

Central Australian Aboriginal Communities – dog health programs

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INTRODUCTION

Human health: the importance of dogs and dog health problems

Dogs have always been an integral part of Aboriginal communities in Australia. In the past they have been hunters, watch dogs, child minders, companions, provided warnings of evil spirits and are ancestors reincarnated as animals. Dogs still live closely with people – they share bedding and food and have close contact with children. Aboriginal beliefs vary about the importance and role of dogs but they are usually regarded as very important.

The health of dogs in the remote central Australian desert communities and the possible impact on human health is a contentious issue. While there is scientific evidence that a range of dog diseases can be transferred to humans, there is no scientific evidence to quantify whether this actually occurs to a significant degree. Anecdotal evidence indicates that the presence of healthier dogs in a community reduces the incidence of human illnesses such as diarrhoea but there is now clear scientific evidence that human and dog scabies are not transferred between hosts.

Are dogs in remote communities truly an environmental issue? Despite questions about the specific impact of sick dogs on the health of the human population, there is undoubtedly a human health risk. In some communities the general health of dogs can be extremely poor and it is the human health risk through contact with sick dogs, that has motivated the development of most dog health programs. The UPK Report (by the Nganampa Health Service) specifically includes sick dogs as an environmental health concern and suggests a focus on the importance of reducing the health risk to children who often have a close relationship with puppies and play in areas contaminated with dog urine and faeces.

Aside from human health risks, dogs in Aboriginal communities have generated concerns about animal welfare, noise, fighting, biting and scavenging. Animal welfare issues are always present when animals are sick, injured or neglected and many dogs in communities could be considered in need of intervention from the RSPCA. Improving the health of community dogs requires community support for a comprehensive program and most animal welfare issues will gradually resolve as the positive aspects of a program begin to take effect. Resolution of the problem through initiatives developed by the community would be preferable to interference from external organisations.

A dog program usually contains two parts: treating the dogs to improve their health and to control population growth. Treatment for dog health in the past decade has usually been with a broad spectrum drug, which kills a wide range of internal and external parasites. Population

control usually involves the use of euthanasia and contraception.

The health improvement from the control of parasites is sometimes quite dramatic. Where dogs are very unhealthy, a dog health program can produce rapid and visible results. ‘Leather’ dogs start to grow hair and this dramatic improvement in their general appearance is a source of pride to their Aboriginal owners. This pride can be used to encourage participation by others in the dog program. So, even if the impact of sick dogs on human health is not clear, a direct concern for the welfare of the dogs by Aboriginal people may be a sufficient reason for the introduction of dog health programs. An unfortunate side-effect of an improvement in dog health may be an increase in aggression from uncontrolled healthier dogs. The elderly and children could be particularly at risk.

This chapter attempts to give a picture of how to establish a dog health program and to give some insights into what approaches have and haven’t worked. There are two critical elements in successful dog health programs. The first is that the program must be shaped by community discussions. The second is the inclusion of sufficient veterinary expertise to avoid mistakes. Both of these elements require considerable investment of time and money, however history suggests that the omission of one or both of these elements will lead to early demise of your dog program.



Some dog programmes have resulted in overdosing—
veterinary supervision is critical to avoid mistakes

THE DOG POPULATION

There are four categories of dogs found in Aboriginal communities:

Domesticated dogs

- Usually well looked after, easily handled and easily treated to maintain good health;
- Usually in the minority;
- A long term goal of a dog program is to have the overwhelming majority of dogs in this category.

Camp dogs

- The largest group of dogs in communities;
- Have an identifiable owner, live closely with the family and move about with the owner;
- Tend to be unfriendly when handled and timid when approached;
- Some of more easily medicated with oral medication than injections.

Fringe camp dogs

- Appear to have no owner or permanent residence;
- Are scavengers and fighters;
- Are very timid and can't be handled;
- Pose the biggest problem for any dog health program, as they avoid close contact with community members and are difficult to catch or medicate.

Dingoes/wild dogs

- Live in the bush and will scavenge at camp sites;
- Enter into communities to mate with the resident dog population resulting in many crossbred puppies.

A dog health program must be designed to cater for all these categories of dogs. While many dogs may only receive minimal exposure to treatment, regular program can satisfactorily treat over 90% of dogs.

INTRODUCING DOG HEALTH PROGRAMS

Many dog health programs have been initiated in communities but few have become a long term success. There are almost as many reasons for failure as there have been failures – and with failure it only takes 6-12 months for the dogs to become unhealthy again.

The combination of vast regions with sparse populations poses major problems in designing a successful program.

A successful program must involve:

- Consultation with and commitment from community members before starting the program;
- Sufficient administrative 'grunt' for the initial development of the program and for tackling problems as they arise;
- A commitment to adequate ongoing funding and resources;
- Veterinary involvement in the program;
- Regular treatments by a dog health team;
- Ongoing backup and support from community members, health workers and the Community Council.

COMMUNITY INVOLVEMENT IN THE DOG PROGRAM

Each community has a different attitude to caring for dog health. A program that works well in one community may need to be extensively modified to be successful in another community. Maintenance of community support will be much easier if the issues relevant to the dog program are discussed fully from the beginning.

Above all, any dog program must respect the beliefs, rights and wishes of Aboriginal people. Failure to appreciate this is likely to result in a dog program which

is culturally insensitive. The greater the cultural significance of dogs, the more likely the information about the role of dogs will be secret. This makes it even more important to ensure that the community discusses each aspect and implication of any dog program proposal at great length to ensure that there is no conflict with cultural beliefs.

REGIONAL APPROACH

A standardised regional approach to delivering dog health programs has a number of advantages. It will:

- Reduce and spread the cost of employing external expertise and training of personnel in all communities;
- Ensure highly mobile dogs owned by members of a community will be included in the treatment program.

Disadvantages are that a regional approach:

- Will require an appropriate administrative structure to work through;
- Flexibility for members of individual communities.

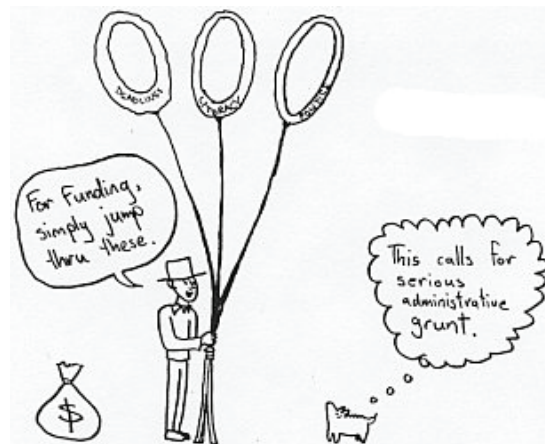
ADMINISTRATION AND FUNDING

Because it is not scientifically proven that dog health programs result in human health benefits, funding bodies are often reluctant to provide resources. Once a community decides to pursue a dog health program, the community administration will need to be prepared to fight hard to obtain and retain sufficient funding. Chapter 1.1 'Guidelines for Community Management and Administration' in Environmental Health Handbook – a Practical Manual for Remote Communities provides relevant ideas about setting and maintaining an agenda for progress in environmental health issues.

Local government, ATSIC, State and Commonwealth health departments and primary industry departments have all contributed to dog programs in the past by providing materials, services, advice and/or funding. One successful example is Nganampa Health Council which provides a regional dog program in the AP Lands as part of their overall health program funded by the SA Health Commission. In northern Western Australia environmental health workers were trained to work on dog health programs as part of a collaborative effort between Murdoch University, local shires, training institutions, the government health department and communities.

A key factor in the cost of a dog health program is whether it is a 'stand alone' project or is integrated into a broader environmental health program. Integrated programs can be extremely cheap to run and can avoid the difficulty of arguing the merits of funding a separate dog health program. On the other hand, a program, which focuses just on one community can be far simpler to set up and maintain.

In the administration of a dog health program it is essential that accurate, detailed records are maintained and analysed. This will allow for a regular assessment of the success of the program and a continued monitoring of the dog health and dog numbers within the community. As the dog numbers decline, record keeping will become easier.



Funding for dog health programs can be hard to find

VETERINARY EXPERTISE

Dog control programs must be under the supervision of a veterinary surgeon. Their specialist expertise is required for:

- Monitoring the effectiveness of the program and troubleshooting problems;
- Ensuring the program is humane and ethical;
- The determination and supply of drugs to be used (as some of the drugs are regulated as to who can supply and administer them);
- Dosages and timing of drug treatments;
- Keeping of records in accordance with legal requirements for restricted drugs (especially those used for euthanasia);
- Pathology testing.

Two models of implementing a dog health program are:

1. A qualified vet can train dog health workers or environmental health workers in all aspects of the dog program. These workers can then run the program for most of the year, with limited veterinary supervision. This approach can ensure a greater level of community employment and involvement. The costs can be kept reasonably low, however there is a greater risk of problems as veterinary involvement becomes less.
2. The community or group of communities can contract the whole project to a veterinary team. This is likely to be more expensive and requires the veterinarian to be sensitive to the concerns of residents. If communities work together, costs could be reduced. Without local support on the community, controlling population growth may be difficult (eg euthanasia of puppies). A major benefit of this approach is that mistakes, which may result in unplanned dog deaths, will be minimised.

IMPORTANT ISSUES FOR THE COMMUNITY

The following issues need to be fully discussed and resolved by the community in order to ensure the success of the dog health program. For most issues there are several options, however only one may be suitable for a particular community for cultural or other reasons.

What happens if a treated dog dies?

The medicines normally used in dog programs are very safe and rarely cause the death of any dogs, if used strictly as directed by the veterinary surgeon.

Nevertheless a dog may die as a result of treatment and this event needs to be anticipated. This may cause concern with some Aboriginal owners but it should not lead to the abandonment of the program if the long term benefits are well known. The possibility of a dog dying should be discussed, in advance, with each community. This should reduce the chances that the whole program will be aborted through lack of confidence in the safety of the methods used or a lack of understanding of the benefits of the program.

The program must be properly supervised by trained personnel and the treatment given to the dogs must be appropriate. Some methods of administering the medicine can be risky – for example the methods in which the drugs are injected into bread and thrown to the dog. The bread may be taken by another (dominant) dog nearby which may consume far more than the recommended dosage, and die.



Inadvertent dog deaths can rapidly erode confidence in a dog 'health' programme

What to do when dog numbers increase dramatically?

If the program is successful, dogs will quickly become much healthier. Healthier dogs are more fertile than sick dogs. More puppies survive and a dramatic increase in dog numbers can occur quickly so it may become necessary to implement a method of controlling the dog population size. If numbers are controlled it is easier for owners to take better care of their own dogs, especially by feeding them better, and this will help the dogs stay healthier.

Too many dogs causes an increase in problems, such as:

- Fighting, biting, nuisance;
- Cost of feeding;
- Scavenging of rubbish and houses for food;
- Faecal and urine contamination;
- Spread of dog borne disease.

Population control must be an integral part of the dog program. This can be achieved by:

- Euthanasia of adult dogs and puppies;
- Effective contraception of adult dogs and puppies;
- Effective contraception using

- Temporary contraception, a cheaper alternative using contraceptive injections; or
- Surgical sterilisation for permanent contraception. Although initially more expensive, surgical sterilisation is permanent and provides a longer term solution.

Some communities have set a limit on the number of dogs that can be owned by each household (for example two dogs per household), and have had some success in achieving that goal. This is complicated, however, by the mobility of the human population and the number of fringe camp dogs.

Using euthanasia

Clear directions are needed from the community about how to euthanase dogs and which dogs can be euthanased. In some places euthanasia may not be sanctioned but it may be acceptable for unwanted dogs and puppies to be taken away. Attitudes to the euthanasia of dogs and puppies will differ between communities but it is always a sensitive issue. It is important that all euthanasia be carried out humanely.

Puppies

Euthanasing puppies before puppy-child bonding occurs is a very effective method of controlling the dog population. This will increase the average age of the dog population and reduce the number of fertile young dogs. It also requires considerable organisation as there is only a short period of time between birth and bonding. A worker living on the community would need to be trained to do this humanely. This will minimise the risk of disease transfer between children and puppies, as well as achieving population control.

Adult dogs

Owners often request the euthanasia of adult dogs which have become sick or aggressive, or to reduce the number of dogs in their household. Whether or not fringe camp dogs can be euthanased must be discussed. In communities where the dog population is under control, euthanasia will rarely be an issue. Where euthanasia is necessary on a large scale, some vets have specifically avoided being responsible for this part of the program. They have been concerned to make it clear that their role is about 'fixing' the dogs, not killing them. If euthanasia is a sensitive issue within a community, it may be advantageous to separate the killing and healing aspects of the program. Responsibility for any large scale euthanasia may need to be given to a different organisation. An example of this occurs in Alice Springs where the Town Council agrees to take away unwanted dogs from town camps. Another approach is to avoid emphasis on euthanasia early in the program and concentrate on the healing aspects. This can develop trust and ultimately make euthanasia more acceptable.

What happens when healthier dogs become more vicious or cheeky?

Healthier dogs with no owner control can result in dog attacks, bites and general nuisance in the community and their numbers will need to be reduced.

Dog attacks on community members or visitors are common and can be fatal. Euthanasia of vicious or cheeky dogs must be discussed fully by the community.

Castration of male dogs can reduce aggression between male dogs and reduce the risk to humans, but does not work on all dogs.

If euthanasia of aggressive or cheeky dogs is not an acceptable option, a dog health program may not achieve its goal of improving the human health of the community. Anecdotal evidence indicates that presentations at clinics for dog bite wounds can increase as dog health improves.

Dog health workers and others involved in dog programs should not underestimate the potential danger to themselves when handling community dogs.

Handling dogs requires considerable expertise and practice. Assistance from owners can help, however many dogs are not handled regularly enough to be safely restrained. There are techniques for safer handling of dogs which veterinarians can teach. Dog bites are nasty and must be avoided as confidence in the program can be eroded by health workers or owners being bitten. In the long term, with fewer but healthier dogs, an increase of pride in ownership and better feeding, closer relationships between owners and dogs may make treating dogs easier.



People assisting in dog programmes must be properly trained in dog handling

Costs of a dog health program

A dog health program can only be successful if it is backed by adequate, long term funding. Many programs have collapsed with the disappearance of funding. The costs will vary enormously depending on the structure of the program and whether it can be added onto an existing program.

In addition, the drugs and methods used will change with time, also dramatically affect the costs of the program. There are a variety of cost factors to consider, some of which are outlined here.

The most significant factors affecting the costs of a dog health program are:

- The number of dogs in a community;
- The remoteness of a community and the number of communities that can be serviced during a veterinary visit to a region;
- The intensity of the program – programs involving the use of drugs only, are likely to be cheaper to run than programs involving drugs and surgical desexing but may be less effective in the long term;

- Established programs may be less expensive because the veterinary involvement can be reduced although veterinary supervision is still required to oversee the whole program and to supervise the use of restricted drugs by approved dog health workers.

The costing of a dog health program has two parts:

- The initial establishment costs of the program which may include a major community consultation program and monthly visits for about the first six months; and
- The ongoing maintenance costs for a successful program.

Ongoing costs

The ongoing costs of a regional dog health program as part of a bigger environmental health program can be as cheap as \$700-\$1,000 per community visit – this is based on the program run by Nganampa Health Council in the AP Lands.

It assumes a 10-day visit servicing up to 10 communities with 100 dogs each. This cost includes surgical desexing, drugs, daily rate for the veterinary surgeon and nurse, airfares, accommodation and food. Only 3-4 visits per year will be required on an ongoing basis. Vehicle and fuel costs are not included in this estimate as it assumes that the vehicle is part of the overall environmental health program. Accommodation is only partly provided as the veterinary team camps out as necessary.

Pricing and time available for community visits will vary between veterinary surgeons so you will have to obtain clear costings and detail of what is included before you begin. Another cost estimate obtained in 1999 for a 'stand alone' program was approximately \$700 per day for the veterinary surgeon plus vehicle costs at a per kilometre rate and any of the following cost factors which are relevant.

Other cost factors that will need to be included are:

- Initial community consultation;
- Monthly treatments initially for at least the first six months;
- Additional dose of parasiticide which should occur at least eight times per year – the drug for this costs approximately 30 cents per dog;
- Use of contraceptive drug (approximately \$15 per bitch) or surgical sterilisation (more expensive);
- \$300 per day for a veterinary nurse or assistance provided by the community;
- euthanasia of dogs approximately \$5 per dog;
- euthanasia of puppies on a regular basis by someone based in the community;
- how flexible are the arrangements if the community has other business, perhaps at short notice, at the same time as the vet is due to arrive; and
- any administration costs.

Note: The above costs are a guide only and were current in 1999. It is also advisable to ask prospective veterinary surgeons to outline their experience of managing dog health programs on communities.

EXPERIENCE FROM EXISTING PROGRAMS

There are many ways of introducing and maintaining dog programs in Aboriginal communities. In part it depends on what different people want and partly it reflects the structure and approaches of agencies in different regions and states.

In the Pitjantjatjara Lands of South Australia, Nganampa Health Service runs a dog health program which is fully integrated with their environmental health program. Funding is through the South Australian health Commission and the dog component is managed by a veterinarian. A major focus of the strategy, apart from making the dogs healthier and controlling numbers, is to minimise risk of dog to human infection by separating puppies from small children and using structural methods such as fencing of playgrounds to keep dogs out.

In north west Western Australia, the dog health program is integrated into a broader environmental health service provided by the shires through Environmental Health Officers and workers. Murdoch University provided the initial community consultation work and veterinary expertise.

Some individual communities, particularly those close to towns, successfully contract private veterinarians to deliver dog health programs for them.

In many communities in the Northern Territory and far North Queensland, agencies such as ATSIC or DPI have funded short term regional dog programs. Unfortunately, without ongoing funding, the dogs have reverted to their former unhealthy state in many of these areas and the money spent has had limited value.

In some communities, clinic staff contribute to dog programs by supplying drug storage facilities, drug administration expertise and puppy euthanasia. If a substantial contribution is to be made by clinic staff, there will need to be considerable time spent developing specific protocols and procedures. Health agencies may be reluctant to become involved if they consider dog health programs to be a low priority for human health. Also there is a need for training and support from the veterinary surgeon.

In general, dog programs in remote areas exploded in the eighties and have died down to a whimper in the nineties. Our experience is that the Aboriginal people do generally want dog health programs and our aim in this chapter is to help newcomers to the field avoid the many mistakes of the past. The early fly in fly out programs have now been replaced by more consultative approaches and more integration into regional environmental health programs. Longer term planning for dog control, including dog registration, is being achieved on some communities.

CONTACTS AND FURTHER INFORMATION

Publications

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- Shields J (Ed) (1996). Dog Health in Indigenous Communities. Queensland Department of Primary Industries, Cairns. (Proc of Western Pacific Veterinary Conference, Darwin 1993)

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Territory Health Services, Alice Springs. The Avomec Story.

Wilkes and Williamson (1998). The Dog Health Program in Aboriginal Communities – a Method for Dog Management in Remote Aboriginal Communities. In: Urban Animal Management – Proceedings of the Seventh National Conference on Urban Animal Management, S Hassett (Ed) 1998, Australian Veterinary Association.

Harris G & Irving R. Community Dogs and Their Health. In : Harris G (Ed). Environmental Health Handbook. A Practical Manual for Remote Communities. Menzies School of Health Research, 2000.

Funding and Resources

Department of Primary Industries Regional veterinarians – for experience and technical advice

Local or regional shire/town councils – technical or other assistance

Local private veterinarians – experience, technical advice, contract service provision

Federal State/Territory health departments – funding, technical advice, experience

Aboriginal and Torres Strait Islander Commission – funding

Department of Employment, Education and Training – funding for training

Other Training Institutions which have courses for Environmental Health Workers.

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Robert Irving is a veterinary surgeon who graduated from Queensland University in 1971. He is a partner in a large practice group in suburban Adelaide and is also a private pilot. He started the dog health program in Central Australia in 1997, developing program strategies over time, by trial and error. He covers 3 million sq km of Central Australia (Gulf of Carpentaria, Cape York), advising initial plans. He is married with 8 year old triplets!