



CAN YOU PROVIDE A "REAL LIFE" EXAMPLE OF A ONE HEALTH ISSUE THAT YOU HAVE ENCOUNTERED AND HOW AMRRIC IS WORKING TO ADDRESS IT?

By far one of the best examples of a One Health issue encountered in rural and remote Aboriginal and Torres Strait Islander communities is the potential impacts of increasing cat populations. Fifteen-twenty years ago, cats were rarely seen in rural and remote communities. But more recently, cats have become increasingly common, and are now present in many communities we work with. Not only that, but cat populations in some communities are growing rapidly, as cats are able to breed up very quickly. While cats have an important function as companions and in helping to manage pests like rats and mice, cats can carry a number of diseases that can make people and other animals sick. From a public health perspective, key diseases that pose a zoonotic risk for people include toxoplasmosis, a bacterial infection known as "Cat Scratch Disease" that is spread to people through bites and scratches, and ringworm, all of which can have important impacts on human health. In addition, cats are skilled hunters, and can have devastating impacts on local wildlife and ecosystems. The larger the cat population in a community, the more likely they are to have negative impacts on people, other animals, and ecosystems. Addressing these issues requires a truly collaborative approach. Using the AMRRIC app to track changes in cat populations over time, has allowed us to identify changes in the cat populations and to advocate for the need to include specific strategies for the management of pet cats within community animal management programs.

DO YOU HAVE ANY TIPS ON VETS (PRIVATE OR GOVERNMENT) CAN BETTER ENGAGE WITH THE LOCAL PUBLIC HEALTH OR ENVIRONMENTAL HEALTH GROUPS?

As One Health approaches are all about people working together across disciplines. The easiest way to do this is simply to start having these conversations with local stakeholders in other health fields, by reaching out to them, letting them know about your programs and their objectives and starting to have those discussions about opportunities for collaboration and then working to build and strengthen these relationships. This can include translation of knowledge or looking for opportunities for them to get a better idea of your programs and activities. AMRRIC has developed a diverse array of contacts across different disciplines across Australia and is always to help facilitate introductions.

YOU MENTIONED PARTNERSHIPS WITH COMPANIES WHO PROVIDE ANTIPARASITIC TREATMENTS. WHAT WOULD BE THE MOST COMMON PARASITIC DISEASE/S YOU SEE CURRENTLY? IS SUPPORT FROM COMPANIES ONGOING?

In rural and remote areas, the capacity for diagnostic testing is limited, and there is only a limited amount of research looking at the prevalence of parasites in community dogs and cats, so it is difficult to know the true prevalence and diversity of parasites in community animals. As a result, diagnosis of parasitic infection in the field is usually limited to visual identification of the parasite or a suspected diagnosis based on the presence of clinical signs consistent with a specific parasitic infection. Because they are more readily visible, external parasites such as ticks and fleas, and skin problems associated with scabies and demodex mites, are the most common parasites that we see in communities. However, given available research, as well as our clinical experiences on the ground, internal parasites like intestinal worms and heartworm are also common. AMRRIC is keen to see more research in this space, to help understanding the prevalence of parasitic diseases in rural and remote communities and to develop a better understanding of the risks of parasitic zoonoses to human health.

AMRRIC is lucky to have great relationships with several pharmaceutical companies that have provide us with in-kind support for our programs. Given the number of communities needing these services and the fact that the need for parasite management is ongoing, continuing support is always necessary.

DO YOU TREAT WILDLIFE?

If wildlife species are being kept by community members and they are in medical need, then certainly yes. While our focus is dogs and cats, we recognise that given their remoteness, our services are likely going to be the only veterinary service that community will receive, and so we always do our best to meet the needs of the community and provide advice and treatment to any species that the community asks us to take a look at.

IS THE AMRRIC APP SOMETHING ANYONE CAN ACCESS

The AMRRIC App is still in testing phase and hasn't yet been released through the App stores. If you'd like to go on a mailing list to hear more updates on the app as they are available, please get in touch: info@amrric.org





COMING FROM THE IDEOLOGY THAT SCIENTIFIC PUBLICATIONS CAN SOMETIMES HELP INCREASE FUNDING IN ONE-HEALTH PROJECTS (IN AUSTRALIA AND ABROAD). WHAT CAN BE DONE TO HELP GET SOME OF AMRRIC'S DATA PUBLISHED?

As mentioned in the lecture, there are several knowledge gaps that exist in the academic literature about the relationships between the health of people, animals, and the environment, particularly in rural and remote communities. Starting to compile this evidence is essential in order to demonstrate not only the interdependence of human, animal, and environmental health, but also the potential benefits of implementing One Health approaches in rural and remote Aboriginal and Torres Strait Islander communities. AMRRIC advocates that research involving communities should focus on community identified priorities, utilize research practices that engage and empower communities and ensure that research projects ensure adequate knowledge translation and aim to build local capacity.

One challenge we face is that although the importance of One Health research is becoming increasingly recognised, available funding streams for projects are often still quite siloed, which can pose challenges when trying to implement research projects that investigate One Health issues across the human, animal, and environmental health fields.

One other point of note is that AMRRIC's research collaborations are focused on quality community engagement throughout project development, with a focus on projects that reflect community-identified priorities and help to build local capacity. As such, even when research collaborations have been identified, we feel that it is very important to ensure that the scope of the project includes time to ensure quality community engagement and collaboration.

WHAT GEOGRAPHIC AREA DO YOU COVER?

We work at the invitation of rural and remote Aboriginal and Torres Strait Islander communities. Our services are available to any rural or remote Aboriginal and Torres Strait Islander community within Australia, however the bulk of our on-ground services occurs in WA, NT, SA and QLD.

HOW MUCH ARE YOU WORKING WITH LOCAL COMMUNITIES TO ENSURE THEY UNDERSTAND AND APPLY THE ONE HEALTH APPROACH?

Our experience is that the concept of One Health is not at all new to communities. While the western terminology may be unfamiliar, the recognition of the interconnectedness and interdependency of people, animals and country is inherent in Aboriginal and Torres Strait Islander cultures.

AMRRIC has a strong focus on building capacity within communities through our school education programs but also our accredited and non-accredited adult training programs. Within these programs, One Health is a strong focus, and through the various lessons and training delivered, we are always encouraging a collaborative, multi-disciplinary approach.

WHAT IS YOUR NORMAL PROCESS WITH CONSULTATION WHEN YOU MOVE INTO NEW INDIGENOUS COMMUNITIES?

From the outset – we only work at the invitation of community. The first part of our approach involves stakeholder mapping (unique to each community) to identify relevant stakeholders to consult with (including Traditional Owners and other governance mechanism e.g. Local Authorities, as well as other organisations within One Health realm already operating in that community). Once relevant stakeholders have been identified, we work to facilitate discussion with stakeholders relevant to that community to identify history of animal management activities, animal related concerns, resourcing etc and collectively develop objectives and measures for the program.

When it comes time to deliver programs on-ground, AMRRIC always endeavours to work with local community liaisons – typically community members employed by local government or local health service, who know the community and its animal populations, can speak local language and can work with our teams to ensure we are following local cultural protocols. Wherever possible, we have the same team members returning to the same communities – building familiarity and trust over time. For programs that include the devliery of veterinary services, we always advocate for door-to-door engagement, ensuring no resident misses the opportunity for their animals to see the vet.





DO YOU HAVE LONG-TERM PARTNERSHIPS WITH UNIVERSITIES FOR LOCALLY SUPPORTED RESEARCH AND EDUCATION?

AMRRIC works hard to develop and expand relationships with researchers and universities across Australia and internationally to establish locally supported research that reflects community-identified priorities and to promote education and knowledge translation. While we are always working to expand our existing research networks and pursue novel avenues for collaboration in the One Health space, we are fortunate to have developed long-term collaborations with a wide variety of researchers across the One Health space, who have been fundamental in helping to address knowledge gaps in the relationships between the health of people, animals, and the environment in rural and remote communities. Some of the research publications that have been made possible by these relationships include:

- Research into the zoonotic potential of Strongyloides stercoralis
- <u>Investigation of global cat population management</u> <u>strategies that may be suited to rural and remote</u> <u>communities.</u>
- Methods for identifying community priorities for animal management programs
- Investigating the factors contributing to poor animal and community health

Partnership with veterinary schools in the delivery of animal health and veterinary programs in rural and remote communities is another avenue for university collaboration that helps to facilitate sustained and genuine grass-roots collaboration with rural and remote communities. One example of this is our Cherbourg program which has been made possible through collaboration with the University of Queensland.

In addition to supporting collaborative engagements between universities and communities, AMRRIC is also keen to support Aboriginal and Torres Strait Islander scholars across One Health disciplines. AMRRIC is proud to support the work of Dr Tamara Riley who is co-supervised by AMRRIC's Program Manager, Strategic Delivery, Dr. Bonny Cumming.

ARE YOU GETTING ANY GOVERNMENT HELP WITH EHRLICHIOSIS AND IS THERE ANY PROGRESS WITH THIS DISEASE?

The ehrlichiosis outbreak has certainly been devastating for many remote communities. Since the first detections in 2020, AMRRIC has played an active role in working to support communities to be aware of, and adequately resourced to respond to this new disease. Thanks to our strong relationships with state and federal governments, we have been able advocate on the need which has resulted in some government-funded responses, including some support to assist AMRRIC to develop culturally and contextually relevant educational resources, many of which have been translated into local languages thanks to the additional support of our AMRRIC Allies. We have also strengthened our relationships with a number of pharmaceutical companies and their generosity has resulted in more accessible preventative options for communities.

The disease itself unfortunately will be something we continue to have to deal with. While still notifiable at this point it time, it is now considered endemic across Northern WA, throughout the NT and in northern SA. Recent detections in northern QLD suggest it will become endemic there also.

AMRRIC continues to work with communities, the veterinary industry, researchers, government and corporate partners to assess and document the impacts of the disease, and help communities to minimise its consequences.

WHAT HAS BEEN YOUR BIGGEST WIN TO DATE WITH THE PROGRAM?

With 20 years of work behind us, it's so hard to nominate a single win, however, overall, looking from a big picture perspective, the improvements in dog health (and in turn, community health and wellbeing that flows from this) have been nothing short of exceptional. Unfortunately, 20+years back, everyone was so busy addressing the problems, few vets stopped to collect the baseline data necessary for progress comparisons over time. We have found one exception to this though - we do have data from one particularly region which has been fortunate to receive regular services over many years. We are currently working on a 20-year longitudinal comparison of key animal health statistics from this region and look forward to publishing and showcasing the phenomenal improvements that consistent services can bring.





ARE YOU TRAINING LOCAL PARAPROFESSIONALS TO CONTINUE YOUR WORK WHEN THE VET TEAMS ARE NOT AROUND?

Local capacity building is a cornerstone of our approach. As a result, training and education is a major focus in all the work that we do. Our goal is to work with communities so that people living in community can undergo training that they are interested in and that community members find valuable. We are focused on working with communities to develop strategic plans that are created by communities, for communities and are continually working to provide support to community members to undertake animal management activities in ways that are effective, relevant and sustainable.

AMRRIC's policy is to have local community members either employed or engaged through partner organisations during every community program. The local teams are invaluable when communicating with community and contribute by working to gain informed consent, undertaking census, deliver antiparasitic treatment and assist vet staff coordinate the movement of animals to the clinic for desexing or other required procedures. AMRRIC is currently delivering informal training in various antiparasitic treatments and facilitate ordering and mentoring in between vet visits. However, to further build capacity AMRRIC is developing an accredited training program in the form of a short course in animal management.

IS IT POSSIBLE TO GET PHENOBARBITOL IN COMMUNITIES IF APPROPRIATE PERSON IS ADEQUATELY TRAINED TO USE IT?

The process around training and authorisations for the use and possession of prescription veterinary medications (including phenobarbitol) by nonveterinarians varies depending on the jurisdiction and is typically managed by the state/territory Department of Health. Usually, the process requires a veterinarian to oversee the training and use of such medications by non-veterinarians.

For specific information on authorisations, we'd recommend speaking with your jurisdiction's Department of Health (your local public health unit is usually a good starting point), and also your local veterinary service provider (if you have one), a . Our team are also happy to provide advice and further information – feel free to submit a request for assistance form and we will get in touch with you: https://www.amrric.org/contact/request-for-assistance/

WHAT ZOONOTIC DISEASES FROM DOGS AND CATS POSE THE GREATEST RISK TO PEOPLE LIVING IN RURAL AND REMOTE COMMUNITIES?

This is a difficult question. The risk of zoonotic disease varies between communities due to a constellation of local factors that influence the distribution of disease vectors and disease reservoirs, so it is hard to identify a single zoonotic disease that would pose the greatest risk to people across Australia. While parasites are very common in community dogs and cats, many zoonotic parasites cause relatively mild illness in people, so although the risk of human exposure is high, the risk of healthy members of the community getting sick from these diseases is usually quite low. For people that are already suffering other health burdens however, the risk of more serious consequences of zoonotic infections is increased. Fortunately, zoonotic diseases that are known to cause serious illness in people, such as Leptospirosis, are not as common in community dogs and cats, but when disease in people does occur, it is often more serious.

HOW HAS COMMUNITY INTERACTION CHANGED SINCE THE ONSET OF THE ONE HEALTH PROGRAMS?

Overall, in communities that have more consistent veterinary and education programs, we have seen steady improvements in the overall health and wellbeing of the companion animal populations. With animals living longer, healthier lives, the human-animal bond is able to deepen. Further, we see increased awareness at the community level that there are diseases that can pass between people and animals.

Consistent service delivery also engenders trust and with time and strengthened relationships, we additionally see greater engagement from community members proactively seeking the services on offer. Often this is represented by an owner who might have been initially reluctant to get their animal desexed, but after personally witnessing the benefits of desexing among their family and neighbours' animals, seeks us out on subsequent visits.

WHAT POLITICAL PARTY SUPPORT DO YOU RECEIVE?

We are a non-partisan organisation and are fortunately to be valued by all major parties.

ONE HEALTH & A



WHAT DO YOU SEE AS THE 3-4 KEY ONE HEALTH ISSUES FOR REMOTE COMMUNITIES OVER THE NEXT 4-5 YEARS?

While there are a number of One Health issues for remote communities, and the issues of greatest concern vary between communities, key health issues over the next 4-5 years include:

- Zoonotic and vector borne diseases
- Antimicrobial resistance (AMR)
- Climate change and changing pathogen (particularly vector borne disease) distribution
- Mental health impacts/One Welfare

DO YOU STILL HOLD AN AMRRIC CONFERENCE - I SEEM TO REMEMBER THERE WAS ONE SOME YEARS AGO.

Over the years, AMRRIC has hosted a variety of conferences and workshops – in collaboration with other organisations such as the Australian Institute for Animal Management, workshops at the National Aboriginal and Torres Strait Islander Environmental Health (NATSIEH) conference and stand-alone AMRRIC conferences. Even though it's been a few years since we last hosted a conference, we continue to regularly receive positive feedback from those who have attended over the years. Excitingly, this year AMRRIC are partnering with G2Z and AIAM to co-host a conference on the Gold Coast from 10-14 October . Subscribe to our eNews (at the bottom of our website) and follow us on Facebook to stay up to date with announcements about this event.

HOW ARE YOU FUNDED?

We are fortunate to receive a level of support from the Australian Government. In addition to government funding, we have a number of philanthropic partners and corporate supporters, as well as our AMRRIC Allies – our regular giving program. The requests for assistance we receive from communities still outweigh our capacity to deliver though, so additional support is always needed. Donations are deeply appreciated.



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