

The New Zealand Housing Preferences Survey: Attitudes towards medium-density housing

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Preface

This study is part of BRANZ's medium-density housing (MDH) programme, which aims to give industry the skills to deliver medium-density housing that meets the needs of New Zealanders. Increasing the acceptance of MDH in communities is a key success criteria for the programme. This piece of research establishes a baseline for understanding New Zealanders' attitudes to MDH typologies and neighbourhoods.

Acknowledgements

We would like to thank all the New Zealanders who completed the New Zealand Housing Preferences Survey.



The New Zealand Housing Preferences Survey: Attitudes towards medium-density housing

BRANZ Study Report SR378

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Abstract

New Zealanders have traditionally aspired to the quarter-acre dream of a stand-alone home with a private backyard. Housing pressure is seeing the proliferation of alternative typologies like medium-density housing (MDH). This study aims to understand New Zealanders' attitudes to MDH related to resistance and acceptance of these typologies. 1,641 New Zealanders responded to the New Zealand Housing Preferences Survey, which asked participants about a range of factors for low-density, medium-density, and high-density house typologies. A key finding is that participants with experience of living in MDH are less resistant to MDH typologies. Overall, New Zealanders continue to prefer stand-alone homes. The implications of these findings are discussed.

Keywords

Medium-density housing, MDH, housing typologies, housing preferences, social science, nationwide survey



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Executive summary

The acceptability of medium-density housing (MDH) will be vital if it is to be a viable housing option for New Zealanders. Historically, New Zealanders have aspired to the 'quarter-acre dream' of a stand-alone house with large private backyard. However, MDH is an emerging alternative as New Zealand's cities grapple with housing pressure and urban sprawl.

This report is intended to be read alongside BRANZ Study Report SR376 *Defining medium-density housing* (Bryson & Allen, 2017), in which the literature on MDH in New Zealand is extensively reviewed. It describes the New Zealand housing context, where MDH fits in the current market and examines New Zealanders' attitudes towards MDH.

This study involved a nationwide survey of New Zealand householders and measured attitudes towards and perceptions of MDH. Of particular interest was how demographic variables and previous or current experience of living in MDH influence attitudes and perceptions. It was expected that participants who have experienced MDH living would perceive it more positively and be more inclined to say they would live in it again in the future.

Summary of methods

The New Zealand Housing Preferences Survey (Appendix A) was distributed by post to 10,000 New Zealand households. The addresses were randomly selected from every region in the country, weighted by population. The survey asked a variety of demographic questions and a series of questions about four different typologies of house commonly built in New Zealand. Each typology represented a different density of housing (two for MDH). The same questions were asked about each typology, and the factors targeted were:

- value for money
- safety
- enjoyable lifestyle
- sense of community
- visual appeal
- leaky home issues and perceptions
- willingness to live in MDH in future
- NIMBYism (not in my backyard)
- house size.

Summary of results and discussion

In total, 1,641 surveys were completed and returned. The sample was predominantly New Zealand European/Pākehā and older than the general population but was representative in terms of gender and geographical spread. A significant majority of participants currently live in stand-alone homes (86.5%). Three-quarters of participants owned their homes, and the remainder rented, lived in retirement villages or were in trust-owned or company-owned accommodation.

The trend across all the housing factors measured was that stand-alone houses were rated more favourably than the other typologies and that MDH typologies were preferable to high-rise buildings. Medium-density housing was rated more favourably by participants who had experience living in attached housing or low-rise apartments compared to those who'd never lived in MDH before. However, participants with MDH



experience were at best ambivalent about MDH, responding neutrally rather than favourably on most housing factors. This means that, rather than liking MDH more, they disliked MDH less than participants who'd never lived in MDH before.

Participants responded relatively neutrally to the value for money question for MDH typologies. They were somewhat more likely to say that stand-alone houses were good value for money. It is possible that, in the current housing market, New Zealanders are not seeing good value for money in any particular housing option.

Participants were more likely to agree that stand-alone housing neighbourhoods were safer places to live than MDH or high-rise neighbourhoods. The predominance of garages with internal access and fenced private backyards in modern stand-alone neighbourhoods fosters a sense of separation from neighbours rather than communal living. New Zealanders may be endorsing a security/privacy-focused concept of safety rather than a community-focused one.

Overall, participants were more likely to agree that stand-alone neighbourhoods had a good sense of community. Participants with experience of MDH living were more likely to think attached housing and low-rise apartments provided a good sense of community compared to participants with no MDH experience. However, their responses reflected neutral attitudes rather than agreement, and stand-alone houses were perceived as providing a better sense of community by both groups. High occupant turnover due to the transitory nature of MDH tenure might explain why building a good sense of community is challenging in these neighbourhoods.

After consideration of the literature, it was hypothesised that those in the sample who had experienced MDH living would be more likely to agree that MDH typologies provided an enjoyable lifestyle. This was the case for low-rise apartments. However, experience did not affect attitudes towards attached housing. Overall, the sample most strongly endorsed the idea that stand-alone neighbourhoods provide enjoyable lifestyles. In New Zealand, not all MDH is well situated, and access to amenities may be poor. Many MDH communities are still heavily car dependent. This may be impacting New Zealanders' perceptions of the quality of life and lifestyle that MDH neighbourhoods can offer.

Participants did not find MDH neighbourhoods visually appealing.

NIMBYism remains an issue for MDH in New Zealand. Participants' objections to having new houses built in their street increased with typology density. Further work is needed to investigate if/how communities come to accept new developments that are initially resisted.

Participants were more likely to agree that MDH typologies were prone to the leaky homes problem. This perception may be influencing New Zealanders' housing choices. The perception that MDH typologies are more leak-prone could in part be explained by the greater visibility of remediation work for larger MDH developments. When a large multi-unit dwelling is remediated, it is often highly visible as the entire building is wrapped in white plastic for the duration of the work. This tends to stand out and be more noticeable than single stand-alone houses undergoing the same treatment, leading to a skewed impression of the prevalence of remediation work by typology.

Participants were asked how appropriate they perceived the size of each typology to be for their current situation. Two-thirds of participants said that a stand-alone house was the perfect size for them. Less than a third thought attached housing was the perfect



size and a fifth thought that low-rise apartments were the perfect size. The majority of participants said that the MDH typologies would be too small for their needs. There appears to be a need to educate New Zealanders about the range of sizes available within MDH to broaden its appeal to larger households.

A key question for this study was whether participants would consider living in MDH in the future. The sample overwhelmingly preferred stand-alone houses when responding to this question, even if they had experience of living in MDH. This is further evidence that New Zealanders continue to aspire to the traditional ideal of a detached house and private outdoor space that stand-alone typologies offer. Those who'd lived in MDH before had a strong preference for stand-alone houses. However, their objection to future MDH living was significantly less than participants with no MDH experience. This suggests that, as more New Zealanders experience living in well planned, visually appealing, liveable MDH, attitudes and perceptions might improve and more New Zealanders may consider living in MDH in future.

Previous research has demonstrated that life stage is an important predictor of MDH acceptability. Surprisingly, there were no differences in willingness to live in MDH by age group or gender in our sample. It is unclear why participants in our sample did not show the same stage of life effect as previous studies. For this sample, all age groups were equally ambivalent or reluctant to live in MDH in the future.

Wellingtonians are the least reluctant to live in MDH in the future compared to Aucklanders and Cantabrians. The topography of Wellington means that the scarcity of land around it is more tangible. The city and many of its close urban centres are sandwiched between steep hillsides and the sea. It is possible that Wellingtonians can literally see the need for MDH if they want to live nearer the city compared to the relatively flat and sprawling topography of Auckland and Christchurch.

The limitations of this study revolve around the self-selecting nature of the sample. The demographics of the sample are not representative of the New Zealand population.

Conclusions

The results of this study indicate that much work remains to be done to increase New Zealanders' acceptance of MDH. There was an overall attitude of ambivalence towards MDH typologies. However, it is encouraging to know that experience of living in MDH generally improves people's opinions of these houses. The more people experience living in good-quality MDH, the more acceptable it is likely to become.

More work is required to investigate the persistence of NIMBYism around MDH. A greater understanding of how NIMBYism has been overcome in the past will help to reduce it in the future.

This study highlights the need to educate New Zealanders on the variety of MDH options available to them and the advantages these typologies can offer. New Zealanders are not yet realising the benefits of safe, liveable, MDH communities. If we are to increase the acceptability of MDH, New Zealanders will need to feel they can live in a multi-unit dwelling while maintaining their Kiwi lifestyle.

1. Introduction

Acceptance of MDH as a desirable housing option has not been widespread in New Zealand. New Zealanders have a tradition of aspiring to the 'quarter-acre dream' of stand-alone housing on large private sections. An extensive review of New Zealand MDH literature can be found in BRANZ Study Report SR376 *Defining medium-density housing* (Bryson & Allen, 2017). It details many of the issues around New Zealanders' perceptions of more intensive housing typologies and is intended to be read alongside this report. The research cited in the discussion section of this report is reviewed in Study Report SR376. As New Zealand grapples with managing urban sprawl and housing affordability creeps further out of reach for many New Zealanders, MDH is becoming an increasingly popular alternative. However, it continues to be met with some resistance.

Resistance to MDH is not just limited to residents. Neighbourhoods can also resist this housing type, as they see it as undesirable or incompatible with their traditional stand-alone housing neighbourhood. Communities can put pressure on the planning and consents processes to stall development. This research will help us to understand the attitudes that drive New Zealanders' acceptance of and resistance to MDH.

Several studies have investigated perceptions of MDH in New Zealand, although many of these studies have focused on main centres including Wellington and Christchurch and, predominantly, Auckland. In these cities, these typologies are proliferating rapidly in response to increasing housing pressure. The current study measured perceptions of MDH across all of New Zealand and examined which demographic variables are related to attitudes. Of particular interest was how previous or current experience of living in MDH influences perceptions and willingness to live in this type of housing in the future. It is hypothesised that New Zealanders who have experienced living in MDH will be more likely to say they would live in it again and will perceive MDH living more positively than those who've never lived in it before. It is also hypothesised that people who've lived in MDH will better understand the benefits of this typology of housing and the neighbourhoods in which they appear. This will be reflected in more positive appraisals of factors such as value for money, safety, lifestyle and sense of community.

2. Method

This procedure has ethical approval from BRANZ's external Human Ethics Adviser, in accordance with BRANZ's Human Ethics Policy. The New Zealand Housing Preferences Survey was distributed by post to 10,000 New Zealand households. The seven-page pencil and paper-based survey (Appendix A) was posted to randomly selected addresses from every region in the country, weighted by population. An information letter (Appendix B) and a reply-paid envelope accompanied the survey. The information letter introduced BRANZ and the researcher and explained the purpose of the survey and confidentiality. The letter invited the participant to enter the draw for an iPad or iPhone if they completed the survey and posted it back. Participants who entered the draw provided their contact information on a separate form, which was separated from the survey as soon as it was received by the researcher.

The survey asked a series of demographic questions including age, gender, ethnicity, geographical region, housing tenure, household size and composition and employment status. It then asked a series of questions about four different typologies of house commonly built in New Zealand representing different densities of living. The same questions were asked for each typology, which included a stand-alone house (low density), terraced or attached townhouses, a low-rise apartment building (both representing medium density) and a high-rise apartment building (high density). A line drawing example and a written description of each typology was provided to ensure it was clear what kind of house each set of questions was referring to.

The first two typology questions required yes/no responses and gauged past and present experience of living in each of the typologies. The rest of the questions required responses on a 5-point Likert scale. These questions measured attitudes and perceptions of:

- value for money
- safety
- enjoyable lifestyle
- sense of community
- visual appeal
- leaky homes
- willingness to live in MDH in future
- NIMBYism (not in my backyard)
- house size.

The final section of the survey was answered by renters only. This data was collected for another study, which will be reported elsewhere.

Once returned, survey responses were entered into SPSS for analysis.

This review considers five components that impact on building-quality issues: the regulatory environment, the workforce, materials, construction processes, and knowledge and information.

3. Results

3.1 Demographics

A total of 1,641 completed surveys were returned, and 55% of the sample were female (n=1,554).

Figure 1 shows that older New Zealanders were over-represented in the sample, with 37% of participants reporting they were aged over 64 years and a further 21% were aged over 54 years. This is a common phenomenon with surveys of this type, as retired people may have more time to complete a survey than younger people who are working and raising families. However, New Zealand has an ageing population (Statistics New Zealand, 2013), and the housing preferences of this group is of increasing importance.

A significant proportion of the sample were in the younger age groups, with 42% of participants aged under 55 years.

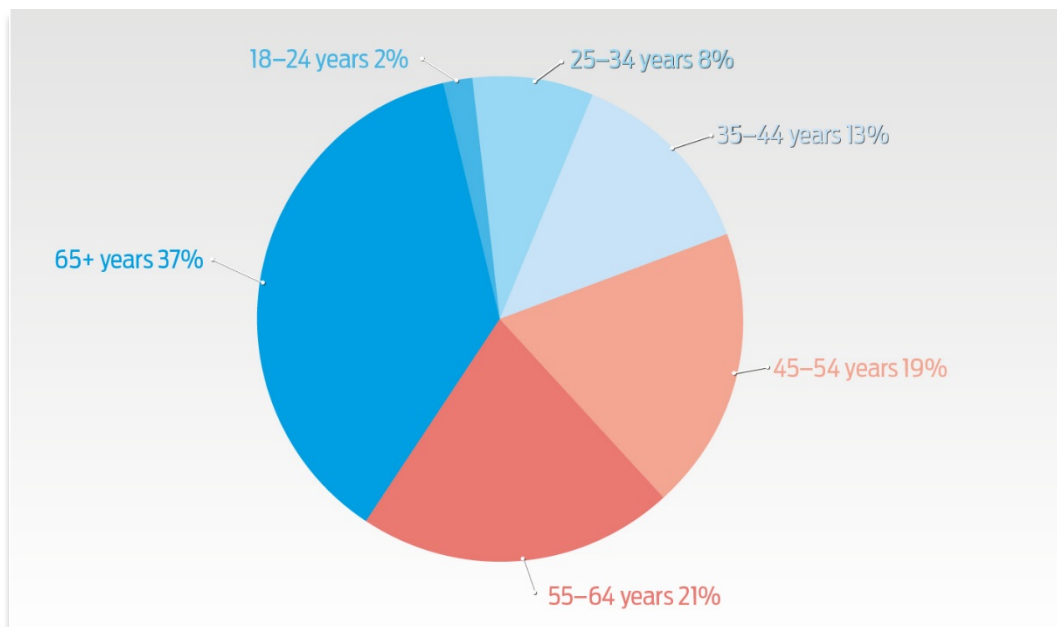


Figure 1. Age of survey respondents (n=1,601).

Figure 2 shows that the sample was predominantly New Zealand European/Pākehā. 8% of participants identified as Māori or Māori and European.

While a more diverse sample would have been preferred, the self-selecting nature of this random sample meant that it was not possible to engage in more targeted recruitment.

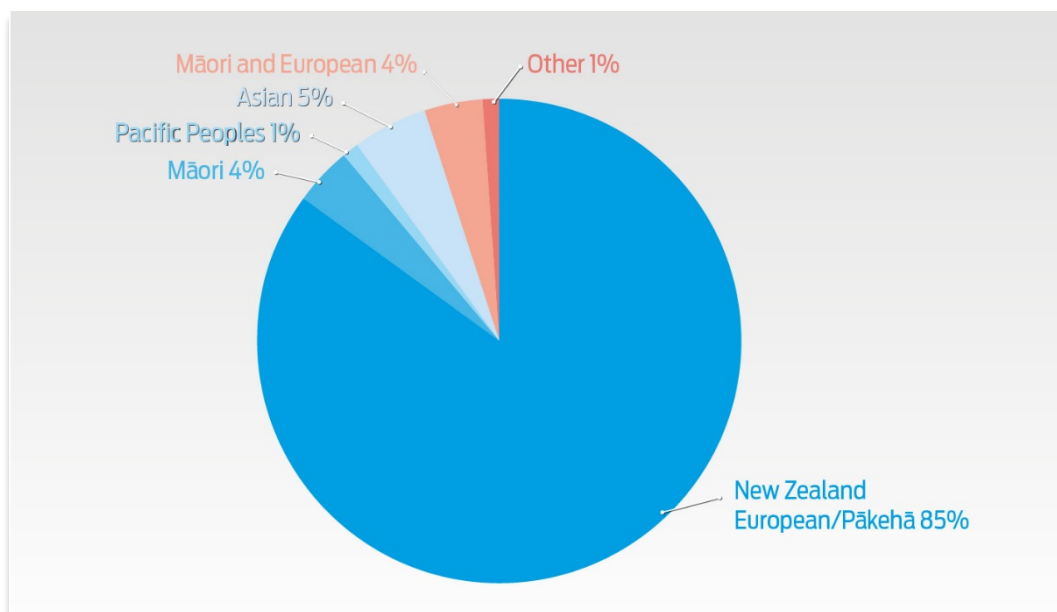


Figure 2. Ethnicity of survey respondents (n=1,611).

Responses were received from every region of the country. Table 1 shows the distribution of survey responses across geographical regions. A diverse spread was achieved that is roughly equivalent to the population distribution of New Zealand according to the last Census. The Auckland region was under-represented in the sample, while the other major centres of Wellington and Canterbury were slightly over-represented. A good mix of main centres and more regional areas was achieved, with 48.4% of the sample coming from regions other than Auckland, Wellington and Canterbury.

Table 1. Number of responses by geographical region.

Region	Number of survey responses (n=1,612)	Percentage of survey responses	Percentage of New Zealand population at 2013 Census
Northland	38	2.4%	3.6%
Auckland	384	23.8%	33.4%
Waikato	153	9.5%	9.5%
Bay of Plenty	97	6.0%	6.3%
Gisborne	15	0.9%	1.0%
Hawke's Bay	66	4.1%	3.6%
Taranaki	47	2.9%	2.6%
Manawatu-Whanganui	131	8.1%	5.2%
Wellington	218	13.5%	11.1%
Tasman	2	0.1%	1.1%
Nelson	57	3.5%	1.1%
Marlborough	29	1.8%	1.0%
West Coast	11	0.7%	0.8%
Canterbury	230	14.3%	12.7%
Otago	96	5.9%	4.8%
Southland	38	2.4%	2.2%

Figure 3 shows a breakdown of the work status of respondents. 55% of the sample were in full-time or part-time employment, and 33% were retired.

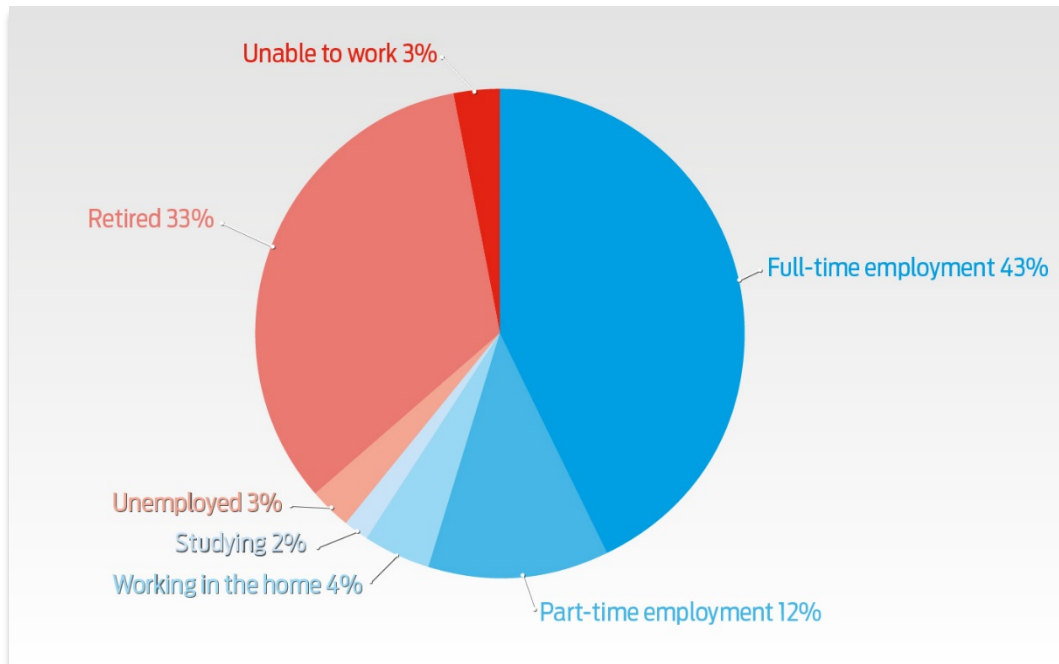


Figure 3. Work status of survey respondents (n=1,606).

Figure 4 shows a breakdown of the types of houses participants currently live in. A large majority of participants lived in stand-alone houses (86.5%), while 10.1% lived in attached housing, 2.4% in low-rise apartments and 1% in high-rise apartments.

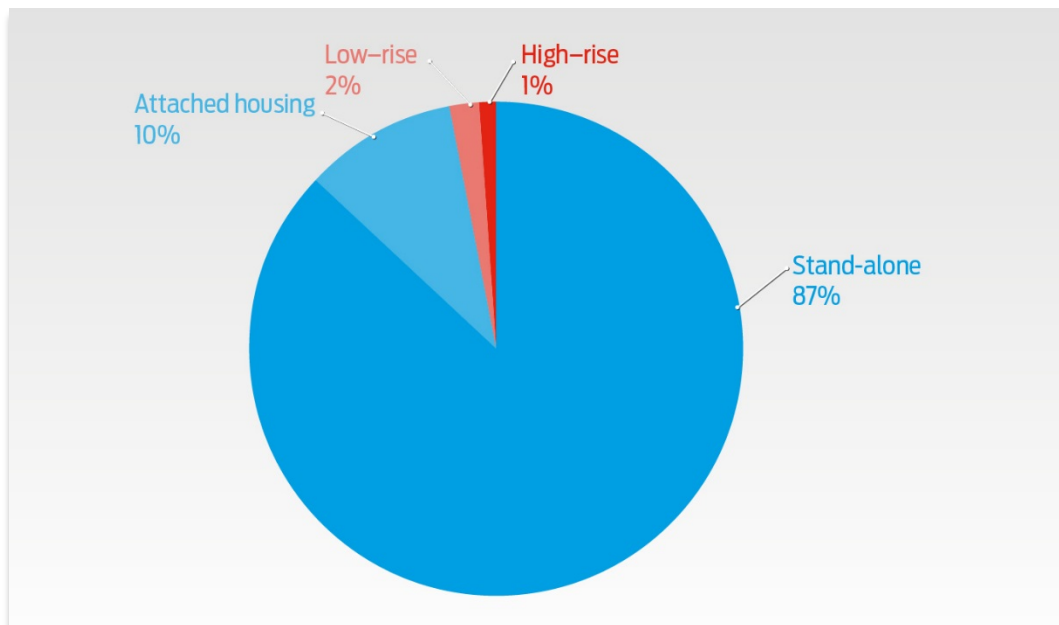


Figure 4. Current house typology of participants (n=1,521).

Over three-quarters (76.6%) of participants owned their homes, while 21.1% were renters. The remaining 2.4% lived in retirement villages, trust-owned or company-owned accommodation or were not paying rent.

Household size was small compared to the national average of 2.7 people (Statistics New Zealand, 2013). The most common number of people living in a household in this sample was two (42.9%). 22.3% of respondents lived alone, 13.4% were in three-person households, 13.9% were in four-person households and 7.3% lived in households of five people or more. Figure 5 shows who participants lived with in their homes.

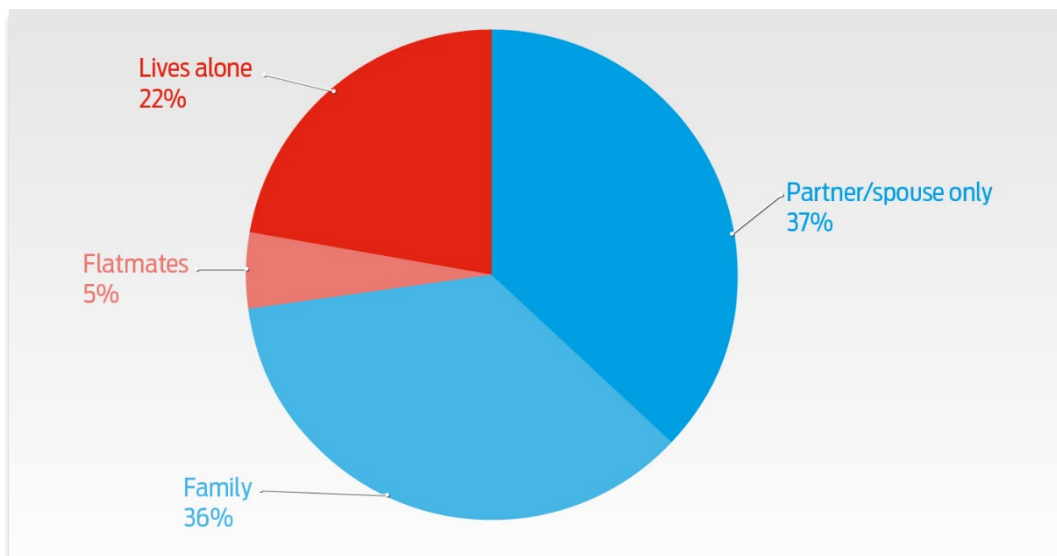


Figure 5. Who lives in survey participants' households (n=1,600).

3.2 Attitudes to medium-density housing

Participants were asked to rate a variety of housing-related factors for each of the four different typologies of house. These factors included value for money, safety, enjoyable lifestyle, sense of community, visual appeal and the perceived tendency for leaky building problems. They were asked to rate their agreement with a series of statements on a 5-point Likert scale – 1 was strongly disagree, 3 was neither agree nor disagree and 5 was strongly agree. This enabled a comparison of attitudes between the house typologies to measure how MDH typologies are perceived in relation to stand-alone and high-rise dwellings.

There were 2.74% missing values. Missing items were imputed using the expectation-maximisation algorithm. Values were imputed in IBM SPSS Version 24.

The trend across all the housing factors measured was that stand-alone houses were rated more favourably than the other typologies and that MDH typologies were preferable to high-rise buildings. However, MDH was rated more favourably by participants who had experience living in attached housing or low-rise apartments compared to those who'd never lived in MDH before. The 'experience with MDH' (EMDH) group consisted of participants who reported previously or currently living in either an attached house or low-rise apartment (n=683). The 'no experience with MDH' (NEMDH) group reported never having lived in an attached house or low-rise apartment before or currently (n=886).

For the remainder of this section, the mean responses to statements about each housing factor are reported for the entire sample and then for each MDH experience group. T-test results are reported where the differences between the EMDH and NEMDH groups are statistically significant. All t-test parameter estimates were bootstrapped (2,000 samples) due to unequal variances across groups. Also, in light of the large number of comparisons carried out and to protect against possible inflation of type I error rate, a more stringent threshold of statistical significance was adopted ($p < .001$).

Value for money

To test perceptions of value for money, participants were asked to rate their level of agreement with the statement 'Buyers of this type of home get better value for money than other types of house' for each house typology. Figure 6 shows that participants were more likely to agree that stand-alone houses are better value for money ($M=3.50$, $SD=.91$). The mean scale scores for attached housing ($M=2.76$, $SD=.75$) and low-rise apartments ($M=2.62$, $SD=.81$) hover just under the neutral score of 3. This shows that, on average, our sample did not have strong opinions either way regarding the value for money of MDH. The mean scale score for high-rise apartments ($M=2.41$, $SD=.91$) tends toward disagreement with the statement, and this type of housing was not perceived to be better value for money.

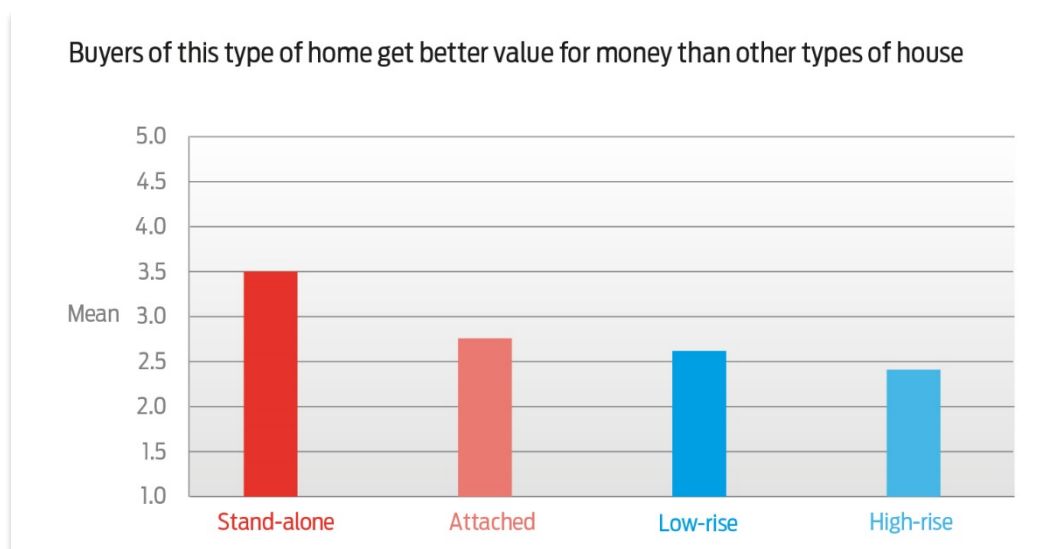


Figure 6. Mean scale scores for value for money by typology for whole sample.

When the EMDH and NEMDH groups were compared, participants with experience of MDH were significantly less likely to disagree that attached houses are better value for money than those with no experience of MDH living $t(1458.29)=5.10$, $p < .001$.

Figure 7 shows there were no differences between these groups for any of the other house typologies. While the EMDH group rated MDH value for money more favourably than the NEMDH group, they still rated stand-alone houses as better value for money overall.

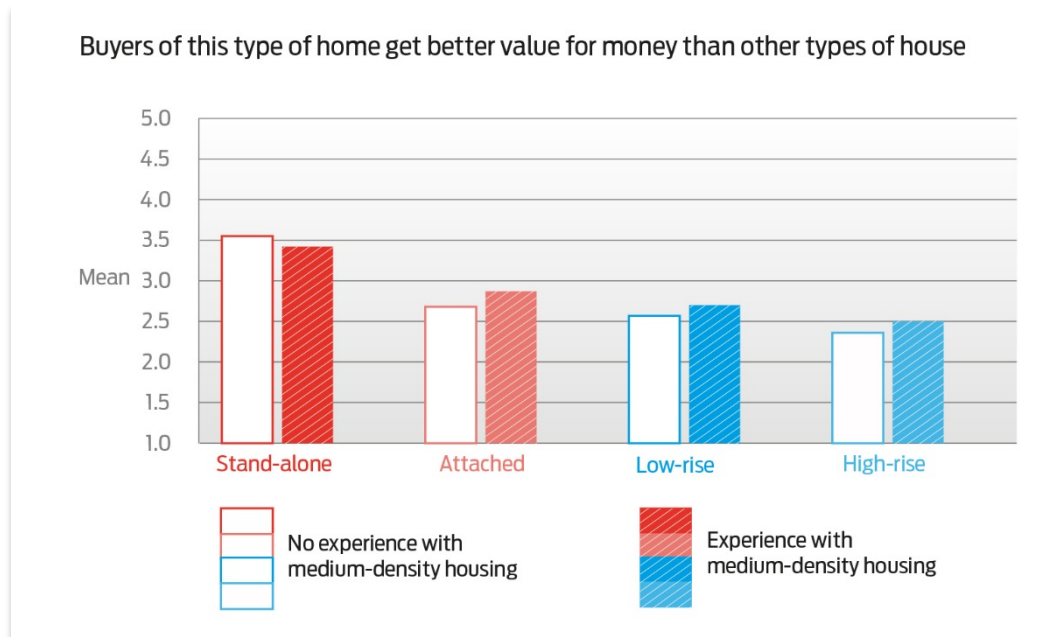


Figure 7. Mean scale scores for better value for money by typology for NEMDH and EMDH groups.

Safety

Perceptions of safety were tested by asking participants to rate their level of agreement with the statement 'Neighbourhoods that have lots of this type of home seem like SAFE places to live' for each typology. Figure 8 shows that, for the whole sample, participants were more likely to agree with the statement when it applied to stand-alone homes (M=3.59, SD=.85).

The MDH typologies mean scale scores were near the neutral score of 3 (attached housing M=2.97, SD=.74; low-rise apartments M=2.72, SD=.84). This indicates that, on average, the sample perceives MDH neighbourhoods relatively neutrally regarding safety.

For high-rise apartments, the mean scale score (M=2.41, SD=.91) reflects more disagreement with the statement, indicating that the sample does not perceive this high-density typology as a safe place to live. Perceptions of safety decreased as the density of typology increased.

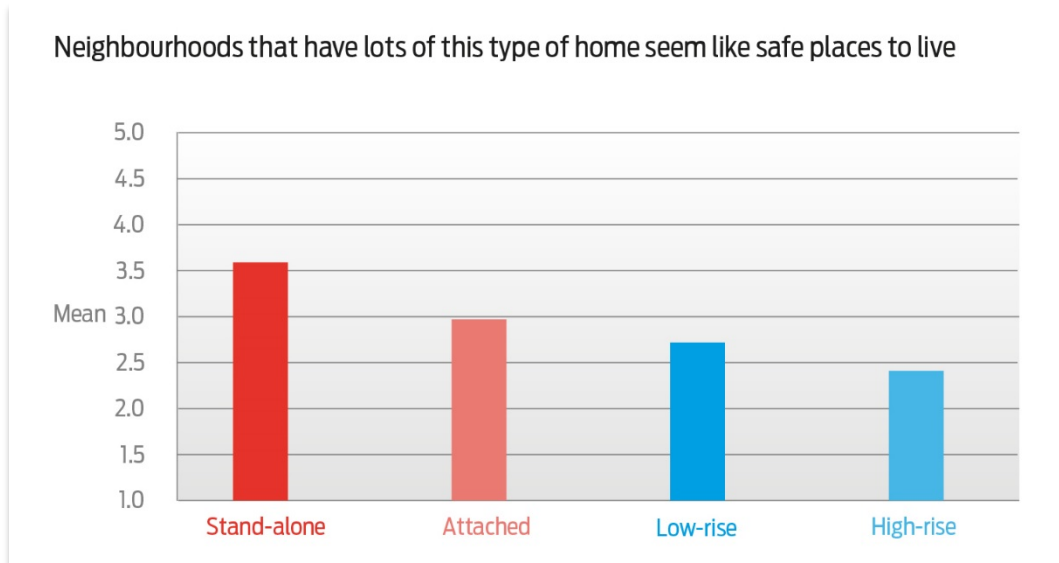


Figure 8. Mean scale scores for perceptions of safety by typology for whole sample.

A comparison of safety perception ratings for the EMDH and NEMDH groups (Figure 9) showed that participants with experience of MDH rated higher-density typologies more favourably than those with no MDH experience. This difference was significant for attached housing $t(1566)=4.86, p<.001$. There were no significant differences between groups for the other typologies. Despite having a more favourable view of the safety of MDH compared to inexperienced participants, participants with MDH experience were more likely to agree that stand-alone houses were safe places to live.

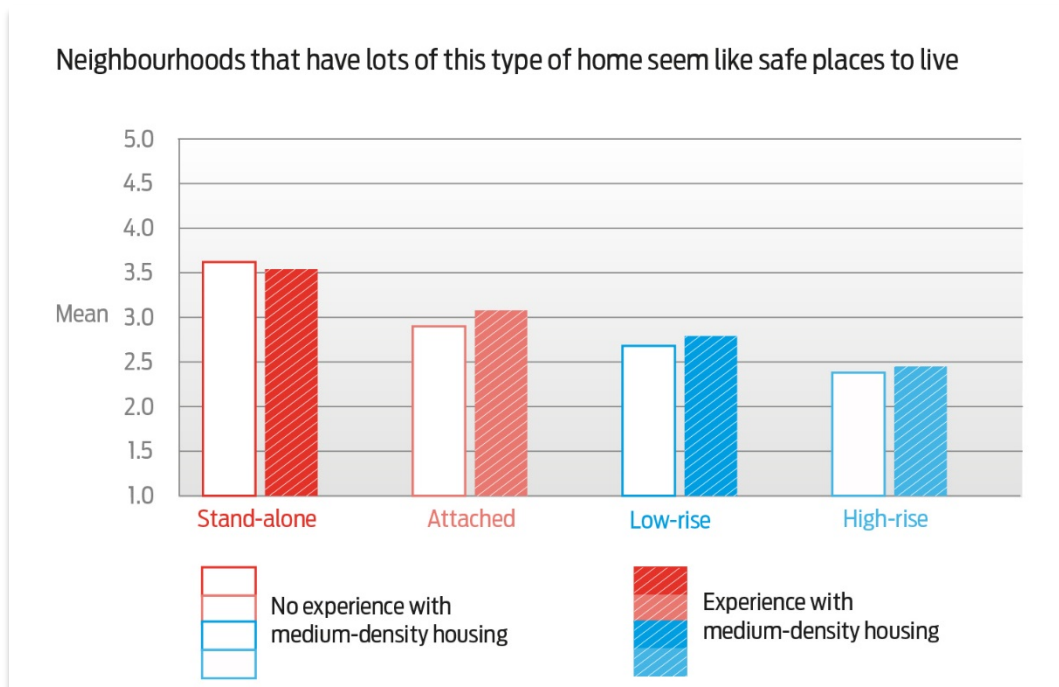


Figure 9. Mean scale scores for perceptions of safety by typology for NEMDH and EMDH groups.



Enjoyable lifestyle

Participants were asked to indicate their level of agreement with the statement 'Neighbourhoods that have lots of this type of home provide an enjoyable lifestyle' for each typology.

Figure 10 shows that participants were more likely to agree that stand-alone houses provided an enjoyable lifestyle (M=3.78, SD=.81). Agreement with the statement steadily decreased as typology density increased (attached housing M=2.91, SD=.75; low-rise apartments M=2.65, SD=.81; high-rise apartments M=2.35, SD=.88).

None of the mean scale scores for the medium-density or high-density typologies were above 3. This indicates that, on average, the sample was neutral tending towards disagreement that these housing options provide an enjoyable lifestyle.

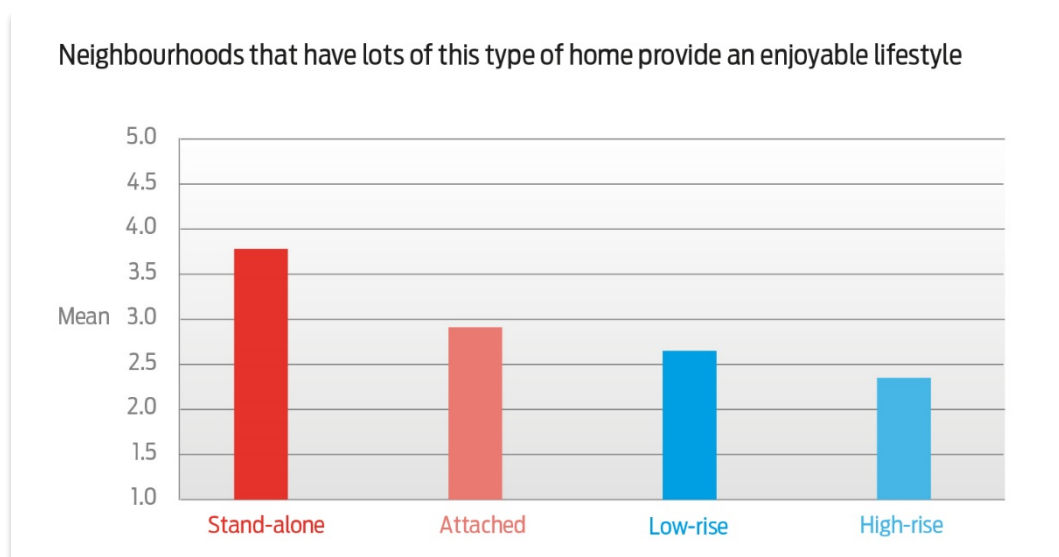


Figure 10. Mean scale scores for perceptions of enjoyable lifestyle by typology for whole sample.

When the sample is split up by MDH experience (Figure 11), a difference in perceptions emerges again. There is a trend for the EMDH group to be less likely to disagree that higher-density typologies provide an enjoyable lifestyle.

This difference is significant for low-rise apartments $t(1492.23)=3.78, p<.001$. However, while the EMDH group rated MDH typologies more favourably than the NEMDH group, the mean scale scores reflect neutral attitudes rather than agreement with the statement. Furthermore, EMDH participants were more likely to agree that stand-alone houses provided an enjoyable lifestyle.

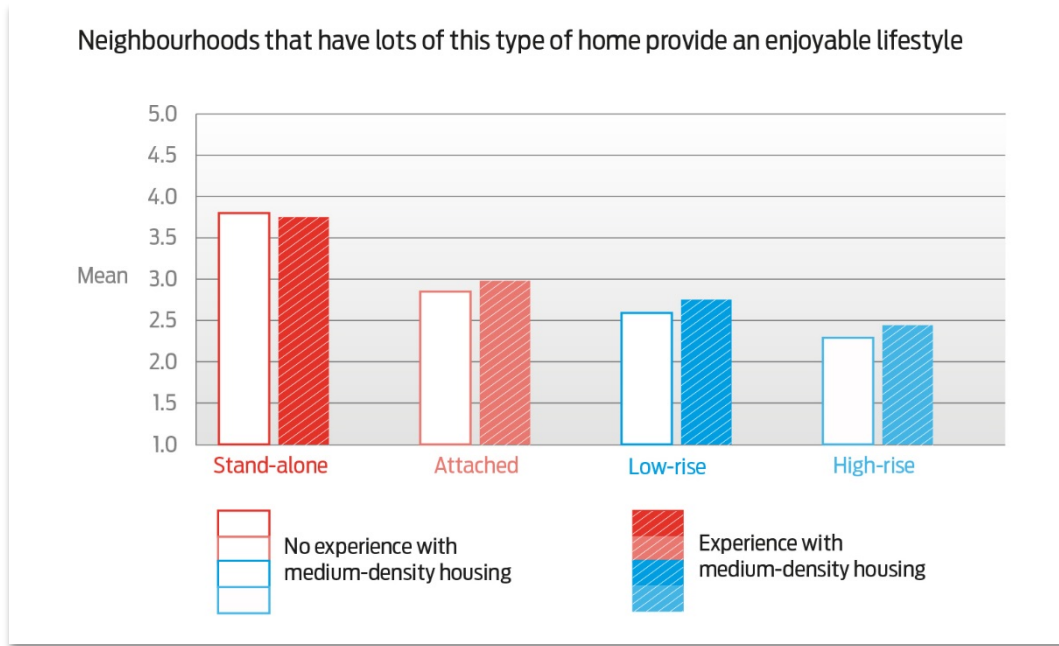


Figure 11. Mean scale scores for perceptions of enjoyable lifestyle by typology for NEMDH and EMDH groups.

Good sense of community

Participants were asked to indicate their level of agreement with the statement 'Neighbourhoods that have lots of this type of home have a good sense of community'.

Figure 12 shows that stand-alone houses were again rated most favourably (M=3.51, SD=.84). Participants responded relatively neutrally for MDH typologies (attached housing M=2.96, SD=.73; low-rise apartments M=2.74, SD=.79) and tended towards disagreement with the statement for high-rise apartments (M=2.39 SD=.86).

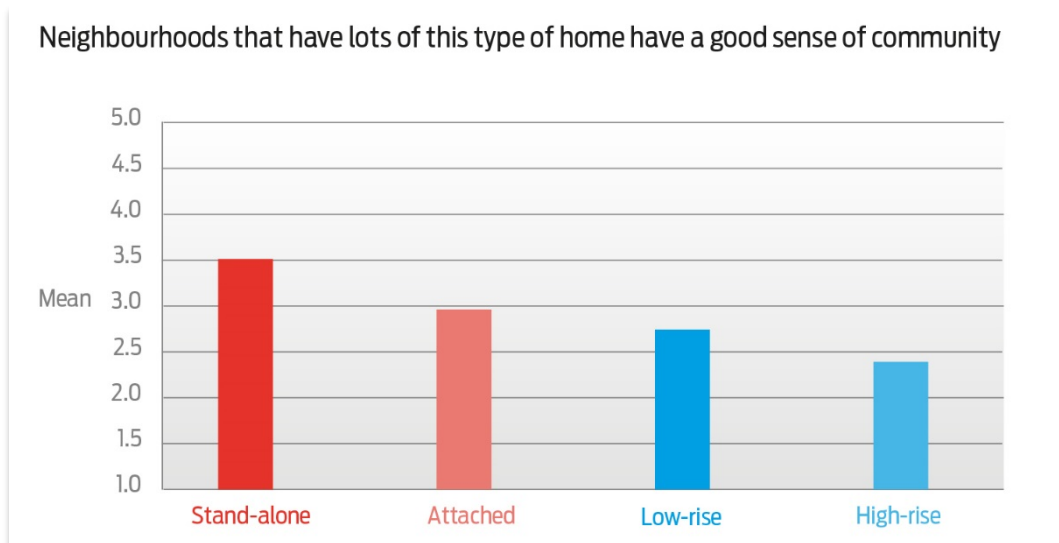


Figure 12. Mean scale scores for perceptions of good sense of community by typology for whole sample

There are differences in perceived good sense of community when participants with and without experience of living in MDH are compared.



Figure 13 shows that the EMDH group is more likely to agree that higher-density typology neighbourhoods provide a good sense of community.

This difference is significant for attached housing $t(1566)=3.90, p<.001$. There is another significant difference in the opposite direction for stand-alone houses $t(1566)=4.35, p<.001$. In this case, the NEMDH group are significantly more likely to agree that stand-alone housing neighbourhoods provide a good sense of community.

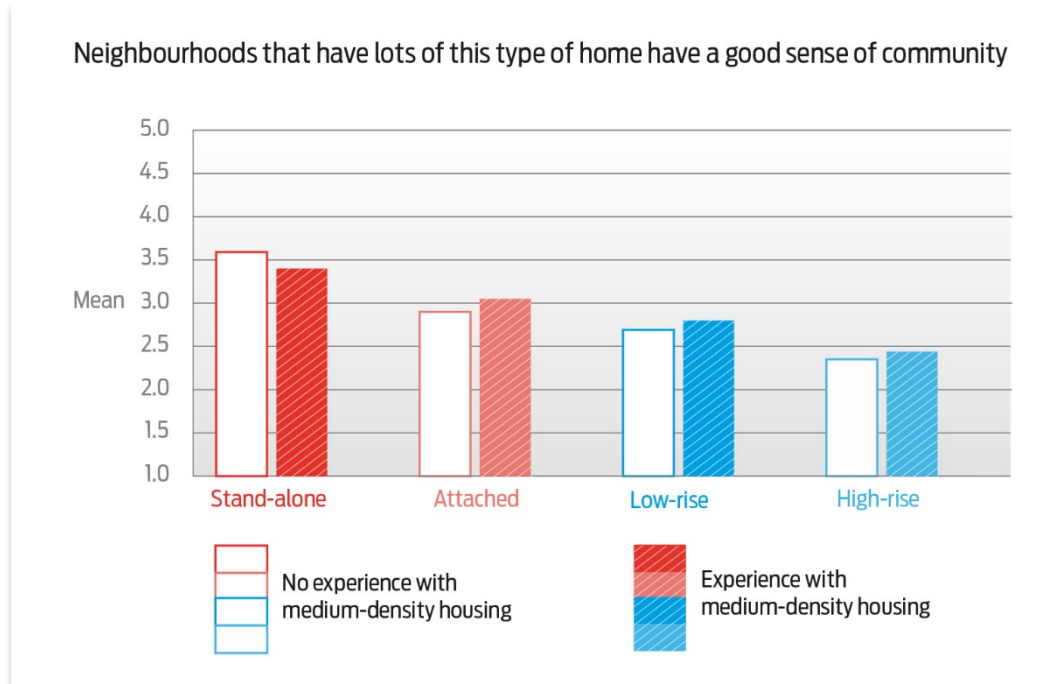


Figure 13. Mean scale scores for perceptions of good sense of community by typology for NEMDH and EMDH groups.

Visual appeal

Participants were asked to indicate their level of agreement with the statement 'Neighbourhoods that have lots of this type of home are visually appealing'.

Figure 14 shows that neighbourhoods of stand-alone houses were rated most favourably ($M=3.82, SD=.82$). The sample tended towards disagreement with the statement for MDH and high-rise apartment typologies (attached housing $M=2.69, SD=.87$; low-rise apartments $M=2.37, SD=.86$; high-rise apartments $M=1.95, SD=.86$).

High-rise apartments were rated particularly poorly for visual appeal.

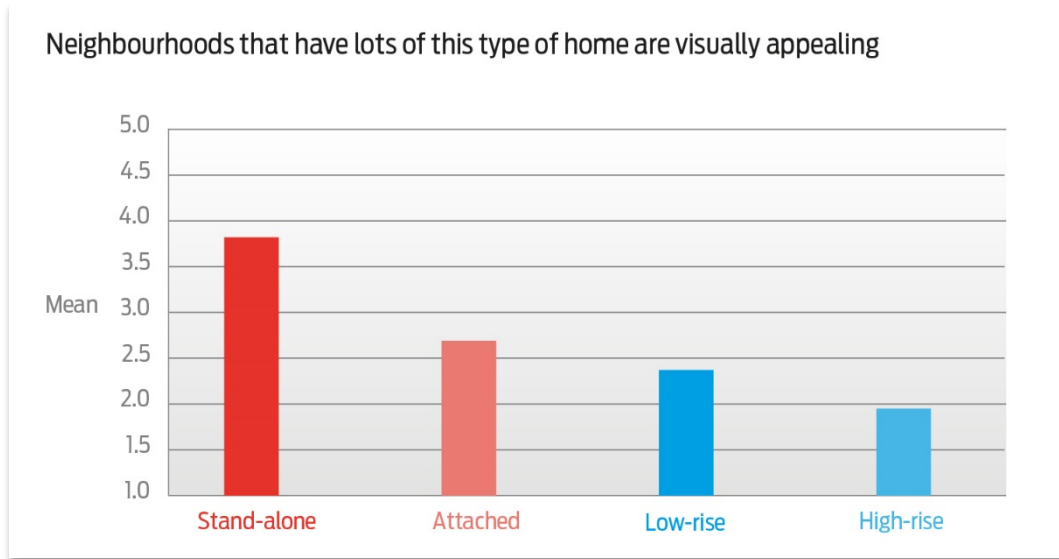


Figure 14. Mean scale scores for perceptions of visual appeal by typology for whole sample.

In Figure 15, there is a trend for participants with experience of MDH living to be less likely to disagree that higher-density typologies were visually appealing. However, none of these differences are statistically significant.

Also, none of the mean scale scores for either group in any of the higher-density typologies was over 3, indicating that the sample does not think MDH is visually appealing.

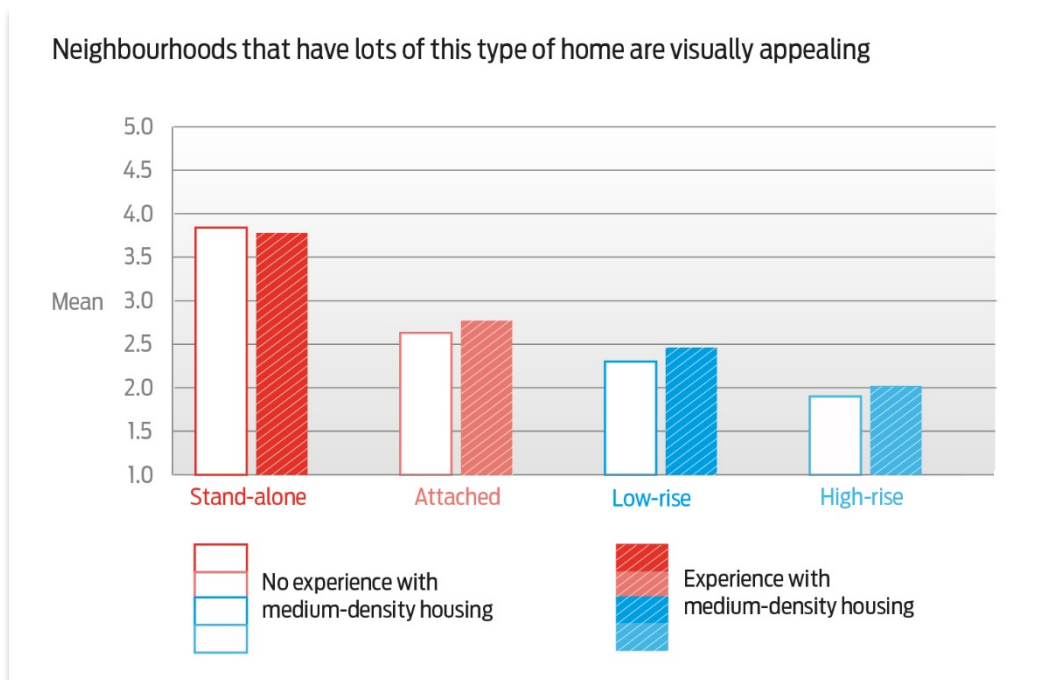


Figure 15. Mean scale scores for perceptions of visual appeal by typology for NEMDH and EMDH groups.

Leaky homes problem

Participants were asked to indicate their level of agreement with the statement 'This type of house is prone to the leaky homes problem'. Figure 16 shows that, on average, participants disagreed with the statement for stand-alone homes ($M=2.45$, $SD=.88$). Responses were more neutral for MDH typologies and high-rise apartments with means hovering around 3 (attached houses $M=3.14$, $SD=.87$; low-rise apartments $M=3.05$, $SD=.85$; high-rise apartments $M=2.94$, $SD=.89$).

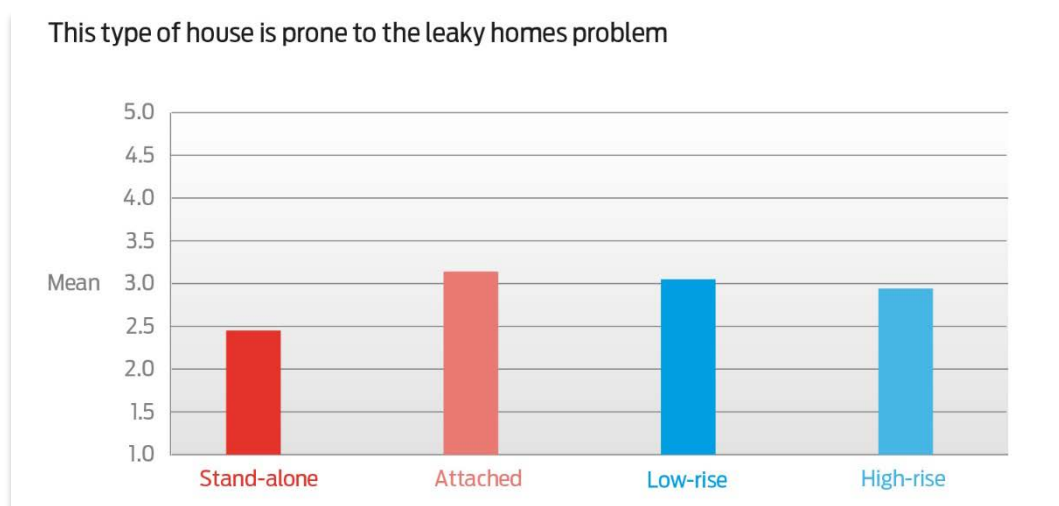


Figure 16. Mean scale scores for perceptions of leaky homes problems by typology for whole sample.

There were no significant differences between the NEMDH and EMDH groups. Figure 17 shows that both groups were more likely to agree that MDH typologies were prone to the leaky homes problem compared to stand-alone houses. However, with the mean responses again sitting around 3 for both groups, their perceptions of leakiness were relatively neutral.

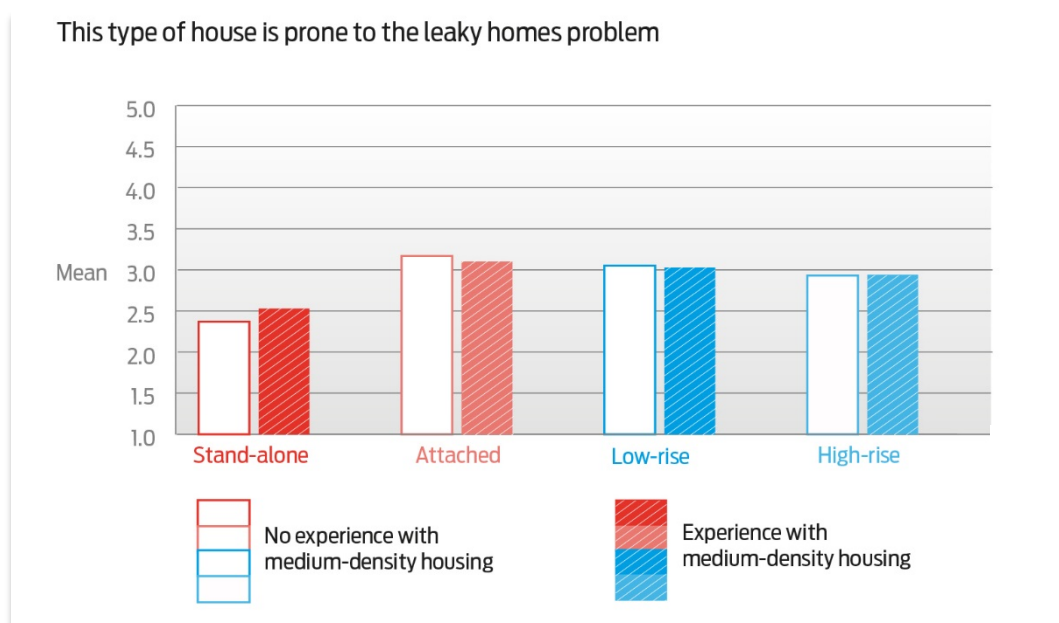


Figure 17. Mean scale scores for perceptions of 'Leaky Homes' problems by typology for NEMDH and EMDH groups.

3.3 Willingness to live in MDH

Participants were asked to indicate their level of agreement with the statement ‘I would definitely consider living in this type of home in the future’. This was a key question for this study, and this section will report how different participant variables are associated with patterns of responding. Unlike Yeoman and Akehurst’s (2015) study, the current study did not account for affordability constraints.

Figure 18 shows that participants agreed most strongly with the statement when it related to stand-alone houses (M=4.27, SD=.97). Agreement with the statement dropped sharply to below the neutral point of 3 for attached houses (M=2.69, SD=1.17). It continued to drop steadily as typology density increased (low-rise apartments M=2.25, SD=1.15; high-rise apartments M=1.78, SD=1.02). Participants tended to disagree that they would consider living in MDH in the future, with attached houses being the most acceptable MDH option.

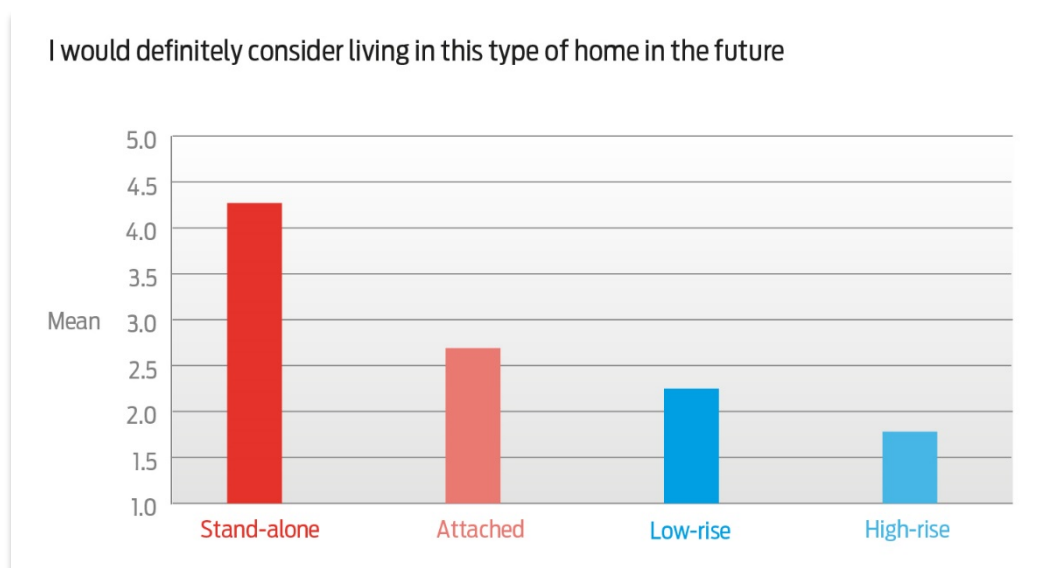


Figure 18. Mean scale scores for willingness to live in type of home in the future by typology for whole sample.

Figure 19 shows that participants with and without experience of MDH expressed equally strong agreement with the statement in relation to stand-alone housing. There is a clear preference for living in this typology of house in the future across both groups.

The difference between the NEMDH and EMDH groups was significant for all the other typologies. The EMDH group were less likely to disagree with the statement for higher-density typologies than the NEMDH group (attached housing $t(1566)=10.54, p<.001$; low-rise apartments $t(1391.52)=7.12, p<.001$; high-rise apartments $t(1306.26)=5.67, p<.001$).

Despite rating MDH typologies more favourably, it must be noted that the mean scale scores for the EMDH group reflect neutrality and disagreement with the statement. The EMDH participants are at best ambivalent to living in MDH in the future although they are less averse than the NEMDH group.

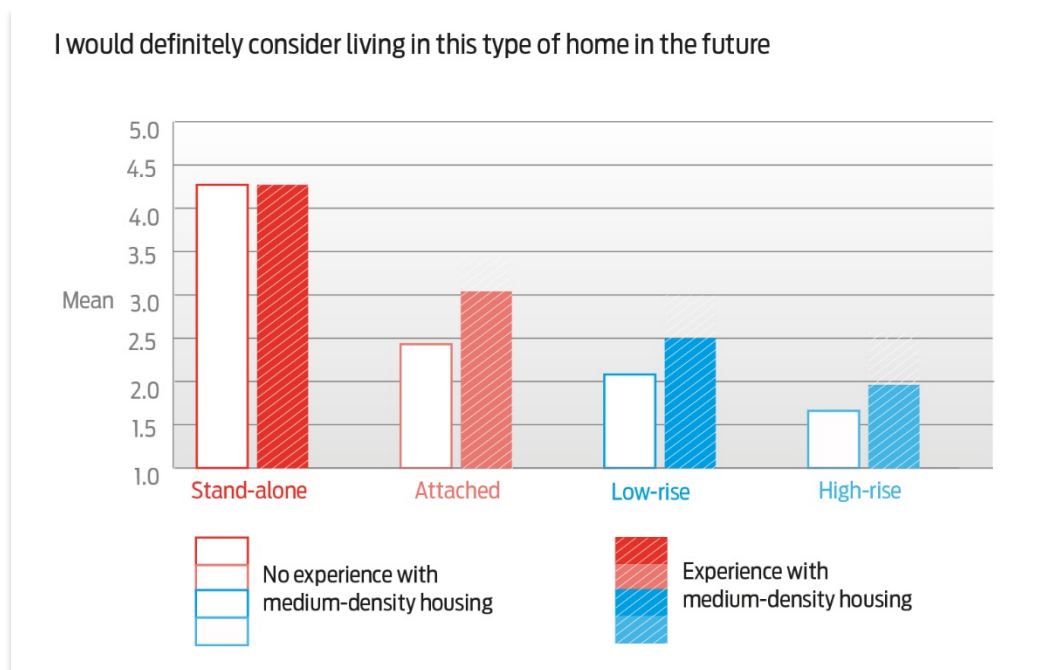


Figure 19. Mean scale scores for willingness to live in type of home in the future by typology for NEMDH and EMDH groups.

The effect of demographic variables on willingness to live in MDH in the future were examined. For this analysis, the mean scale scores for attached housing and low-rise were collapsed for the statement testing willingness to live in MDH in the future (Spearman-Brown reliability coefficient value was .72). This provided overall mean scale scores for willingness to live in MDH in the future. Overall, demographic variables had little impact on willingness to live in MDH in the future.

There were no significant differences for willingness to live in MDH in the future across age groups $F(4,1596)=.79, p=.533$. This means that attitudes towards living in MDH in the future were not affected by age for our sample.

There was no difference in willingness to live in MDH in the future by gender $F(1,1552)=.02, p=.882$, indicating that attitudes did not differ between men and women in this sample.

The effects of ethnicity on willingness to live in MDH in the future was unable to be analysed due to small and uneven group sizes for this variable. The sample is predominantly Pākehā, so any comparative analysis would be unreliable.

Willingness to live in MDH in the future was compared for New Zealand's three major city centres – Auckland, Wellington and Canterbury. Much research has investigated various aspects of MDH in Auckland. It is important to test whether there are differences between Auckland and the other cities in New Zealand in which MDH is increasing. This will help us to understand whether attitudes revealed in Auckland studies can reasonably be generalised to the rest of urban New Zealand.

Figure 20 shows the mean scale scores for willingness to live in MDH in the future for participants in Auckland, Wellington and Canterbury. An ANOVA detected a significant difference between regions $F(2,829)=4.97, p=.007$. The post hoc test revealed that Wellingtonians were significantly more likely to report being willing to live in MDH in

the future compared to Cantabrians (mean difference = .309, SE = .098, p = .005). The differences between Auckland and Wellington and between Auckland and Canterbury were not significant.

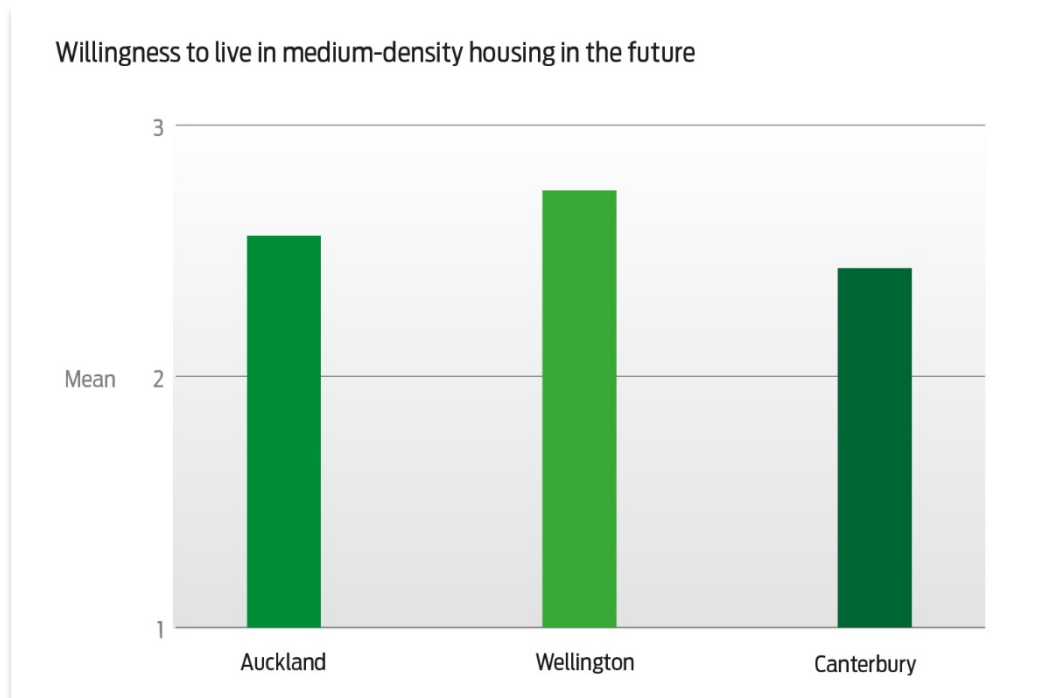


Figure 20. Mean scale scores for willingness to live in MDH in the future by region.

3.4 NIMBYism and medium-density housing

NIMBY is the acronym for 'not in my backyard' and describes people's reluctance to accept new developments or changes in their own communities. There has been a history of NIMBYism towards MDH developments and infill housing in New Zealand (Vallance, Perkins & Moore, 2005). To test whether this sentiment was present in this sample for MDH, participants were asked 'How would you feel about this type of house being built on your street near your home?' for each house typology. Participants could choose from five response options:

- I would actively oppose it.
- I'd be quite unhappy about it.
- It wouldn't bother me.
- I think more homes like this would be good.
- I'd be really pleased.

Figure 21 shows what percentage of the sample selected each option for each house typology. Participants were more likely to say they'd oppose or be unhappy about higher-density typologies. 62% said they would actively oppose or be quite unhappy about low-rise apartments near their home. Attached houses were perceived to be somewhat more acceptable, with 61% of participants saying it wouldn't bother them if some were built in their street. Stand-alone houses were again most popular, with over half the participants (55%) saying they'd be really pleased or that more stand-alone homes in their street would be good. These results show that an element of NIMBYism exists around higher-density housing typologies compared to stand-alone houses.

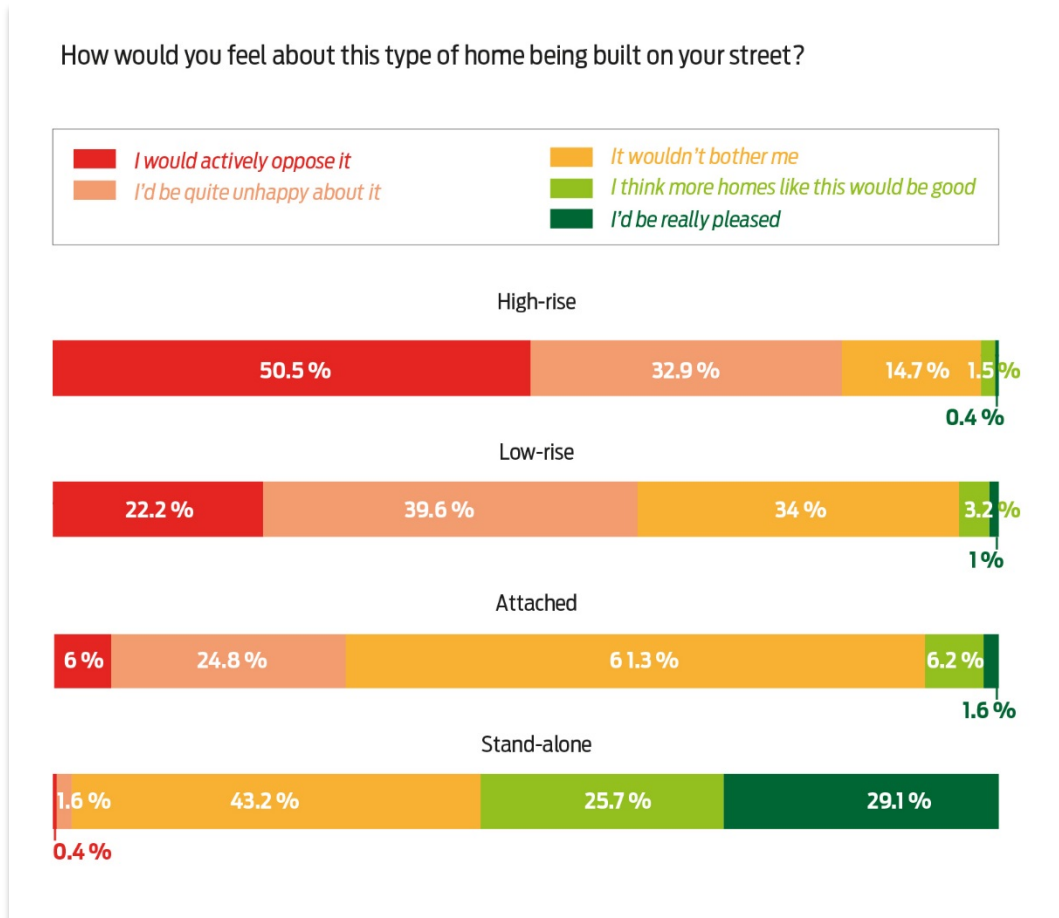


Figure 21. Percentage of the sample endorsing NIMBYism and acceptance of each house typology being built on their street.

3.5 Perceptions of typology size

Participants' perceptions of the suitability of size of each typology were measured by asking participants to complete the statement 'Right now, this type of home would be...' with one of these options:

- Far too small for my needs
- A bit small for my needs
- The perfect size for my needs
- A bit big for my needs
- Far too big for my needs

Figure 22 shows how participants responded. Two-thirds of participants (66.7%) said that a stand-alone house was 'the perfect size for my needs'. Medium-density typologies were generally perceived to be too small for the majority of participants. However, 30% and 21% said an attached house and a low-rise apartment (respectively) would be the perfect size for them, indicating that size would not be a barrier to MDH for a small but significant proportion of New Zealanders.

The size of this type of house would be ...

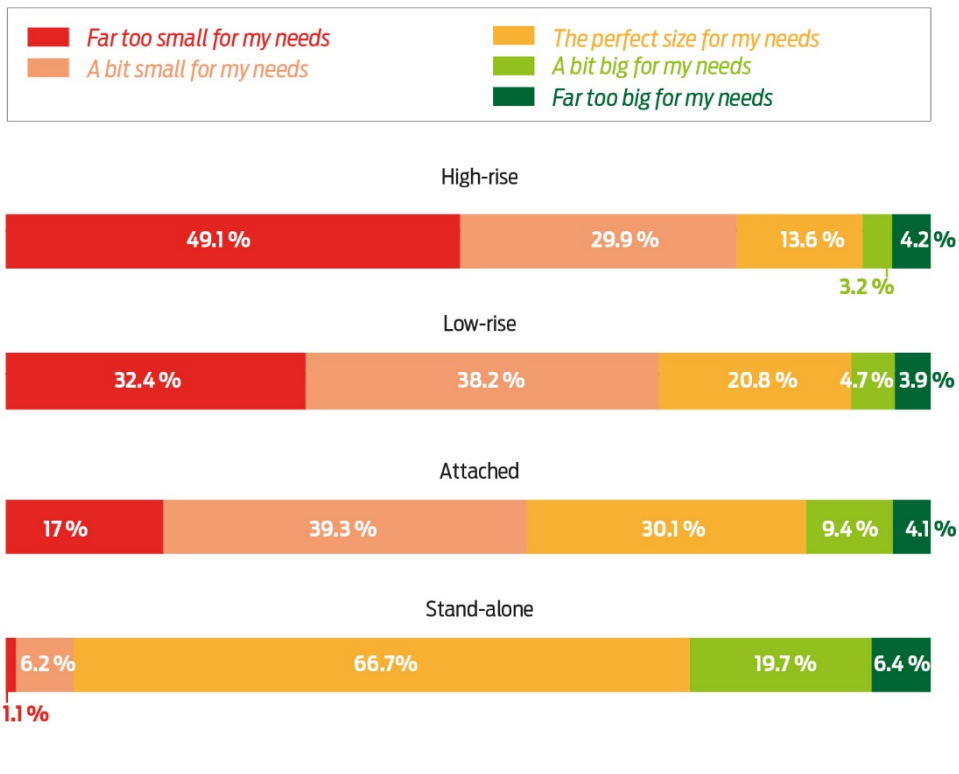


Figure 22. Percentage of participants rating typologies by size.

4. Discussion

1,641 New Zealand householders responded to a nationwide survey (Appendix A) about housing preferences. The survey measured attitudes towards and perceptions of four different house typologies representing three different densities of housing. These were stand-alone houses (low density), attached houses and low-rise apartments (medium density), and high-rise apartments (high density). Analysis of responses to each typology enabled comparisons of attitudes and perceptions between them.

Stand-alone houses were the preferred typology for participants in this sample. This is consistent with literature reviewed in BRANZ Study Report SR376 *Defining medium-density housing* (Bryson & Allen, 2017), which describes New Zealanders as having a long-standing preference for stand-alone housing (Dixon & Dupuis, 2003; Dixon, Dupuis & Lysnar, 2001b; Haarhoff et al., 2012). Attitudes towards the different typologies vary depending on their density, with lower-density houses rated more favourably across all the factors measured in the survey.

When the sample was divided into two groups based on experience of MDH, there were significant differences in attitudes. For some factors, one or both MDH typologies were perceived more favourably by participants with experience of living in them. This finding is consistent with previous research that reports greater acceptance of MDH for people who have previously lived in it (Allen, 2016a; Dixon & Dupuis, 2003; Dixon, Dupuis & Lysnar, 2001a; Dixon et al., 2001b; Dupuis & Dixon, 2002). However, it must be noted that, even when participants with experience of MDH showed more favourable attitudes towards MDH typologies, they still preferred stand-alone houses overall. Furthermore, the EMDH group were at best ambivalent about MDH, responding neutrally rather than favourably on most housing factors. This means that, rather than liking MDH more, they disliked MDH less than participants who'd never lived in it before. This must be kept in mind as the results are discussed further in this section.

Medium-density housing is sometimes promoted as an affordable housing solution during a time of great pressure in New Zealand (Bryson & Allen, 2017). When survey respondents were presented with the statement that MDH was good value for money, they neither agreed nor disagreed. They were somewhat more likely to agree that stand-alone houses were good value for money. However, even for this typology of house, the average scale score reflected relatively neutral attitudes. It is possible that, in the current housing market, New Zealanders are not seeing good value for money in any particular housing option.

It was hypothesised that participants might perceive neighbourhoods with MDH typologies as safe places to live due to the closer proximity to neighbours, shared common spaces and (for some typologies) shared entranceways. It was thought that these features of MDH might facilitate greater social surveillance and a sense of safety for residents (Beacon Pathway Ltd, 2010). However, this was not borne out in the data for this sample. Participants were more likely to agree that stand-alone neighbourhoods were safe places to live, and perceptions of safety decreased as density increased. Even though participants with experience of MDH were significantly more likely to perceive attached housing neighbourhoods as safe places to live, this group still preferred stand-alone housing communities in terms of safety. This might suggest that New Zealanders perceive safety as the ability to separate yourself from others rather than living more communally. Stand-alone neighbourhoods often consist of fully fenced houses with garages that provide internal access and private outdoor



space away from the street. These communities seem to be designed to reduce interaction with neighbours rather than increase it. This sample's endorsement of this kind of 'safety' might suggest that New Zealanders are embracing a security/privacy-focused definition of safety rather than a community one. This apparent desire for security and privacy may also have an impact on the sense of community New Zealanders prefer.

The increased opportunities for social interaction via shared spaces and local amenities that were expected to be associated with a sense of safety are also thought to encourage a better sense of community (Haarhoff et al., 2012). The pattern of responding to the question regarding sense of community was similar to that for safety. Overall, participants were more likely to agree that stand-alone neighbourhoods had a good sense of community. Participants with experience of MDH living were more likely to think attached housing and low-rise apartments provided a good sense of community, compared to participants with no MDH experience. However, their responses reflected neutral attitudes rather than agreement, and stand-alone houses were perceived as providing a better sense of community by both groups. Haarhoff et al. (2012) describe how many residents in MDH view living in these developments as a transitory stage in their lives. A higher rate of resident turnover is likely a barrier to the community cohesion and vibrancy that urban designers and planners intend to achieve with MDH developments. It is possible that residents' lack of long-term commitment to living in MDH neighbourhoods erodes the sense of community that would otherwise develop. This might explain why participants in this sample were more likely to agree that neighbourhoods of stand-alone houses offer a good sense of community, as this typology of home may be considered a more permanent option.

Related to a good sense of community is the ability to have an enjoyable lifestyle. It is commonly understood that liveable MDH is situated to provide easy access to amenities such as public transport, schools, shops and entertainment (Allen, 2015, 2016a, 2016b; Bryson & Allen, 2017; Howley, 2010). These sorts of neighbourhoods are less dependent on cars and aim to provide a more enjoyable lifestyle. It was expected that those in the sample who had experienced this kind of living would be more likely to agree that MDH typologies provided an enjoyable lifestyle. This was the case for low-rise apartments, but experience did not affect attitudes towards attached housing. Even so, both the EMDH and NEMDH groups most strongly endorsed the idea that stand-alone neighbourhoods provide enjoyable lifestyles. In New Zealand, not all MDH is well situated, and access to amenities may be poor. Many MDH communities are still heavily dependent on cars. This may be impacting New Zealanders' perceptions of the quality of life and lifestyle that MDH neighbourhoods can offer. As well designed, liveable MDH is built and New Zealanders get to experience the benefits of this lifestyle, perceptions of this kind of living may change. In addition, it is impossible to know how participants defined an enjoyable lifestyle and what factors they considered for this question. The results indicate that the concept of lifestyle quality should be qualitatively explored to increase our understanding of what New Zealanders mean by an enjoyable lifestyle when evaluating their living environment.

Participants in this sample did not agree that MDH was visually appealing. There were no differences between participants who did and did not have experience living in MDH, and both groups agreed that neighbourhoods of stand-alone houses were visually appealing. Visual appeal is perhaps the major factor that contributes to NIMBYism when new MDH developments are planned in existing communities. It is apparent from the results of this survey that aesthetics continue to be an issue in the New Zealand context. Building attractive and visually appealing MDH will be important



in increasing its acceptance into the future. Future research to understand what makes MDH visually appealing would be a complex but valuable undertaking.

Consistent with the findings around visual appeal, the results indicated that NIMBYism remains an issue for MDH in New Zealand. When asked how they'd feel about each typology being built in their street, participants were predictably resistant to high-rise apartment buildings. Objection decreased with typology density. Attached houses were the most acceptable form of MDH, with over 60% of the sample saying it wouldn't bother them if these houses were built on their street. Low-rise apartments were less palatable, with over 60% of participants saying they'd actively oppose or be quite unhappy about these types of house in their neighbourhood. These attitudes are consistent with findings reported in Early, Howden-Chapman and Russell (2015), where respondents were relatively comfortable with townhouses of up to 2 storeys in their neighbourhood but reported being increasingly uncomfortable as the height and density of houses increased. This highlights the need to increase the acceptance of MDH typologies for whole communities. Further research in this area is needed, and a post-development study of the neighbours around MDH developments would be insightful. There is a need to understand if communities' initial fears are borne out in reality after an MDH development is completed and lived in. It would be valuable to know how neighbourhoods adapt and change to fit these new typologies into them.

Weathertightness problems have impacted a variety of house typologies, including MDH. Preval, Chapman and Howden-Chapman (2010) found a clear preference for stand-alone houses among their sample. They suggested that New Zealand's leaky housing experience may have influenced people's attitudes towards apartment living and that research was required to investigate this. Therefore, participants were asked whether they thought each typology of home was prone to leaking. There is no data available that describes which typologies of house have been most affected by weathertightness issues, making it impossible to say whether participants' responses to this question reflect an accurate perception of the problem or not. Research in this area and data around weathertightness and house typology would be very useful. The leaky homes question aimed to measure the impact this problem might have had on attitudes towards MDH. Participants tended to disagree that stand-alone homes were leak prone but responded neutrally regarding medium-density and high-density typologies. This tendency to perceive MDH typologies as more likely to leak was not affected by experience with MDH living. Whilst it is possible that participants' perceptions are an accurate assessment of the weathertightness problem and that MDH typologies are more leak prone, there is no evidence to support this contention. Another possible explanation for this perception of risk of leaking in MDH typologies could be the visibility of remediation work. When a large multi-unit dwelling is remediated, it is often highly visible, as the entire building is wrapped in white plastic for the duration of the work. This tends to stand out and be more noticeable than single stand-alone houses undergoing the same treatment, leading to a skewed impression of the prevalence of remediation work by typology.

Medium-density housing typologies come in a variety of different sizes and can accommodate a diverse range of households (Bryson & Allen, 2017). It is important to understand whether New Zealanders realise the diversity of options MDH offers. Participants were asked how appropriate they perceived the size of each typology to be for their current situation. It was hypothesised that participants would perceive the medium-density and high-density options to be too small for their needs, and this was indeed supported in the results. Two-thirds of participants said that a stand-alone house was the perfect size for them, while less than a third thought attached housing



was the perfect size and a fifth thought that low-rise apartments were the perfect size. The majority of participants said that the MDH typologies would be too small for their needs. These findings show that a small but significant minority of participants think MDH options would be appropriate in size for their needs. These participants may feel that they only need a small living arrangement, or they may realise that MDH comes in many different shapes and sizes. Either way, there seems to be a need to educate New Zealanders about the range of sizes available within MDH to broaden its appeal to larger households.

One of the most important questions asked of the sample was whether they would consider living in each typology in the future. For MDH to be a viable housing option, a significant proportion of the population must be open to residing in it. The sample overwhelmingly preferred stand-alone houses when responding to this question, even if they had experience of living in MDH. This is further evidence that New Zealanders continue to aspire to the traditional ideal of a detached house with the private outdoor space that stand-alone typologies offer. However, those who had lived in MDH before were significantly less likely to say they wouldn't live in MDH typologies in the future. This was especially true for attached houses. While it is important to note that this group still had a strong preference for stand-alone houses, their objection to future MDH living was significantly less than participants with no MDH experience. This suggests, as more New Zealanders experience living in well planned, visually appealing, liveable MDH, attitudes and perceptions might improve, and more New Zealanders may consider living in it in the future.

It was expected that demographic variables would affect the willingness of participants to live in MDH in the future. Previous research has demonstrated that life stage is an important predictor of MDH acceptability. Younger and older New Zealanders are more likely to choose smaller houses or apartments closer to the city than those in their 30s and 40s with children (Early et al., 2015; Preval et al., 2010). Surprisingly, there were no differences in willingness to live in MDH by age group or gender in our sample. It should be noted that this sample is older than the general population. However, there were enough participants in each age group and the sample size was substantial enough to conduct reliable and appropriate statistical analysis. It is unclear why participants in the sample did not show the same stage of life effect as in previous studies. For this sample, all age groups were equally ambivalent or reluctant to live in MDH in the future.

Medium-density housing typologies are most common in Auckland, and much of the research into MDH has been done there. Wellington and Canterbury are also seeing an increasing amount of MDH being built, so it is important to understand whether attitudes differ between these regions. Cantabrians were significantly less likely to say they'd live in MDH in the future compared to Wellingtonians, with Aucklanders sitting between Wellingtonians and Cantabrians. If we take willingness to live in MDH in the future as a general indicator of acceptance, it appears Auckland attitudes are consistent with the other two major centres in New Zealand. The findings from previous studies that have examined acceptance of MDH in Auckland may arguably be generalised to Wellington and Christchurch. It is interesting that Wellingtonians are the least reluctant to live in MDH in the future. The topography of Wellington means that the scarcity of land around it is more tangible. The city and many of its close urban centres are sandwiched between steep hillsides and the sea. It is possible that Wellingtonians can literally see the need for MDH if they want to live nearer the city, compared to the relatively flat and sprawling geography of Auckland and especially Christchurch.



A limitation of this study is the self-selecting nature of the sample. While there was a good geographical spread of participants, they were older than the general population, and Pākehā New Zealanders were over-represented. It is unclear how this might have affected the results of this study. While the lack of ethnic diversity in the sample meant the impact of this variable on attitudes was unable to be measured, age did not have an affect on attitudes towards living in MDH in the future. Furthermore, New Zealand has an ageing population whose perceptions of housing options are of great interest and importance.

Another limitation of this study is also one of its strengths. This survey was distributed nationwide and achieved a good geographical spread of participants. This means that the attitudes measured represent the views of New Zealanders from a broad spectrum of neighbourhoods – from inner city urban to rural country villages. Logically, MDH is more appropriate at the urban end of the scale rather than the rural end. People living in each of these environments will have different attitudes towards and experiences of MDH. Responses from people living in more regional areas of New Zealand may have skewed the results of this survey towards resistance to MDH. To address this, the mean scale scores for the 'willingness to live in MDH' variable for the three most urban regions (Auckland, Wellington and Canterbury) were collapsed. They were then compared to the mean scale score for the rest of the country. This enabled a check of what impact urban environment might have had on the results. While the means were significantly different [City M=2.57, SD=1.04; Regions M=2.37, SD=1.00; $F(1,1543)=14.66$, $p=.000$], they were both on the same side of neutral. This indicates that, while regional New Zealanders were more resistant to living in MDH, their responses have not statistically influenced the overall results of this study. The mean score for city New Zealanders sits between neutral responding and disagreement with the idea of living in MDH in the future.

4.1 Conclusions

Taken together, the results of the study indicate that much work remains to be done to increase New Zealanders' acceptance of MDH. The key question of whether New Zealanders are willing to live in MDH in the future showed there is at best ambivalence and at worst reluctance in considering these typologies. It is encouraging to know that having lived in an MDH home before generally improves residents' opinions of these houses. It could be suggested that the more people who experience good-quality, liveable MDH, the greater the acceptance of these developments will be. What is clear is that more social science around what drives these attitudes is necessary. NIMBYism persists, and work should be done to investigate post-NIMBY attitudes in neighbourhoods that initially objected to MDH but where the development went ahead anyway. Understanding how these neighbourhoods have adapted to these new buildings and whether the community's initial fears are realised in reality will be important if MDH acceptance is to be increased in future.

Further work should also be undertaken to establish the best way to educate New Zealanders on the variety of MDH options available to them and the advantages these typologies can offer. This study revealed that, despite the existence of safe, liveable, MDH communities in New Zealand, the benefits of these neighbourhoods are as yet unrealised by the greater New Zealand population. If MDH is to be an effective part of the solution to housing pressure, New Zealanders will need to feel they can live in a multi-unit dwelling *and* live their Kiwi lifestyles.



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Appendix A: New Zealand Housing Preferences Survey

New Zealand Housing Preferences Survey

Thank you for taking part in the New Zealand Housing Preferences Survey. First we'd like to know a bit about you. Remember, this is all confidential and you will never be identified in this study.


What is your gender? _____ How old are you? [please tick one] 18 - 24 25 - 34 35 - 44
45 - 54 55 - 64 65+

Which ethnic group do you belong to? Tick as many as apply to you.

New Zealand European/Pakeha Māori Samoan
Cook Island Maori Tongan Niuean
Chinese Indian Other such as Dutch, Japanese, Tokelauan.
Please state: _____

What region do you live in? [please tick one]

Northland <input type="radio"/>	Hawke's Bay <input type="radio"/>	Nelson <input type="radio"/>
Auckland <input type="radio"/>	Taranaki <input type="radio"/>	Marlborough <input type="radio"/>
Waikato <input type="radio"/>	Manawatu-Whanganui <input type="radio"/>	West Coast <input type="radio"/>
Bay of Plenty <input type="radio"/>	Wellington <input type="radio"/>	Canterbury <input type="radio"/>
Gisborne <input type="radio"/>	Tasman <input type="radio"/>	Otago <input type="radio"/>
		Southland <input type="radio"/>



Do you rent or own your home? [please tick one]

Rent Own Other, please specify _____

How long have you lived in your home? Years _____ Months _____

How long have you lived in your neighbourhood? Years _____ Months _____

How many people live in your home? _____

Who else lives in your home? Tick all that apply

My partner/spouse Mine and/or my partners' child/children Mine and/or my partners' Mother, Father, or Grandparent[s]
Other family member[s] such as siblings or extended family My flatemate[s] I live by myself
Other, please specify _____

If you said you are living with a parent or grandparent, are you or your partner acting as their caregiver? [please tick one]

Yes No Not applicable

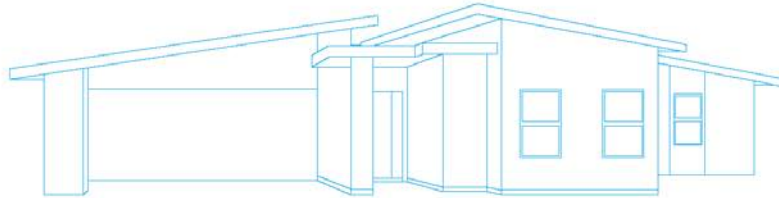
How many bedrooms does your home have? _____

Which of these best describes your work situation? [please tick one]

In paid employment full time [30 hours per week or more] In paid employment part-time [less than 30 hours per week] Working in the home
Studying Unemployed Retired Unable to work

We are interested in what New Zealanders think about different types of homes.

In this section of the survey we would like you to answer the questions about the type of home in the pictures on each page.



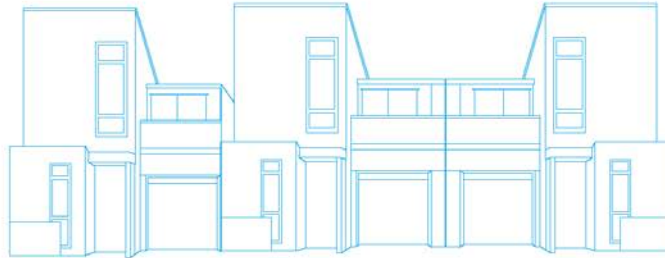
This is a standalone house on its own section with a back yard. This is the most common type of home in New Zealand.

Have you ever lived in this kind of home before? Yes No

Is the home you currently live in similar to this type? Yes No

Please tick the response that best describes how you feel about each of the questions below. You can select only one response to each question.

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
I would definitely consider living in this type of home in the future.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would only live in this type of home if it was all I could afford in my preferred location.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Buyers of this type of home get better value for money than other types of house.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Neighbourhoods that have lots of this type of home seem like SAFE places to live.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Neighbourhoods that have lots of this type of home provide an ENJOYABLE LIFESTYLE.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Neighbourhoods that have lots of this type of home have a GOOD SENSE OF COMMUNITY.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Neighbourhoods that have lots of this type of home are VISUALLY APPEALING.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This type of home would suit the needs of other New Zealanders.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This type of house is prone to the 'Leaky Homes' problem.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	I would actively oppose it	I'd be quite unhappy about it	It wouldn't bother me	I think more homes like this would be good	I'd be really pleased
How would you feel about this type of house being built on your street near your home?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Far too small for my needs	A bit small for my needs	The perfect size for my needs	A bit big for my needs	Far too big for my needs
Right now, this type of home would be...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	None	A Few	Quite a lot, probably about half	Most of them	All of them
How many houses of this type are there in your neighbourhood?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



This kind of house is often called a Terraced House or Attached Townhouse. They have at least one common wall with the neighbouring home, and can be in blocks of two or three, or in longer rows.

Have you ever lived in this kind of home before? Yes No

Is the home you currently live in similar to this type? Yes No

Please tick the response that best describes how you feel about each of the questions below. You can select only one response to each question.

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
I would definitely consider living in this type of home in the future.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would only live in this type of home if it was all I could afford in my preferred location.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Buyers of this type of home get better value for money than other types of house.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Neighbourhoods that have lots of this type of home seem like SAFE places to live.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Neighbourhoods that have lots of this type of home provide an ENJOYABLE LIFESTYLE.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Neighbourhoods that have lots of this type of home have a GOOD SENSE OF COMMUNITY.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Neighbourhoods that have lots of this type of home are VISUALLY APPEALING.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This type of home would suit the needs of other New Zealanders.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This type of house is prone to the 'Leaky Homes' problem.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	I would actively oppose it	I'd be quite unhappy about it	It wouldn't bother me	I think more homes like this would be good	I'd be really pleased
How would you feel about this type of house being built on your street near your home?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Far too small for my needs	A bit small for my needs	The perfect size for my needs	A bit big for my needs	Far too big for my needs
Right now, this type of home would be...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	None	A Few	Quite a lot, probably about half	Most of them	All of them
How many houses of this type are there in your neighbourhood?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



This is a low-rise apartment building or block of flats. These are up to four storeys high and usually have a common entranceway and shared car parking.



Have you ever lived in this kind of home before?

Yes No

Is the home you currently live in similar to this type?

Yes No

Please tick the response that best describes how you feel about each of the questions below. You can select only one response to each question.

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
I would definitely consider living in this type of home in the future.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would only live in this type of home if it was all I could afford in my preferred location.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Buyers of this type of home get better value for money than other types of house.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Neighbourhoods that have lots of this type of home seem like SAFE places to live.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Neighbourhoods that have lots of this type of home provide an ENJOYABLE LIFESTYLE.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Neighbourhoods that have lots of this type of home have a GOOD SENSE OF COMMUNITY.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Neighbourhoods that have lots of this type of home are VISUALLY APPEALING.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This type of home would suit the needs of other New Zealanders.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This type of house is prone to the 'Leaky Homes' problem.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	I would actively oppose it	I'd be quite unhappy about it	It wouldn't bother me	I think more homes like this would be good	I'd be really pleased
How would you feel about this type of house being built on your street near your home?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Far too small for my needs	A bit small for my needs	The perfect size for my needs	A bit big for my needs	Far too big for my needs
Right now, this type of home would be...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	None	A Few	Quite a lot, probably about half	Most of them	All of them
How many houses of this type are there in your neighbourhood?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



This is a high-rise apartment building. These buildings have a common entranceway and if parking is provided it is usually a shared garage. These buildings are much taller than low-rise apartments or flats and have elevators.



Have you ever lived in this kind of home before? Yes No

Is the home you currently live in similar to this type? Yes No

Please tick the response that best describes how you feel about each of the questions below. You can select only one response to each question.

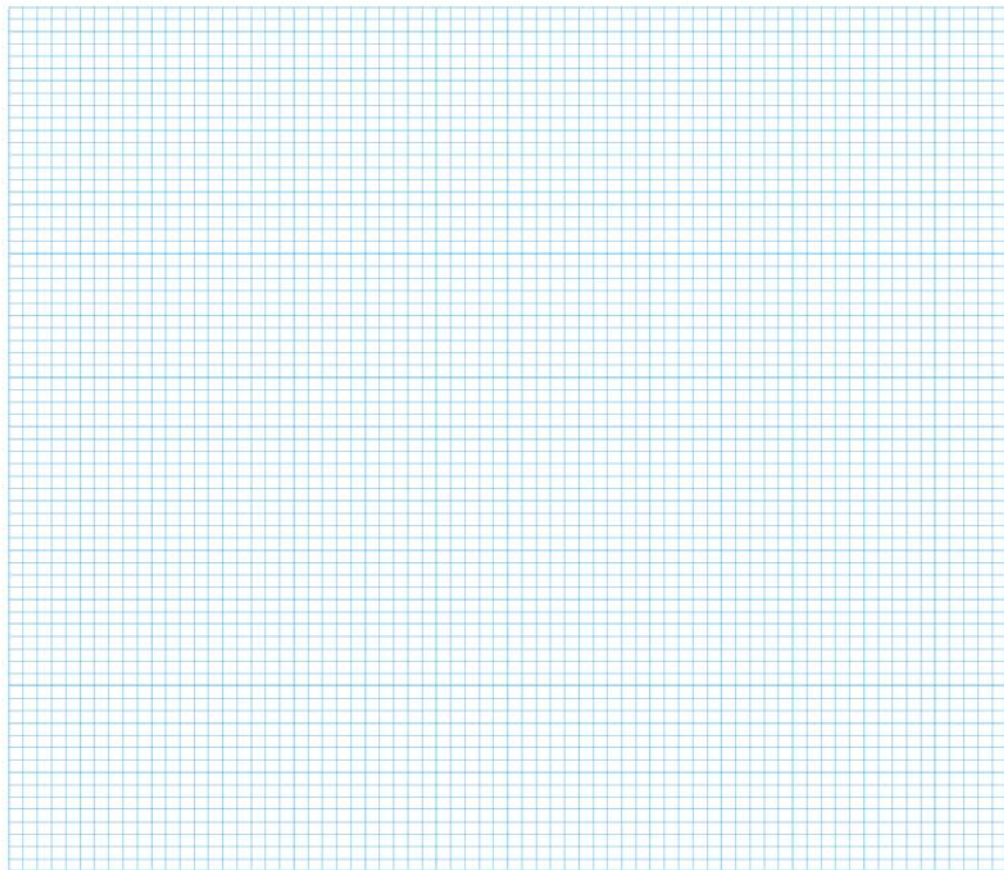
	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
I would definitely consider living in this type of home in the future.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would only live in this type of home if it was all I could afford in my preferred location.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Buyers of this type of home get better value for money than other types of house.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Neighbourhoods that have lots of this type of home seem like SAFE places to live.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Neighbourhoods that have lots of this type of home provide an ENJOYABLE LIFESTYLE.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Neighbourhoods that have lots of this type of home have a GOOD SENSE OF COMMUNITY.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Neighbourhoods that have lots of this type of home are VISUALLY APPEALING.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This type of home would suit the needs of other New Zealanders.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This type of house is prone to the 'Leaky Homes' problem.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	I would actively oppose it	I'd be quite unhappy about it	It wouldn't bother me	I think more homes like this would be good	I'd be really pleased
How would you feel about this type of house being built on your street near your home?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Far too small for my needs	A bit small for my needs	The perfect size for my needs	A bit big for my needs	Far too big for my needs
Right now, this type of home would be...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	None	A Few	Quite a lot, probably about half	Most of them	All of them
How many houses of this type are there in your neighbourhood?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



If the home you currently live in **isn't** similar to any of the homes in this survey, please describe what type of home it is

(e.g. a detached townhouse in a group of townhouses, a flat/unit in a single level block).

Feel free to draw a simple picture of the type of home you live in.





PLEASE ANSWER THIS FINAL SECTION ONLY IF YOU ARE RENTING YOUR CURRENT HOME.

What is your current weekly rent? (please tick one)

Under \$200	<input type="radio"/>	\$300 - \$399	<input type="radio"/>	\$500 and over	<input type="radio"/>
\$200 - \$299	<input type="radio"/>	\$400 - \$499	<input type="radio"/>		

Which factors were important to you in choosing to rent your current residence? Tick all that apply.

Rental price	<input type="radio"/>	Easy to heat	<input type="radio"/>	Type of house	<input type="radio"/>	Gets lots of sun	<input type="radio"/>
House well looked after	<input type="radio"/>	Good public transport links	<input type="radio"/>	Preferred neighbourhood	<input type="radio"/>		
Close to work	<input type="radio"/>	Number of bedrooms	<input type="radio"/>	Level of insulation	<input type="radio"/>		
Close to schools	<input type="radio"/>	Number of bathrooms	<input type="radio"/>	Section size	<input type="radio"/>		

Other, Please specify: _____

Did you consider other costs (such as energy costs, medical costs, travel costs) when choosing your current residence?

Yes	<input type="radio"/>	No	<input type="radio"/>
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Which of these best describes how well your current residence suits your needs (please tick one)

Very Poor	<input type="radio"/>	Poor	<input type="radio"/>	Moderate	<input type="radio"/>	Good	<input type="radio"/>	Very Good	<input type="radio"/>
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How would you rate your ability to heat your living room and bedrooms in your current residence? (please tick one)

Very difficult to heat	<input type="radio"/>	Somewhat difficult to heat	<input type="radio"/>	Moderate	<input type="radio"/>	Easy to heat	<input type="radio"/>	Very easy to heat	<input type="radio"/>
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Do you contact your landlord straight away when MINOR repairs/maintenance are required? (please tick one)

No, too much hassle	<input type="radio"/>	No, I am concerned that it would lead to me paying more rent	<input type="radio"/>
Yes	<input type="radio"/>	No, I am concerned about being evicted	<input type="radio"/>

Do you contact your landlord straight away when MAJOR repairs/maintenance are required? (please tick one)

No, too much hassle	<input type="radio"/>	No, I am concerned that it would lead to me paying more rent	<input type="radio"/>
Yes	<input type="radio"/>	No, I am concerned about being evicted	<input type="radio"/>

Would you be able to pay more in rent for a better quality property? (please tick one)

No, I would be unable to pay any more in rent	<input type="radio"/>	Yes, but I would not be willing to pay any more in rent	<input type="radio"/>	Yes, I would be able to pay more for a better quality rental property	<input type="radio"/>
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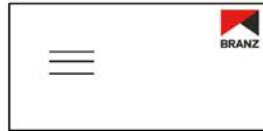
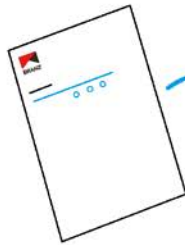
Are any of the following areas of your current residence in need of repair/maintenance? (please tick one)

Roof cladding	<input type="radio"/>	Mould issues	<input type="radio"/>	Floor coverings	<input type="radio"/>
External Wall Cladding	<input type="radio"/>	Plumbing	<input type="radio"/>	Fixed appliances [e.g. oven, stove, range-top]	<input type="radio"/>
Windows	<input type="radio"/>	Electrical issues	<input type="radio"/>		
Internal wall linings	<input type="radio"/>	Fixtures and fittings [e.g. door handles, taps etc]	<input type="radio"/>		

Other, Please specify: _____

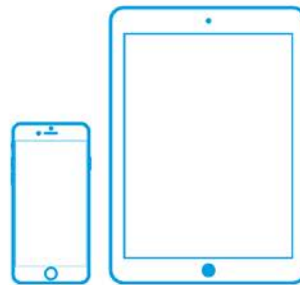


Thank you for completing the New Zealand House Preferences Survey.



Please return the survey in the reply paid envelope provided.

Remember your entry form for the draw to win an iPhone 7 or iPad Pro!





Appendix B: Information letter



1222 Moonshine Rd,
RD1, Porirua 5381
Private Bag 50 908
Porirua 5240
New Zealand

branz.nz

13 October 2016

Dear Resident,

New Zealand Housing Preferences Survey

My name is Dr Kate Bryson, and I'm a Senior Social Scientist at the Building Research Association New Zealand (BRANZ). BRANZ is an independent and impartial research, testing and consulting organisation inspiring the building and construction industry to provide better buildings for New Zealanders.

You can find out more about BRANZ and the work we do at www.branz.co.nz.

I am writing to invite you to take part in the [New Zealand Housing Preferences Survey](#). Everyone who completes the survey goes in the draw to win an iPad Pro or iPhone 7 – and you get to choose.

About the New Zealand Housing Preferences Survey

I am interested in New Zealanders opinions and experiences of living in different types of homes and neighbourhoods. Your address has been randomly selected from the NZ Post national database. The first section of the survey asks questions about you and your living arrangements. Your answers will not be used to identify you, rather they are designed to help me understand how opinions might differ for people across a range of circumstances.

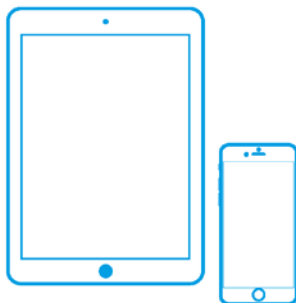
The next section of the survey asks questions about four different types of home. There are no right or wrong answers to any of these questions, I am interested only in your personal opinions about these types of houses.

The final section is to be completed by people who rent their current home. This section will provide me with information on potential issues with rental housing in New Zealand, and what BRANZ can do to improve these houses.

What you need to do

Taking part in this study is voluntary. Only one person in your household can fill out the survey, and you must be 18 years of age or older. If you are happy to complete it (and go in the draw to win an iPhone 7 or iPad Pro) please use a pen to answer the questionnaire. Once it is complete fold the survey in half, put it in the reply paid envelope supplied, and post it back to us **BY THE END OF NOVEMBER**.

If you want to go in the draw to win either an iPhone 7 or iPad Pro, please fill out the slip at the end of this letter, cut it off the letter, and return it with your survey. We will not attach your name or any identifying information to your survey. We will draw the winner on [Friday 2 December](#) and the winner will be notified by phone or email.



Win an iPhone 7 or an iPad Pro



What happens to your survey responses?

Once I receive your completed survey, your answers are entered in to a statistical data base to be analysed. Your responses become part of a large data set where I can look at trends across all New Zealanders who fill in the survey. The data is stored securely and access is restricted to our research team. Once I've completed the analysis a research report will be written, and the findings may be published in research journals, presented at conferences, or become part of information resources for the building industry and other people interested in housing. All BRANZ research reports can be accessed on our website.

Confidentiality

Your survey responses are confidential. This means none of your answers will ever be used to identify you. All your answers are entered into a large data base and become part of a pool of data that is analysed to show trends. Individual responses will not be reported in any publications.

Who can I contact if I have questions about the survey?

You are welcome to email me at kate.bryson@branz.co.nz if you have any questions about the survey.

Finally, I would like to thank you for considering taking part in this study. Your time and thoughts are very much appreciated.

Sincerely,
Dr Kate Bryson
Senior Social Scientist
BRANZ

Yes, please enter me in the draw to win an (tick one): iPhone 7 iPad Pro

Name: _____

Phone number: _____

Email: _____