6 or 12 UoC Research Projects in the Neglected Tropical Diseases Research Group at the Kirby Institute

Project 1: Documenting how the COVID-19 pandemic has affected Neglected Tropical Disease (NTD) control activities in the Asia-Pacific region (6 UoC / 12 UoC)

The aim of this project is to document how NTD control activities, such as mass drug administration, were interrupted or suspended because of the COVID-19 pandemic, and how adaptations or innovations have allowed them to continue or restart during the ongoing pandemic. We will also explore how water, sanitation, and hygiene (WaSH) programs, which are integral to preventing some NTDs, may have been strengthened or repurposed as a result of the focus on handwashing to prevent SARS-CoV2 transmission, and if this may ultimately be beneficial to NTD disease burden. This qualitative research project, which would involve assisting with interviewing NTD program managers in countries in the Asia-Pacific region via Zoom, and analysis of the results, would suit a student who has completed the Qualitative Research Methods course (PHCM9120), and is ideally familiar with NTDs (though not essential).

Project 2: Comparing the ability of Kato Katz, Sodium Nitrate Flotation, and quantitative PCR methods to diagnose soil-transmitted helminth (STH) infections (6 UoC / 12 UoC)

This project would suit a student keen to put their biostatistics training into practice in a real-world situation! Using existing datasets on the prevalence and intensity of hookworm infection in children and adults in Vietnam, the student will compare three diagnostic methods (Kato Katz, Sodium Nitrate Flotation, and quantitative PCR) in their ability to detect presence of hookworm in stool samples, and the intensity of infection they detect. The student will use Stata to calculate sensitivity, negative predictive value, and the Kappa statistic for the different diagnostic methods. This project will suit a student who has completed the Advanced Biostatistics and Statistical Computing course (PHCM9517) and/or the Advanced Epidemiology course (PHCM9518). Ideally the student will have some knowledge of soil-transmitted helminths and neglected tropical diseases, but this is not essential.

For more information or expressions of interest for either of these projects, students should contact Dr Clare Dyer (Research Fellow, NTD Research Group) and Associate Professor Susana Vaz Nery (Head of the NTD Research Group at the Kirby Institute).