A Review of the History and Aims of Dog Health Programs in Australia

By A. W. English

Introduction

This paper will review the history and aims of the dog programs which have been conducted in Aboriginal and Torres Strait Islander communities in Australia over the last three decades or more. The term ‘dog program’ refers to activities concerned with improving the health of the dogs in these communities, and in providing the means to control the populations of these dogs when this is deemed to be necessary. There will also be a review of the issues that underpin these programs, with speculation on what will be required to ensure that sustainable dog health programs can be delivered to communities that want them.

History

One of the first records of dog programs in the Northern Territory is the work of Ross Ainsworth in 1983, at a time when he was the District Veterinary Officer in Katherine. It was a matter of concern to many that the dogs associated with Aboriginal camps around Katherine were often visibly unhealthy, and there was speculation about the possible risks this posed to human health. Certainly one of the major motivations in starting a dog program in Katherine was a belief that this would have positive effects on human health, and this has been one of the principal reasons given in support of such programs ever since. It is worth noting that more recently there has been considerable debate about this link between dog health and human health, based on what appears to be a lack of hard scientific evidence of the transmission of zoonotic diseases from dogs in northern Australia. This issue will be discussed further below.

The initial dog programs in Katherine were quite successful, with an obvious improvement in the health of the dogs after a regime of avermectin treatments. The responses noted in the successful treatment of sarcoptic mange were particularly gratifying, with there being no doubt about the benefits in terms of dog welfare.

As a result of these initial successes a wider program began in the Northern Territory in 1985, with the involvement of the anthropologist Arthur Palmer, whose name remains very closely linked with these dog programs. He was joined not only by Ross Ainsworth and other veterinarians, but also by parasitologist Dr Brenda Presson from the Menzies School of Health Research in Darwin. Funding was provided to undertake dog programs in a number of communities across the Top End, with some emphasis on the collection of data on the occurrence of diseases and parasites in the dogs that were treated. Palmer and Presson (1990) presented a detailed report on these activities, and this remains a very useful source of information on canine health in northern Australia.

It is interesting to note that some information was collected on the apparent benefits to human health as the dog programs continued. Most noteworthy is a graph (Figure 1) prepared at Ramingining community health centre on the occurrence of diarrhoea and skin diseases seen in members of the community, plotted against the avermectin treatment dates for the dogs. The data shows a significant decline in both conditions in people presenting to the community’s health centre as the dog program progressed. Even though this was not a proper clinical trial, being based only on presenting signs, it does provide an indication that further investigation is warranted. There was absolutely no doubt about the benefits of the dog programs in terms of dog health and dog welfare.
However, despite these very promising results, there was a period after 1990 when very little was done. There were attempts made to establish dog programs in several communities, such as at Ramingining in 1991 by Jim McInerney and Daly River by Andrew Brown in 1992, but it was in that year that the Murdoch University program began in the Kimberley region of Western Australia. These studies by Kathryn Wilks and others remain as a significant milestone in the development of effective dog programs, with continuing activity in West Australian communities as a result of this work (see the paper by Wilks in this proceedings). Jack Shields was doing similar work in Cape York communities, with good results.

The next milestone was a dog health conference in Darwin in 1993, held as part of the Western Pacific Veterinary Conference (AVA/FAVA). This activity resulted in the publication of a proceedings edited by Shields (1994), which is another key resource in understanding what was being done at the time, and what was known about canine diseases, zoonoses and dog population control measures.

Following this conference there was an increase in the number of veterinarians who were interested in becoming involved with dog programs, with Rick Speare from James Cook University being one of those. He conducted programs in Yarrabah community north of Cairns, and also worked in Arnhem Land, where he placed some emphasis on educating communities on dog health issues. Through the late 1990s there were private veterinarians from Katherine, Alice Springs and Darwin who also provided a service to a number of communities, while Stephen Cutter from Melbourne also worked under contract to community councils across the Top End.

In 1997 the Australian Defence Force (ADF) became involved, through the ATSIC-Army Community Assistance Program (AACAP). This program delivers engineer and health services support to selected communities, with dog health programs as an integral part of environmental health activities. To date AACAP dog programs have functioned in six communities: in the Northern Territory at Bulla, Bickerton Island (Milyakburra), Elcho Island (Galiwin’ku and the homelands Mata Mata and Wurrwuyi) and Docker River; in South Australia at Oak Valley; and in Queensland at Jumbun. For details see the paper by Rod Salter in this proceedings.

**Big Lick**

The last piece in this brief history of dog programs in Australia was the formation of the ‘Big Lick’ group in 1999, as an informal working group with a commitment to finding the best way ahead for dog programs in rural and remote communities. Big Lick emerged from a conversation at Galiwin’ku in 1998 between Philip Donohoe, who was then an Environmental Health Officer for East Arnhem Land, based at Nhulunbuy, and Colonel Tony English, who was there on an AACAP dog program. There was an early decision by the expanding group that a conference/workshop should be conducted in 2000, with the intention of attracting as many stakeholders as possible.

**Aims of Dog Programs**

As a prelude to the workshop activities at this Big Lick conference, it is appropriate to review the aims of dog health programs in Australia. They are:

- to improve the health and welfare of dogs (and cats) in the communities concerned
- to provide means of managing large, uncontrolled dog populations, with the problems of noise, scavenging, attacks on humans
- perhaps to contribute to an improvement in human health, by a reduction in the transmission of diseases from dogs to people, and
- to provide the knowledge, training and resources to enable communities to take responsibility for their own dog programs
The Issues

In evaluating these stated aims, there are several issues which emerge.

Animal welfare

The first aim is straightforward and unambiguous, with all animal owners in Australia required by law to comply with legislation on animal welfare. There is continuing debate about how the enforcement of such regulations may differ from place to place, and the extent to which cultural sensitivities should be taken into account (see the paper by Loff in these proceedings). It can be stated with some certainty that most dog owners in these communities would prefer not to have sick dogs, but almost invariably lack the means to do anything about it.

From the outset it has not been difficult to demonstrate that dog health programs can deliver very significant improvements in dog health, particularly through control of sarcoptic mange and nematode parasites like hookworm and roundworm.

Zoonotic diseases

It was pointed out by Speare and McConnell (1994) that dogs can harbour a long list of parasites and pathogens that can be transmitted to people. However, there is an often intense debate about the actual risk of such transmission occurring, with a query about the extent to which dog health programs will contribute directly to improvements in human health. Currie (1994) raised the probability that the canine strain of Sarcoptes scabiei is genetically different to the human strain, and research since that time has confirmed this. Nonetheless, many people who handle dogs with mange do suffer skin irritation, and this can lead to streptococcal skin sores and kidney disease. There may well be a much greater risk of transmission of scabies from other people, but in quality of life terms (for both the dogs and their owners) there are undoubted benefits from the effective treatment of mange in dogs.

Currie (1994) also points out that data collected across northern Australia do not reveal a high incidence of conditions like visceral larva migrans due to the larvae of Toxocara canis, nor of cutaneous larva migrans due to the canine hookworm Ancylostoma caninum. However, there have been anecdotal accounts of an improvement in skin conditions in children when dog programs are in place. In noting the absence of such hard data, it should be accepted that it is difficult to obtain relevant information from many remote communities, and more work is required to obtain a better picture of what is happening. There should be the development of research proposals that will help resolve some of these questions, and allocation of the funding required to carry them out.

A case can be made that the available information does not support an argument that the primary benefit from dog health programs will be an improvement in human health. In the future there may well be demonstrated to be such benefits, with some parasites such as Strongyloides. But there would also appear to be some indirect benefits as well, in terms of teaching Aboriginal mothers about the use of medication, and the responses which can be achieved with proper use of pharmaceuticals in their children. This is not always an easy message to get across, but if dog mange can be visibly improved over a month or two this can be a powerful demonstration.

The value of dogs as companions for people in all sections of society is undeniable. Quite apart from the cultural aspects of dog ownership in many Aboriginal communities, there is a need to acknowledge that sick, ‘leather’ dogs are not pleasant to live with, and this applies to Aboriginal dogs. Improving the health and vigour of their dogs is certain to be beneficial to the mental and social health of their owners.
While the issue of zoonotic disease can be debatable, there is no doubt that there are issues in the nuisance activities of large, uncontrolled dog populations.

**Dog population control**

It is an all too common sight to see large packs of noisy, aggressive dogs roaming around Aboriginal communities, turning over rubbish bins and creating a major nuisance with their fighting and attacks on people. Most communities do want to do something about this, and there are several ways in which dog programs can assist.

The methods available to reduce dog populations come down to a choice between surgical desexing, the use of contraceptive preparations such as Covinan® (Intervet (Australia) Pty Ltd) in female dogs and the euthanasia of unowned, unwanted or chronically sick dogs. The pros and cons of each of these have been discussed by a number of authors in Shield (1994). No two communities will ever be the same, when selecting a system of dog population control. The key issue is to determine that a community does want to do something positive, and to seek the best combination of methods to achieve this. With euthanasia there are likely to be particular sensitivities in many places, but there is now sufficient experience to understand what general approach should be taken.

The use of surgical desexing under field conditions places some strains on the standards of surgery and animal welfare, but surprisingly good results have been achieved. It has been noted that castration of dominant male dogs can certainly have a beneficial effect in reducing the activities of dog packs causing problems around the community. There is debate about the cost-effectiveness of female desexing in places where the life expectancy of dogs is quite short, but this does not apply in all communities.

With all veterinary medications there is a need to consider the legislation which applies to the dispensing and use of restricted drugs. While this may vary a little between jurisdictions, it will always be necessary to consider what measures, including training and certification, may be required to permit the use of all the drugs concerned by non-veterinarians, whether these be Environmental Health Officers, Aboriginal Environmental Health Workers or members of a community. One especially sensitive area with regard to human safety is the storage and use of lethal injections such as Lethabarb®, but even for Covinan there are concerns in some States about its use by lay people.

There are new methods of contraception under development for a range of species, including pest animals, and some of these may eventually provide better results than the present options. When appropriate, preparations like the subcutaneous implant Deslorelin® should be trialled in dog programs.

**Enforcement or education?**

When looking for solutions to the problems of sick dogs or nuisance dogs, it is reasonable to start with the premise that it should be the owner’s responsibility in the first instance. People must be given the knowledge and the means to act responsibly. Only when this fails should there be a process of enforcement, but there will always be debate about what measures are needed, how they will be enforced and by whom.

Dog control measures may include mandatory registration of dogs, restrictions on the number and types of dog that can be owned, and the use of dog indentification systems (collars, tags, microchips). At the present time it would seem that widespread use of such an approach is not likely, but some of these measures may appeal to some communities.
The need for effective training programs and educational activities that focus on good pet ownership is apparent. There needs to be careful consideration of the exact nature of these programs and who will deliver them.

The Way Ahead

There is now a need to develop a consensus on the role and importance of dog health and population control programs. This consensus should embrace the communities themselves, all service providers including the veterinary profession, and politicians and others who control budgets. Dog programs should be seen as an integral part of environmental health programs, with both direct and indirect benefits for human health and quality of life. It should not be suggested that funds for dog programs be diverted from primary health care budgets because with proper planning it should be possible to achieve both.

There are now some very effective means of improving the health and welfare of dogs and cats in rural and remote communities. The challenge for all concerned is to find the best way to put sustainable programs in place in communities that seek them. They will only be successful if they have strong community support.

References


Figure 1: (From Palmer and Presson 1990)
Additional comments by Tony English

We need to develop a consensus at this conference on the role and importance of dog health programs. We need to understand collectively what we are trying to achieve. We need to look at the way to deliver sustainable programs to communities that want them. Sustainable is the important word here. There is no point starting these programs if we can’t continue them, if we can’t keep them in place as the community wants. It’s pointless and a waste of money to start if we can’t continue.

We also need to determine the research programs that are required to pursue the unanswered questions. What research is required, who can do it, who will fund it. Identify the stakeholders and the potential sponsors.

We need to make certain, alongside anything else we do, that we put in place proper training programs for people in the communities, to deliver alongside the vet team and help in the welfare of the dogs. In looking how we deliver these programs in some of the more remote areas, the university faculties may be interested in doing this with senior students in a way that can suit both parties.

Discussion from Tony English’s talk

Geoff Shaw (retired member of Tangentyere Council, Alice Springs) Tony, could you please explain in layman’s terms what zoonotic means?

Tony English I am talking about diseases that can be transmitted from animals to man, the dog diseases that can make people sick. There is a long list of potential diseases and these will be discussed later. A large number of them are possible, but the extent to which it happens is the issue.

Megan Thomas (Katherine Vet Care) I just wanted to make a comment about the idea of getting university students in to do dog health programs. It has been suggested before. I’ve been doing dog programs since 1993 in Katherine, and we, together with Debbie Osborne from Alice Springs, are very strongly against this idea because in our programs we do a lot of surgical desexing. When I first went out, there had been people doing spays, fairly slowly and inefficiently, and a lot of dogs had died; so there then became this thing of not wanting the dog spayed because it might die. I’ve done a lot of it so I can do it very fast and I think that’s a key to successful survival. The reason we fought very strongly against students doing it is that, as all the vets will know, a final year vet student can’t do a dog spay in less than an hour or, in a lot of cases, an hour-and-a-half. To ask them to do a surgical sterile procedure on the back of a ute in the middle of the dust is asking for a lot of dead dogs.

Tony English I couldn’t agree more. I wasn’t suggesting the vet students work unsupervised doing spays. I think vets very much know their limitations. I’m talking about university veterinarians, with students supporting them. I’m not talking about students doing surgery—I teach them, and I understand their limitations. I appreciate your comments.

Jenny Youl (final year vet student, Melbourne University) I went out on a dog program in June for a couple of days. I got a lot out of it even though I didn’t do surgery—just being there as a vet’s assistant, to see what goes on and to get experience. I actually felt that I was able to help. It’s important to get vet students involved at that level. Then they can move on, when they are vets and when they are competent, to participate in the programs.