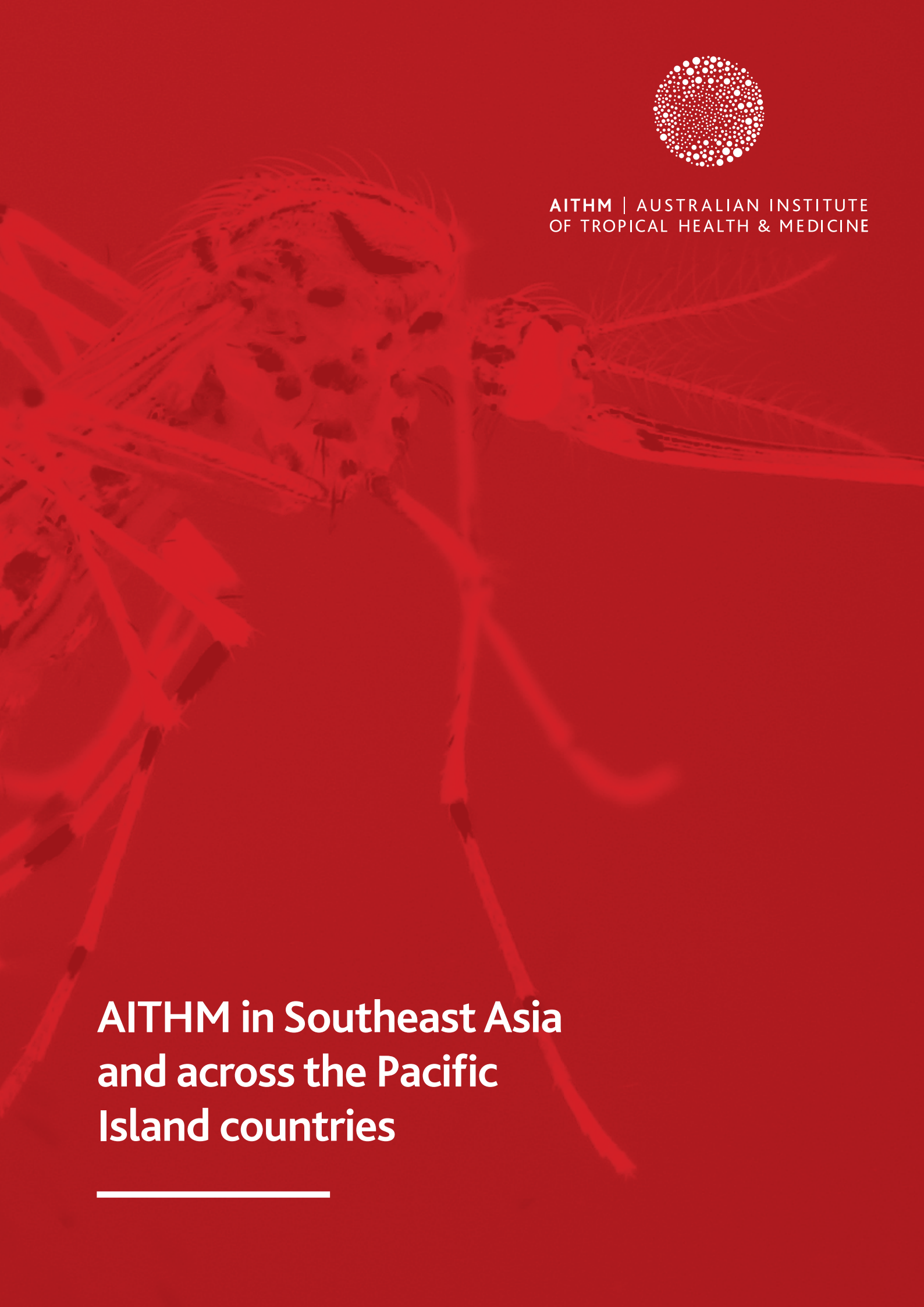


AITHM | AUSTRALIAN INSTITUTE
OF TROPICAL HEALTH & MEDICINE

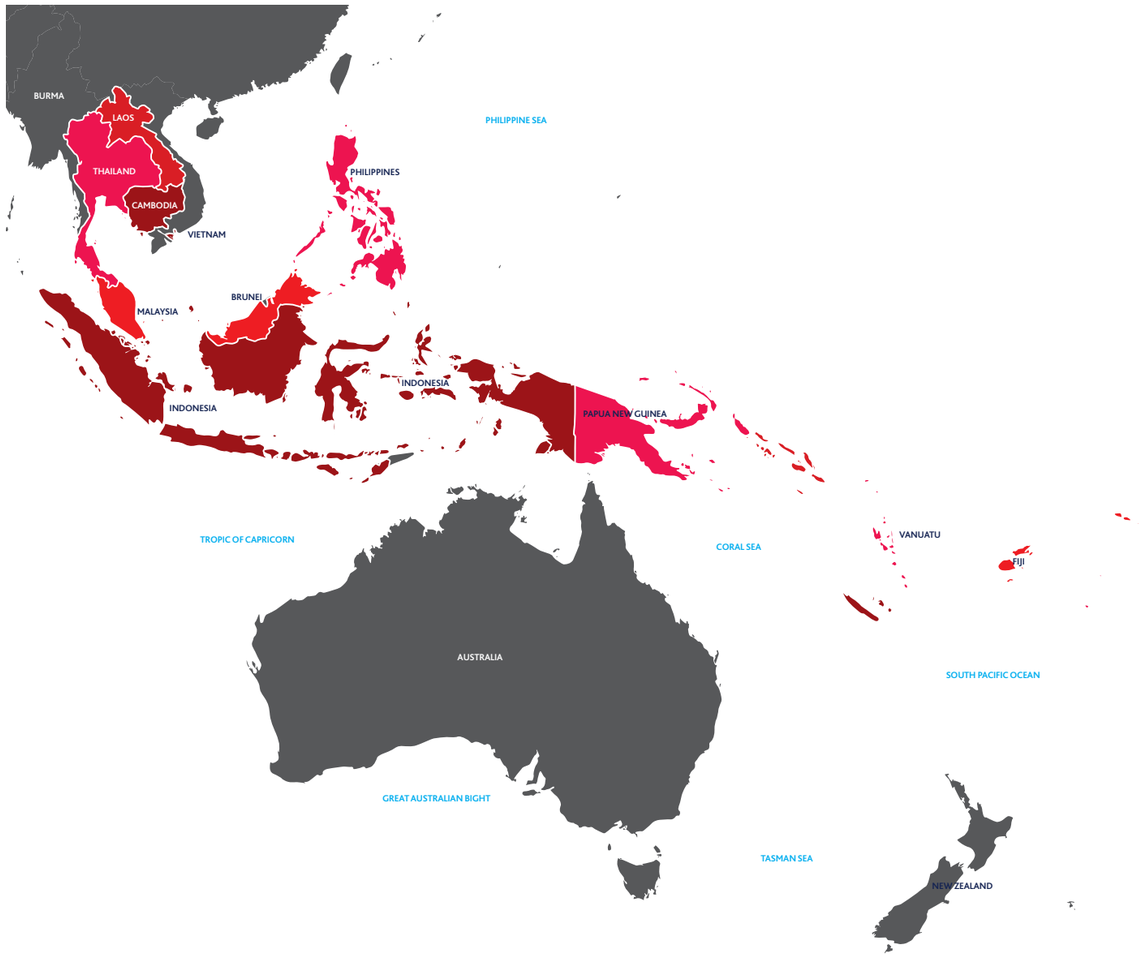
AITHM in Southeast Asia and across the Pacific Island countries

AITHM's research and activities in Southeast Asia and across the Pacific Island countries

The Australia Institute of Tropical Health and Medicine (AITHM) is committed to solving problems of importance affecting the health of people living in the Tropics worldwide. Through partnerships with communities in Southeast Asia and the Pacific Islands, we translate our research into real-world outcomes for Tropical populations.

Research at AITHM aims to:

- Prevent infectious disease by finding and formulating new treatment approaches, as well as increase understanding of infectious diseases including how they invade the body and spread between populations.
- Diagnose infectious disease by developing new interventions and understanding how individuals respond to treatments.
- Understand infectious disease by analysing and mapping health systems and providing recommendations for cost-effective interventions.



Pacific Islands

- Associate Professor Andreas Kupz — Collecting samples from Indigenous children to understand the immune response to tuberculosis (TB) and bacille Calmette-Guérin (BCG) vaccinations in the Torres Strait.
- Associate Professor Catherine Rush and Associate Professor Jeffrey Warner — Using expertise in microbiology and immunology to focus on infectious diseases (including melioidosis and TB) predominantly in Papua New Guinea (PNG).
- Professor Emma McBryde — Estimating the risk of drug resistant TB in Western Province in PNG.
- Professor Emma McBryde — Using mathematical models to guide decisions for TB control programs and evaluating projects using modelling insights into disease transmission (including TB, HIV and malaria — in collaboration with the Global Fund) in the Marshall Islands, Fiji, PNG and Kiribati.
- Professor Emma McBryde — Evaluating a geospatial decision support tool for malaria detection in the Solomon Islands.
- Professor Emma McBryde — In collaboration with Tropical Partners, delivering the Structured Operational Research and Training Initiative (SORT-IT) to public health frontline workers in order to develop research skills in infectious disease (including TB, malaria and Zika) surveillance and reporting in Fiji.
- Professor Patricia Graves — Monitoring, evaluating and investigating lymphatic filariasis, scabies and malaria in Vanuatu, Fiji, Samoa, PNG and Tonga.
- Associate Professor Paul Horwood — Conducting molecular and serological surveys to determine the burden and distribution of arboviruses, and developing capacity for surveillance and laboratory detection of arboviruses in PNG and the Solomon Islands.
- Associate Professor Paul Horwood — Generating greater understanding of the circulation of methicillin-resistant Staphylococcus aureus (MRSA) and improving hospital-based diagnosis to better guide treatment options in PNG.
- Associate Professor Paul Horwood — Investigating the molecular epidemiology and environmental persistence of epidemic enteric pathogens in PNG.
- Associate Professor Paul Horwood — Using novel techniques of sample collection and analysis to conduct viral discovery in wildlife to assess the potential of zoonotic risk in PNG.
- Associate Professor Roslyn Hickson — Using mathematical modelling and artificial intelligence (AI)/machine learning-based approaches to enhance understanding of zoonotic spillover and inter-island transmission of mosquito-borne diseases (including dengue and vivax malaria) across the Pacific Island Countries.
- Professor Sarah Larkins — Strengthening health system responses to infectious disease threats and improving research capacity across the Pacific Island Countries.
- Associate Professor Stephan Karl — Mapping lymphatic filariasis in PNG.
- Professor Tom Burkot — Working with PacMOSSI to prevent current and emerging arboviral and parasitic diseases (dengue, chikungunya, Zika and malaria) transmitted by Aedes and anopheline mosquitoes throughout the Pacific Island Countries.
- Professor Tom Burkot — Surveilling Aedes dengue vectors in PNG.
- Professor Tom Burkot — Monitoring the Asian tiger mosquito in the Torres Strait to prevent crossing into Australia.
- Professor Zoltan Sarnyai — Investigating the impact of infectious diseases on brain health in Fiji, PNG, Samoa, the Solomon Islands, Tonga, the Cook Islands, Micronesia and the Marshall Islands.

Southeast Asia

- Distinguished Professor Alex Loukas — Developing anti-helminth subunit vaccines and diagnostics, and treating inflammatory and metabolic diseases in Thailand.
- Professor Emma McBryde — In collaboration with the Global Fund, using mathematical models to guide decisions for TB control programs and evaluating projects using modelling insights into disease transmission (TB, HIV and malaria) in the Philippines.
- Professor Emma McBryde — Using a model of disease transmission to evaluate and optimise COVID-19 vaccine roll-out strategies in the Philippines, Indonesia and Malaysia.
- Associate Professor Paul Horwood — Using novel techniques of sample collection and analysis to conduct viral discovery in wildlife to assess the potential of zoonotic risk in Cambodia and Laos.
- Associate Professor Paul Horwood — Investigating the emergence of avian influenza viruses in live bird markets in Cambodia.
- Associate Professor Roslyn Hickson — Using mathematical modelling and AI/machine learning-based approaches to enhance understanding of zoonotic spillover and inter-island transmission of mosquito-borne diseases (including dengue and vivax malaria) in Cambodia.
- Professor Tom Burkot — Surveilling for zoonotic Plasmodium species in Indonesia.
- Professor Zoltan Sarnyai — Investigating the impact of infectious diseases on brain health in Indonesia.

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