# Understanding the determining factors of aged care accommodation payment choices

Yuanyuan Gu<sup>1</sup>, Henry Cutler<sup>1</sup>, Mona Aghdaee<sup>1</sup>, Anam Bilgrami<sup>1</sup>, Jongsay Yong<sup>2</sup>, Megan Gu<sup>1,3</sup>

- 1 Macquarie University Centre for the Health Economy
- 2 Melbourne Institute of Applied Economic and Social Research
- 3 Independent Hospital Pricing Authority

### **Corresponding author:**

Dr Yuanyuan Gu

Senior Research Fellow, Centre for the Health Economy

Level 1, 3 Innovation Road

Macquarie University, 2109

Email: yuanyuan.gu@mq.edu.au

#### **Funding**

This research was partially funded by the Commonwealth Department of Health. The views expressed in this report are wholly those of the authors.

# **Background**

Due to population ageing and increased chronic disease prevalence, demand for long term care (LTC) services has been rising in many developed countries. Sustainable LTC financing is required to ensure the delivery of appropriate care that meets the preferences of aged care residents and their families.

In many countries LTC providers rely on government contributions to fund capital expenditure. Providers in the US, the UK and Canada mostly rely on debt and equity sourced from financial markets. Australia has a unique financing approach to LTC capital expenditure. Aged care residents can choose to pay a lump sum to providers, known as a refundable accommodation deposit (RAD), with the accommodation payment returned to the resident or estate on leaving care. Alternatively, residents can pay for their accommodation using a daily accommodation payment (DAP) that acts like a rent, or by choosing to pay any combination of RAD and DAP.

Deciding on an accommodation payment type is a complex financial decision. Selling the family home and paying a RAD reduces investment exposure to residential property. Paying a DAP and keeping the family home maintains an investment in residential property, with the income earned from renting that property potentially used to pay for residential care accommodation. Given a resident can pay for accommodation using any combination of RAD or DAP, there will be an optimum combination for a consumer based on their specific financial situation, expected length of stay, level of risk adversity, and views on future asset performance.

Consumer accommodation payment choice ultimately determines the trends in RADs. In recent years, individual preferences have shifted towards DAP as a payment choice. Providers are now concerned that their total RAD balances may decline, thereby significantly increase their liquidity risk, as banks are reluctant to lend to providers to cover a large RAD shortfall on a permanent basis.

To understand why there is such a trend of shifting from RADs to DAPs and to assess if consumers make optimal decisions, a good understanding of what factors drive consumer accommodation payment choices is needed. However, only a few studies researched the topic.

A survey of persons aged 60 years and over, informal carers, and aged care recipients undertaken by KPMG in August 2018 identified several factors that impact the accommodation payment decision. This included the level of the maximum permissible interest rate (MPIR), expected length of stay, personal financial circumstances, whether the consumer is part of a couple, and the time it takes to sell the family home (Aged Care Financing Authority, 2018).

Aged Care Financing Authority (ACFA) has also reported feedback from providers on factors that may impact consumer choice. It suggested a reduction in housing prices and a reluctance for consumers to sell their home in a declining market may reduce the likelihood that consumers to choose a RAD. ACFA also suggested a shift to DAPs may be due to greater consumer awareness of their accommodation payment choices. ACFA noted that the impact of the MPIR on choice depends on investment rates faced by consumers. If the return is greater than the MPIR, the consumer is better off financially investing the lump sum and paying a DAP (Aged Care Financing Authority, 2020).

Our study contributes to the literature via a systematic examination of a large number of predictors of consumer accommodation payment choice. We do so by utilising the linkage between large administrative datasets and novel econometric modelling strategies.

#### Method

Two de-identified administrative datasets were obtained from the Department of Health. One was derived from the annual survey of aged care homes (SACH), containing detailed payment information on all the new and transferred residents between 1 July 2016 to 30 June 2019. It also contained information about aged care home characteristics, such as their location and ownership type, but had no information on resident's characteristics.

The other administrative dataset was derived from information collected by Service Australia, containing de-identified information on the resident's characteristics. This included the Aged Care Funding Instrument (ACFI) assessment scores and asset and income recorded on the asset and income test lodged when entering care. However, this dataset did not contain reliable information on accommodation payment choices.

Consequently, the two datasets were merged, using the de-identified aged care facility ID and the entry date of the de-identified resident. Furthermore, data on house prices was accessed through SIRCA<sup>1</sup> and appended to the dataset. For each resident, the median house price change in their local government area (LGA) in the 12 months prior to their entry to the aged care home was calculated. The merged dataset contains 57,508 non-supported residents and 18,129 partially supported residents. These two types of residents were analysed separately, given preferences for accommodation payment types may differ substantially.

Overall, the proportion of consumers choosing a RAD, DAP, or a combination of both between 2016-17 to 2018-19 for the non-supported and partially supported consumer samples are almost identical to that presented by ACFA (Aged Care Financing Authority, 2020). This suggests the sample used for this analysis is robust, although potential nonrepresentation across other characteristics could not be evaluated.

Regression analyses were used to estimate the associations between the accommodation payment choice and choice predictors. The payment choice is two-tiered. Consumers first choose among a

-

<sup>&</sup>lt;sup>1</sup> https://www.sirca.org.au/

RAD, DAP, or a combination of both. If they choose a combination payment, they must then choose the proportion of the RAD in their payment.

A zero-one-inflated beta (zoib) regression framework was adopted to simultaneously model the probability of choosing RAD, the probability of choosing DAP, and the proportion of RADs within the combination payment. This enabled the model to capture the unique decision making process for accommodation payments.

### Results

We find that consumer characteristics, accommodation price, MPIR, housing price trend, and facility characteristics have statistically significant associations with the accommodation payment choice.

An older consumer, or married consumer, entering residential aged care is more likely to choose a RAD and less likely to choose a DAP. They are also more likely to choose a greater proportion of RAD within a combination payment. Male consumers are more likely to choose a DAP, although gender does not significantly impact the likelihood of choosing a RAD.

Consumers are more likely to choose a RAD if they stay in residential aged care longer. This may be due to the increased consumer's ability to pay a RAD, as they have more time to sell their home, or they may have expected a long duration of stay, which has encouraged them to pay a RAD.

ACFI domains, including the Activities of Daily Living (ADL); Behavioural (BEH); and Complex Healthcare (CHC), also affect the payment choice. The less healthy consumers are when entering residential aged care, the less likely they will choose a RAD, although this relationship is relatively weak.

The amount of assets a consumer held at the time of entry is positively associated with the likelihood of choosing a RAD. Assets were found to have the strongest relationship with choosing a RAD. In contrast, the more income a consumer receives, the less likely they will choose a RAD, and the more likely they will choose a DAP.

A greater accommodation price reduces the likelihood of a consumer choosing a RAD. Consumers are more likely to choose a combination payment when faced with a high accommodation price, but are also more likely to choose a DAP within that combination payment. This effect is stronger for those in government and non-for-profit facilities than those in for-profit ones.

Consumers are more likely to choose a RAD, and less likely to choose a DAP, as the MPIR increases. Growth in house price in the 12 months prior to entry is positively associated with the likelihood of choosing a RAD and has a negative impact on the probability of choosing DAP, implying consumers are likely to sell their properties for paying RAD in a bull market. This effect is stronger for those in inner region areas than those in major cities.

There are strong associations between accommodation payment types and facility location, remoteness, and provider ownership, suggesting that some unobserved factors correlated with these facility characteristics impact consumer choice.

The regression results are overall consistent between non-supported residents and partially supported residents. There are some differences. For instance, the effect of accommodation price on payment choice is smaller for supported residents compared to non-supported ones, likely because the former only pays a portion of the price.