



# Pre-Budget Submission 2018-2019

Submission from  
Australian Veterinary Association Ltd



16 January 2018

## Contents

|  |   |
|--|---|
| Introduction .....   | 2 |
| Recommendations .....  | 2 |
| Background .....   | 3 |
| Fighting antimicrobial resistance .....                                | 3 |
| Disease surveillance and emergency animal disease (EAD) response ..... | 4 |
| Sustainable veterinary services.....                                   | 5 |
| References.....  | 6 |

## Introduction

The Australian Veterinary Association (AVA) is the national organisation representing veterinarians in Australia. Our 9500 members come from all fields within the veterinary profession. Clinical practitioners work with companion animals, horses, farm animals, such as cattle and sheep, and wildlife. Government veterinarians work with our animal health, public health and quarantine systems while other members work in industry for pharmaceutical and other commercial enterprises. We have members who work in research and teaching in a range of scientific disciplines. Veterinary students are also members of the AVA.

## Recommendations

The Australian Veterinary Association recommends:

1. That the Government allocates funds to establish a national veterinary antimicrobial usage and resistance surveillance system as close as possible to that used in human health to ensure efficiencies and synergies within a One Health framework.
2. That the government fund \$5.9 million to support research on antimicrobial usage and resistance in animal health.
3. That the Government increase funding for the National Significant Disease Investigation Program to establish a sustainable means for private veterinary practitioners to support animal disease surveillance and investigation to protect animal industries and human health.
4. That the government increases funds available for emergency response training for private veterinary practitioners.
5. That the Government fund an increase in employment levels in key animal health and biosecurity areas in line with the OIE audit of veterinary services.
6. That the Government introduce the veterinary student loading equivalent to a medical student loading under the Commonwealth Grants Scheme as it previously appeared in the Higher Education reform package.
7. That the Government work with the AVA to develop and introduce appropriate incentive programs to assist with attracting and keeping veterinary graduates in rural and remote areas equivalent to those for human health providers.

# Background

## Fighting antimicrobial resistance

Antimicrobial resistance (AMR) is one of the biggest threats to global health. Many common infections are becoming resistant to the antibiotics used to treat them, resulting in longer illnesses and deaths. The World Health Organization (WHO) has described antimicrobial resistance as one of the key global health issues facing our generation. Globally, about 700,000 deaths may be caused each year by AMR.<sup>1</sup> If current resistance rates increase by 40%, up to 9.5 million people may die each year.

The United Nations General Assembly met in September 2016 and recognised that antimicrobial resistance poses a serious threat to the world and agreed there should be sustainable, multisectoral approaches to addressing antimicrobial resistance.

In an occasional speech, the Office of Australia's Chief Scientist stated that in Australia, the increasing number of antibiotic-resistant infections appearing in the community and acquired during international travel represent a looming public health issue.<sup>2</sup>

Antimicrobial resistance is a threat to both animal and human health. It has been shown that antimicrobial resistance can be passed to humans through the food chain. While this is a significantly smaller risk in Australia than in many other nations, it is still a major concern.

In 2015, the Australian Government released its first ever [national strategy](#) to combat antimicrobial resistance. The Australian Veterinary Association was represented in the development of the strategy that includes a number of priorities relating to antibiotic use in animals, the development of improved infection prevention guidelines and improving AMR awareness in veterinarians, producers and animal owners. The Australian Veterinary Association is the major contributor to these projects.

One of the seven key objectives of the national strategy was to *develop nationally coordinated One Health surveillance of antimicrobial resistance and antimicrobial usage*.<sup>3</sup> This included the Australian Government Department of Agriculture developing a new Task Group to work with industry stakeholders to design and implement a 'proof of concept' model for surveillance in animals and agriculture informed by a previous detailed report<sup>4</sup> on integrated surveillance options for meeting World Organisation for Animal Health (OIE) standards and generating data that are internationally comparable.

The national strategy included the Australian Government Department of Health providing funding to the Australian Commission on Safety and Quality in Health Care to develop a national surveillance system for antimicrobial use and resistance in human health in Australia; **there was no equivalent funding for similar surveillance in animals.**

While there have been significant improvements in human health antimicrobial use and resistance surveillance, without concurrent animal health surveillance in Australia we cannot fully understand where and when specific threats are emerging in both humans and animals.

In the Federal Government's 2017-18 budget, the government should be applauded for investing \$5.9 million to support research on antimicrobial usage and resistance in Australia, however this is targeted to human health and administered through the National Health and Medical Research Council (NHMRC). Similar funding needs to be allocated to animal health research to allow AMR and AU monitoring and surveillance of the large number of livestock and companion animal species, with recurring annual expenditure estimated to be \$1.6-2 million.

While the veterinary industry is acting already, significant investment is needed from the Australian Government.

## Potential economic impact

Consumers in Australia and overseas are becoming increasingly aware of food safety issues, including those related to antimicrobial resistance. This is likely, in the future, to drive consumer decisions around what food they eat and from where they source this food. While there presently are good reasons to believe that Australian animal products are among the world's best with respect to the risk posed to human health from antimicrobial resistance, we lack the hard, scientific evidence that ensures the information has strong credibility, both in Australia and abroad. The potential economic gains associated with our ability to prove the lower AMR risk of Australian animal products is significant.

On the other hand, if we fail to act, AMR poses a significant burden on our healthcare systems and national budgets. Patients with antimicrobial resistant infections require more intensive and expensive care and are more likely to be admitted to hospital.

## Estimate of cost of AMR surveillance in livestock industries

For each of Australia's major livestock species, it is proposed that there should be surveillance of a minimum of 4 target bacterial species with at least 200 isolates per bacterial species examined. Samples would be collected at slaughter across Australia and undertaken every 2 to 3 years for each livestock species. Each isolate would be tested to confirm species, phenotypic and genotypic resistances, with addition of whole-genome sequencing where informative. It is estimated the cost for each round of surveillance for each species would be \$400K to \$500K. This equates to \$800K to \$1million per year.

Additionally, samples from pathology laboratories monitoring antimicrobial resistance in pathogens should be included in the surveillance. This would cost an additional \$150K per year per livestock species.

## Recommendations

The AVA recommends:

1. That the Government allocates funds to establish a national veterinary antimicrobial usage and resistance surveillance system as close as possible to that used in human health to ensure efficiencies and synergies within a One Health framework.
2. That the Government fund \$5.9 million to support research on antimicrobial usage and resistance in animal health.

## Disease surveillance and emergency animal disease (EAD) response

The movement of animals and people around the world has never been so rapid. In a single day, a person can wake on one side of the globe, and before the day is done, fall asleep on the other. As towns and suburbs expand further into farming regions and bushland, we are living closer and closer to animals and impinging on their habitats. The risk of disease spread, both to and from animals has never been greater, and we have seen this with emerging diseases such as Hendra and Lyssa viruses.

General disease surveillance is important to maintain Australia's favourable animal health status and for the early detection of animal disease emergencies. Emergency animal diseases are a significant threat to animal industries.

The agricultural sector, at farm-gate, contributes 3% to Australia's total gross domestic product (GDP). The gross value of Australian farm production in 2016-17 was \$60 billion. This is an asset that the government must protect. Every dollar spent on prevention and preparedness protects against potential billions in losses.

The equine influenza outbreak in 2007-08 cost Australian governments over \$370 million in response activities and industry assistance. It also cost a further \$1.5 billion in indirect costs to the horse industry and the Australian economy.

This is dwarfed by the prospect of a foot and mouth disease outbreak in Australia, which has been estimated as costing at least \$7 billion and up to \$16 billion depending on our ability to deal quickly with the outbreak.

Effective disease surveillance and response capabilities will mean the difference between a manageable outbreak and a catastrophic impact on our important livestock industries.

At the same time, an outbreak of a disease such as rabies could have a significant impact on human health as well as animal health. This scenario would also come with a hefty price tag for governments.

High quality surveillance, biosecurity and quarantine systems are our only defence against disease outbreaks like these. Should there be an outbreak, effective response capability will be essential. And it is veterinarians who are on the frontline of biosecurity, disease surveillance and emergency response.

In 2015, the OIE evaluated the performance of Australia's veterinary services.<sup>6</sup> The report evaluated Government veterinary staffing levels as 'severely inadequate' in some jurisdictions. This report noted that current staff numbers may limit rapid responses to domestic emergencies, and that in some Australian jurisdictions the decline in financial and staff resourcing for core biosecurity functions had weakened their capacity to effectively carry out surveillance work, and detect, prepare for, and respond to an emergency animal disease outbreak.

The OIE report also noted a reliance on private veterinarians that was not supported by any formal agreement to ensure that private practitioners would indeed engage in surveillance and disease response activities when required.

In a time of heightened risk from emerging disease, rapidly increasing trade in animal products around the world, unprecedented numbers of human movements through travel and resettlement, and the risk of exotic disease being used as biological warfare, it is imperative that Australia's governments appropriately invest in veterinary staff at each level of government.

The Governments needs to be proactively employing and training veterinary graduates to fill the gaps as older government veterinarians retire. Investment is also needed in the development and retention of those who are already working in government roles to ensure their expertise is not lost.

At the same time, there needs to be enhanced government funding of schemes which recruit private veterinary participation in disease surveillance and investigation. The existing [National Significant Disease Investigation Program \(NSDIP\)](#) needs to be strengthened to take advantage of the presence of private veterinarians on farms to undertake disease surveillance and investigations. Current funding through state departments is limited and should be boosted as this scheme is crucial for the maintenance of Australia's favourable animal disease status.

In the case of an emergency animal disease, the government will need to call on private veterinary practitioners to assist with the response. It is important that the government funds emergency response training for private veterinarians.

These veterinary roles, both public and private, are critical to biosecurity, food safety and the ongoing profitability of our agricultural industries.

## Recommendations

The AVA recommends:

3. That the Government increase funding for the National Significant Disease Investigation Program to establish a sustainable means for private veterinary practitioners to support animal disease surveillance and investigation to protect animal industries and human health.
4. That the Government increases funds available for emergency response training for private veterinary practitioners.
5. That the Government fund an increase in employment levels in key animal health and biosecurity areas in line with the OIE audit of veterinary services.<sup>6</sup>

## Sustainable veterinary services

Where there are animals, there need to be veterinarians. Veterinarians are critical for safeguarding the health and welfare of Australia and our animals. They are uniquely qualified to ensure the safety of the food we eat, guard access to export markets, and care for those companion animals that are increasingly becoming genuine members of our families.

However, the future sustainability of the veterinary workforce is currently at risk from multiple directions. Veterinary careers themselves are becoming less sustainable, veterinary incomes are significantly lower than similar professionals, such as doctors and dentists, while their university fees are the same. Rural practices are finding it hard to attract and keep graduates.

There are many incentive programs to attract and keep human health professionals in rural and remote areas, however there are no equivalent programs available to assist with sustaining vital veterinary services in rural areas.

Veterinary education is one of the most expensive courses to deliver as identified in the [Deloitte Access Economics' Cost of delivery of higher education report](#).<sup>5</sup> The Government recognised this and had included the introduction of a veterinary student loading equivalent to a medical student loading under the Commonwealth Grants Scheme in the 2017-18 Higher Education reform package. However, as the package did not get through the Senate, the Government has indicated that the increased clinical loading will not be introduced.

## Recommendations

The AVA recommends:

6. That the Government introduce the veterinary student loading equivalent to a medical student loading under the Commonwealth Grants Scheme, as previously appeared in the Higher Education reform package.
7. That the Government work with the AVA to develop and introduce appropriate incentive programs to assist with attracting and keeping veterinary graduates in rural and remote areas equivalent to those for human health providers.

## References

1. OECD *Antimicrobial Resistance Policy insight* 2016. <https://www.oecd.org/health/health-systems/AMR-Policy-Insights-November2016.pdf>. Accessed 10/1/2018
2. Prasad S, Smith P. *Meeting the threat of Antibiotic Resistance: building a new frontline defence*. Occasional Paper Series. Issue 7. Office of the Chief Scientist. July 2013
3. Australian Government – Department of Health and Department of Agriculture *Australia's First National Antimicrobial Resistance Strategy 2015–2019*
4. Shaban RZ, Simon GI, Trott DJ, Turnidge J and Jordan D. *Surveillance and reporting of antimicrobial resistance and antibiotic usage in animals and agriculture in Australia 2014*
5. Deloitte Access Economics prepared for Australian Government Department of Education and Training *Cost of delivery of higher education final report December 2016*
6. OIE *PVS Evaluation Report–Australia* [http://www.oie.int/fileadmin/Home/eng/Support\\_to\\_OIE\\_Members/docs/pdf/FinalReport\\_PVS\\_Australia.pdf](http://www.oie.int/fileadmin/Home/eng/Support_to_OIE_Members/docs/pdf/FinalReport_PVS_Australia.pdf). Accessed 15/1/2018
7. National Farmers Federation *Food, fibre and forestry facts – A summary of Australia's agriculture sector, 2017*
8. O'Neill J *Antimicrobial Resistance: Tackling a crisis for the health and wealth of nations - The Review on Antimicrobial Resistance* December 2014