The Army's Role in Delivery of Dog Health Services

By Rod Salter

Summary

In my role as an army veterinarian assisting the ATSIC Army Community Assistance Program (AACAP), I have had three deployments over two years: to Oak Valley, South Australia; Docker River, Northern Territory; and Jumbun, far north Queensland. In this presentation I will concentrate on preparation to deploy, movement to the community, living in the community, the task itself and follow-up of the program. Oak Valley being my first deployment will be the template of discussion. Similarities and differences to the other two communities will be noted.

Introduction

This presentation is aimed to be a synthesis of my three deployments, either as the sole veterinarian (Oak Valley) or as part of the veterinary component of the AACAP activity at each location. At Docker River I worked with a second veterinarian (Major Wayne Backhaus) for approximately half of my deployment, whilst at Jumbun a second veterinarian (Lt Kate Allen) was present for the entire time.

Our deployment in each instance was part of the health services deployed for the environmental health program.

What Is the AACAP Program??

In 1997 the Chief of Army, Lt Gen Sanderson, signed a Memorandum of Understanding that committed the army to the ATSIC Army Community Assistance Program (AACAP), designed to aid remote Aboriginal and Torres Strait Islander communities across Australia. The stimulus for this development was a request from the Minister for Aboriginal Affairs, John Herron, that assistance be provided in seeking ways to achieve the best possible water and health infrastructure in these communities, using the unique resources of the army. The first community to benefit was Oombulgurri in Western Australia, where the Engineers repaired damage to the airstrip and barge landing after severe flooding in February 1998. Since that time a further six communities have participated in AACAP, with varying combinations of Engineer and health service support. This has been a major commitment for both corps since then, with many months spent in the field by the soldiers concerned.

The health program has included delivery of primary care in community health centres, dental services and environmental health, with dog health and population control programs being delivered as part of the latter. In every case there has been a strong emphasis on training members of the community, including an ability to continue dog programs set up by AACAP veterinarians.

The communities to benefit to date (1997–99) are:

- Oombulgurri (WA)
- Bulla
- Milyakburra
- Galliwinku and the Markathal Homelands
- Oak Valley
- Docker River
- Jumbun

The AACAP vets involved are:

- Col Tony English
- Lt Col Rod Salter
- Maj Wayne Backhaus
- Lt Kate Allen

In addition the army has funded the involvement of four young veterinarians:

- Geoff Golovsky, a veterinary Student (Milyakburra)
- Kristy Gilbert, a veterinary student (Milyakburra)
- Raina Plowright, a recent graduate (Milyakburra & Galliwinku / Markathal)
- Gabi Tobias, a recent graduate (Milyakburra & Galliwinku / Markathal)

The total Australian Defence Force contribution (of which the veterinary program was one component) has been huge—a lot of it has gone unpublished and unheralded! For all of us these have been life-changing experiences.

Preparation for Deployment

- Initial one day briefing in Sydney
- Cultural awareness training conducted over a weekend.
- Introduction to other personnel
- Review all the paperwork available from previous training exercises and thus derive a concept of operations, a task list and a stores list
- Liaise in advance with involved personnel—the community, environmental health officers, local vets and other vets to be deployed if applicable
- Begin planning a post-exercise report

Concept of Operations

Development of a concept of operations requires consideration of a community's attitude to a veterinary program, its level of previous exposure to such a program and an estimate of the numbers and types of animals involved. In each case prior to deployment we were satisfied that the communities were either happy or wary for the vet to treat animals, and would need education to effect a reproduction control program and culling.

At Oak Valley our preliminary estimates were of 170 dogs, whilst at Docker River the estimate was 300 dogs. Finally at Jumbun the estimates were 30–40 dogs, 10–20 cats and 20 horses.

Situation and Mission Statement

The overall aim of AACAP is to conduct an environmental health improvement program where training is the primary focus, both immediate and long-term. This involves providing assistance to local staff and requires assistance from local staff.

The veterinary role involves both training and hands-on treatment and the implementation of a written veterinary training program as part of an overall environmental health package. Measurable change should be demonstrable as a result of veterinary involvement in the overall health program.

So our mission statement for each community is to provide veterinary advice and conduct a dog health program, aiming to improve the health of dogs by reducing the population numbers to a level acceptable to the community and to simultaneously reduce the number of zoonotic diseases transmitted from dogs to humans.

Tasks

From this we were able to develop a task list of seven tasks that needed to be performed to fulfil the mission:

1. Determine the community attitudes to the establishment of a ‘dog program’.
2. Conduct awareness programs within the community, with an emphasis on dog health, disease prevention and welfare issues, including the risks of zoonotic disease transmission from dogs.
3. Identify and train an appropriate community person to maintain any new program of dog health and population control.
4. Examine and treat all the owned dogs.
5. Identify the reproductive status of all owned dogs, with a view to the use of either surgical desexing or hormonal contraceptive injections to temporarily prevent breeding.
6. In consultation with the community, euthanase unwanted or chronically sick dogs.
7. Ensure the continuation of the program by seeking the involvement of a local vet.

Outline Program

Oak Valley

This was a 24-day deployment. The first and final days involved movement to and from the community by a combination of service air, civilian air and road transport.

Three days were spent initially in site familiarisation, individual discussion with the local people, and at a town meeting. Three days were spent training a group of local personnel in dog health programs. Three days were enforced stand down days due to a local ceremonial activity. One day was spent demonstrating the surgical technique of sterilisation and eleven days were actual clinical work. One day was spent in report writing and the presentation of records to the local community health nurse.

Docker River

This was a 20-day deployment. The first and final days involved movement to and from the community by a combination of civilian air and road transport.

In the first phase of the deployment, involving two vets, one day was spent initially in site familiarisation and individual discussion with the local people. Half a day was spent at a dog show at the community school whilst another half day was lost as our venue was unavailable due to a weekly community need. For two half days and three full days, the two vets conducted clinical work.

In the second phase of the deployment (one vet versus two), one full day and for two half days were lost as the venue was unavailable due to community need. Despite this, a further eight full days and two half days clinical work were conducted

Jumbun

This was a 14-day deployment for two veterinarians for the entire exercise. The first day and a half and the final day involved movement to and from the community by a combination of civilian air and road transport.

One and a half days were spent in site familiarisation, individual discussion with every local household and setting up the veterinary facility. One day was spent performing clinical work on horses. Eight full days were spent on clinical work on small animals. No days were lost due to community activities or unavailability of our facility—a dedicated building was allocated to us (a vacant house). A day was spent report writing.

Administration and Logistics

The factors to consider in a prolonged remote area deployment are:

- A venue to work in plus its out-of-hours security
- Food
- Sleeping
- Comfort
- Links to home
- Resupply of stores
- Vehicles
- Assistants
- Visitors
- Availability of support tradespersons

Unless dedicated veterinary nursing staff are identified as support to these exercises, the use of interested personnel as vet support is recommended to enhance their training experience—completion of the vet role would become very difficult as a 'one man band'. Thus linkage with a health team and concentration of effort on this role during the period of deployment of the vet occurred in these exercises and is to be encouraged.

Task Performance and Outcomes

How did we perform? I will answer this in relation to our seven identified tasks.

1. Determine the community's attitudes to the establishment of a 'dog program' and

2. Conduct awareness programs within the community, with an emphasis on dog health, disease prevention and welfare issues, including the risks of zoonotic disease transmission from dogs.

The most important thing is to establish non-threatening contact with the community. This contact needs to be made early and by all relevant people. It is important to take a local known person to act as a guide and linguist.

Community meetings can be very positive. They need to be well attended by both influential tribal representatives and interested Indigenous health workers. The attendees spread the word amongst the community. The aim is to establish what the community wants and knows.

It is also important to establish whether the community has ever had a vet visit before, and if so when, for how long, and what was done—and whether the experience was good or bad!

Discuss such matters as scabies, zoonotic effect of dogs on man, sterilisation, population control and euthanasia, identification and record-keeping. Discuss the role of dogs to the community: are they hunters, companions, ancestrally reincarnated?

Don’t just rely on one meeting—discuss in public whenever possible: aged care centres, schools, health facilities, dental office, general community walkabouts. Going out into the community and giving each family their own day to bring their dogs in often proved more effective than waiting for each group to come to us. Encourage community visitation whilst working. Kids bring their parents.

Finally, be aware: despite the best preparation, preliminary ‘knowledge’ may not be accurate. The local personnel are often very enthusiastic once they know the actual people involved in the tasking.

3. Identify and train an appropriate community person to maintain any new program of dog health and population control.

Most previous workers and authors in the field of Indigenous dog health programs have discussed the advisability of having a local person involved long-term in the program. They need to understand both the background to the program and how to implement it.

Identify locals willing to attend a vet health worker training program. Prepare and deliver the training program for as many volunteers as possible. This will ultimately allow appointment of a community person as ‘vet nurse’, with provision for multiple reserves. In addition, a large group obviates shyness of any individuals—as does involving both army and local non-Indigenous persons as fellow students.

Our training program consisted of three days (each day the students were only available for two hours due to community obligations). Topics covered included record-keeping, control of scabies and worms, preparation of Avomec® biscuits, handling and holding dogs safely, dog injections, animal identification, population control, chemical sterilisation, surgical sterilisation and Culling (that is, euthanasia).

At Oak Valley the training program was very successful in itself. However, due to a funeral all the students were absent for the next 10 days and missed virtually all of the clinical work.

As further reinforcement of the program each day a printed handout was produced. At the conclusion of the deployment a written report and an ongoing recommendations letter was sent to each community.

The communities at Docker River and Jumbun both preferred that clinical work to commence immediately. The large population size of Docker and the previous exposure to vets at Jumbun were the reasons cited. Thus training programs weren’t conducted for these communities. However, copies of the training program, personalised for each community, were provided to the communities to encourage their long-term support.

At both these communities, despite their inability to commit to a training program, there were many interested people, so we encouraged their attendance at the clinic to provide simultaneous informal training.

From this preparation and planning appointments were made—at Oak Valley it was a young man, at Docker the community nurse, and at Jumbun a lady tribal elder. The differences should not be surprising as each community is unique.

4. Examine and treat all the owned dogs.

5. Identify the reproductive status of all owned dogs, with a view to the use of either surgical desexing or hormonal contraceptive injections to temporarily prevent breeding.

These tasks proved to be the major focus of the exercise and were achieved concurrently. At each community we were fortunate to be allocated a building with power and water. This simplified logistics a lot.

We developed a surgical standard operating procedure (SOP):

- In our designated VETMOBILE (good advertising!), our group would arrive by 0900 daily ready for work. Eventually this produced earlier arrivals of our patients than 1000–1100 as at the start.

- Each animal presented for treatment was initially anaesthetised using a combination of the injectable anaesthetics Rompun® (Xylazine) and Ketalar® (Ketamine) administered subcutaneously. The normal situation was that owners would arrive with all their animals wishing treatment for them all. It was not practical to anaesthetise a single animal and perform our SOP, then commence the next animal—to do so would have meant the owner may not return with their remaining dogs. Thus each morning all presented animals were mass anaesthetised. This varied from two to 17 animals. Rompun/Ketalar were chosen for their simplicity (that is, all animals were given either 1 or 2 mls of each mixed together in the same syringe depending on their body weight) and safety. Topping up of each animal was invariably necessary; however, no accumulative effect was noted and this combination was readily compatible with intravenous barbiturate anaesthetics.

Another consideration not considered before deployment was the illegitimate use of Ketalar. This is a desired human drug of addiction so night time security was essential.

- Initial restraint of each animal required varying solutions. The Oak Valley dogs in general are handled little if at all. In the cases where owners could physically catch and hold their animals, administration of the anaesthetic was a simple matter. Instances occurred where a neighbour or friend would assist in restraint. With less handled animals or less capable owners, biscuits were used as a treat by the owner, and whilst the dog was distracted I would place a choker lead around its neck. This lead was then secured to an available post and the injection administered. In some instances, the least handled animals were tempted as a group into a ‘corral’ using biscuits as bait. The corral consisted of two buildings separated by a concrete apron with one end permanently enclosed by wire mesh. This left an open area as an entrance that was closed via a section of mesh held securely by community and service members. Once enclosed, biscuit temptation and the choker lead allowed capture of all animals with the subsequent administration of the anaesthetic.

In advance the owners were warned that the dogs may resent the leads and the needle and may make significant noise. This was relatively short-term and not distressing to the owners as they had been warned. Care needs to be taken to ensure the operators are not bitten, either by the restrained animal or by those who come to assist when they hear the yelps of a fellow.

- The injected animals were allowed to succumb to the anaesthetic either in the restraint enclosure, tied to the lead or loose. Generally after the injection the animals would still stay with their group; however, some headed away to a safe spot or home and required retrieval. A count was maintained of those injected to ensure none escaped SOP treatment or were inadvertently left anaesthetised and unattended.

In most cases all the animals presented were injected and retrieved with this early morning ritual. If an animal escaped capture at this time and could be brought back later in the day, it was injected and added to the group; but no addition were accepted after 1400 as it was explained we would run out of time that day and they would still be very sleepy by dark. These animals became a booking for the next day. Similarly owners arriving later in the day were attended to at all times and their dogs either added to the group or rebooked for the following day. It was found that ‘striking while

the iron was hot' was advisable, and in those instances where treatment needed to be postponed overnight, we promised to go to their homes and reinvite and remind them early the next morning.

By comparison with Oak Valley, the dogs at Docker River were slightly more handled, and even more so at Jumbun.

- Our operating table was variously a converted bed, a bench top or an army folding table.

At Oak Valley and Docker River we were fortunate enough to have an autoclave on site. At Jumbun we kept a huge saucepan boiling all day for instrument sterilisation. Where possible we used disposable drapes, gloves and scalpel blades.

Another factor to consider is the disposal of infectious waste. In one instance part was burnt or buried whilst the remainder was evacuated back to Adelaide or Sydney for commercial disposal.

- The SOP for each animal consisted of the following elements

    a) A record was produced for each animal. This recorded details of the owner, the pet, the pet's health status and the treatment and identification given.

    b) After examination each animal had a silicon microchip inserted subcutaneously over the scapulae. The animal was then scanned and the number recorded on the record sheet.

    c) An injection of Avomec (0.5ml) was also administered subcutaneously.

    d) All males were surgically castrated. All females during the first clinical week were spayed (that is, bilateral ovariohysterectomy), whilst during the second week they were given Covinan, a progesterone that suppresses oestrous for at least four months, at a dose rate of 20mg/kg subcutaneously.

    e) All animals receiving surgery were given depot penicillin subcutaneously.

    f) A fluorescent paint marker was applied to the dog's back at the completion of the SOP. This served as immediate confirmation to the community of our effort and facilitated identification and prevented duplication of anaesthesia during the remainder of our clinical work.

Once our treatment protocol was complete, the animals were allowed to recover back in the semi-enclosed 'corral' area. Recovery times varied considerably, but in general recovery was uneventful and the animals were either collected by their owners or would totter back home once ambulatory. In all cases this occurred the same day so that all dogs were reunited with their owners the same day.

Post-operative instructions were discussed with owners in the morning. Owners were warned that all animals would be a little quiet for a day or two and that post-operative swelling could occur, most noticeably in the males. Non-dissolving sutures were intentionally used in those females spayed as the intent was for me to remove them before I left (in reality this didn't occur in all instances, but the army and community nurses felt quite capable of completing this task). Dissolving sutures were used in all cases in the males as I felt dehiscence was less likely to occur and would be less serious if it did occur; this then obviated the need to remove sutures in these more aggressive animals where the surgical position always makes suture removal more complicated than flank removal after a spay.

6. In consultation with the community, euthanase unwanted or chronically sick dogs.

This topic was discussed in each community from the outset and was reinforced during the training program.

The decision was left to the community as to which animals were to be euthanased on the grounds of injury, sickness or lack of an owner. It was also stressed that euthanasia would only be performed at an owner's request. We were not there to enforce euthanasia of any animal.

Whilst initially most owners commented about an excess of dogs, we found that ultimately they accepted responsibility for virtually all their dogs, even though some may have belonged to friends or distant or absent relatives. The vast majority of people wished treatment rather than euthanasia, and during my deployments the only animals brought in for voluntary euthanasia were one adult dog with advanced scabies, two dogs with transmissible penile tumours and one unwanted litter of seven-week-old pups. In addition, an adult dog injured in a road accident with an army Land Cruiser at Oak Valley was euthanased, having sustained a fractured femur and pelvis.

Euthanasia was performed via the intravenous administration of a massive barbiturate overdose, often after the initial administration of subcutaneous sedation to facilitate handling.

Once euthanased the bodies required disposal. From a safety point of view this is a serious issue, as subsequent consumption of euthanased carcasses by other dogs or wild life could produce ongoing deaths because the drug is still present unmetabolised in the euthanased animal's body. The normal alternatives for this are either cremation or burial—the community indicated a preference for cremation, which was attempted on the first carcass. This was only semi-successful and later review of the site indicated some consumption of the body remnants had occurred. From then on a deep pit grave was prepared as an Engineer's task and each body added to the pit was covered with approximately 30cm of lime and soil. This technique proved superior to cremation.

Euthanasia was a new experience for most involved personnel, and despite some bravado, in most cases some form of grief counselling was required, both for service and civilian personnel.

The reasons for and technique of euthanasia were both freely and frequently discussed in an attempt to dispel the beliefs that mass euthanasia was required and that it would involve a yippee shoot.

7. Ensure the continuation of the program by seeking the involvement of a local vet.

A critical factor in the success of these dog health programs is that they are sustainable in the long-term.

Spend whatever time it takes to ring around all 'local' vets. In Oak Valley the nearest were based at least eight hours road travel away in Ceduna, Alice Springs and Adelaide. At Docker River the nearest were also at Alice Springs, whilst at Jumbun the Tully vets were an hour away. Ascertain their willingness to be involved along with their availability and cost.

Ideally a vet should be appointed who will visit regularly and be able to spend enough time on site to continue the program at least once or twice per year. I believe fees need to be negotiated on a days-spent rather than a cases-seen basis.

Dr Robert Riving, who is a private veterinary practitioner from Adelaide, conducts dog health programs for Indigenous communities in the Northern Territory and South Australian outback and has considerable experience in this field. He visited us on location at Oak Valley towards the end of our deployment. His visit coincided with that of the executor of the community trust, so these men met and were able to discuss future veterinary support for the community. Dr Riving also indicated his willingness to assist the Docker River community.

Whilst at Jumbun we utilised the resources of the local vets at Tully and through that association were abler to recommend their continued involvement to the community.

I believe the appointed vet needs to be pro-active in arranging visits. If one waits for a call from the community the program may founder.

Results and Cost-Benefit Analysis

Oak Valley

The best population estimate was 170 dogs. We treated 73 animals in 10 days (range 1–17). The 73 dogs belonged to 18 owners (that is, families). Fourteen households (77.8%) had four or fewer dogs whilst only four (22.2%) had seven or more dogs.

The Indigenous population was estimated at 80; hence there were 2.1 dogs per person. The community estimates there are 2.5 persons per household; hence on average one would expect there to be 5.25 dogs per household. At 2.5 people per household there are 32 households in this community. We therefore treated 18 of 32 households—56.25% (although we treated 73/170 dogs, that is, 42.9% of the population).

The vast majority of the dogs were unnamed. Fifty-eight of the 73 treated (79.4%) were in the 10–20kg range and the average weight was 15.5kg. Reflecting a harsh lifestyle, 46 of the 73 (63%) were in the 12–36 month age bracket. The average age of the dogs in the community was 24.7 months (that is, two years). Only five of the 73 were classified as purebred (a whippet, a Jack Russell Terrier, a Blue Heeler and two Bull Terriers). The remainder were cross breeds including several dingo cross animals.

Of the 73 animals treated, 69 were microchipped and have their details permanently (that is, for their lifetimes) registered with the Australia-wide retrieval service Central Animal Records. A copy of these records has been sent to CAR, which as part of its supply agreement will provide comparative data of similar communities as well as similar data on a State and Federal basis.

Of the 73 animals treated, 32 were female and 40 were male. The remaining ‘animal’ was the euthanased litter of seven-week-old pups—four males and three females. Of the 40 males examined, 38 were castrated while the other two are booked for castration in six months. Of the 32 females examined, 14 were spayed, 16 were treated with Covinan and two were euthanased.

Seventy of the 73 animals were examined clinically, in particular for scabies (Sarcoptic mange), and all of these 70 were treated with Avomec. The three not Avomec-treated were those euthanased. Hence our efforts resulted in 41.1% of the community commencing scabies prevention and treatment. A mange score grid was developed from 0 to 4, with 0 representing a mange-free dog, 1 indicating the presence of suspicious lesion(s) only, 2 being the definite presence of a single lesion, 3 being the presence of multiple lesions, and 4 representing chronic total body coverage of lesions (that is, a leather dog). Whilst only three leather dogs (1.7%) were recorded, only five animals (2.9%) were deemed free of scabies. The average population mange score was 1.6.

I estimate a total community value of $20,000 from this deployment, including the value of services provided plus accommodation, meals, travel, etc. This equates to approximately $1000 per day. Thus future private veterinary deployments should anticipate a preparatory period on site and the community should anticipate the cost of ongoing veterinary support to be in the order of $1000 per day. If a cost can be arranged at or below this figure it would be cost-effective for the community to proceed.

Docker River

With a population estimate of 300 dogs, Docker River had nearly twice as many dogs and Oak Valley. The majority of the dogs were named, and the average weight was 24.4kg whilst average age was 47.3 months (that is, four years).

With the two vets on site together we treated 60 dogs (50% of those treated overall) in 46.7% of the time, averaging 8.6 dogs per day with a range of 1–19. Several dogs were noted to be bilateral cryptorchid. A number of people requested vaccinations for their dogs—no such requests were received at Oak Valley. The mange scores were more widespread, with both more leather dogs and more mange-free. The average was less at 0.6 (1.6 at Oak Valley). A number of dogs had transmissible penile tumours.

Jumbun

The number of animals in the Jumbun community was a lot lower than previously encountered. Both vets were deployed for the entire exercise. This community had had significant previous exposure to vets and was less remote than the other communities with regards access to a local vet.

These factors, plus the community's better grasp (on average) of English, meant that we were asked for and able to provide a more comprehensive, individually tailored program than at other communities.

The community consisted of 26 households, 19 of which owned pets. The community owned 36 dogs (24 females, 12 males), 10 cats (7 makes, 3 females), 18 horses and a goat. All of these animals were examined individually.

Of the 24 male dogs, three were already sterilised whilst two were unwanted and thus euthanased. In one instance sterilisation was postponed by us due to ill health of a patient, and in three instances the offer of sterilisation was declined. The remaining 15 dogs were castrated. Of the 12 female dogs, four were already sterilised, one sterilisation offer was refused by the owner and seven animals were spayed.

Of the 7 male cats, two were already sterilised and five were castrated. The three female cats were all spayed.

On average a household had 2.4 animals. Most had one or two; only one household had there, two households had four and one household had nine!

All dogs and cats were vaccinated, wormed and flea treated. Ongoing worm and flea control drugs were dispensed. Fleas were not a problem noticed at either Oak Valley or Docker River. Sarcoptic mange was very present in the these two communities but no cases were noted at Jumbun

Twenty-eight of the dogs were heartworm tested. Eight tested positive (including two with clinical signs) and received treatment on site. In addition we treated clinical cases of tick paralysis, lice, fight wounds, chronic otitis and conjunctivitis (three cases) in dogs, and a case of feline chronic rhinnorrhea

Eighteen horses were examined for general health. We noted problems associated with ticks, severe insect bite reactions, solar dermatitis, hoof overgrowth and sand cracks. Four horses were gelded (using intravenous Rompun/Ketamine anaesthesia), the equipment required being loaned to us by the Tully Vet Clinic. A goat was also examined.

In general the numbers of animals and receptiveness of the Jumbun community allowed a much more in depth program to be conducted here than at Oak Valley or Docker River. All animals were examined and the records produced should be a valuable community resource.

Future Recommendations

Generalising from our experience, we made the following recommendations to communities post-exercise:

- Appoint a local vet.
- Consider both short-term and long-term visits.
- The army follow-up the program.
- Maintain a scabies program until the incidence is low enough to euthanase refractory animals.
- Appoint and license a veterinary nurse to be responsible for the ongoing implementation of the program under guidance of the appointed vet. The vet nurse could arrange and advertise ongoing visits and make bookings for these visits. Finally, an application should be made for the vet nurse to administer Covinan under direction of the appointed vet.
- Provide a dedicated building for use as a vet clinic.
- Introduce a voluntary community restriction on the number of dogs owned by a family. As stated, the majority of families own four or fewer dogs, and I believe a local bylaw could be implemented restricting households to a maximum of four animals. Households could exceed that number only with the community's agreement and with the payment of a licence fee to keep an excess number of dogs.
- A veterinary team is required to fulfil the tasks and objectives of these missions.

Conclusion

For the army, these are large exercises involving integration of engineering and health, regular army and army reserve. At Oak Valley, for example, there were 100–120 people deployed in total. It is not very common for us to work with other corps in this way. The engineering input is huge for these exercises; they provide all the administrative and logistics support as well as performing their own tasks (at Oak Valley their main task was building an airstrip). Implementation of a veterinary program only would be a simpler exercise, though it would require additional administrative support.

The basis of the success of the program was the prior preparation, the cultural awareness training, the early deployment of support personnel into the community (prior to the arrival of the vet) and the ability to spend a prolonged period of time on site. These are remote communities, however, and resupply takes time to occur. Prior preparation and allowance for contingencies is essential to ensure that the mission is achieved.

The communities all proved to be receptive to the program and to us and as a consequence welcomed the change. A significant degree of interpersonal skills were required to achieve our objectives. It is a matter of getting to the community and selling yourself and what you want to do. Communication is key.

The identification and appointment of an ongoing veterinary service provider, as well as the identification and training of a local veterinary nurse (with a backup of locally-trained community personnel), is essential to ensure that the program will not be of short-term value only but will be sustainable long-term.

Adaptability is also vital. A template can be applied to a degree to other communities, but it is paramount to recognise that each community will differ and one must be extremely flexible.

During a program, consideration needs to be given to whether one lives on or off site. Logistic and personal needs are time-consuming in a prolonged deployment to a remote location.

Finally, it should be noted that the army has a limited number of regular vets, so utilising the army often means utilising the services of an army reservist—and from a private practitioner's point of view, three weeks is an expensive exercise. However, this is often the minimum time required to achieve the mission in a large community. Allowing adequate time for the program is essential.

Success in these programs, I believe, involves us as veterinarians presenting our service to a community and then implementing it. We must be pro-active. In general the community will be responsive and very grateful, but it is a program that must be driven. It will not happen if we wait. Our techniques and procedures are quite suited to remote area work.

I believe the army was the chosen provider for these programs as it has a reputation of delivering what it promises. It has the resources and infrastructure to support a group of workers in the field in a remote location. It provides the training to ensure that preparation is thorough and that contingencies are allowed for. Finally, it has the discipline to ensure that the behaviour of members is exemplary.

Discussion from Rod Salter's talk

Jack Shield In relation to the training course you talked about, where over three days you trained local selected community people to participate: I am concerned about the question of having locally trained people use some of the restricted drugs and even carry out procedures which are restricted by laws in all States.

Could you tell us if you provided some way that these trained people were able to use Covinan themselves, and if so how, and even the question of using ivermectin. In Queensland law, at least, it is illegal for a non-vet to use ivermectin except under strict supervision. Yet we all know it happens. Would you like to talk about how you address that problem?

Rod Salter It's an issue we need to address on an overall basis. I guess in theory I don't have any philosophical objection in these instances to non-vets being licensed to use Covinan and ivermectin. I think it's got to be under the control of a veterinarian, and our recommendation to the community was that the appointed veterinary nurse would be able to do it under control of the ongoing veterinarian.

Jack Shield If I could take that discussion further, in Queensland at least the Veterinary Surgeons Act is presently being revisited to make it up-to-date, and this area is one being looked at. The discussion in Queensland is to modify the Veterinary Surgeons Act in some way to make it easier for vet nurses to do things like this.

The proposition being looked at now is that veterinary nurses can use things like Covinan, but the proviso is that the vet and vet nurse be under the same roof at the same time. This doesn't help much when the vet is in Darwin and the vet nurse or local cooperator is in Docker River or some other remote part of the country.

So this remains a problem, at least in Queensland. I see it as a major concern that needs to be addressed if dog programs are going to be sustainable.

Debbie Osborne Under the Northern Territory Veterinary Surgeons Act there is provision for what you are talking about, particularly provision for remote treatment of animals. The legislation says

that someone who isn’t a registered vet in the Northern Territory can administer the S4’s if a registered veterinarian has satisfied themselves that the drug needs to be administered, that the person is competent to administer it and that it is not reasonably practical for a vet to administer the drug. So those situations are covered—but it has to be under the indirect supervision or authority of a vet registered in the Northern Territory.

Whenever I hear of vets working in the Territory I tend to make sure they are registered in the Territory. There are a lot of vets working up here that I hear about, but I don't have names so I can't actually ring up and check that they are registered. Rod, you were one of the names I couldn't check on. I would hope you were registered with the Northern Territory Vet Board when you came up to work in the Territory.

If you are the authorising vet or supervisory vet are you going to continue to be registered in the Territory when these things are being carried out in the Territory?

Rod Salter I think I’m now registered in Victoria, New South Wales, South Australia, Queensland and the Northern Territory. I certainly applied for and gained registration in the Northern Territory before I came to Docker River. I likewise applied for registration in South Australia for Jumbun.

I see the outcome from the army point of view at this stage is that we go in and commence the program and then virtually hand over to the local authority, with a local vet or long-term supporting vet involved. I would see that it would be they who would ultimately license a vet nurse to carry on administration of Covinan. If I was the continuing vet, it would certainly be under my control and I would be wanting to be involved in that program directly rather than doing it remotely from Melbourne for the next 20 years.