

Tropical disease target of Australian alert

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Flinders University environmental health researcher Meruyert Beknazarova is campaigning to have the common disease strongyloidiasis included on the Australian National Notifiable Disease List. Credit: Flinders University

A life-threatening parasitic worm could be quietly infecting up to 60 percent of vulnerable Australians in remote northern communities.

Flinders University researchers are warning it should be listed as a nationally notifiable [disease](#) because the true extent of its spread remains unknown because basic testing isn't widespread.

Strongyloidiasis is an infection caused by parasitic worms which crawl in through human skin and reproduce inside stomachs and digestive organs indefinitely.

Dr. Kirstin Ross, Flinders University's environmental health research group, says despite infecting an estimated 370 million people worldwide, which makes the parasite more common than malaria, it remains the most neglected of the neglected tropical diseases.

"The parasitic worm causes a form of hyperinfection which results in the generation of huge numbers inside the human host before moving out

of your gut and tissue into other organs. Patients are likely to die," Dr. Ross warns.

Symptoms are likely to include diarrhoea, coughing and a hives-like rash.

Detection rates are low, despite potentially high infection rates particularly in Indigenous communities living in tropical climates.

Ph.D. student Meruyert Beknazarova is the lead author of a study with the National Strongyloides Working Group, which says medical evidence supports their claims for strongyloidiasis to be included on the Australian National Notifiable Disease List.

"Strongyloidiasis is generally considered a disease in developing countries but we actually also see it infect disadvantaged populations right here in Australia, it's impacting Indigenous communities, refugees, and even returning holidaymakers," says Ms Beknazarova.



Credit: Flinders University

Despite the worm's prevalence in up to 80 percent

of Indigenous communities, the number could actually be higher because it remains difficult to detect. There is also no centralised record of cases to track progress.

"The worm tends to be seen in areas where septic or sewerage systems are not working very well or properly or at all," says Ms Beknazarova.

There are confirmed examples of fatal cases in Australia and researchers say a public response is required to make early detection more possible – by adding strongyloidiasis to the Australian National Notifiable Disease List.

"The problem is we don't always look for it and so people can be completely unaware. We also don't understand what environmental conditions allow for its survival."

The Flinders University researchers studying the parasite are also concerned about studies which indicate the worm might become resistant to treatment.

"At the moment we are relying on one or two drugs and unfortunately we have seen a couple of studies that have shown the disease is becoming resistant in animals, and it's possible we could start seeing resistance in humans," says co-author Dr. Harriet Whiley.

"Although it's readily treatable, we don't develop immunity so you could potentially walk out after treatment and become re-infected and the cycle continues," she says.

The working group wants strongyloidiasis included in the Australian National Notifiable Disease List to ensure improved health outcomes for Indigenous Australians while gathering data which will identify preventative measures.

"If we had a better understanding of the distribution, then the likelihood of increased screening and treatment definitely exists," says senior lecturer in Environmental Health Dr. Ross, from the Flinders College of Science and Engineering

"Argument for Inclusion of Strongyloidiasis in the

Australian National Notifiable Disease List" has been published in *Tropical Medicine and Infectious Disease*.

More information: Meruyert Beknazarova et al. Argument for Inclusion of Strongyloidiasis in the Australian National Notifiable Disease List, *Tropical Medicine and Infectious Disease* (2018). [DOI: 10.3390/tropicalmed3020061](https://doi.org/10.3390/tropicalmed3020061)

Provided by Flinders University

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