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# AUSTRALIAN RESEARCHERS PLAY VITAL ROLE IN ADDRESSING THE GLOBAL SCABIES CRISIS

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In a world-first study, treatment of a whole community with oral ivermectin has been shown to virtually eliminate scabies, providing new hope in the fight to control this debilitating disease.

The study was conducted in Fiji by the Murdoch Childrens Research Institute and the Kirby Institute at UNSW Australia and published in the *New England Journal of Medicine* today. The findings are the results of a research project known as the Skin Health Intervention Fiji Trail (SHIFT) involving collaboration with the Ministry of Women, Children, and Poverty Alleviation and the Ministry of Health in Suva, Fiji.

The researchers assigned three island communities to one of three different interventions for scabies control and found that the trial group using mass administration of oral ivermectin tablets had superior effectiveness for scabies control than use of standard topical cream therapy, with a decline in scabies prevalence of 94 per cent at 1 year follow up.

Scabies is a contagious skin infection caused by a microscopic mite that forms an itchy pimple-like rash most commonly found on the hands. It has been listed by the World Health Organization (WHO) as one of the world's neglected tropical diseases with estimates of more than 130 million people affected globally at any one time.

In an accompanying editorial in the *New England Journal of Medicine*, Leader of Tropical and Emerging Infectious Diseases at Menzies School of Health Research (Menzies) Professor Bart Currie praised the study and described how it could form the basis of renewed efforts globally to control scabies.

Scabies is a particularly serious problem in many remote Australia Indigenous communities including those in the Northern Territory, where overcrowded living conditions are a major factor contributing to rates which can be as high as 40 per cent.

"The effect of scabies extends beyond itching and sleep disturbance. In many resource-poor settings and especially in tropical regions, scabies is a major underlying cause of high rates of bacterial skin infections and their consequences, such as serious blood poisoning, kidney disease and potentially rheumatic heart disease," Prof Currie said.

Researchers are calling on support for coordinated plans to address scabies globally.

"Although the WHO initially classified scabies as a neglected tropical disease, it has not developed a formal program for scabies control, whereas 17 other neglected tropical diseases have road maps extending beyond 2015 that include detailed models for their elimination," Prof Currie added.

Prof Currie warns that only treating persons with scabies and their contacts is unlikely to lead to scabies control in the Australian community context.



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"SHIFT together with lessons learned from the past decade of research, planning, and field experience in developing other programs for mass drug administration for control of neglected tropical diseases, including trachoma, will underpin the development of future strategies for scabies control in Australia and globally.

"However as scabies moves with people, population mobility across regions must be factored into program delivery models to prevent rapid reintroduction of infection," he said.

Co-author of the SHIFT study, and Deputy Director of Menzies, Professor Ross Andrews says this has been a major issue with past scabies control programs in Australia.

"Initial success of prior programs for scabies control in northern Australia has been subsequently diminished by re-introduction of scabies into communities. Working locally within communities but also regionally with cross-border coordination of programs will be required in the Australian context," he said.

Prof Currie finished the editorial with noting that:

"Ultimately, the success and sustainability of programs for the control and elimination of scabies and other neglected tropical diseases will depend on coordination with and integration into existing clinical and public health programs".

### **ENDS**

#### Media contact:

### **Menzies School of Health Research**

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#### **Menzies Background:**

Menzies School of Health Research is Australia's leading Medical Research Institute dedicated to improving Indigenous, global and tropical health. We have a 30 year history of scientific discovery and public health achievement. Menzies works at the frontline, joining with partners across the Asia-Pacific as well as Indigenous communities across northern and central Australia. We collaborate to create new knowledge, grow local skills and find enduring solutions to problems that matter.

## **Researcher Profiles:**

Professor Bart Currie leads the Tropical and Emerging Infectious Diseases team within the Global and Tropical Health Division of Menzies. Concurrently, Prof. Currie is also an infectious diseases physician at the Royal Darwin Hospital and since 2000 he has been a professor in medicine at the Northern Territory Medical Program, Flinders University. He is also an adjunct professorial fellow, Charles Darwin University and adjunct professor, College of Public Health, Medical and Veterinary Sciences, James Cook University. In late 2012 he took over as director of RHDAustralia, based at Menzies. For more information about Professor Currie please visit his researcher profile linked above.

As an alternative, <u>Professor Ross Andrews</u> has had an ongoing involvement with Menzies since 2003. He has built a solid base for engagement and collaboration with Indigenous communities, individuals, and service providers within the Northern Territory.