# ABSTRACT

The rapid expansion of the older aged group within a population over time has become a significant demographic feature across the world. Older adults (≥ 60 years) have complex healthcare needs requiring an increasingly complex range of services to meet these needs. Correctly prioritising services for greatest impact is a major concern for policymakers and service providers across the globe. If health planners do not have adequate information, particularly on vulnerable populations including those in rural communities, it is difficult to design targeted services. Although there is growing evidence that rural and remote older adults experience a higher burden of later-life multimorbidity, the prevalence of conditions of concern, risk factors, patterns of health services use, and their continuing unmet healthcare needs are poorly understood. This thesis directly addresses this problem with the aim of aiding rural health service planners and providers.

There are four connected studies. The first study examined the prevalence of chronic physical and mental health conditions and their effects on visits to general medical practitioners by rural and urban older adults. The second study examined rural-urban differences and factors associated with the outpatient use of specialist doctor services by older adults. In the third study, the relationship between multimorbidity and psychological distress and their impact on health services use specific to rural older adults was investigated. Finally, the fourth study explored the perceptions by older adults of unmet care needs, barriers to care access and facilitators of care use in rural areas.

This research project adopted a sequential mixed methods design. The first three studies analysed quantitative data from the South Australian Monitoring and Surveillance System (SAMSS) survey, a state population-based survey. The data sourced from SAMSS for this study included 20,522 (urban= 13498, rural= 7024) participants aged 60+ years. The associations found in the data suggested areas for qualitative exploration in the final study. The qualitative data came from 35 participants comprising 20 older adults (60+ years) self-reporting chronic health conditions, and 15 health service providers recruited from rural areas.

The findings of the early parts of this program of research indicated that:

1. the chronic physical and mental health burden was similar across urban and rural areas,

2. the frequency of general practitioners' attendance by older people was also similar across rural and urban areas, and
3. physical and mental health conditions had independent associations with the frequency of general practitioner consultations in urban and rural areas.

However, the early findings also revealed important differences between older people living in urban and rural areas that required further detailed investigation:

1. older people in rural locales were more likely to visit a general practitioner for mental healthcare assistance than their urban counterparts and
2. rural older adults were less likely to access specialty care services than those in urban areas.

The third study, focusing on rural older people alone, revealed that

1. multimorbidity increased with female gender, lower education and increasing age, whereas
2. high psychological distress also increased with female gender and lower education but decreased with increasing age.

Reinforcing the findings in the earlier study, psychological distress and multimorbidity remained independently associated with health services use. Seeking further understanding, the interview data in the fourth study revealed four important unmet care needs for rural older people:

1. chronic disease management,
2. specialist care,
3. psychological distress, and
4. formal caregiving.

These services were mainly constrained by workforce shortages, lack of continuity of care, transportation difficulties, and long wait lists. Where available, social support, self-efficacy, and a positive attitude shown by healthcare professionals facilitated timely use of available services.

These findings raise important new questions for rural policymakers, rural health service planners and rural health researchers. Given the known constraints on rural health service resources, can all four identified unmet needs be addressed simultaneously? This is unlikely

given the known rural health workforce deficits that reflect a market failure to provide equitable workforce distribution despite the evidence in this study for equivalent demand. However, this research has demonstrated that psychological and chronic disease factors are independently associated with service utilisation. Therefore, if, as this research also suggests, rural older adults are prepared to see their general practitioner more frequently for mental health issues, could designing more effective interventions specifically for psychological distress in older adults present an opportunity to reduce the demand on specialist services and services for other aspects of chronic disease, including demand on emergency services?

The empirical findings also suggest that there are significant resilience factors in the rural health system that may present novel alternative to rural health policy options. Could building on consumer self-health efficacy, investing in rural social support systems, and recognising and reinforcing positive attitudes in rural health service providers be leveraged to encourage appropriate and timely use of needed services?

Thus, this thesis has systematically identified strategically important areas to empirically guide interventions to improve health services for older adults living in rural areas. These interventions may be different to those for older adults living in cities. As the current demographic trends suggest an ongoing increase in the percentage of older adults living in rural Australian towns, this research is timely and can assist in the wise application of scarce resources to address the likely increase in both health service demand and need.