



NATIONAL RURAL
HEALTH
ALLIANCE INC.



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Senator Rachel Siewert
Chair, Senate Community Affairs References Committee
P O Box 6100
Parliament House
CANBERRA ACT 2600

Dear Senator Siewert

Growing evidence of a tick-borne disease that causes a Lyme-disease-like illness

I am writing on behalf of the Alliance about emerging vector borne diseases and growing evidence of a tick-borne disease that causes Lyme-disease-like illness. The Alliance notes that Lyme disease is caused by the bacterium *Borrelia burgdorferi*, transmitted through the bite of infected ticks. Lyme disease is found in the Northern hemisphere, with confirmed Australian cases linked to travel. To date the bacterium that causes Lyme disease has not been detected in Australian ticks – despite active surveillance measures¹.

Your Committee is undertaking its work at a time when there is growing concern about the spread of another vector-borne disease, Zika virus, which has already been detected in Australia.

Australia has previous experience with emerging indigenous vector-borne diseases, with cases of what is now called Ross River virus being described in the medical literature going back to the 1920s, and more recently the emergence of Barmah Forest virus.

Both diseases emerged as settlement spread into the ranges of reservoir hosts where local species of mosquitoes had opportunity to spread the virus to other mammals prior to the arrival of humans.

As Australia continues to expand permanent human settlement into previously sparsely populated regions, we must expect the emergence of new vector borne diseases. This may be exacerbated by the impact of climate change. While the diseases identified to date have been mosquito-borne, it is entirely possible that other arthropods, including ticks, could be vectors for disease. The Alliance therefore urges you to consider seriously the emergence of a new tick-borne disease. While the bacterium *B. Burgdorferi* has not been detected to date, it is possible that other bacteria may be present in native ticks but have not yet been identified and linked to a Lyme-like illness.

Australia has become home to vector-borne diseases from Asia and the Pacific, with dengue now firmly established here and other emerging diseases, including Chikungunya, being monitored closely.

The recent emergence of Zika virus from South America has already seen cases emerge in Australia and New Zealand and potential epidemics feared in North America. With the rapid movement of

¹ http://www.health.nsw.gov.au/Infectious/factsheets/Pages/lyme_disease.aspx

people internationally, and the upcoming Olympics in Brazil later this year, Australia must prepare for more cases.

What is particularly concerning about Zika virus is recent reports of a potentially sexually transmitted case in the USA. If this mode of transmission is confirmed, this represents a significant difference in the disease aetiology of Zika virus compared with other vector borne diseases. With this disease already linked to significant risks to babies, Australia must be ready to detect emerging cases quickly and treat, monitor and support affected individuals.

Your Committee is undertaking its considerations at what may be a watershed moment for vector-borne disease surveillance and treatment in Australia. With our proximity to Papua New Guinea, the Torres Strait has frequently been the route through which new diseases enter Australia and surveillance and monitoring are in place to detect these incursions. As new areas of Northern Australia are settled we must also set in place appropriate disease monitoring systems to identify emerging diseases and monitor the impact that climate change may have on the range of both arthropods and the reservoir hosts.

Australia has already joined in the Global response to Zika virus, and we must continue to support research into the natural history, pathogenesis and treatment of emerging vector borne diseases and into the development of vaccination programs.

The Alliance supports the work of your Committee and would be pleased to assist you in any way that we can.

Yours sincerely



Gordon Gregory
Chief Executive Officer