

Cardiologists identify alarming levels of rheumatic heart disease in Timor-Leste

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Research by Australian cardiologists has found the rates of rheumatic heart disease (RHD) in Timor-Leste are among the highest in the world.

The landmark study, published in the *Medical Journal of Australia* today, was the first to measure RHD in Timor-Leste and involved screening 1400 school children for the disease.

The study, supported by East Timor Hearts Fund and led by Menzies School of Health Research (Menzies), found a prevalence of definite and borderline RHD in Timor-Leste of 3.5 per cent, an equivalent figure to other countries with the highest rates globally. All cases of RHD identified had previously been undiagnosed.

Lead author, Menzies' honorary research fellow Dr Josh Francis said that the burden of RHD in Timor-Leste is even greater than what is seen in high risk Aboriginal communities in the Top End of the Northern Territory (NT), where similar studies have identified RHD in about 2.5 per cent of school children screened.

In response to the alarming findings in Timor-Leste, Dr Francis is currently leading a follow up screening program called the Pedriño Study with support from partners including the Government of Timor-Leste, Rotary Oceania Medical Aid for Children, Maluk Timor, NT Cardiac, Snow Foundation, Humpty Dumpty Foundation, and the Australian Heart Foundation.

“Given the high burden of RHD we identified in Timor-Leste, and the high burden of RHD in northern Australia, we believe there is a role for further school-based echocardiography screening, but also a need to develop and validate a simpler, quicker, cheaper approach to active case finding, that could be successfully scaled up,” Dr Francis said.

“The Pedriño study involves further echo screening for RHD in Timor-Leste and the NT, this time evaluating an abbreviated echo protocol using handheld Vscan echo machines operated by trained health workers, doctors and nurses from Timor-Leste and the NT.”

“More than 450 students from a remote Top End community have had echos performed in the first of three weeks of screening for the Pedriño project with new, previously undetected cases of RHD diagnosed every day, including cases which will require cardiac surgery.”

“All cases have commenced on life saving penicillin injections, and linked to ongoing medical care. The burden of RHD identified is even higher than we expected,” Dr Francis said.

The Pedriño study will continue screening over the next two weeks, with a large team including Timorese and Aboriginal health workers who are now in Timor-Leste, where a further 2000 students are expected to be checked for RHD.

The full paper can be viewed [here](#). For more information about the Pedriño study, visit our website [here](#).

What is RHD?

Acute rheumatic fever (ARF) is caused by an immunological response to group A streptococcal (GAS) infection and can lead to permanent heart damage, a condition known as RHD. Globally, RHD is the most common cause of cardiac death in children and adults aged under 40 years. However, through simple and cost effective strategies, almost all cases of RHD and associated deaths are preventable.

There are at least 15.6 million people with RHD worldwide and, annually, over 230 000 people die from the disease. There are another 1.9 million people with a history of ARF and 470 000 new cases are diagnosed every year. These figures, however, are likely to be an underestimate of the true burden of the disease.

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Menzies School of Health Research

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