Findings on housing condition and occupant wellbeing

In 2018/19, BRANZ partnered with Stats NZ and the Ministry of Business, Innovation and Employment to trial a new approach to collecting information on the condition of our housing stock. The Pilot Housing Survey (PHS) was a nationwide housing assessment survey that ran from August 2018 to June 2019. The PHS involved a physical assessment of the house undertaken by an independent, BRANZ-trained building surveyor. Overall, 832 surveys were completed throughout all regions of New Zealand, with 505 owner-occupied and 327 non-owner-occupied houses assessed.

Households were recruited to take part in the PHS through the 2018 General Social Survey (GSS). The GSS is a national survey conducted every 2 years by Stats NZ. Interviewing around 8,500 people nationwide, the GSS provides key information on the wellbeing of New Zealanders on a range of social and economic outcomes. The 2018 GSS included a supplement on housing and the physical environment. This supplement contained new questions on housing such as suitability, healthy housing behaviours and home maintenance.

Data from the PHS sample has been linked to the GSS by Stats NZ. The result is a unique, rich source of information combining data on housing condition (PHS) with household demographics, indicators of material hardship and wellbeing, and healthy housing behaviours (from the GSS). This dataset has been weighted to adjust for sampling bias and to account for the whole population of 1.75 million New Zealand households. This Research Now uses the linked PHS-GSS dataset to look at how some housing condition measures vary across different population groups and explores the association between housing condition and occupant wellbeing. Some results are subject to large margins of error so should be interpreted with caution.

Survey findings

Housing condition and household composition

By working with Stats NZ to determine the PHS sample, a broadly representative cross-section of households with different family/household structures was achieved. Of particular interest in these results is the contrast between single-parent and two-parent households.

One in five single-parent households were living in houses with an interior and/or exterior in poor or serious condition compared to one in 10 couples with children (Figure 1). Single-parent households were also more likely to live in houses with a moderate or worse level of visible mould in living areas and/or bedrooms compared to households overall (54% compared to 37%) (Figure 2). This aligns with findings from Stats NZ's analysis of the GSS showing that single-parent families were the most likely to report experiencing issues with housing quality and affordability.

Housing condition and household income

Stats NZ has reported that those on higher incomes and couples were more likely to own their own home. The households surveyed in the PHS and GSS mirror these results. Couples and

couples with children surveyed were more likely to own their own home and to be in the highest income bracket. Households in the highest income bracket (over $100,000 a year) were more likely to live in a house with an exterior and interior condition rated as good or excellent than households on lower incomes (Figure 3).

Figure 4 shows the proportion of households in each income bracket with moderate or worse levels of visible mould in living rooms and/or bedrooms. Those in the lowest and highest income brackets had lower levels of visible mould in their houses.

Housing condition and feeling cold

The GSS asked participants if their house or flat was colder than they would like in winter. Respondents in around half of households surveyed in the PHS (52%) reported that their house felt colder than they would like at least some of the time in winter, and one in 10 stated it always felt colder than they would like. One in five households stated that it was cold enough in their house in winter to see their breath.

Better house condition was linked with being less likely to feel cold in winter. Over twice the proportion of households living in dwellings in poor or serious exterior condition reported always or often feeling cold in winter compared to households in dwellings in good/excellent condition. Households were also more likely to report feeling cold in winter if their home needed moderate or major repairs. Households living in a dwelling requiring moderate or major repairs were twice as likely to report feeling cold in winter compared to households living in a dwelling requiring no maintenance or repair - 32% compared to 16% (Figure 5).

The presence of heating appliances was recorded by surveyors in the PHS, and as part of the 2018 GSS, participants were asked about their usage of heating appliances. PHS results showed that most houses (78%) had some form of fixed heating source in their main living area, most commonly a heat pump (44%) or a wood burner (31%). Fixed heating sources are typically more efficient and cost-effective than portable heating methods for heating living spaces. A fixed heating source in the main living area is a requirement in rental properties under the New Zealand healthy homes standards. Households with a fixed heating source were less likely to report feeling colder than they would like in winter compared to households without fixed heating (20% compared to 34%).

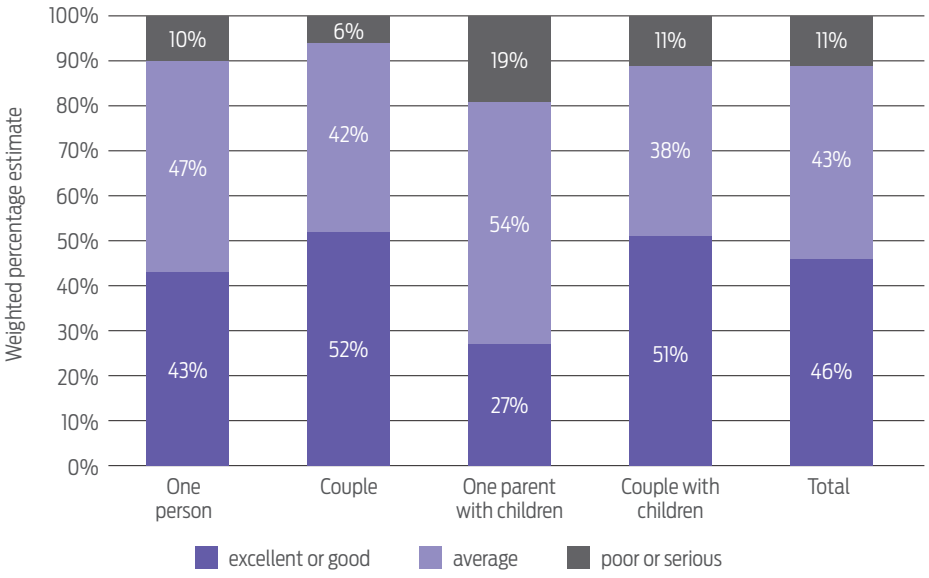

Figure 1. Average exterior condition by household composition.

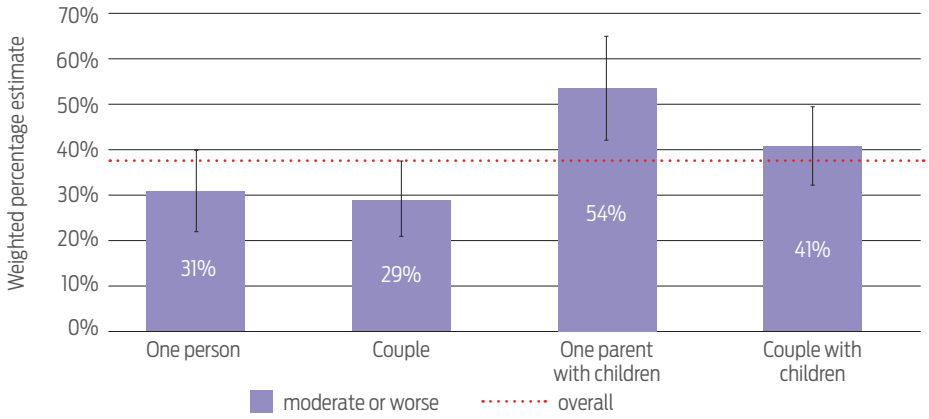

Figure 2. Presence of moderate or worse visible mould in living areas and bedrooms by household composition.

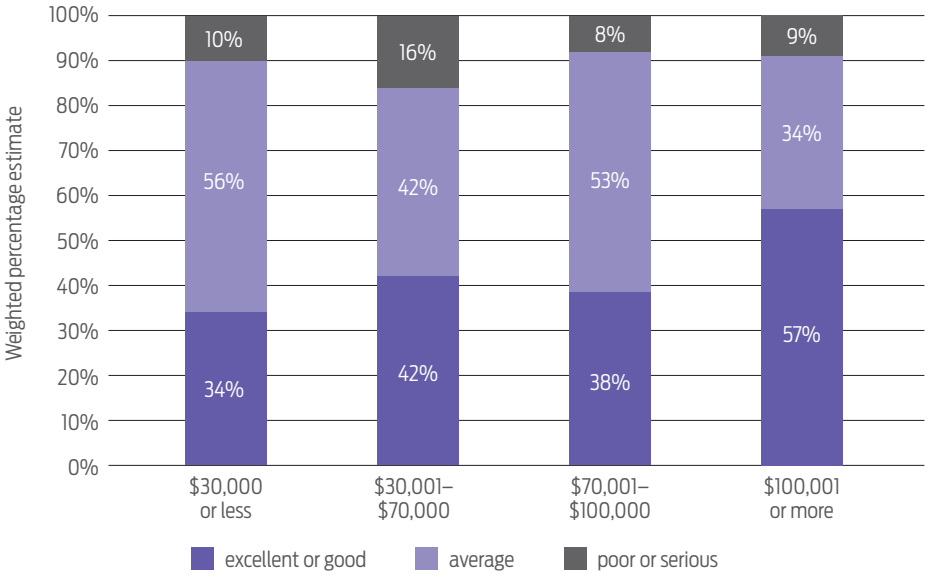

Figure 3. Average exterior condition by household income.

Housing condition and overall health

The GSS asked participants to rate their overall physical health on a 5-point scale from excellent to poor. Just over half of participants in the PHS sample rated their health as very good or excellent (53%, comparable to the complete GSS sample of 55%). Analysis showed that those who rated their health as fair or poor were the least likely to be living in a house with an exterior in excellent or good condition - 34% compared to 49% of those who rated their health as excellent (Figure 6). Those rating their health as fair or poor in the GSS tended to be in the older age groups.

On the other hand, those who rated their health as excellent or very good were the most likely to be living in a house with excellent or good interior condition (Figure 7). They were also more likely to be living in a house that did not require any maintenance or repairs.

Housing condition and mental wellbeing

The GSS provides information on several measures of wellbeing. The three used here are the mental wellbeing index (comparable to the WHO-5 Wellbeing measure), overall satisfaction with life and feeling that life is worthwhile. The mental wellbeing index is the key measure used in our more detailed analysis.

Analysis showed a statistically significant relationship between the mental wellbeing index score and both the interior and exterior condition ratings of houses in the PHS. The average mental wellbeing score was significantly higher for those living in houses with excellent or good exterior condition ratings than those living in houses with average condition ratings of poor or serious.

A similar pattern emerged when looking at the other wellbeing-related measures - overall life satisfaction and feeling that life is worthwhile. Occupants of houses in poor interior and exterior condition were more likely to rate their own life satisfaction lower than those living in houses in better condition. They also scored lower on the mental wellbeing index. Households living in a dwelling requiring major repairs or maintenance also had a lower overall satisfaction with life compared to those living in a dwelling requiring no repairs or maintenance.

Furthermore, 60% of people who rated the things they do in life as worthwhile 7 or higher lived in a house with an interior condition rating of excellent or good. This compared to

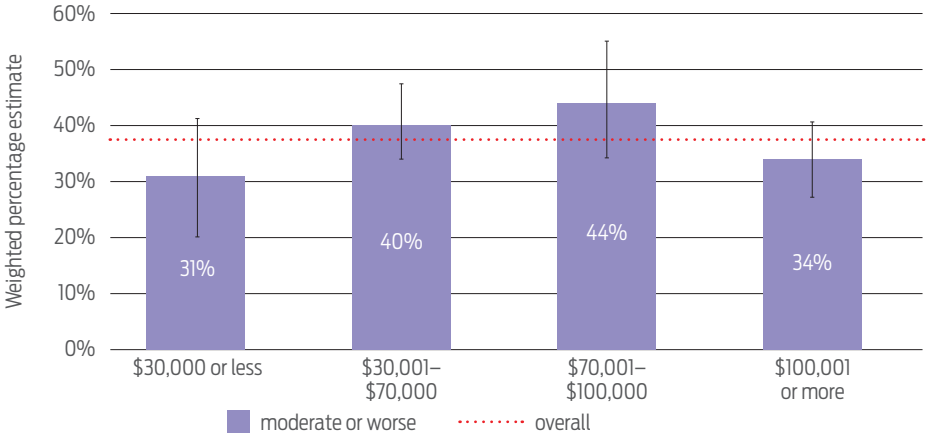

Figure 4. Presence of moderate or worse visible mould in living areas and bedrooms by household income.

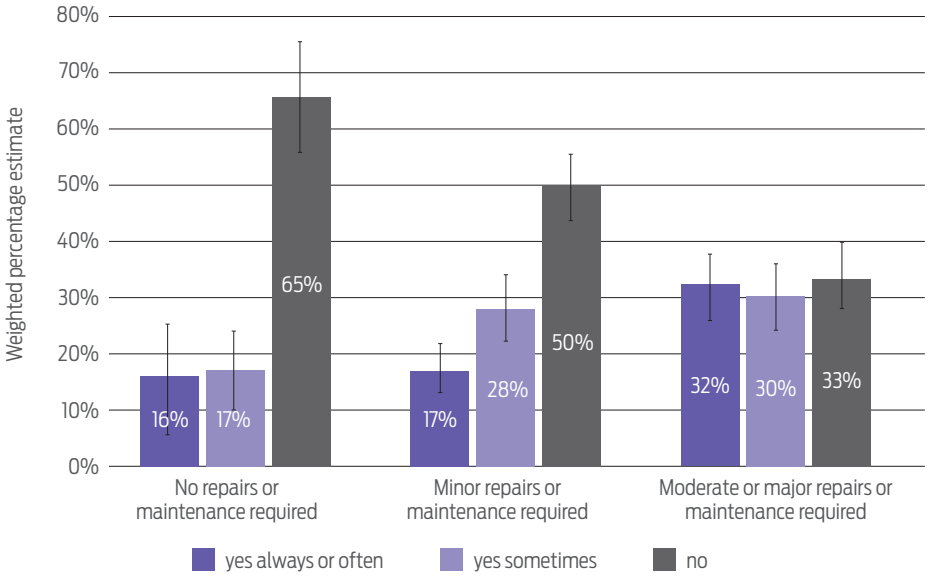

Figure 5. House feels colder than would like in winter by level of maintenance required.

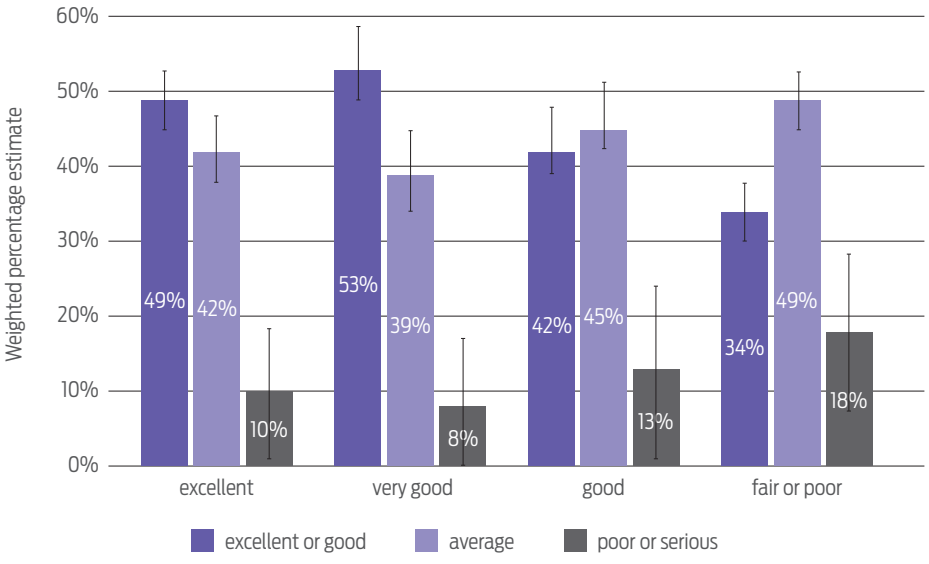

Figure 6. Self-rated level of overall health by average exterior house condition.

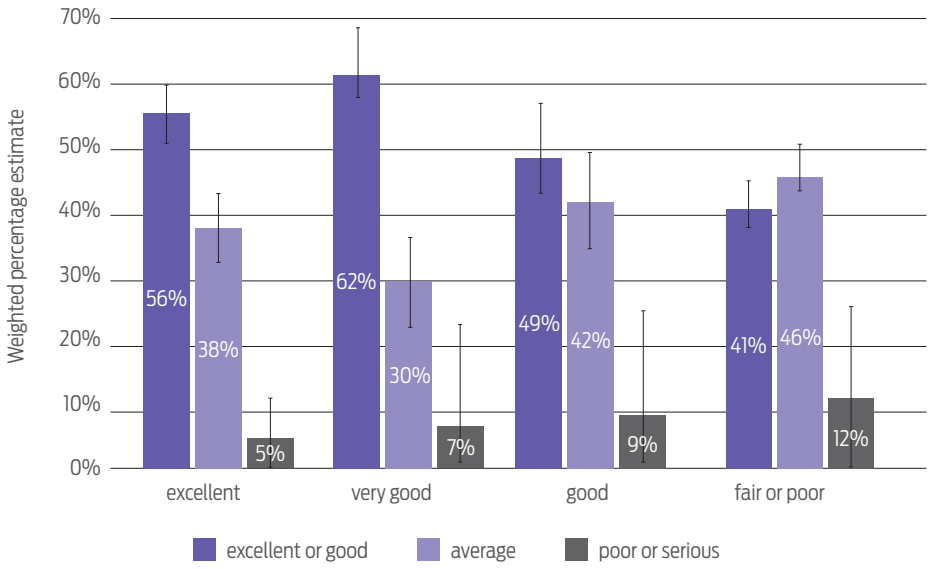

Figure 7. Self-rated level of overall health by average interior house condition.

44% of those who rated things in life worthwhile lower than 7 out of 10.

These findings combined with the analysis of housing conditions by subpopulation groups show that those living in poorer condition housing tend to be affected by a range of issues, including lower self-ratings of physical and mental health and lower incomes.

A more detailed analysis looked at several household factors alongside house condition to measure their relationship with mental wellbeing. This showed that, when household factors were considered, the interior condition of the house was less significant. The most significant factor of those we analysed was the household composition of one parent with children. This had a significantly negative impact on the mental wellbeing score. On the other hand, household income had a positive relationship with mental wellbeing. This analysis also showed a strong negative relationship between wellbeing and feeling cold in winter.

Summary

These results represent a snapshot of New Zealand houses and households in 2018/19, but with continuing issues of increased cost of living and housing affordability, these findings are particularly relevant. Housing condition, sociodemographics and wellbeing are complex, interrelated and multifaceted. Household income, tenure (rented versus owner-occupied) and housing condition are known to be related, with lower-income households more likely to be renting and rental dwellings more likely to be in poorer condition. This research shows some similar patterns with some subpopulation groups being disproportionately affected by housing quality issues. It also shows clear links between house condition and feeling cold and between feeling cold and wellbeing.

This research used a new, unique data source made available through a collaborative study with Stats NZ and the Ministry of Business, Innovation and Employment. The PHS dataset is now available in the Integrated Data Infrastructure (IDI). This means it can be linked to other datasets and accessed by other researchers through the Stats NZ Data Lab. This presents an opportunity for further research to explore and add to the growing body of knowledge on housing quality and occupant wellbeing in New Zealand households.

More information

BRANZ Research Now

Pilot Housing Survey 2018/19 #1 *Survey methodology*

Pilot Housing Survey 2018/19 #2 *House condition*

Pilot Housing Survey 2018/19 #3 *Insulation, ventilation, space heating and water heating*

BRANZ study reports

SR370 *BRANZ 2015 House Condition Survey: Comparison of house condition by tenure* (2017)

SR372 *Warm, dry, healthy? Insights from the 2015 House Condition Survey* (2017)

SR456 *Assessing the condition of New Zealand housing: survey methods and findings* (2020)

SR482 *Housing condition and occupant wellbeing: Findings from the Pilot Housing Survey and General Social Survey 2018/19*

BRANZ websites

www.branz.co.nz/healthy-homes-research/hcs

www.level.org.nz

www.renovate.org.nz

Stats NZ website

www.stats.govt.nz/information-release/wellbeing-statistics-2018

www.stats.govt.nz/integrated-data/apply-to-use-microdata-for-research

www.stats.govt.nz/reports/housing-in-aotearoa-2020