



## RACP Foundation Research Awards

### FINAL REPORT

<b>Project / Program Title</b>	Predictors of residential care in older people with dementia in New Zealand	
<b>Name</b>	Dr Hamish Jamieson	
<b>Award Received</b>	2016 New Zealand Fellows Research Establishment Fellowship	
<b>Report Date</b>	13 March 2017	
<b>Chief Investigator / Supervisor</b>	Dr Hamish Jamieson	
<b>Administering Institution</b>	University of Otago, Wellington	
<b>Funding Period</b>	Start Date:	1 February 2016
	Finish Date:	2 February 2017

#### PROJECT SUMMARY

This project is ongoing.

Within New Zealand's growing elderly population there is an escalating prevalence of dementia produced by conditions such as Alzheimer's disease. In fact it is estimated that 50,000 people in New Zealand have dementia [1]. Despite this a major aim of patients and their families is to remain at home for as long as possible. The reasons for admission into residential care are complex. Many studies have shown that carer stress is a major predictor of poor outcomes. However, other factors, including depression [2], reduced mobility [3] and poor nutrition [4] have often been shown to be predictors of poor outcomes. Yet all these individual factors are interrelated and most studies only look at single factors or domains. This project explores the large and unique New Zealand interRAI database in relation to the complex and overlapping factors that lead to residential care admission in those with dementia. To our knowledge, no large studies (that is none with over 5000 people) have examined the multiple conditions that contribute to residential care admission in people with dementia. By doing so this project will create world-leading science and results that can be rapidly translated to improve patient care in Canterbury.

#### PROJECT AIMS / OBJECTIVES

Objective one: To identify the risk factors for entry into rest home for people with dementia

Objective two: To develop predictive models for those diagnosed with dementia entering residential care

Objective three: To compare outcomes in different regions in New Zealand

The New Zealand national interRAI dataset is large and contains over 80,000 assessments, approximately 20,000 of whom have dementia. Each assessment has 236 items electronically

recorded which creates a total over '18 million assessment items. To manage this complex analysis a \$28 million supercomputer that is based at the University of Canterbury will be utilized [13]. This supercomputer is one of the most powerful computers in the Southern hemisphere. Hence, in objective one, for the first time we can determine the individual and collective contributions of 236 areas of an older person's life (such as urinary and faecal continence, carer stress, depression, presence of and degree of pain, social isolation and mobility), to their risk of residential care admission at 6, 12 and 24 months after assessment. Results will be used to develop predictive models for those diagnosed with dementia entering residential care (objective two).

### **SIGNIFICANCE AND OUTCOMES**

This study takes advantage of the fact that New Zealand is the first country in the world to implement a universal standardized comprehensive geriatric assessment for all older people who are being considered for access to publically-funded community services or residential care [7]. The assessment that has been chosen is the international Residential Assessment (interRAI). It was developed by a multidisciplinary collaborative network of academics and clinicians in over thirty countries [8] [9] [10] [11] [12]. The 1.5 hour interRAI homecare assessment is usually completed in the person's home and records responses to 236 standardised items including the diagnosis of dementia. The assessment produces recommendations for clinical care that standardises care planning for all older people across New Zealand.

### **PUBLICATIONS / PRESENTATIONS**

There will be public talks in 2018 as the results are finalised.  
I expect to publish 2 papers from this research.