

UQ Summer Research Project Description

Project title:	Novel Statistical Methods for Assessing Public Health Interventions
Project duration:	10 weeks
Description:	<p>The dramatic increase in average life span during the 20th century is widely credited to public health interventions through vaccination programs and control of many infectious diseases. Evaluating more modest effects of interventions like increasing tax or increasing police presence to curb excessive alcohol consumption is not as clear cut as simply comparing life spans pre and post intervention. Instead, complex econometric time series techniques are often employed. It is not clear that this is the best approach.</p> <p>This project will compare the commonly used technique of seasonal ARIMA time series analysis with a simpler generalised linear model strategy by application to a real life intervention data set and a simulated data set.</p> <p>The aim of this project is to help improve public policy by better informing our objective view of interventions in a range of health related areas.</p>
Expected outcomes and deliverables:	The scholar will gain experience in applied statistical research in the area of intervention analysis and benefit from links to the School of Population Health and the Centre for Youth Substance Abuse Research. The scholar is expected to gain skills in conducting a short applied statistics project, presenting the results to a School seminar and will contribute to a publication.
Suitable for:	Applicants should be latter year undergraduates from UQ or any Australian University and should have a strong background in mathematical statistics, applied statistics or a related area. Experience in programming and in particular R would be an advantage.
Primary Supervisor:	Dr Peter Baker, School of Public Health Associate Supervisor: Dr Angela White, QUT
Further info:	Interested applicants should contact Dr Peter Baker, Senior Lecturer and Consultant Statistician, School of Public Health: p.baker1@uq.edu.au