary Practice Management provides</p>

Veterinary School	Year 1	Year 2	Year 3	Year 4	Year 5
					<p>students with professional knowledge and skills to prepare them for the transition into veterinary practice and for the first three years as an employed veterinarian. Many external lecturers present topics ranging from time management, taxation, client communication skills, legislation matters and career development.</p> <p>Special 3 week assignment in an area of particular interest (including rural practice) consisting of lectures, practical work, clinical practice and self-instruction.</p> <p>Students have organised specialist groups – an Equine Group to provide experience of a wide range of extracurricular activities and a Cattle Group to offer experience in activities including preparation of cattle for show, meat judging, visiting feedlots, extra calving</p>

Veterinary School	Year 1	Year 2	Year 3	Year 4	Year 5
<b>Queensland</b>	At least 8 weeks vacation practical work with a minimum of 2 weeks beef, 1 week sheep or vice versa and a minimum 1 week dairy, 1 week horses and 1 week others - pigs, poultry and goats. A minimum 2 additional weeks on one or two of the above type properties or on other animal enterprises			Vacation Practical Work of 8 weeks. A mixture of small and large animal or companion and pastoral animal experience includes 2 weeks at the Veterinary Teaching Hospital, a maximum of 2 weeks at any one practice; 4 weeks must involve large animal experience.	<p>and pregnancy testing.</p> <p>Clinical practical work - first 4 week period of rural practice divided into two parts, for the first 3 weeks the group is divided into 3 sections – one spends a week in an abattoir, one a week (full 7 days) at Dayboro and one clinical skills practicals at Pinjarra Hills and Gatton. The 4th week does tutorials and problem solving sessions at St Lucia, C-section and cattle anaesthesia practicals at Pinjarra Hills and the clinical viva at Gatton on the last day.</p> <p>Second 4 week period, half the group goes to the Pastoral Veterinary Centre for 2 weeks and the other half spends 2 weeks in a selected rural practice.</p> <p>Practice management and professional life) is designed to equip students with non-technical competencies linked to professional success as a veterinary practitioner and to ease</p>

Veterinary School	Year 1	Year 2	Year 3	Year 4	Year 5
					<p>entry into clinical practice</p> <p>A list of common veterinary and husbandry procedures is provided to students at the beginning of 5th year and students endeavour to ensure that they are capable of adequately carrying out the majority of listed procedures.</p> <p>While working in Small Animal Clinic and Hospital in 4th year vacation practical work and 5th year Small Animal Clinics students are required to undertake two weeks of intern duty (in groups of four students/week) that cover the after hours treatments of hospitalised patients.</p>
<b>Sydney</b>	Intramural large animal training (5 days)	Extramural work on properties - commercial horse (5), beef cattle (5), dairy cattle (5), sheep (5), pigs (3) and poultry (2)	Professional Practice 3 - financial and legal aspects of case management	Preparation for Practice – introduction to the transition to practice	<p>Clinical instruction and practice via 4 intramural and 5 extramural rotations.</p> <p>5 placements of 24 days including 2 in rural practice and 2 electives.</p> <p>An annual “Partners in Veterinary Education Conference” is organised by the Faculty to update supervising practitioners on changes</p>
		Professional Practice 2 including Education Support Practice visits			

Veterinary School	Year 1	Year 2	Year 3	Year 4	Year 5
					<p>to the program and gather feedback.</p> <p>The Faculty maintains two specialist veterinary teaching hospitals. The Bovine and Small Ruminants Unit at the UVCC services the University and commercial dairies, including herd health programs, providing ample teaching opportunities.</p>
Massey			14 weeks practical farm work on approved farms - 4 weeks sheep, 4 weeks dairy and 3 weeks of equine stable, stud or farrier work and up to 3 weeks work in piggeries, poultry units, zoos or other livestock units)		7 weeks of veterinary practical work in not less than two veterinary practices (one of which must be a large animal/rural New Zealand practice) in 5 <sup>th</sup> year
			Not less than 6 weeks supervised practical experience in not less than two veterinary practices one of which must be large animal/rural		
				2 weeks dairy cattle practice (to provide experience in obstetrics and peri-partum disorders of dairy cows)	<p>Production animal case load via the “Farm Service Clinic” of the VTH that provides primary accession services to local dairy herds.</p> <p>Clinical training augmented by 4 teaching practices. Students</p>

Veterinary School	Year 1	Year 2	Year 3	Year 4	Year 5
					<p>spend up to 2 weeks at each</p> <p>Animal Health and Sheep and Beef rosters during different seasons provide herd and flock health. Primary accession and referral services to dairy, sheep, beef and deer herds/flocks; together with exposure to pig herds.</p>



**Appendix 8**

**Basis for Estimated Cost of 3 Workshops**

<b>Expense Item</b>	<b>Basis</b>	<b>Estimated Amount</b>
Accommodation	2 nights per person for 80% of participants @ \$120	\$17,280
Travel	Airfare plus taxis for 80% of average \$500	\$36,000
Travel	Km allowance for 20% of \$100	\$1,800
Workshop Meals etc	Day package at facility 90 @ \$35	\$3150
Other Meals	Evening dinner 90 @ \$50	\$4,500
	Breakfasts 90 @ \$15	\$1350
Facility Hire	\$1,500 per day	\$4,500
Facilitator	3 @ (Preparation, 1 day workshop and report writing)	\$30,000
		\$98,580