VIVID Wellbeing Study: The Impact of Housing Quality and Neighbourhoods on Customer Wellbeing

Final Report
1 April 2022

Aston University
BIRMINGHAM UK

CPFW
Centre for Personal
Financial Wellbeing

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1. Executive Summary

1.1. Project Aims

The purpose of this study has been to understand the impact of housing quality and neighbourhood characteristics on the wellbeing of VIVID's customers, including shared owners and social renters, those who had moved in within the past year and those who were existing customers.

Underlying research questions for the project included:

- How do customers' expectations around quality differ from their actual experience when moving into one of VIVID's homes?

- How does the quality of the homes VIVID provide impact on our customers' wellbeing? Is there a difference between new build and existing stock?

- What features in the home and neighbourhood contribute most to wellbeing?

- Usability of space in the home and neighbourhood – what could improve wellbeing?

1.2. Context

Policy and external housing strategy drivers on housing quality and management include Net Zero housing targets, building safety and regulations following Grenfell, and Brexit impacts on new developments, maintenance and workforce.

The Covid-19 pandemic has had consequences for housing service delivery, as well as engendering lifestyle shifts, housing preferences and wellbeing impacts through the pandemic and lockdowns. The current fuel and living cost crises will continue to impact upon poorer and more vulnerable households, who have already been struggling from a decade of austerity.

An extensive literature review has been conducted to understand the concepts of wellbeing and housing quality, and sets out both academic and practical frameworks by which to categorise aspects of housing and neighborhood quality, as well as providing a conceptual baseline for a wellbeing study. Other UK based studies which link housing quality and wellbeing are outlined for further context.

1.3. Methodology

This study adopts a mixed-methods, longitudinal approach using quantitative surveys and qualitative interviews in iterative phases, building evidence incrementally and working collaboratively with VIVID's research strategy team. Round 1 of the survey was conducted in November 2020 with 1115 responses, and Round 2 conducted in November 2021. The Round 2 survey was sent to the same cohort of Round 1 respondents, with 551 responses - a very high response rate, of which 375 could be accurately matched to their original individual (rather than household) responses.

Sub-samples were designed and surveys tailored accordingly for new social renters and shared owners (1 year or less with VIVID), and existing social renters and shared owners respectively. Further sub-samples included those

who had had repairs, and those who were first occupants of new builds.

2 rounds of interviews with shared owners and tenants followed each annual survey run, with 24 interviews conducted in the summer of 2021 and 16 in winter of 2021/2022. 4 Management interviews were also conducted between the customer surveys and interviews to gain strategic insights around new development, asset management and neighbourhood services.

1.4. Survey Findings

These findings are mainly drawn from the univariate analysis of data, with some of the findings supported by the multivariate analysis. The multivariate model examines if socio-demographic variables, housing tenure, build type (old or new), quality of repairs and maintenance work, quality of the property and the neighbourhood, are related to subjective wellbeing (SWB). Details about the multivariate analysis are discussed in section 4.8.

1.4.1. Demographic profile

Compared to existing tenants and shared-owners, new tenants and shared-owners tend to be younger and in better health status in both rounds of surveys. The majority of respondents are females, except that about 71% of the new shared-owners are males. New shared-owners tend to hold higher levels of qualification compared to existing shared-owners.

1.4.2. New Build

Among existing shared owners and new social renters, those living in new build tended to hold higher levels of qualification, were more likely to be married or have permanent jobs. For existing shared owners only, those living in new build tended to be in better health status and have more dependent children. Existing social renters living in the new build were more likely to have difficulties in paying bills and rent.

1.4.3. Subjective Well-being

In both rounds of survey, life satisfaction was higher for new shared owners and social tenants compared to existing shared owners and social tenants.

Existing shared owners and new social tenants who live in new build had higher levels of satisfaction with life compared to their counterparts living in old build.

In both rounds of the survey, new social renters (vs. existing social renters) were more likely to say that their life was very or fairly worthwhile, and this gap increased in Round 2. In Round 1, new shared-owners and social renters were happier than existing shared-owners and social renters. The gap lasted for social renters but disappeared for shared owners one year later.

We did not find any significant difference in anxiety level between existing and new residents living with VIVID in either round of the survey. However, we found new social renters living in old builds have a higher level of anxiety compared to their counterparts living in new build. Looking at the trend in subjective wellbeing across time, there was statistically significant evidence that the anxiety level of new tenants dropped in Round 2.

1.4.4. Experience of Home

In both rounds of survey, new social renters (vs. existing social renters) were more likely to agree that their home made them feel they were doing well in life.

In Round 2 only, new shared owners (vs. existing shared owners) were more likely to say that they felt safe in their home, had privacy at home, that they could get away from it all at home, that they could do what they liked at home, that people would like a home like theirs and their home makes them feel well.

In both rounds of survey, those living in new build (vs. other build) were more likely to agree that they felt safe in their home, had privacy at home, could get away from it all at home, people would like a home like theirs and their home made them feel they were doing well.

1.4.5. Neighbourhood

In contrast to significant differences in residents experience with home across housing tenure and build type, we did not observe many differences in most aspects of experiences with neighbourhoods. Exceptions were that, in Round 2, those living in new build (vs. other build) were more likely to feel part of the community, or that people would be happy living in their neighbourhood.

In both rounds of survey, those living in new build (vs. other build) rate higher for overall quality of the neighbourhood. In Round 2, new shared owners (vs. existing shared owners) and new social renters (vs. existing social renters) rate higher for the overall quality of the neighbourhood.

In both waves, pollution and anti-social behaviour (ASB) were more likely to be a major concern for those living in old build (vs. new build). The latter is also a major concern for existing social renters compared to new social renters. In Round 2, existing shared owners were more concerned than new shared owners about pollution in the neighbourhood, while existing social renters were more concerned about pollution and crime than new social renters.

A significant change in concern over time was that existing social renters become more concerned about the quality of public facilities in the neighbourhood. Compared to one year before, residents living in new build were also more concerned about the traffic and pollution in their neighbourhood.

Residents living in old builds were less satisfied with access to schools and GPs. We also found that existing shared-owners were less satisfied with access to GPs. Additionally, about 16% of new social renters were more satisfied with the access to essential amenities and others remained about the same. By contrast, only 2.5% among existing social renters were more satisfied, with an additional 7% of existing social renters rating lower on their access to essential amenities in Round 2.

1.4.6. Meeting Expectations

In Round 2, previously new residents were asked if the quality of their VIVID home met their expectations before they moved in. About 70% of new social renters and 81% of new shared owners reported that the quality exceeded or met their expectations. All respondents who reported the highest level of life satisfaction also agreed that the quality of their VIVID home met their expectations, while 71% of respondents in the lowest level of life satisfaction felt that the quality of their homes doesn't meet their expectation.

Focusing on feeling worthwhile, 95% of respondents who reported the highest level of feeling worthwhile agreed that the quality of their VIVID home met their expectations. This proportion drops to 75% and 43% for those who reported "fairly worthwhile" and "somewhat worthwhile" respectively.

1.5. Key Themes

1.5.1. Health and wealth (Income and Financial Wellbeing)

The demographic profiles of sub-samples vary distinctly with existing social renters as the most disadvantaged with lower incomes, higher levels of unemployment, lower levels of education, and long term health problems.
New social renters (vs existing social renters) had higher weekly income in Round 2, while those living in new build (vs old build) had a higher weekly income in both rounds of surveys. New shared owners were in better health that existing shared owners and the same applied to new social renters (vs existing social renters). While new social renters were less likely than existing social renters to struggle to make ends meet, this gap disappeared in Round 2.

Those who claimed any benefits (regardless of tenure) were more likely to have difficulties in paying bills and rent compared to their counterparts who didn't. (Qualitative evidence from a number of interviews did seem to contradict this, where those on benefits described having less financial worries compared to

some social renters and shared owners who were full time or part-time employed and weren't claiming any benefits.)

1.5.2 Affordability and value for money

Respondents' perceptions of whether their homes represented good value for money was also strongly associated with all the quality and experience questions regarding the property and the neighbourhood; the more satisfied the respondents were with the quality and experience of the property and neighbourhood, the more likely they were to think the rent and mortgage worth the money. Value for money judgements were also linked to previous housing experience and perceptions around available housing options for particular cohorts e.g. average quality social housing being better than being homeless, high quality social housing being better value than poor or average quality private rental and partially owning a home with a shared ownership better than not owning at all. Another interesting association emerged around mixed tenure developments or neighbourhoods particularly in affluent areas with high proportion of owner occupied homes, where this was seen to 'add value' to a social home or shared ownership property.

1.5.3. Housing Quality, Design and Fuel Efficiency

Satisfaction with the design of the property, such as the layout, space, suitability or safety, was associated with higher levels of subjective wellbeing but only for those living in the old build. For those living in the new build, only anxiety was related with lower levels of satisfaction with the layout.

The age of a property (and if new build), as well as layout and design were significant in affecting wellbeing. In particular bright, airy rooms with large windows and large kitchens (with enough space for a dining or breakfast table)

were favourite features, along with modern layouts and adaptable spaces for health and hybrid working needs. Small third bedrooms were used for home offices during the pandemic.

Homes which met current health needs or had layouts adaptable for future health needs e.g. wide corridors for wheelchair use, reduced anxiety and stress for tenants.

New social renters and shared owners were less concerned over heating and energy inefficiency compared to existing residents, regardless of whether they lived in new build property. Understandably, those with difficulties in paying bills were also more likely to report concerns over heating and energy inefficiency while respondents who had less concern over heating or perceived higher energy efficiency of their home were also more likely be satisfied with life and feel that their life was worthwhile. The data did not prove any link between higher SAP/ EPC ratings and higher SWB, either in Round 1 or Round 2, which might suggest that residents' perceptions, rather than actual energy efficiency, played an important role in SWB.

1.5.4. Repairs

Repairs didn't show significant impact on wellbeing for cohorts in the survey data. However, higher spending on maintenance work in the past 3 years does relate to higher level of happiness for social renters compared to one year ago.

Interviews revealed that while larger refurbishments and planned maintenance were regarded as having been done to a high standard with good customer service, responsive repairs (which could take years to resolve and exacerbated by the pandemic) were a source of frustration and anxiety. The experience of VIVID customer service also varied for minor repairs.

1.5.5. Neighbourhood: Safety, Trust and Community and Amenities

Perceptions about neighbourhood were particularly meaningful for those living in old build homes. Safety, trust and cohesion in the neighbourhood and a sense of belonging were associated with higher levels of SWB.

Concerns over the neighbourhood were associated with lower levels of SWB, especially anxiety and especially for those living in new build, or social renters generally.

Tenants and shared owners both reported trusting (or would trust) neighbours if the circumstance required, even if they were concerned about high levels of anti-social behaviour (ASB) in their neighbourhoods.

Moving into a VIVID home and neighbourhood during the pandemic meant not being able to get to know neighbours or feel part of a community, while for those who had been in their social rental properties for many years, the pandemic strengthened existing community bonds and a senses of trust.

1.5.6. Location, New Developments and Amenities

Better access to school, public utilities, essential stores or GP surgeries were associated with higher subjective wellbeing. Access to public utilities and GP surgeries were positively related to happiness and lower levels of anxiety. Access to public utilities was also positively associated with the feeling of life being worthwhile.

Satisfaction with access to essential amenities and healthcare services did decrease between rounds, with 8% of rural residents and 13% semi-rural residents downgrading their ratings on access to essential amenities from "more than satisfactory" to "unsatisfactory/poor/uncertain" compared to only 3% urban residents and 4% suburban residents. Similarly for rural and semi-rural residents relating to their access to healthcare services, 19% of rural residents

and 17% semi-rural residents downgraded their ratings. Urban residents downgraded their access to healthcare services by even more (25%). This reduction is also understandable in he context of Covid-19 pandemic impacts on access to GP and hospital healthcare.

A number of aspects around location affected wellbeing. For social renters, living in an affluent, mixed tenure village or semi-rural town was seen as positive, while access to green outdoor spaces (from gardens to nature reserves) were critical to wellbeing particularly during the pandemic. Some negative neighbourhood impacts on wellbeing were traffic and pollution, lack of access to shops, schools or GPs. Concern around reduced public transport services (eg bus routes) affected the wellbeing of social renters while shared owners mainly drove so were not affected to the same extent. New housing developments in the neighbourhood were seen to be causing traffic on existing road networks, and concerns were raised about the lack of additional facilities schools, GP surgeries to cater for new households.

1.6. Recommendations

1.6.1. Aspiration versus need in a post-Covid context

In a post-Covid context, the welfare principles of under-occupation of social housing and the debate between housing aspiration and need should be challenged or reconsidered.

A change in lifestyle and hybrid working patterns, the need to reduce living costs including commuting costs has fundamentally shifted the purpose and meaning of home, with both quality and spatial implications. What was previously aspirational in a home has arguably become essential today.

1.6.2. Modern design, layouts and energy efficiency considerations

While VIVID continues to explore modular housing, modern methods of construction and reducing carbon emission, it appears crucial to customer wellbeing to maintain modern layouts, larger sizes of kitchens, which can fit dining/breakfast tables, and large windows which not only making homes feel brighter and larger, but decrease loneliness, being able to see into the outside world. VIVID could perhaps also explore achieving carbon neutrality by measuring overall embodied carbon including any reduction in carbon made through efficient modular construction, which would reduce material waste.

1.6.3. Health Needs and Adaptability

Typically more social renters have current health needs, are caring for someone in the household with special health need or disabilities, or they themselves are suffering with long-term health issues. For these customers especially the layout and design of their homes are critical to meeting those health needs, reducing anxiety and improving wellbeing. Layouts in particular which cater for future health needs (e.g. corridors wide enough for a wheel chair usage) also reassure customers and reduce stress and anxiety.

1.6.4. Responsive repairs

Catching up on the backlog of responsive repairs due to the Covid 19 pandemic would improve wellbeing and reduce stress and financial worries for customers. A VIVID repair service that could be bought in for shared owners would also be welcome by some customers, and would remove the stress of trying to diagnose repairs and find good quality, affordable tradespeople to undertake those repairs.

1.6.5. Affordability and value for money

With variations in rent and mortgage levels across the stock, the link between 'value for money' and financial and subjective wellbeing is critical, and pertinent for captured customers of an in-demand social housing service or housing option.

New-shared owners and social renters were more likely to say their homes provided good value for money, but the study evidence also indicates that while new build homes may have high wellbeing and house quality associations, new builds don't significantly reflect a better value for money for VIVID's customers.

A nuanced understanding of what value for money means for both social renters and shared owners could help inform spending priorities and investment decisions for VIVID. This evidence could be built on by including wellbeing, financial wellbeing and value-for-money questions in VIVID's existing customer satisfaction or perception surveys.

While energy efficiency does not currently feature as a concern for customers (in all tenure types and in old or new buildings) as homes start to be adapted from gas to alternative heating sources to fulfill net zero regulatory requirements, there will be both affordability and wellbeing impacts on customers. These could be pre-empted by starting to map and model future customer impacts as well as considering how existing customer engagement structures like the scrutiny committees or community co-design workshops could be engaged to take customers along on that net zero journey.

1.6.6. Planning, Infrastructure and Amenities

Planning continues to be a strategic barrier for social housing developers. It is also key to the wellbeing of customers, especially with regard to the public transport and road infrastructure of their neighbourhoods, as well as access to amenities like schools, GP surgeries and local shops for new developments.

This study has shown the importance of access to green spaces for wellbeing particularly heightened by the pandemic and lockdowns. For new developments this should continue to be prioritized and for existing estates especially blocks and high rises, there is an opportunity to increase access to green spaces through community investment activities through VIVID+ such as garden allotments or regular park/ outdoor community space activities or events.

As a large player in the geographical areas in which it operates, there is an opportunity for VIVD to leverage this position and local knowledge to influence local planning decision-making and planning in infrastructure, as well as lobbying for example against the loss of services in semi-rural areas e.g. bus routes.

Part of the ongoing work at VIVID around neighbourhood 'patches' to map areas of operation, could be an internal decent neighbourhood standard linked to the neighbourhood conditions and facilities that are most closely aligned to customers' positive wellbeing.

1.6.7. Community Trust and Anti-social behavior

Worsening anti-social behavior has reduced wellbeing and eroded community trust. Around half of VIVID's stock are blocks of flats, which have locked-in communities. There is an opportunity for the newly established VIVID+ to help with community interventions to address the problem of anti-social behavior while re-introduced estate visits post-Covid should help reduce anxiety.

Community engagement and co-design in new housing development schemes can play a positive role. Furthermore, there are opportunities to consider strategic wellbeing schemes e.g. current support services around employment and training could be extended to partner with local colleges, for construction training on retrofitting homes to improve carbon performance. This would help with a huge industry skills gap, and could be a way of providing real employment and opportunity to existing customers, enhancing social impact while responding to sustainable housing challenges.

2. Project Aims and Context

2.1. Project Aims

Having an established strategic focus on wellbeing, VIVID commissioned this study to understand the impact of the quality of its homes, and neighbourhood conditions on the wellbeing of its customers i.e. Social renting tenants and shared owners.

Key research questions from the onset were:

- How do customers' expectations around quality differ from their actual experience when moving into one of VIVID's homes?

- How does the quality of the homes VIVID provide impact on our customers' wellbeing? Is there a difference between new build and existing stock?

- What features in the home and neighbourhood contribute most to wellbeing?

- Usability of space in the home and neighbourhood – what could improve wellbeing?

While not an explicit aim of the research, the results of this work should help provide evidence for decision-making around the quality and quantity of home provision and new construction, and in particular:

- What is the value in investing in existing stock vs. the focus on building new homes?
- How does the quality of VIVID's homes impact the cost to Vivid as a business? (e.g. demand on services provided, repairs etc.)

VIVID's mission is and purpose is to:

"To give customers a safe and secure home and provide the foundations for their wellbeing"

Since VIVID was formed 5 years ago, their focus has been on improving the wellbeing of customers, employees and society through housing related services. They have recently refined this further to focus on helping to address the financial wellbeing of their customers and communities by raising awareness and continuing to address factors which influence housing affordability.

2.2. Policy and External Context

While the size of the social housing sector has remained fairly static over the past decade, there have been a number of policy directives largely in response to external drivers such as years of austerity, the Grenfell tragedy, Brexit, Climate Change and more recently in response to devastating global events like Covid-19 pandemic and the recent fuel and cost of living crises.

Following on from the Grenfell fire in June 2017, the government commissioned the Hackett Review of Building Regulations and Fire Safety and the Grenfell Enquiry. The Hackett Review found systemic issues in housing safety, governance and accountability where the:

'*the primal motivation is to do things as quickly and cheaply as possible rather*

than to deliver quality homes which are safe for people to live in' (MHCLG, 2018, p.5)

An outcome of this Review was new government regulation around the (re) cladding of high rise tower blocks as well as retro-fitting fire safety features, and the cost of this has continued to challenge local authorities, social landlords and private leaseholders. Beyond building safety, the Social Housing White Paper (November 2020) focused on tenants' rights with its Charter for Social Housing Residents, which called for more transparency and accountability to tenants, through stronger regulation, tenant satisfaction reporting measures, and a Housing Ombudsman service.

While the austerity focused Coalition government from 2010-2015 had moved away from the green agenda, since 2015 it has been a priority of Conservative housing policy in response to tackling climate change. Legislation is now in place for the government to achieve its Net Zero Carbon goals by 2050. The Future Home Standards will replace the Decent Homes Standard in 2025, which aims to reduce 75% of carbon dioxide emissions from homes.

There are significant technological skills which will be required in a sector with large skills gaps, while for social landlords, the impact of net zero housing interventions and refurbishments on their tenants will need further understanding.

Most recently the DLUH's Leveling Up White Paper published in February focuses on reducing social inequalities and regenerating towns and cities across the UK , and also on opportunities that could be leveraged from the transition to Net Zero:

" *The UK Government has put into law a Net Zero emissions target by 2050. This structural shift could have large and long-lasting effects on virtually every aspect of the economy, including jobs and skills, infrastructure and technology, and investment and innovation. The Net Zero transition could create huge opportunities for many of the UK's left-behind places, but also poses risks for them which, if unmanaged, could be damaging."* (DLUHC, 2022, p. 84)

The shift to alternative energy, heating and insulation systems for homes comes at a pertinent time amidst a global fuel crisis exacerbated by geo-political and economic events with the Ukraine war, rising inflation and a cost of living crisis in which both the cost of homes (rents and mortgages) and the cost of running homes (heating, electricity and maintenance) play a significant part.

Apart from devastating health impacts, the Covid-19 pandemic and consequent winter lockdowns have contributed detrimentally to fuel poverty, while also having massive wellbeing impacts through isolation and loneliness, while for those living in high rises or unsafe neighbourhoods, the pandemic highlighted the lack of recourse to safe private or shared open or green spaces.

While Brexit did not directly impact devolved UK housing policy, it continues to have an impact for housing associations through increased costs and reduced availability of construction and maintenance materials, component parts and indeed building construction workers and tradespeople from the EU.

2.3. Literature

In order to develop an appropriate research methodology, design survey and interview tools for this study, the key concepts of housing quality and wellbeing, and links between them were explored. There are a range of definitions and also measurement tools around housing quality and wellbeing in both academic and practice literature. This review considered both relevant conceptual models and frameworks as well as practical guides and tools to help inform the research methods for undertaking an empirical study exploring the impact of housing quality on the wellbeing of VIVID's customers.

At the outset, a scoping literature review of 'housing quality' and 'well-being' was conducted with broad conceptualisations of both terms considered. With housing quality for instance, definitions and indicators include aspects of the quality of location and external environment beyond the scale of the unit of

accommodation or individual property, including neighbourhood factors incorporating the 'quality of the environment.'

While there are established research links between housing quality and health impacts specifically (Dunn, 2003; Suglia, 2011) literature connecting housing quality and well-being is located in a diverse array of academic fields. As Bratt (2001, pg. 14) contends while drawing out key connections between housing quality and family wellbeing: *The literature pertaining to this issue is vast and draws from a variety of disciplines: economics, planning, social welfare, public health, medicine, sociology, public policy, housing policy, child development and psychology.*

2.3.1. Housing Quality

In 2007 the UK government published the HQI or Housing Quality Indicator system: "*a measurement and assessment tool to evaluate housing schemes on the basis of quality rather than just cost*" and stipulated housing quality standards which the housing associations needed to meet to receive funding through the Governments 2008 to 2011 National Affordable Housing Programme (NAHP) and the subsequent 2011 to 2015 Affordable Homes Programme (AHP).

These indicators of housing quality (each containing a detailed group of relevant questions) are identified as:

1. Location - Amenities, Play and leisure, Liabilities, Noise and Acceptable distances
2. Site – Visual impact, Layout and Landscaping
3. Site – Open Space
4. Site – Routes and Movement
5. Unit – Size
6. Unit – Layout
7. Unit – Noise, Light, Services and Adaptability
8. Unit – Accessibility within the Unit
9. Unit – Sustainability
10. External environment

(NAHA, 2007)

These indicators take into account environmental or neighbourhood factors such as 'location' and 'external environment' as well as the characteristics of the accommodation itself in terms of layout, design, size and accessibility. This is typical of the wider approach to housing quality adopted by various studies including a recent research report for VIVID where the authors argue that *"quality must mean more than a focus on minimum space standards and attractive design (important as they are). 'Quality' needs to embrace the kind of neighbourhood design and management that minimises negative neighbourhood interactions."* (Gregory et al for VIVID, 2018)

A widely adopted baseline indicator of housing quality is the Decent Homes Standard, a measure of quality for housing associations in the UK, the statutory component of which is the Housing Health and Safety Rating System (HHSRS). A Decent Home meets the following four criteria:

"**a) It meets the current statutory minimum standard for housing**

b) It is in a reasonable state of repair

c) It has reasonably modern facilities and services

d) It provides a reasonable degree of thermal comfort

 (DCLG, 2006, pg 12)

Reflecting first on some of the statistical links drawing on the housing quality indicators described above, in the pre-pandemic English Housing Survey 2017-2018 (MHLG, 2019), social housing renters are surveyed on their satisfaction with their accommodation quality, using Decent Homes Standard as a quality indicator.

There are some interesting tenure comparisons that emerge. In terms of quality across tenures the social rented sector had a lower proportion of non-decent

homes (13%) compared to the private rented (25%) and owner occupied sector (19%).

Again the impact of Decent Homes on quality in the social housing sector is evident in that social rented homes were less likely to have at least one category one hazard (6%) compared to privately rented (14%) and owner occupied homes (11%), and social rented homes were less likely to have serious disrepair (11%) compared to privately rented homes (19%). Social rented homes were also more energy efficient than privately rented and owner occupied homes. There are various reasons as to why social rented homes are seen to have better and safer housing conditions such as the age of housing stock, for example the social rented sector has a lower proportion of the oldest pre-1919 built homes which are likely to have the greater disrepair.

The English Housing survey results also indicate that while the majority of social renters (80%) were satisfied with their accommodation, satisfaction was slightly higher with HA tenants (82%) than local authority tenants (78%).

Curiously for respondents in local authority housing, satisfaction with accommodation was lower if the property did not meet the Decent Homes Standard but this was not the same for social renters in a housing association property, (70% compared with 80%), which implies there are other housing condition and quality factors at play. For example, 26% of social renters were also dissatisfied with repairs and maintenance, with the main reasons being that 'the landlord is slow to get things done' (33%), 'the landlord not bothering' (24%), the 'landlord doing the bare minimum' (15%) and 'maintenance work being of poor quality' (13%). (MHCLG, 2019, p. 4-5).

The latest English housing survey (2020-2021) comes with a number of caveats about the reduced sample size, telephone rather than face-to-face interviews, and not being able to physically visit properties to inspect their quality, with a number of outcomes modelled on trends from previous years. Notwithstanding this, most of the earlier survey findings still hold. Understandably in the context of the pandemic, loneliness and anxiety were higher for all households. In particular the average life satisfaction score was 7.3 (out of 10) down from 7.7 in

the previous year, while social renters were 1 point lower in life satisfaction compared to home-owners. Social renters were also the tenure group most likely to report being often or always lonely (17%) when compared with owner occupiers (6%) or private renters (9%) (DLUHC, 2021).
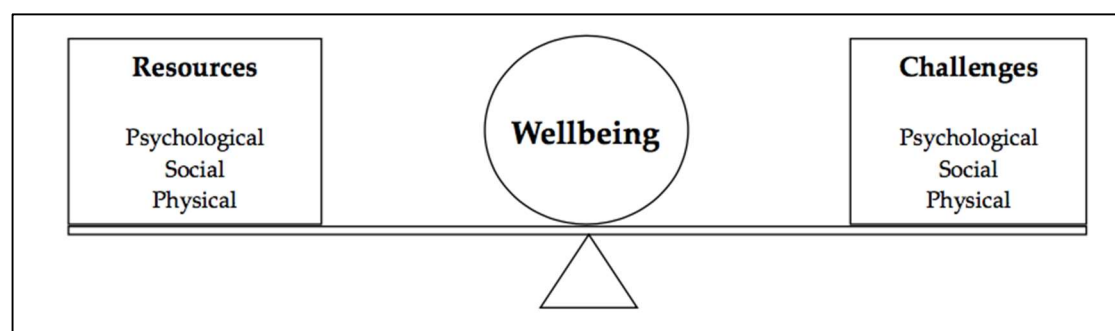
2.3.2. Wellbeing

Dodge et al (2012) consider the challenge of defining wellbeing, conducting an extensive review of research into wellbeing definitions and indicators drawing on early definitions of 'Quality of Life' (WHO, 1997) as

> "*an individual's perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns. It is a broad ranging concept affected in a complex way by the person's physical health, psychological state, personal beliefs, social relationships and their relationship to salient features of their environment*"

but also arguing that the interchangeable use of wellbeing and quality of life is problematic, blurring the concept of wellbeing conceptually. Building on a corpus of wellbeing literature, Dodge et al (2012) propose a new definition of wellbeing as an equilibrium or balance point between an individual's pool of resources and the challenges they face:

Figure 1 Definition of Well-Being

 Source: Dodge et al, 2012, p 230

Well-cited and widely adopted frameworks of wellbeing include the OECD model of individual wellbeing (2013) as well as the ONS (2018) Four Measures of

Personal Well-being.

A number of reports have been produced by the Organisation for Economic Cooperation and Development (OECD), which set out a construct of wellbeing. (OECD 2011, 2013). The conceptual framework used by the OECD to define and measure wellbeing differentiates between current and future wellbeing. Current wellbeing considers outcomes in material living conditions (indicators are income and wealth, jobs and earnings and housing conditions) and quality of life (health status, work-life balance, education and skills, social connections, civic engagement and governance, environmental quality, personal security and subjective wellbeing).

Built into this model therefore are links between housing quality or conditions which are material or physical factors and the more intangible aspects such as health, environmental quality (although this arguably has material manifestations too) and subjective wellbeing.

Future wellbeing is evaluated by considering some of the key resources that drive wellbeing over time and measured through indicators of different types of "capital" – linking this framework to the Dodge et al (2012) model described above which also adopts a resource approach to defining wellbeing.

Subjective or personal wellbeing also constitutes the basis for the set of 4 questions adopted by the Office for National Statistics (ONS) in the UK following the Measuring National Wellbeing (MNW) programme which was initiated in the November 2010 "with the aim to develop and publish an accepted and trusted set of National Statistics which help people understand and monitor wellbeing. We describe wellbeing as "how we are doing" as individuals, as communities and as a nation, and how sustainable this is for the future." (ONS, 2018, p.8)

The MNW Programme included online and offline platforms to engage with people and organisations on the questions that could help measure the country's progress. Initial findings from the national debate and consultation (which included more than 34000 contributions) were published in June 2011, followed

in July 2012 with the ONS publishing the first annual subjective wellbeing estimates and a revised set of domains and measures. In November 2012, the first annual report on "Life in the UK, 2012" which included the wellbeing indicators was produced.

The ONS wellbeing survey uses four survey questions to measure personal wellbeing. Respondents answer the questions on a scale from 0 to 10 where 0 is "not at all" and 10 is "completely".

Figure 2 Four Measures of Personal Well-Being

Next I would like to ask you four questions about your feelings on aspects of your life. There are no right or wrong answers. For each of these questions I'd like you to give an answer on a scale of 0 to 10, where 0 is "not at all" and 10 is "completely".

Measure	Question
Life Satisfaction	Overall, how satisfied are you with your life nowadays?
Worthwhile	Overall, to what extent do you feel that the things you do in your life are worthwhile?
Happiness	Overall, how happy did you feel yesterday?
Anxiety	On a scale where 0 is "not at all anxious" and 10 is "completely anxious", overall, how anxious did you feel yesterday?

Source: Office for National Statistics

Source: ONS, 2018, pg. 2

Numerous UK government departments, research and academic institutes adopt this framework to measure personal wellbeing. Within the ONS itself the surveys in which these 4 wellbeing questions are employed include the Annual Population Survey, the Wealth and Assets Survey, the Opinions and Lifestyle Survey.

2.3.3. Research linking housing quality and well-being

Exploring further research links between housing quality and wellbeing, there are a number of studies which connect material housing conditions or quality with health impacts. Considering wellbeing or subjective wellbeing more broadly

also expands theses connections to beyond housing standards or conditions but a more holistic sense of quality which incorporates aspects such as ontological security, financial security and wider neighbourhood impacts.
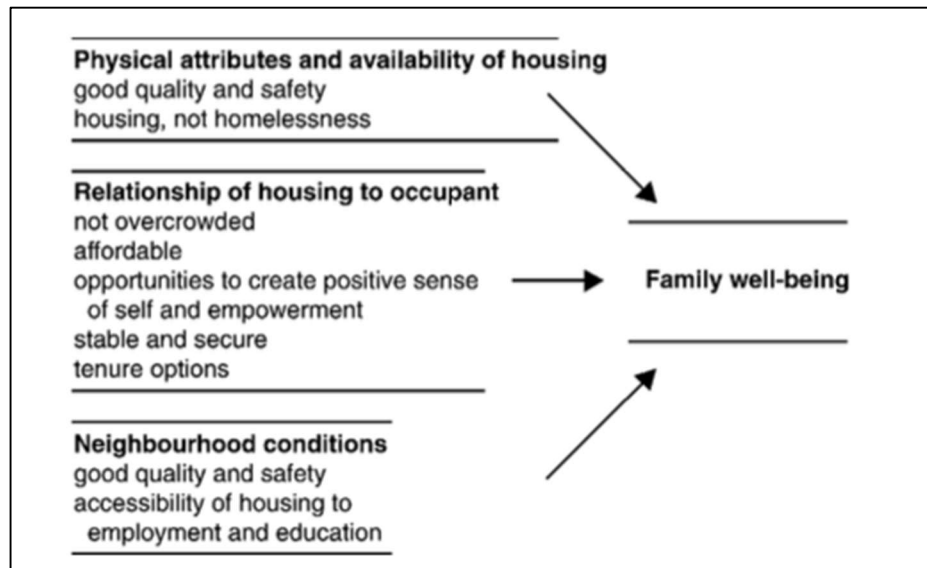
Source: Bratt (2001), p15

This theme of housing quality impacting on wellbeing through a range of physical, relational and environmental factors is reiterated by Bratt (2001) who maps physical attributes of housing, decent and safe shelter, but also housing conditions of affordability, security and adequate space and finally neighbourhood quality issues and the socio-economic factors of employment and education, all of which feed into a measure of family wellbeing.

Another example of a survey study on housing quality impacts was undertaken by Kahlmeier et al (2001) in Switzerland with a sample of around 400 people who had moved home. The authors aimed to explore if changes in environmental and different aspects of housing quality affected the wellbeing of movers, adjusting for socio-demographic variables. In this study variables adopted to assess housing quality had built in aspects of neighbourhood and environmental quality impacts. Eight Dimensions of Housing Quality were mapped ranging from physical property conditions to neighbourhood impacts such as infrastructure

and community services. In the survey findings, factors that appeared to most improve self-rated or subjective well-being were those relating to the environmental housing quality of 'location of building', 'perceived air quality' and in relation to the accommodation itself 'suitability', and 'relationship with neighbours.' (Kahlmeier et al, 2001).

In exploring the psycho-social benefits of home 'beyond four walls' through survey based empirical study in Scotland, Kearns et al (2000) argued that non-tenure related housing quality issues are more likely to emerge within this Scottish sample versus previous studies carried out on England in the context of an extremely dominant 'ownership is best' ideology. The rationale behind this argument is that the social rented housing sector and council housing in Scotland is less residualised compared to England, so respondents were less likely to blur housing tenure or tenure prejudices with for example issues around poor housing repair. Like the previous studies cited this survey was wide ranging in its scope and remit, collecting data on characteristics of the occupants, the housing itself and the neighbourhood.

A theoretical model linking attributes of housing affecting health and wellbeing developed by Dunn et al (2004), draws extensively on Giddens (1991) work on ontological security. Dunn et al (2004) identify 6 categories through this framework:

- "Biological, chemical, and physical exposures in the home
- Physical design of housing
- Psychological attributes of housing
- Social attributes of housing
- Financial attributes of housing
- Locational aspects of housing"

Dunn et al (2004) cited in Dunn (2013, p 7)

Of the 6 categories of the model the biological, chemical, and physical exposures in the home are most closely linked to health outcomes, but are also regarded as being built in to institutional building and regulatory codes, which are seen to be

critical to ontological security. (Examples of this would be the Decent Home Standard and Building Regulations). The physical design of housing also promotes ontological security through the privacy and refuge.

"*The locational dimensions of housing are important to well-being because the home acts as a focal point for everyday activity. So in addition to being an important site for the narratives of self-identity, the home and its immediate locality can be central in creating a sense of ontological security – a sense of stability and orderliness in the basic dimensions of human experience.*" (Dunn, 2013, p 7)

This theme of wellbeing linked to ontological security of housing is also the subject of Hiscock et al (2001)'s qualitative research project of 43 interviews of social renters and home-owners in Western Scotland. While this study focuses on wellbeing and tenures it argues against preconceived notions of owner occupation leading to more happy and fulfilled lives with greater ontological security. Results from this study did reveal that interviewees felt protected by their homes when they were in a low crime area (more likely to be owner occupied housing area) but that for some interviewees owner occupation provided less protection than social renting from the threat of losing the home because of the risk of repossession.

Research on correlation between housing quality and health impacts tends to focus on specific samples of the population such as health impacts of housing for the elderly, children or single mothers. Suglia et al (2011) investigate the impact of housing quality and instability on the mental health of young mothers, and find that aspects of housing quality but in particular housing instability do affect maternal mental health. Since social housing has a high proportion of single occupants and single parent families (MHCLG, 2019) this is of particular relevance for research undertaken on quality and wellbeing in a social housing context.

In more recent research Rolfe et al (2020) explore the role of housing as a social determinant of health and wellbeing through adopting developing an empirically-informed realist theoretical framework. The focus of their study was

on low-income vulnerable groups in new tenancies, and the authors' methodology was also mixed methods and longitudinal. The study "*treats the entire housing experience as the intervention from which health and wellbeing impacts result*" (Rolfe et al, 2020, pg. 3) and tests 4 hypotheses:

" *1 Experience of secure, stable tenancy reduces stress and provides tenants with a secure base from which to exercise autonomy*
2 Quality housing provides tenants which a comfortable space in which to relax and a sense of status
3 Affordable housing reduces financial stress and frees up income for other expenditure
4 Good neighbourhood environment and supportive social/community networks around housing location reduce stress and increased opportunities for socialisation"
(Rolfe et al, 2020, p. 9)

The results of this research do find that intangible characteristics such as housing service provision, tenants' experience of their home quality and aspects of neighbourhood are all significantly correlated with measures of health and wellbeing. However there are variations in these outcomes and experiences based on demographic and household profiles.

3. Methodology

This VIVID wellbeing study adopted a mixed-methods, quantitative and qualitative approach with 2 detailed survey sets, initiated a year apart followed by a round of qualitative interviews after each survey round. A set of senior management interviews was also conducted in between both rounds of tenant and shared holder interviews for management insights and perspectives around issues of housing quality, asset management and maintenance, new development, neighbourhood services and wellbeing.

The research methodology was iterative in that Round 1 survey analysis helped inform topic guides and research questions for Round 1 interviews. Themes that emerged from Round 1 interviews were adopted in additional questions added to the Round 2 surveys, and finally the new evidence from Round 2 surveys were further explored and tested in Round 2 interviews.

A literature review on wellbeing and mapping of existing frameworks and categories of housing quality and neighbourhood was conducted to inform the survey design. The survey and interview sub-samples or cohorts were identified through extensive consultation with Head of Strategy at VIVID and the survey design for each round was again collaborative with a number of months taken to refine and test the questions of the extensive surveys. The surveys were piloted by the VIVID strategy team as well as the Aston University project team.

Survey questions were themed around personal information to understand the demographic profile of the respondent, a set of personal subjective wellbeing questions, a set of wellbeing questions about respondents relationship to their home and how their home made them feel, and detailed questions about the quality characteristics of their homes. A set of wellbeing questions was also asked about their relationship to their neighbourhood and community and how their neighbourhood made them feel, and detailed questions about the quality of conditions and features in their neighbourhood.

Table 1 illustrates the sub-samples of the survey, which were existing social renting tenants, existing shared owners, new social renting tenants and new shared owners respectively. In Round 1 'New tenants' and 'shared owners' were categorised by having moved into their homes recently (within the last year) or just about to move into their VIVID homes. Existing tenants and shared owners had been in their properties for at least over a year, but often many more years.

There were 2 surveys sent out per round – one to existing renters and shared owners and one to new social renters and shared owners.

The new tenants and shared owners in Round 1 were explicitly asked in the survey to answer questions in relation to their pre-VIVID homes in order to gain

a comparison against VIVID home experience a year later, and the survey analysis assumes they did so, however some survey results suggest that respondents may have answered both rounds about their new VIVID home, although this does not significantly affect results and conclusions.

Additionally, in Round 1 some analysis was done on a cohort of 'new build/ first occupant cohort' although these did overlap with new tenants and shared owners. New Build was defined as a property that was 1 old year or less, and all other properties were Old Build, however there were very few properties in the 0-5 year old bracket represented in the survey responses so most Old Build was 5 years+.

In Round 2, only Round 1 respondents were emailed surveys again a year later with very high response rate of between 42 and 59% depending on the sub-sample. The surveys were sent to the same existing social renters and shared owners, and 'previously new' social renters and shared owners. 19 out of 660 respondents were still VIVID customers but had moved to a different property since responding to survey. Of the 70 customers who had planned maintenance carried out over that year 66 were still VIVID customers, but 2 of those had moved to a different property.

Table 1 Sub-samples in 1st and 2nd rounds of surveys

Survey Sub-Samples, Responses and Response Rates		
Subsample	**1st Round Survey November 2020** **Number of Responses (1,115) and Response Rate**	**2nd Round Survey November 2021** **Number of Responses (551) and Response Rate**
Existing social rent	727 (12%)	348 (53%)
Existing shared ownership	266 (10%)	101 (42%)
New shared owners	40 (18%)	20 (59%)
New social rent	82 (12%)	45 (57%)

Additionally in the second round we sought to understand the wellbeing impact of planned repairs for the group of 26 respondents matched by VIVID data who had large planned repairs/ maintenance work between survey 1 and survey 2.

Comparisons between the overall results of round 1 and round 2 were drawn to explore key trends and interesting outcomes, while returning to the same cohort of respondents for round 2 survey, made the analysis longitudinal and some hypotheses could be drawn around what changes in housing quality, neighbourhood and personal circumstances resulted in changes in wellbeing for return respondents.

Data analysis of survey results was conducted employing a multi-level approach, starting with survey results trends, univariate and cross-tabulations of relationships and key factors to understand these trends and finally multivariate modelling to check for statistical variations, understand wellbeing characteristics across the sub-samples and investigate possible longitudinal causal explanations for changes in wellbeing.

Qualitative interviews were also structured around the 4 main sub-samples and a demographic profile banding was used for sampling a broad range of participants across the cohorts with different personal circumstances, housing types and tenures and neighbourhoods, to capture both depth and a wide scope of views and experiences.

The evidence gathered in the first round of questions led to the design of additional questions in round 2 of the survey including around location, tenure, value-for-money, health and layout, and expectations.

In Round 1, 24 interviews were conducted, in round 2, 16 interviews were undertaken (See Table 2). Interviews were recorded, and summary notes produced of each, and along with full transcripts, which were analysed using systematic thematic method with pre-determined themes as well as new emergent themes.

Table 2 Interviews in 1st and 2nd rounds of surveys

Qualitative Interviews with VIVID customers (40)		
Sub-sample	**Round 1** **July – August 2021**	**Round 2** **January –February 2022**
Existing social rent with repairs and planned maintenance	4	2
Existing social renter with no repairs	4	2
New Social Renter	3	
Existing Shared Owners	5	4
New Shared Owners	2	
New build/ First Occupant (including new shared owners and new social renters	5	
Previously New Social Renter		4
Previously New Shared Owner		4

An extensive quantity of both qualitative and quantitative data has been captured over the course of this project, and this evidence and intermediate results and analysis has been shared with VIVID throughout the project in order to share initial findings, but equally to maintain focus on the original research questions, while prioritizing areas of strategic priority for VIVID.

4. Survey findings

4.1. Profile of respondents

Among the 1,115 respondents in Round 1 survey, 375 respondents returned the follow-up survey one year later (375 out of 551 were confidently individually matched to their original survey responses). In order to check how representative these respondents were of all the respondents in Round 1 survey, we compared a set of individual- and household-level characteristics of return

respondents and the other respondents in Round 1.[1] Evidence showed no significant differences between return respondents and the rest, except that the return respondents are older and have fewer dependent children.

Given that the return respondents were statistically the same as the other respondents in most aspects, we focused our analysis on the return respondents. To this end, we again split the return respondents into subsamples according to their housing tenure, i.e., existing shared-owners (ESO), existing social renters (ESR), new shared-owners (NSO), and new social renters (NSR). We also again divided the respondents by the type of residential build, i.e., those living in new build (NEW) and other build (Other). We then compare a set of individual- and household-level characteristics of the respondents across housing tenure and type of residential build. The sections below depict a set of individual- and household-level characteristics for each subsample in Round 1 and Round 2 surveys. [2]

4.1.1. Social demographics and housing tenure

Existing and new residents

Some gaps exist between existing and new residents with VIVID in both rounds of survey. Specifically, compared to existing shared-owners, new shared-owners tended to be younger and in better health status in both rounds of surveys. The same is found among existing and new social renters. The majority of our respondents were females, except that about 71% of the new shared-owners were males. New shared-owners tended to hold higher levels of qualification compared to existing shared-owners. New social renters tended to have more dependent children than existing social renters.

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[1] The socio-economic characteristics that we looked into include age, gender, marital status, qualification, employment status (permanent/temporary, full-time job/part-time job), number of dependent children, whether they cared for other adults in the household. Several questions asked about the respondent's financial situation, including whether they struggled to make ends meet, had difficulties in paying the bills and rent, and hold debt. The subjective wellbeing is measured from four perspectives, including satisfaction with life, feeling of worthwhile of life, happiness and anxiety.
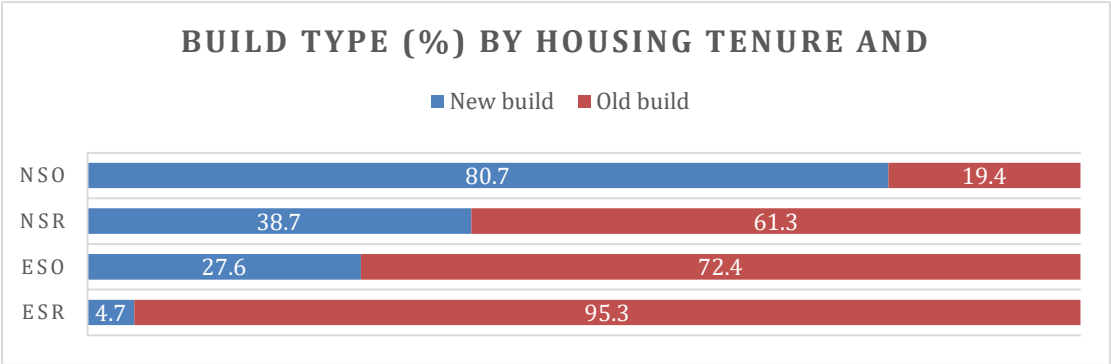
[2] See Footnote 1 for the list of individual- and household-level characteristics. Only statistically significant evidence is discussed hereafter. Significant evidence refers to those that pass the corresponding statistical tests at the 5% significant level.

Other gaps between the existing and new residents exist in Round 1 but disappear one year later. More specifically, new shared owners and social renters are more likely to have permanent jobs and work longer hours compared to existing shared owners and social renters in Round 1. In Round 2, the difference in working hours between new and existing social renters disappears. Existing shared owners were more likely to struggle to make ends meet in Round 1 than new shared owners, but the gap disappears in Round 2. About 81% of existing social renters and 39% new social renters who had problems with benefit payment experienced financial difficulties in Round 1, but the gap disappeared in Round 2.

Living in new or old build

About 81% of new shared-owners and 39% of new social renters lived in new build, compared to about 28% existing shared -owners and only less than 5% existing tenants lived in new build (Figure 4). This implies that the difference we found between those living in new build and old build might originate from the heterogeneity in housing tenure, and vice versa. Therefore, in the analyses hereafter, we explore the difference between those living in new build and old build for different types of housing tenure.

Figure 4 Build type by housing tenure

BUILD TYPE (%) BY HOUSING TENURE AND

■ New build   ■ Old build

	New build	Old build
NSO	80.7	19.4
NSR	38.7	61.3
ESO	27.6	72.4
ESR	4.7	95.3

We found that existing social renters and shared-owners living in a new build tended to be younger than those living in an old build. Among existing shared owners and new social renters, those living in new build tended to hold higher levels of qualification, were more likely to be married or have permanent jobs.

Among existing shared owners only, those living in new build tend to be in better health status and have more dependent children. Existing social renters living in the new build were more likely to have difficulties in paying bills and rent.

Demographic shifts or trends

We then examined the shift in these individual and household-level characteristics for each subsample separately. Not surprisingly, we did not find any significant shift across time in any of the characteristics that we explore for any subsample.

4.2. Subjective Well-Being

Our survey asked about residents' subjective wellbeing using the ONS four-point Likert scale questions from four perspectives, i.e., their satisfaction with life, feeling of worthwhile, happiness and anxiety.

4.2.1. Comparison between sub-groups

We start with a set of horizontal comparisons across housing tenure and build type in each round of the surveys.

- Satisfaction with life (Figure 5-1)

In both rounds of survey, life satisfaction was higher for new shared owners and social tenants compared to existing shared owners and social tenants.

Additionally, existing shared owners and new social tenants who lived in new build had higher levels of satisfaction with life compared to their counterparts living in old build.

- Feeling worthwhile (Figure 5-2)

In both rounds of survey, new social renters (vs. existing social renters) were more likely to say that their life was very or fairly worthwhile, and the gap became larger in Round 2.

- Happy (Figure 5-3)

In the Round 1 survey, new shared-owners (social renters) were happier than existing shared-owners (social renters). The gap lasted for social renters but disappeared for shared owners one year later.

- Anxiety (Figure 5-4)

We did not find any significant difference in anxiety level between existing and new residents living with VIVID in either round of the survey. However, we did find new social renters living in old build had a higher level of anxiety compared to their counterparts living in new build.

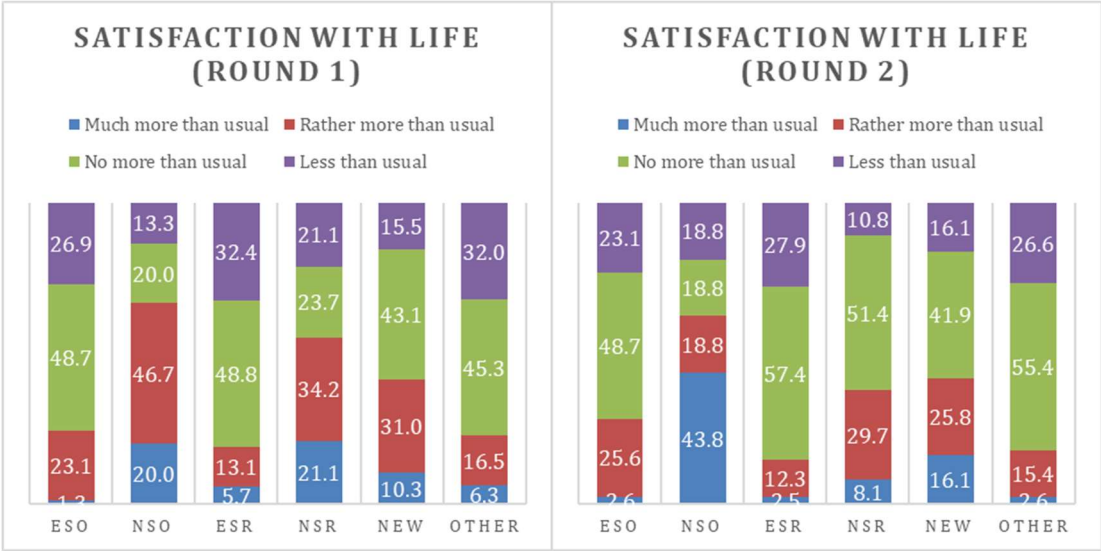*Figure 5-1 Satisfaction with life in Round 1 and 2*

Figure 5-2 Feeling worthwhile in Round 1 and 2
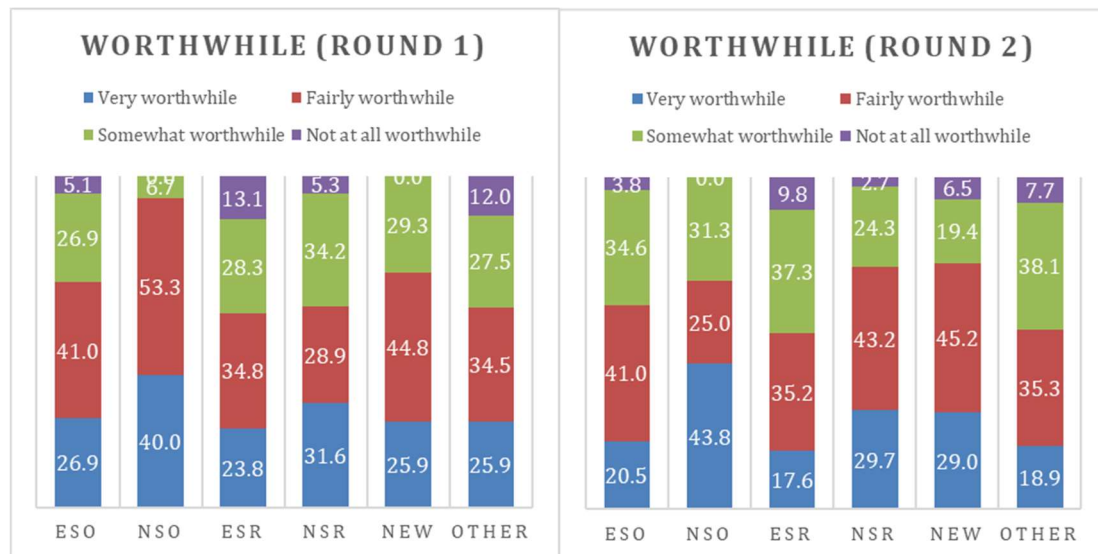
Figure 5-3 Happiness in Round 1 and 2
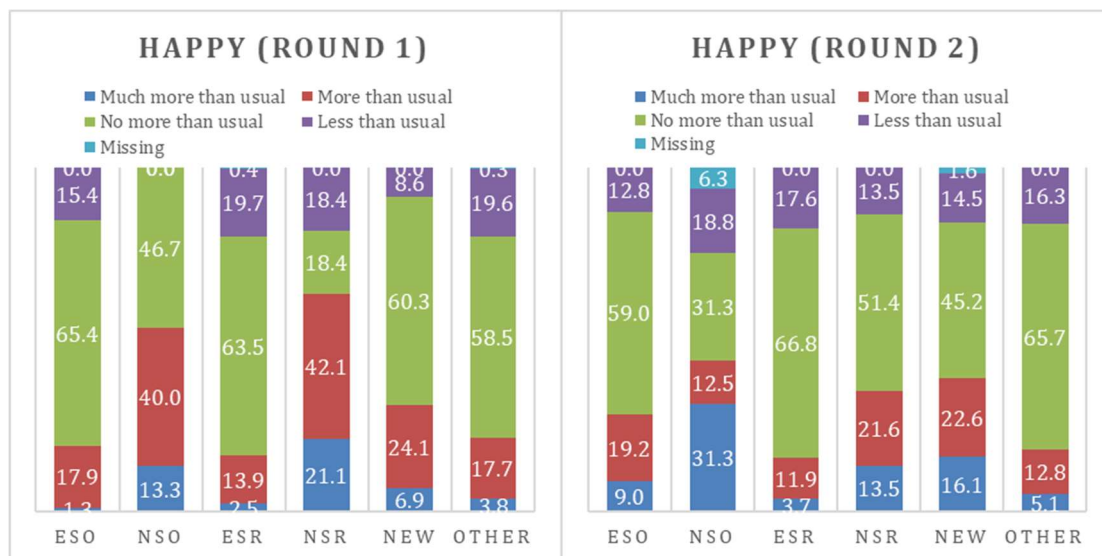
Figure 5-4 Anxiety in Round 1 and 2

ANXIOUS (ROUND 1)

- Much more than usual
- More than usual
- No more than usual
- Less than usual

	ESO	NSO	ESR	NSR	NEW	OTHER
Less than usual	3.8	20.0	7.0	7.9	6.9	7.0
No more than usual	69.2	60.0	61.1	57.9	74.1	60.1
More than usual	23.1	20.0	21.7	15.8	15.5	22.5
Much more than usual	3.8	0.0	10.2	18.4	3.4	10.4

ANXIOUS (ROUND 2)

- Much more than usual
- More than usual
- No more than usual
- Less than usual
- Missing

	ESO	NSO	ESR	NSR	NEW	OTHER
Less than usual	9.0	18.8	8.6	13.5	9.7	9.6
No more than usual	67.9	56.3	59.8	67.6	69.4	60.6
More than usual	19.2	18.8	22.1	16.2	17.7	21.5
Much more than usual	2.6	6.3	9.4	2.7	3.2	8.0

4.2.2. Trend

Focusing on the trend in SWB across time, we found statistically significant evidence that the anxiety level of new social renters dropped in Round 2 (see Figure 5-4).

While the statistics in Figure 5-1 to Figure 5-4 indicate the average level of SWB for the different subsamples separately, Figure 6 illustrates how SWB evolves between the two rounds of survey. Though different patterns of the change in SWB were found for different housing tenures and build types, significant differences were only found between existing and new social renters. About 17.6% of existing social renters reported that they felt their lives more worthwhile a year later, and 11.9% less worthwhile. The pattern is significantly different from the new social renters, amongst whom only 5.4% felt more worthwhile compared to one year before, and 18.9% felt less worthwhile.

Figure 6 Evolvement of SWB between Round 1 and 2
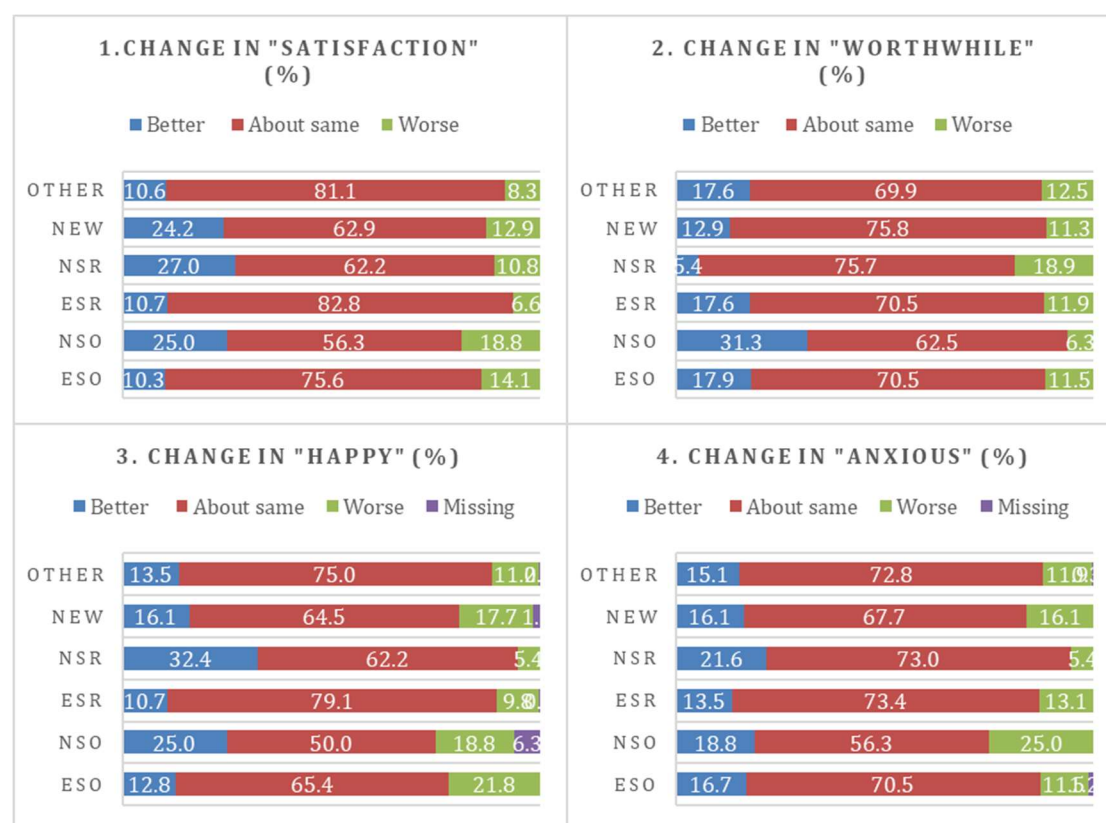
4.3.   Experience with home

In both Round 1 and Round 2 surveys, respondents were asked about their experiences with the home.

In both rounds of survey, new social renters (vs. existing social renters) were more likely to agree that their home made them feel they were doing well in life. In Round 2 only, new shared owners (vs. existing shared owners) were more likely to say that they felt safe in their home, had privacy at home, that they could get away from it all at home, that they could do what they liked at home, that people would like a home like theirs and their home made them feel they were well in life.

The better experience with the home of the new residents might be attributed to the fact that they were more likely to reside in new build- evidence shows that living in new build led to significantly better experiences with the home. In both

rounds of survey, those living in new build (vs. other build) were more likely to agree that they feel safe in their home, have privacy at home, that they could get away from it all at home, that people would like a home like theirs and their home made them feel they were doing well. They are also more likely to agree that they could do what they liked at home in Round 2.

4.4. Experience with neighbourhood

In both Round 1 and Round 2 surveys, we asked if the respondents felt safe, cohesion, trust and happiness in the neighbourhood, and whether they felt part of the community or a sense of belonging to the neighbourhood. In contrast to significant differences in residents' experience with home across housing tenure and build type, we did not observe many differences in most aspects of their experiences with the neighbourhoods. Exceptions were that, in Round 2, those living in new build (vs. other build) were more likely to feel part of the community, or that people would be happy living in their neighbourhood.

4.5. Concerns over issues in the neighbourhood

In Round 1 and Round 2 surveys, we asked whether the respondents had concerns over some issues in the neighbourhood. These issues include noise, traffic, pollution, lack of amenities, quality of public facilities, lack of public transport, anti-social behaviour and crime.

In both rounds of survey, those living in new build (vs. other build) rated higher for overall quality of the neighbourhood. In Round 2, new shared owners (vs. existing shared owners) and new social renters (vs. existing social renters) rated higher for the overall quality of the neighbourhood.

In both waves, pollution and ASB were more likely to be a major concern for those living in old build (vs. new build). The latter is also a major concern for existing social renters compared to new social renters.

In Round 2, existing shared owners were more concerned than new shared owners about pollution in the neighbourhood, while existing social renters were more concerned about pollution and crime than new social renters.

There were no significance differences across housing tenure and build type in the concerns over noise, lack of amenities, quality of public facilities and lack of public transport

While there are were no significant changes in people's concerns over time, the exception was that existing social renters had become more concerned about the quality of public facilities in their neighbourhood.

4.6. Access to facilities

In both rounds of surveys, we asked about respondents' satisfaction with their access to educational facilities, public spaces, essential amenities and healthcare services.

We did not find many differences across housing tenures and build types. Some exceptions were found in Round 2 only, where new shared owners (vs. existing shared owners) and residents living in new build (vs. other build) were more satisfied with their access to educational facilities and schools.

Compared to one year before, residents living in new build were less satisfied with their home layout in Round 2, and more concerned about the traffic and pollution in the neighbourhood. While residents living in old build were less satisfied with access to schools and GPs, we also found that existing shared-owners were less satisfied with access to GPs. Additionally, about 16% of new social renters were more satisfied with the access to essential amenities and others remained about the same. By contrast, only 2.5% of existing social renters were more satisfied, with an additional 7% existing social renters rating lower on their access to essential facilities in Round 2.

(The survey outcomes related to the design and features of the home, and characteristics of the neighbourhood are discussed thematically in the following Section 5.)

4.7. Meeting expectations

In Round 2, new residents were asked if the quality of their VIVID home met their expectations before they moved in. About 70% of new social renters and 81% of new shared owners reported that the quality exceeded or met their expectations.

Table 3 whether the quality of their VIVID home met their expectation

	NSR		NSO		Total	
	N	%	N	%	N	%
Exceeded expectations	5	13.5	4	25.0	9	17.0
Met expectations	21	56.8	9	56.3	30	56.6
Not met expectations	8	21.6	3	18.3	11	20.8
Uncertain	3	8.1	0	0	3	5.7
Total	37	100	16	100	53	100

We further found that all the respondents who reported the highest level of life satisfaction also agreed that the quality of their VIVID home met their expectations, while 71% of respondents (count 5) in the lowest level of life satisfaction reported that the quality doesn't met their expectation (see Panel A in Table A1).

Focusing on the feeling of worthwhile, 95% respondents who reported the highest level of feeling worthwhile agreed that the quality of their VIVID home met their expectations. This proportion dropped to 75% and 43% for those who reported "fairly worthwhile" and "somewhat worthwhile", respectively (see Panel B in Table A1).

4.8. Multivariate analysis

We estimated a set of Logit models on the longitudinal data to explore how residents' subjective wellbeing (SWB) was associated with the socio-demographic factors and factors related to the quality of properties and the neighbourhood. SWB is measured from four perspectives, i.e., life satisfaction,

feeling of worthwhile, happiness and anxiety. These measures were coded as dummy variables, indicating the incidence of being satisfied with life, feeling worthwhile, happy or anxious. We started from basic models, which incorporate the socio-demographic factors, housing tenure, build type, and quality of repairs and maintenance work.

Odds ratio derived from the basic models are reported in Table A2-1. The estimates reveal that:

- Males are less likely to feel satisfied with life or worthwhile compared to females.

- Feeling of worthwhile and happiness grow with age and level of anxiety decreases with age.

- Compared to full-time worker, those not in paid work are about 2.5 times more likely to be anxious.

- Respondents with no dependent children are half likely to feel happy, compared to those who have two dependent children.

- Respondents in good health are more likely to be satisfied with life, feel worthwhile or happy, and less likely to be anxious.

- Compared with existing SOs, new tenants and new SOs are more likely to feel happy, and the former are also more likely to be satisfied with life.

- There is no evidence that living in new build, having repairs or maintenance done are associated with SWB, after controlling for a wide range of individual- and household-level variables.

- Even after excluding shared owners who take care of the house by themselves, we find no evidence that living in new build, having repairs or maintenance done are associated with SWB. However, in a set of estimations where housing tenure is excluded from the model, living in new build is associated with higher levels of life satisfaction and happiness, and lower levels of anxiety.

We then incorporated the variables related to quality of the property and neighbourhood in the model. Odds ratios are reported in Table A2-2. Estimates show that:

- Safety of the house is associated with higher likelihood of happiness: those who are satisfied with the safety of their properties are three times more likely to be happy than whose who don't.
- Higher overall quality of the neighbourhood is associated with higher likelihood of feeling worthwhile.
- Concerns over pollution is associated with higher level of anxiety: those who have concerns over pollution in the neighbourhood are about 1.3 times more likely to be anxious.

We further conducted a set of heterogeneity analysis to explore whether the association between new build, quality of repairs and maintenance work done by VIVID is associated with SWB in different ways across cohorts. Estimation results suggest that:

- Living in new build is associated with lower likelihood of anxiety for males.
- Living in new build or good quality minor repairs are associated with higher likelihood of feeling worthwhile for those with weekly household income up to £399.
- Living in new build is associated with lower likelihood of anxiety for those with weekly household income above £400.

5. Key Themes

5.1. Health, Wealth and Affordability

5.1.1. Health and Income

We explored the change in SWB across housing tenures. Statistics show significant improvement in SWB for specific cohorts (see Table 4). More specifically, compared to Round 1, existing shared owners who did not have long-term conditions that prevented them from carrying out daily activities or paid work were on average happier in Round 2. New social renters who did not have the problems of long-term health conditions were on average less anxious in Round 2. ESRs who had long-term health conditions that prevented them from undertaking paid work were on average happier in Round 2.

Table 4 Long-term conditions and SWB, by housing tenure.

| ESOs (%) who | Do not have long-term conditions that prevent | | | |
| | carrying out daily activities | | undertaking paid work | |
Happy	Round 1	Round 2	Round 1	Round 2
Much more than usual	1.4	9.9	1.4	10.0
Rather more than usual	18.1	18.3	18.6	18.6
No more than usual	68.1	62.0	67.1	61.4
Less than usual	12.5	9.9	12.9	10.0
Total	100	100	100	100

| NSRs (%) who | Do not have long-term conditions that prevent | | | |
| | carrying out daily activities | | undertaking paid work | |
Anxious	Round 1	Round 2	Round 1	Round 2
Much more than usual	17.7	0.0	17.7	0.0
More than usual	14.7	17.2	14.7	17.2
No more than usual	58.8	69.0	58.8	69.0
Less than usual	8.8	13.8	8.8	13.8
Total	100	100	100	100

| ESRs (%) who have long-term conditions that prevent carrying out daily activities | | |
Happy	Round 1	Round 2
Much more than usual	1.3	3.4
Rather more than usual	5.0	12.5
No more than usual	63.8	61.4
Less than usual	30.0	22.7
Total	100	100

Social renters were typically older (over 50) and had lived in their properties for many years, many with a range of long term-health problems, which affected their wellbeing, particularly during a pandemic.

Those who claimed any benefits (regardless of tenure) were more likely to have difficulties in paying bills and rent compared to their counterparts who didn't. (Qualitative evidence from a number of interviews did seem to contradict this, where those on benefits described having less financial worries compared to some social renters and shared owners who were full time or part-time employed and weren't claiming any benefits.)

For those who were employed and furloughed in the first lockdown it provided financial security like social renter R1ESR1 who had cerebral palsy and epilepsy, and was suffering with long Covid symptoms. A new social renter had moved specifically because of her health and described the improvement to her wellbeing as a result of moving into a VIVID flat in a tower block for mainly over 55s, as *"I had stairs in my last home, and I was having a lot of breathing problems to manage them".* (R2NSR1)

5.1.2. Affordability – Value for Money and Housing Cost

In the Round 2 survey, we asked respondents whether their home provided good value for money for the rent or mortgage they pay. New social renters (73%) and shared owners (50%) were more likely to say that their home provided good value for money, compared with existing social renters (63.1%) and shared owners (41%). Additionally, though we found respondents living in new build were more likely than those living in other build to say that their home provided good value for money, the difference was not significant.

Figure 7 House provides good value for money (%) by housing tenure

Housing	Build type	N =	Your home provides good value for money

tenure			for rent and mortgage (%)			
			Yes	No	Uncertain	Total
ESO	Overall	88	41.0	37.2	21.8	100
	New build	30	55.0	20.0	25.0	100
	Other build	58	36.2	43.1	20.7	100
NSO	Overall	16	50.0	18.8	31.3	100
	New build	16	50.0	18.8	31.3	100
	Other build	-	-	-	-	-
ESR	Overall	243	63.1	16.0	20.9	100
	New build	10	70.0	10.0	20.0	100
	Other build	233	62.7	16.3	21.0	100
NSR	Overall	37	73.0	21.6	5.4	100
	New build	16	81.3	18.8	0.0	100
	Other build	21	66.7	23.8	9.5	100

Whether the home provided good value for money was closely related to satisfaction with life and how worthwhile the residents felt their lives are. About 80% residents who were within the highest level of satisfaction with life and 74% who felt life is worthwhile agreed that their home provided good value for money. The proportions dropped to less than 50% for residents who were within the lowest level of the two SWB measures (Table A3)

It's not surprising to observe that respondents perception of the value for money were also strongly associated with all the quality and experience questions regarding the property and the neighbourhood- the more satisfied the respondents were with the quality and experience of the property and neighbourhood, the more likely they were to think the rent and mortgage worth the money.

Value for money judgements were also linked to previous housing experience and perceptions around available housing options for particular cohorts e.g. average quality social housing being better than being homeless, high quality social housing being better value than poor or average quality private rental and partially owning a home with a shared ownership better than not owning at all. Another interesting association emerged around mixed tenure developments or

neighbourhoods particularly in affluent areas with high proportion of owner occupied homes, where this was seen to 'add value' to a social home or shared ownership property.

Additionally, residents' perception of the value for money was negatively related to concerns over lack of facilities and crime in the neighbourhood, and positively related to good access to school and public utilities. Lower monthly rent did not necessarily lead to higher value for their housing cost. Although the average monthly rent for residents who believed that their home provided good value for money was £517.5, lower than those who didn't (£555.2) or were uncertain (£518.3), the differences are statistically insignificant. In comparison, respondents who had difficulties in paying for rent were less likely to say that their home provided good value for money (52.6%), compared to those who do not have difficulties (65.1%).

New social renters paid higher monthly rent (£824.8) compared to existing social renters (£509.2), due to the difference between affordable and social rent levels. The difference between residents living in new build and other were not significant.

As displayed in Table 5, existing social renters were characterized with the highest possibility of having difficulties in paying bills (36.5%) and rents (15.0%) among all types housing tenures, followed by new social renters (34.7% and 14.7%, respectively). Regardless of housing tenure, those who claimed any benefits wre more likely to have difficulties in paying bills and rent compared to their counterparts who don't. (Evidence from a number of interviews did seem to contradict this, where those on benefits described having less financial worries compared to some social renters and shared owners who were full time or part-time employed and weren't claiming any benefits.)

Table 5 Whether having difficulties in paying bills and rent (by housing tenure and benefit claimant)

Housing tenure	Claim any benefits	Have difficulties in paying …

		Bills	Rent
ESR	No	18.9%	6.7%
	Yes	40.4%	16.9%
	Overall	36.4%	15.0%
ESO	No	5.7%	1.9%
	Yes	10.7%	7.8%
	Overall	9.0%	5.8%
NSR	No	33.3%	11.1%
	Yes	34.8%	15.2%
	Overall	34.7%	14.7%
NSO	No	0.0%	0.0%
	Yes	5.6%	0.0%
	Overall	3.2%	0.0%

Social renters were also affected by insecure income during the pandemic like a special needs teacher living with her husband and 2 children who wasn't on any benefits, had no health concerns but was also facing rising debts.

 "*Because my husband and I have had time off, either for ourselves or for our children, and we haven't been paid. And we don't have any savings and.*
And we have time off sick, we don't have sick pay, we're just not paid for it. We're not earning a huge amount of money so we're now in debt. That's why I've been worried." (R2ESR1)

Interviewees in new homes or larger ex-council properties described living in affluent villages and towns with a mixture of tenures, and for the quality of area felt their homes provided decent value for money. Others felt that 'affordable' rent which is close to market rent was not good value for money for the home they lived in.

A young student who had bought her shared ownership ground floor maisonette a few years previously reflected: "*I'm happy that I've gone shared ownership because I think it is an affordable way to get on the property ladder*". (R1ESO1)

Another young shared owner still felt positive about her purchase and move into a VIVID shared home a year later:

"I think it's really good. I think especially for young people. It's a great way to get on the property ladder, especially with the amount that rent is these days". (R2NSO2)

An older shared owner felt shared ownership was an economic or acceptable way to owning their home:

"I'm paying mortgage and rent. It's a lot of money £1,000 per month. But I think that's what people pay now, I guess with 35% shared ownership here." (R2ESO1)

One new shared owner who had recently divorced was quite pragmatic about the affordability of her home due her personal circumstances:

" I mean, it's the only option I have in my particular circumstance. So it's better value for money than, say paying the rent all together. But obviously not as good as just having the mortgage and not having to pay both. But yeah, that was the only option available to me. So it's not really a question of value for money. It's just the only option that I can afford". (R2NSO3)

In interviews rents were compared to market rents and council house rents and one social renter thought the worst aspect of their home was that rents were too high at twice the equivalent council house property. A mature shared owner who owned 25% of her property wasn't claiming any benefits but not working through the pandemic:

"(if) I'm working generally, yes, it's affordable. If I'm not working, then it's quite a chunk of money (from what) I have left. My pension pays my rent and little else". (R1ESO2)

Another new social renter was more pragmatic about the higher affordable rent levels because of the location of their property.

"I mean we do pay the top end of rent here. It's very comparable with private renting actually. And I think, possibly because it is a new property…, compared to the property prices, it is quite a lot more expensive. But at the

moment, I think sometimes you have to pay for quality, don't you, so if you want something, then you have to be prepared to pay for that. So I don't have a problem with it… … basically, this is only £65 cheaper than where I was living before privately. So it's not a lot different, and the property I was at before actually was a lot bigger than this, and I had a private balcony, as well…but you're in a different area so you have to pay with what comes with it you know." (R1NSR1)

5.2. House quality, design and layout

5.2.1. Layout and design

We examine people's attitude towards the design of the property from five perspectives, i.e., the layout, space, suitability, risk of hazard and safety.
In Round 1, new social renters rated higher for the layout of their property (their pre-VIVID property) compared to existing social renters, but the gap disappeared in Round 2. In Round 2, new shared owners rated higher for the space, suitability and safety of the property compared to existing shared owners. New social renters were more likely to say that their home was free of hazards compared to existing tenants. In both rounds of the survey, new social renters rate higher for the safety of the property compared to existing social renters.

It is worth noting that the difference in people's perception of the design of the property might be attributed to the type of build that they live in. Significant differences were found between residents living in new build and old build within each housing tenure group. More specifically, residents living in new build tended to be more satisfied with the layout, space, suitability and safety of the home, regardless of housing tenure. Existing social renters who live in new build were also more likely than their counterparts living in other build to say that their home was free of hazards.

Shared owners and social renters, both new and existing, commented on the positive size of their properties with large kitchens a favourite feature for many. Another frequently highlighted positive feature were large windows which made rooms feel bright, airy and spacious and helped residents when stuck in apartments during the lockdowns. Conversely some tenants identified small windows and kitchens as the worst qualities of their homes.

> "*I've got big windows in my bedroom, in my living room. I've got massive windows. So that's nice. I like that. You get a lot of light.* (R1ESO1)

> "*I love the way they've laid it out…the rooms are nice and big and airy, plenty of light coming in the kitchen".* (R1ESR1)

" *I like the fact that as you walk in, it's quite open planned, like the staircase and everything is quite open planned, very spacious and also, I have a kitchen with dining area and literally you can walk from the kitchen straight out into the garden. It's absolutely lovely"* (R1NSO2)

"You know a lot of new builds can feel very squashed together this one is nice and bright airy" (R1NSR4)

"We've got a lounge with a combined kitchen so you've got a kitchen at one end and you've got the lounge down the other that's a nice size and storage space, because of the kitchen. I think this is the first place I've lived where I can get all my kitchen equipment, food, everything in the kitchen." (R1ESO3)

A shared owner who had been living in his 2 bedroom flat for over 10 years described the layout and design as being the reasons for purchasing the property:

" The design the layout of the home is fantastic. This was one of the reasons why we bought it in the first place. We looked at other places for a mortgage. And this one

had larger spaces, well designed, everything's laid out quite nice. The kitchen is not one of those tiny little galley kitchens out there. It's actually a nice size. When you can get breakfast table in the kitchen, which is fantastic, that's great." (R2ESO1) (The same shared owner did however describe the building itself as looking a bit 'shabby' with some cladding having fallen off in 2019 that hadn't been repaired.)

A single mother with 2 young children who was a new shared owner thought one of the most disappointing features of her new 3 bedroom semi-detached was the small kitchen which didn't have enough space for a table and meant the family had to eat in the living room instead.

A number of interviewees described having to adapt their homes to working from home (and those with children who were home-schooling as well during the pandemic) so any spare space or bedroom proved to be invaluable.

"I think we're definitely lucky that we had like a spare bedroom we could turn into turn into a workspace" R2ESO3

5.2.2. Meeting future health needs

Many social tenants had disabilities or were caring for someone disabled or with special needs in their household. Some anticipated they might need to use a wheelchair in future or need other adaptions, and thought their current home would be suitable to those adapted needs. Homes which therefore met current health needs or had room sizes or layouts adaptable for future health needs reduced anxiety and stress about having to cope with a deteriorating condition, and avoiding the need to move home.

"The door front doors is wide enough to get a mobility scooter in, and it's big enough to store a mobility scooter. That was another selling point because my bedroom, if I needed to become bed bound, or disabled in any way, then the hoist (for getting into the bath) could be stored in the bedroom...Those things like that I was thinking long term, thinking that far ahead." (R1ESO3)

An older existing social renter suffering from severe arthritis described: *"I like the kitchen. A big kitchen and plenty room to move around, and especially if I am struggling on crutches. I've got lots of room to move around, and it's an easy straightforward layout. The whole way is quite a large, quite wide, which means that if later on I was unfortunately had to go into a wheelchair. I would have the ability to move around."* (R2ESR2)

5.2.3. Quality: Insulation, heating and damp

In the Round 2 survey, we asked about the energy efficiency of the property and whether respondents were concerned about the cost of heating their home in the winter. We found that new social renters and shared owners were less concerned over heating and energy inefficiency compared to existing residents, regardless of whether they lived in a new build (Table 6).

Table 6 Concerns over heating (by housing tenure and build type)

Housing tenure	Build type	Are you concerned about the cost of heating your home this winter?			
		Yes	No	Uncertain	Total
ESR	New build	70.0	30.0	0.0	100
	Other build	68.2	21.5	10.3	100
	Overall	68.4	21.7	9.8	100
ESO	New build	60.0	30.0	10.0	100
	Other build	63.8	29.3	6.9	100
	Overall	62.8	29.5	7.7	100
NSR	New build	56.3	25.0	18.8	100
	Other build	52.4	42.9	4.8	100
	Overall	54.1	35.1	10.8	100
NSO	New build	31.3	43.8	25.0	100
	Other build	-	-	-	100

	Overall	31.3	43.8	25.0	100

Additionally, those with difficulties in paying bills are also more likely to report concerns over heating (82% vs 57% for those without difficulties) and energy inefficiency (24% vs 14% for those without difficulties, see Figure A1).

Furthermore, we found residents who had less concerns over heating or perceived higher energy efficiency of their home were also more likely be satisfied with life and feel that their life was worthwhile (see Table A4). But we did not find any link between higher SAP/EPC ratings and high SWB, either in Round 1 or Round 2. This might suggest that people's perception, rather than actual energy efficiency, played an important role in respondents' SWB.

While there was some concern about heating bills generally, a number of interviewees felt their homes were well insulated, warm and well heated.

" *I don't usually have to turn my heating on in the winter.*" (R1NSR4)

"Very good…surprisingly good insulation, we never hear the neighbours. Its warm and dry…so far pleasant experience." (R2NSO3)

Some older properties were regarded as not of the best quality with thin walls, poor insulation and exposed wiring and pipework. Others described problems with damp.

"There was no insulation, it was icy cold, you could see your breath in bed at night, and the mould ruined all our furniture and belongings…You've got these horrible, messy looking wire covers." (R1ESR1)

5.2.3. Meeting quality expectations

The expectations around quality were tempered by previous experiences of other housing options e.g. poor private rental or even the risk of homelessness for social renters. Some new social renters had been on council waiting lists and felt relieved to have secured a social home, were positive about the quality of their home and how it had been adapted by VIVID to suit their needs.

> *"So it was the whole sort of layout and the garden, and everything was just brilliant. Really complete…I'm just really happy with it, with everything really. And it's got everything that I would need, I couldn't really, sort of think of anything else that I would want…I literally just burst into tears with relief. Just perfect (the house) for what I need."* (R1ESR4)

An older existing social renter in ground floor flat was pleased about having a choice on fixtures and finishes: " *So, just before I moved in, they had to rip out the kitchen and bathroom and put a new one in. And I was very fortunate that I was advised when they were coming. They let me come in and have a look. And I actually got to choose the colour scheme. So I was really, really happy with that. And then I was given decorating vouchers, which I think I've done it twice since I've been here now.*" (R2ESR2)

For a new social renter who had been living in her 1 bedroom maisonette for 11 months, the fixtures and finishes of her home were more than she had expected:
"It was nice to open the front door find that everything had pretty much been done because I mean, it's been carpeted even down to shower curtains They'd pretty much thought of everything". (R2NSR4)

Another social renter who had moved into her new build flat 2 years previously was delighted with her home which not only exceeded her expectations but had made a big difference to her mental health condition.
"I'm living in a really beautiful flat. You know, it's made a huge difference to my mental health. I couldn't be happier. I'm very fortunate, so that is a great comfort to me and it gives me hope for the future" (R1NSR4)

Not all social renters had the same experience of moving into a ready home. One single mum who had moved into an older end terrace property 3 years previously described the quality and space of her home positively, but did not expect so many repairs would need to be done when she moved in with her children:

" I really love the home but when I first moved in, there were probably around 30 something jobs that were needed that were outstanding basically. And some of the quality of them is probably not at what it should have been. So I had to basically keep pushing to getting those completed. And it took ages. They took probably nearly two years to get them all done. On example is the light, which is like a motion sensor light which goes on when you come up to the front door. Mine wasn't working, that's really important because I really needed that light to feel safe and secure when coming up to the house. (R1ESR11)

Shared owners had a different expectation around quality as they felt they were investing in a property and expected a higher quality in return. A number of new shared owners described some building snags which took a little time to get resolved but were generally pleased about the quality of their new homes:

> *"a brand-new beautiful house with a beautiful kitchen and beautiful bathroom, which we didn't have before" (R2NSO1)*

"The fact that you can just move in and everything's ready for you, I think that that obviously just takes all the worry off you. It was brilliant. All I had to do was literally just move my stuff. It gives me a new start of life. I mean generally I'm happier because partly I know that I own parts of it but also because of the situation I was in previously I know that basically nobody else can take it from me, as long as I keep paying the rent" (R1NSO2)

There were some concerns in new homes around the quality of gardens, poor drainage and topsoil for planting because of construction site, although interviewees felt that landscaping on new estates had been done well:

> *"For a housing estate, it's been very well built, it's been built nicely". There's this nice planting that they've done. You know, outside the front of all the houses were planted with bushes and shrubs which is lovely". (R2NSO1)*

In a more negative experience, a new shared owner, who had recently purchased and moved into a 3 bedroom mid-terraced property felt extremely disappointed a year later with the quality or workmanship in his home and problems ranging from missing bathroom tiles, dust from a hole in the ceiling, and poor drainage on the property site.

"It brings you a massive feeling of disappointment. Because you have invested a lot of money, a lot of hard earned savings into acquiring the property, which looks good on the surface but once you start living you start finding out the faults and the big mistakes and the shortcomings that leads to disappointment, that leads to undue stress because you've got to change a lot of things that you shouldn't have to in the first place, because we have guarantees that they check the property, inspect the property for you which obviously was not done... I'm very disappointed, and that's being polite. It's an understatement to say very frustrated, extremely disappointed, very defeated." (R1NS01)

5.3. Repairs and Maintenance

By comparing the number of repairs and planned maintenance interventions, and spending for respondents who experienced improvement or deterioration in SWB between the two rounds of surveys, we found that spending on major

maintenance was higher for those who were happier and less for those who were less happy compared to Round 1 (see Table 6). The trend was significant at the 10% significance level based on multivariate tests on means (p-value for F test = 0.0731). In contrast, there were no significant differences in the number of repairs or maintenance work done in the past year or the spending on repairs in the last three years across respondents which reflected a difference in SWB. These findings imply that spending on maintenance work can improve residents' happiness, and this influence may take time to become significant.

Table 7 Change in SWB and number of repairs/maintenances and spending

	Happiness compared to Round 1		
	More	About the same	Less
# of Repairs (last yr)	6.54	7.50	5.28
Repair spending (last 3 yrs)	655.23	820.79	505.57
# of Maint (last yr)	0.73	0.64	0.51
Maint spending (last 3 yrs)	**1710.30**	**1168.13**	**454.65**
N =	48	267	43

Note: This table excludes the new shared-owners since they didn't have any repairs or maintenances work done in the past three years. Significant difference in bold and red.

We also found that respondents who suffered from long- term disabilities were less likely to be satisfied with the layout, space, suitability, and safety of the property. However, they were more likely to be satisfied with the minor repairs done in their homes (Table A5).

There were mixed experiences of quality of repair work and Vivid Customer Service from "appalling" to "excellent."

An example of excellent service from a social renter who had moved into a new build was *"I know when I asked for a repair that they will probably deal with it within 24 hours. I've had the plumber around once because the boiler wasn't*

working, but he fixed it immediately, it was done within 24 hours so we're happy with the work.” (R1NSR4)

Other interviewees agreed that VIVID Customer Service was great but the quality of repairs (workmanship and materials) was poor. Multiple visits were needed to sort out one problem or repair, causing distress and frustration.

> *“I'm always getting repairs and maintenance work. Most of it is call-backs where it hasn't been done properly in the first place. In the last 12 months, I've had for exampl badly fitting doors. And to this day it's still not sorted. Front door for, example. I've had four brand new doors in the last two years…I had leak in the bathroom, which they came out three times in a matter of two weeks. It still wasn't right. So, in the end, I just went out and spent £5 and did it myself.”* (R1ESR3)

> *“It took two years for them to understand our problem and listen to us and to actually do the correct repairs….Since February 2021 we slept on the floor in the living room… we've literally just got our bedroom back last week… And, with cerebral palsy, you should not be sleeping on the floor.”* (R1ESR1)

Other social renters had more positive experiences around repairs and maintenance, enjoying the chance to personalise the décor and describing the good standard of work:

> *“ Just before I moved in, they had to rip out the kitchen and bathroom and put new ones in. And I was very fortunate that I was advised when they were coming. They let me come in and have a look. And I actually got to choose the colour scheme. So I was really happy with that. And then I was given decorating vouchers, which I think I've done it twice since I've been here now. And the first time was just done very quickly in order to make it liveable…the last workman came out was really good.”* (R2ESR2)

A new social renter who, like others, had to move in during the pandemic found the customer service around repairs to be excellent:

" We had to have our boiler checked yesterday for the yearly check, and I wasn't here when the man came I left my key with my neighbour, but he didn't go to my neighbours. So I ended up going again and I rang her up and I said I've had to take the day off work today for the boiler and she was so amazing and she got the man to come back and do it for me, but she went above and beyond, she didn't make me feel like a nuisance, she was really helpful, really, really good." (R1NSR1)

There was frustration expressed about the difficulty in reporting repairs during the pandemic through both the call centre and website:

"The telephone system is appalling. And I don't use that word loosely, I mean they're so difficult to get through to. And I spoke to one lady and she explained that you know they're working from home. The telephone system, for example, your call will wait 25 to 55 minutes to get through. Then when you get through you get cut off. And if they haven't given you a job number by the time you get cut off, then you have to ring again and wait another 25 to 55 minutes. Very frustrating. I mean the people are very nice, don't get me wrong, it's not their fault – it's a systems error, but the other frustrating thing I find is their website is terrible, very, very slow. If you raise a repair, they try to encourage you to raise it online, on their website. Their website is so slow to load up, and then when you click on the repairs, they haven't got all the repairs in there so for example they give you a picture. And if you're trying to find a picture of a facia board on the outside of the building, there's just not a repair block for that so you have to put it in other, and then write a full explanation of what you need...so the customer service that way is very, very frustrating." (R2ESR4)

In Round 2 interviewees who had large refurbishments like new kitchens or new doors described the large works as done to a high and satisfying standard but that is was difficult to get VIVID to respond to smaller repair needs i.e. responsive repairs. The cost of doing repairs was a recurring theme. Some social

renters felt they had to resort to paying for repairs themselves while some shared owners expressed frustration that owning a small percentage of the house meant sole responsibility for the cost of repairs. One felt frustrated that they couldn't 'buy in' a VIVID repair service rather than trying to procure their own builders as they weren't knowledgeable in the type of work, how to get contractors to get and also the costs involved.

A long-term social renter reflected on the long waiting periods for refurbishments:

> *"I had a new kitchen put in November 2020. I had a new bathroom put in about February of 2020…The bathroom was funded through the occupational therapists at Guilford Borough Council" (disability)…Mixed (service) really, I mean, on a personal level that the ladies and gentlemen on the end of the phone are very good. But when it came down to it, they just kept coming back to me saying there's no funding again this year for a new kitchen. You know, there's no money left you have to wait another year that that's gone on. But originally when I put my kitchen in 15 years ago, so that gives you an idea of how long it was before VIVID actually did it".*
> *(R1ESR8)*

One disabled renter had to had to climb into the bath to use the shower but the handrails were fitted by VIVID later fell off as the walls were of a poor quality and the tenants rebuilt and re-tiled the wall themselves. An older social renter described having a new kitchen put in 3 years ago along with double-glazing. While the design of the kitchen was of a high standard the quality of parts were not:

> *"I think the quality of the kitchen parts and cupboards and stuff are cheap…The quality is just dire, it's the cheapest of the cheap. Well, it's not a great long-term plan from VIVID's perspective, because the cheaper the stuff that they put in here, the more problems that they're going to have with it sooner rather than later".* (R1ESR2)

5.4. Neighbourhood

5.4.1. Community Trust and Neighbourhood Safety

Statistics show that safety, trust and cohesion in the neighbourhood and the sense of belonging were associated with higher levels of SWB, and these perceptions were particularly meaningful for those living in old build, while concerns over the neighbourhood were associated with lower levels of SWB, especially anxiety and particularly for those living in new build or social renters. Table 8 lists the concerns around neighbourhoods and the percentage of respondents in each subgroup who reported any concerns. Anti-social behaviours and crime in the neighbourhood were the most common concern for all the residents. Traffic was also a prevalent issue among existing social renters, new shared owners and those living in the new build. New residents also reported concerns over the level of noise in the neighbourhood. New social owners and those living in old build were concerned about lack of amenities in the neighbourhood, while existing shared-owners about the pollution in the neighbourhood.

Table 8 Concerns over the neighbourhood

% of respondents who have concerns over the neighbourhood						
	ESR	ESO	NSR	NSO	New	Other
Noise	23.1	19.2	**18.7**	**19.4**	22.9	15.8
Traffic	**27.7**	25.3	15.1	**22.6**	**27.9**	14.4
Pollution	21.9	**27.3**	12.7	6.7	24.6	5.2
Lack of amenities	16.7	17.1	17.6	**19.4**	16.8	**17.9**
Quality of facilities	18.8	18.4	12.5	6.7	18.3	13.8
Transportation	17.1	11.8	14.9	9.7	15.8	13.6

ASB	**37.9**	**35.7**	**26.0**	**20.0**	**37.9**	**23.3**
Crime	**35.6**	**32.9**	**23.0**	**19.4**	**35.2**	**22.0**

Note: Top 3 concerns in red.

Interviewees thought they could rely on their neighbours in the pandemic and looked out for a few neighbours, but it was more a case of neighbouring flats or neighbours on a street as opposed to a sense of community. Others felt more positively that everyone in the community generally got on, were friendly and supportive.

> *"The community spirit in this area is just fabulous. And because of my son's and disability, we got so much support from local charities.".* (R1ESR4)

For elderly single tenant who has been living in her home for 18 years:

> *"If I was in a position where I needed to knock on someone's door and like, ask for help, then I think I would. I think I would do that. Yeah, I would feel comfortable doing that".* (R1ERS5)

A number of older female tenants who had been in the same homes and neighbourhoods for many years described the change in their neighbourhoods and increase in drugs and ASB. An older single female tenant who has been in her home for 13 years, felt unsafe because of the ASB in the neighbourhood and described the changing community:

> *"It was really nice. We had a real community here. And it was nice. The old people got looked after everyone was friendly. We've we used to sit in the communal gardens. And I felt quite fortunate to have landed a flat. Over the time, it's changed and now it's no longer just over 45s, but all sorts of people here, people who've been in prison, the worst sort of people sort of living in it. So, it's a mixture of old people who are still here. And now there's also the new generation".*
> (R1ESR6)

In other larger estates and built up flats, existing social renters again expressed concerned about security, safety and anti-social behaviour and were concerned with ASB and drugs being sold by neighbours or in communal spaces around blocks.

A negative account of anti-social behaviour in the neighbourhood was provided by a long-term social renter: "*They VIVID have stepped up to their responsibilities...they have always been there and always listened. It's just we wish that they would get rid of anti-social behaviour, they're dragging their heels on that...The youngsters are taking the drugs in the bushes in the park, but the older ones organising it and the woman) who moved in and then men started to come knocking on the door...And then people who are obviously intoxicated by something started knocking on our doors. Then a month later there was a police armed raid".* (R1ESR1)

Another long-term social renter who lived with his wife and children and was bipolar felt isolated, intimidated and depressed by the level of anti-social behaviour in their social housing neighbourhood.

" I'm surrounded by people who do drugs, who supply drugs. I am surrounded by people who have no care for anybody else's opinion so you will get loud music, there's threats of violence; basically they do whatever they wish to do...my house gets filled up with their weed or marijuana, which in turn makes me worse...
You have to close the windows and the doors so you don't hear them, hear their foul language, smell that, see the people there so you basically keep yourself as a prisoner inside... I feel very, very isolated and alone. You have no world to really want to do anything, because we don't know what you're returning back to. And so you come back home and you're like, what's going to happen tomorrow what's going to happen so you're always on edge." (R1ESR9)

On the other hand, more positive reports included a number of new tenants saying they could leave their keys in the door and trusted the neighbourhood they lived in.

"I can confidently say like, there's no issues, I wouldn't change anything. There's nothing I dislike about living here. We feel very safe. Because prior to living here, we had a really, really different experience. I've left my keys in the front door before, overnight. So yeah, I do trust the neighbours". (R2NSR5)

"First, we have code for entry on the front door. And then we've got a keypad entry in the inner door. So that's just to get downstairs. And then of course you've got your front door as well. So security in the place is very good, surrounded by cameras as well...Security is one of the main attractions." (R2ESO1)

In new developments in quieter semi-rural villages new communities were established over a few years:

"Everyone's nice to each other. We've got like a WhatsApp group in which we can discuss things and ask for help, offer help, things like that. And I think there's like a nice little community formed over the years, because the whole development is quite new. So everyone came here as newbees" (R2NSO4)

5.4.2. Tenure Mix

The surveys collected data on the type of the housing in the neighbourhood, i.e., social housing, private rental, private owned and a mix of different types.

Among all types of neighbourhoods, residents in "private owned" neighbourhood were most likely (over 93%) to rate the overall quality of the neighbourhood as excellent, good or satisfactory, while residents in "social housing" neighbourhoods were the most likely (about 26%) to rate the overall quality of the neighbourhood as unsatisfactory or poor.

Compared to residents living in "social housing" neighbourhoods or in "mix" neighbourhoods, those living in "private rental" or "private owner" neighbourhood were more likely to agree that people would be happy in their neighbourhoods.

We found that concerns over pollution, ASB and crime were significantly more prevalent in a neighbourhood that mainly consists of social housing or a mix of different types. About 28% of respondents who lived in a "social housing" neighbourhood or a "mix" neighbourhood were concerned about the pollution in the neighbourhood, compared to 17.8% of a "private owned" type of neighbourhood and 6.3% for a "private rental" type of neighbourhood. About 48.6% residents in a "social housing" neighbourhood and 38.0% in a "mix" neighbourhood were concerned about ASB in the neighbourhood, compared to 24.4% in a "private owned" neighbourhood and 12.5% in a "private rental" neighbourhood. About 45% of residents in a "social housing" neighbourhood and 36% in a "mix" neighbourhood were concerned about crime in the neighbourhood, compared to 26.6% in a "private owned" neighbourhood and 6.3% in "private rental" neighbourhood.

Some shared owners in mixed tenure new developments felt the neighbourhood was the most attractive feature of their new home.

> *"The estate is great for me. The neighbours are really lovely, lots of families. So it's shaping up to be a really good community".*

A new social renter who had moved from a more concentrated dense social housing estate to a mixed tenure neighbourhood found the community mix appealing:

" Some of them are social housing tenants, some of them are privately owned, some of them shared ownership. This is quite a good mix of all different walks of life rather than historically, typically, it would be like an estate for social housing. So you would get just a cluster of one certain type of person, whereas this way, you kind of get like a trickle effect of all different people. So we've got elderly people with middle aged people, young people and people with children, young couples on

their own. They're all very friendly, everybody says hello, everybody chats."
(R1NSR2)

Another new social renter was delighted with her property in another mixed tenure development in an affluent area.

*"The neighbourhood is wonderful. Properties are usually around half a million here for a regular house. It's a very nice village. I think these social houses were built as part of a housing development and they have to allocate certain amount of social housing. So I'm very lucky in that respect, and they have been built to the same standards as the bungalows and flats and houses that have been sold for, you know half a million upward*s." (R1NSR4)

Not everyone was a fan of mixed tenure neighbourhoods though. A new shared owner who was delighted with her home expressed concern about the row of 'noisy' council houses all occupied by families with 3 children across the road from her shared ownership property:

> *"You know, I don't mean to stereotype people, that's awful, but I would have liked to have been informed that prior to buying this because, you know, we're paying for ours or part of it and they're not. And I think that it's important to pass on that information".* (R2NSO1)

Another shared owners commented on the concern about social renters and anti-social behaviour:

"When I moved in initially it was probably worse actually there were some tenants that were less caring, I suppose. It's supposed to be a smoke free block of flats. There were quite a few people that obviously smoked drugs and smoked a lot in the house. They didn't really care about it. Those people that have generally moved on and most of the tenants in the block now are very respectful very quiet. So it's improved, I think." (R2ES02)

5.5. Location

5.5.1. Geography: Rural and Urban Settings

In Round 2 we asked respondents whether they lived in rural, semi-rural, suburban or urban areas.

Table 9 Residential location (%) by housing tenure

RESIDENTIAL LOCATION (%) BY HOUSING TENURE

■ Rural ■ Semirural ■ Surburban ■ Urban

	Rural	Semirural	Surburban	Urban
OTHER	8.8	22.5	40.7	28.0
NEW	15.0	32.5	35.8	16.7
NSO	12.9	12.9	38.7	35.5
NSR	18.7	10.7	40.0	30.7
ESO	5.1	23.1	35.9	35.9
ESR	10.0	27.4	41.1	21.6
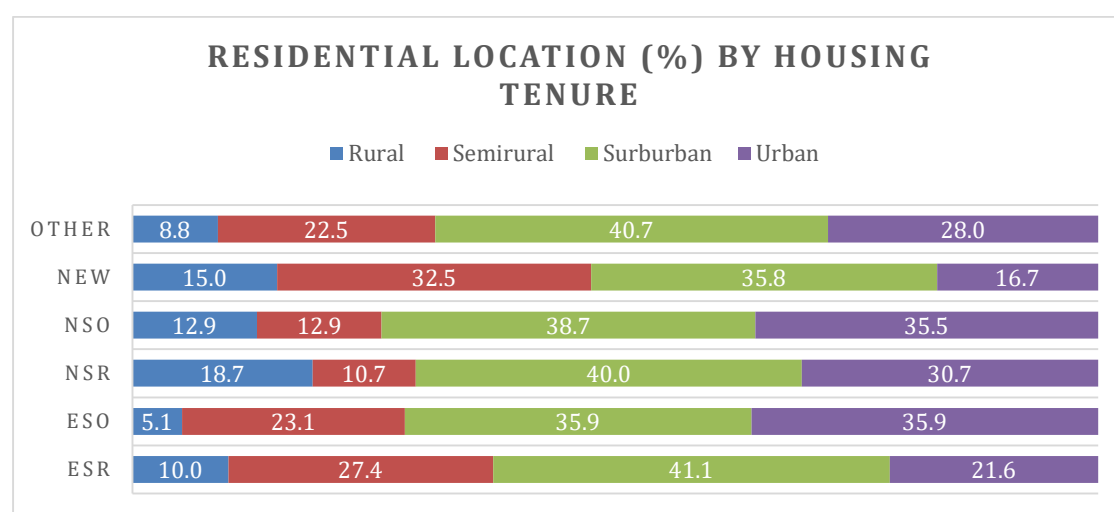
We found different patterns in SWB for respondents in different housing tenure and residential area, especially among social renters (see Table A6):

- Existing social renters living in rural or semi-rural areas were more likely to be satisfied with life than suburban residents and urban residents. Existing shared owners living in suburban areas, new shared owners and social renters living in semi-rural areas were more likely to be satisfied with life compared to their counterparts.
- New social renters living in semi-rural area were happier than their counterparts living in suburban, urban or rural areas.
- Existing social renters living in urban areas were more anxious than those living in suburban, rural or semi-rural areas.

Experience of neighbourhoods seemed very dependent on the location of a property or estate. Many interviewees lived in semi-rural villages and towns in

low-rise, terraced accommodation and this was reflected in more positive wellbeing. Mixed tenure villages were seen as positive for social renters who thought the fact they had neighbours who owned their homes reflected on the good quality of the neighbourhood.

> *"I live in a very nice neighbourhood. It's an old, smallish village on the outskirts of Southampton. We're right on Southampton water. So, in that respect, I feel quite kind of privileged to be able to live here"*. (R1ESR2)

> *"The best thing is the location and our village. I've got four generations at our cemetery". (R1ESR7)*

A single mum explained how she had moved from Basingstoke to a rural area for better wellbeing: *"We wanted something semi-rural, which we have found here. It is more than all right, and still close to amenities and schools, as our little one started school last summer.We love the area so wouldn't want to move any time soon"*. (R2NSO4)

5.5.2. Access to green space

A strong recurring theme in both rounds of interviews was the impact of having access to green spaces - whether in a private garden, nearby parks, 'fantastic country parks', woods or nature reserves. This was often cited as the best feature of the neighbourhood (along with access to good schools.)   Seaside locations were also valued particularly because of the pandemic.

A new social renting family experienced an improvement in wellbeing by now having a garden and living near the countryside:

> *"I think our experience as a family has been actually a good one, because before we moved, we spent the lockdown in 2020 in a flat, that was really depressing. ...there was no garden and there were just four walls...Being here, we've got a garden, we live in a sort of a village. So, we've got lots of countryside around us. We've been able to work from home and yeah, so our*

experience has been a positive one, and we enjoy living here. And so, we've been really happy". R2NSR2

For single mum and recent shared owner: *"We are in a village, at the very edge of the village. So it's very quiet, lots of lovely walking routes around country parks as well as you can go and explore woods and fields if you wanted".* R2NSO4

An existing shared owner, looking to move to another property because of a lack of garden in their current VIVID home, and who has since the pandemic been working from home, praised the location :
" For me personally, it's location to both the town, which is fabulous Winchester, the town, and also I'm right on the edge of the town so I can walk out into the countryside very quickly as well. I'd say location wise is perfect and I will miss that."
(R2ESO2)

5.5.3. Access to Services, New Developments and Reduced Amenities
(See also Section 4.6)
In both rounds of surveys, access to public utilities were positively related to the feelings of life being worthwhile and happiness of residents, while access to GP surgeries were positively associated with happiness. In Round 1 only, better access to essential stores were positively related to the feeling of life being worthwhile. In Round 2, access to schools, public utilities and GPs were positively associated with life satisfaction. Access to public utilities and GPs were also related to a lower level of anxiety.

We explored whether residents' access to various facilities differed across residential locations, including rural, semi-rural, suburban and urban areas. Residents living in suburban and rural areas tended to be more satisfied with their access to GPs than those living in semi-rural and urban areas- over half of those living in suburban or rural areas reported that they had excellent and good access healthcare services. Among them, about 22% residents living in suburban

areas 16% living in rural areas reported that they have excellent access to healthcare services.

However, compared to suburban and urban residents, there seemed to be a decreasing satisfaction with the access to essential amenities and healthcare services among residents living in rural or semi-rural areas. More specifically, 8.1% of rural residents and 13.3% of semi-rural residents downgrade their ratings on access to essential amenities from "excellent/good/satisfactory" to "unsatisfactory/poor/uncertain", compared to only 3% and 4%, respectively, among urban and suburban residents.

Similar trends are found for rural and semi-rural residents in terms of their access to healthcare services- about 19% rural residents and 17% semi-rural residents downgraded their ratings. Urban residents downgraded it even more, with 25% switching from positive to negative attitudes towards their access to healthcare services. These findings do appear to also be associated with pandemic related pressures on access to GP and hospital healthcare services.

In interviews, access to amenities were key to neighbourhood quality with walking distance to a village or town centre, and railway stations with links to London and other large cities being cited as a key positive. Conversely a lack of local shops was a seen as an inconvenience and one of the weaknesses of the neighbourhoods.

"It's built right outside the hospital on a main road which is just on the outskirts of Basingstoke. We've got great rail links with reading and London Southampton, in fact you can go anywhere in the country from the train station. And we've also got the motorways as well, which link with us so it's a fantastic location to get out of it." (R2ESO1)

New VIVID and other housing developments were regarded as putting pressure on existing infrastructure, like schools, doctors, roads, parking in the context of towns and villages already losing facilities such as banks and post offices closing. Traffic was seen as a problem resulting from new development.

It's growing exponentially because there's new housing going up. But there's not really been any improvement to the infrastructure". (R1ESR2)

"Biggest negative side is the influx of new homes that have cramped the roads that's my biggest bug bear. The roads are absolutely gridlock from four o'clock to seven o'clock every night because of the amount of new homes the infrastructure can't meet it". (R1ESR3)

A number of older social tenants who had been in their homes for over 10 years described the loss of amenities in their neighbourhood including bus services which coincided with them becoming older and needing to rely on those very services.

*"Well, we haven't got any banks. Now we used to have. We've got a post office inside the shop. We used to have a post office on its own. We don't get any transport after eight o'clock at night into town, and we don't get any at all on Sundays and bank holidays. We used to when I was younger".(*R1ESR7)

Conversely when reflecting on improvements to neighbourhood new shared owner described over the past year traffic calming measures and bicycle routes put in which improved the area. (R2NSO4)

6. VIVID Organisational Management Insights

In order to gain an organisational perspective on how housing quality is assessed and customer well-being understood, on internal strategic priorities and external drivers, qualitative interviews were undertaken with senior executives, managers or heads of service in the departments of New Business and Development, Assets, Property and Strategic Services and Strategic Affairs.

6.1. Well-being, tenancy support or an investment approach

Senior managers described the challenge of understanding wellbeing impacts and capturing evidence around impact. Nevertheless, senior leadership agreed that not only financial criteria and stock data should be driving investment decisions.

"It's not just about the data that we have which should drive our asset investment…we use that human element as well and understand what people want as well." (MI02)

"So those (corporate decision making) are wider than the financial return on our assets. Only typically there's no stock that we own that we couldn't let, so for all of our homes available for letting there will be a customer at the at the end of that who is who is happy to take that property on."(MI01)

While wellbeing is a strategic priority for VIVID, currently customer well-being is mainly focused on support delivered by well-being officers, tenancy support officers and external activities.

"(Well-being referrals) might be through dealing with rental arrears or antisocial behavior or trying to get access for servicing. But we've got a much wider kind of tenancy support; we also provide money advice and benefits. We've got employment and training as well, so trying to get people back into work, debt issues. And then we've also got an older persons support team that will provide general tenancy support for those that are over 60."(MI04)

Wellbeing support is also provided by working with local partners for example in Basingstoke where a social inclusion partnership brings together the voluntary sector, housing associations and the local authority to tackle social inclusion in Basingstoke. Another initiative called Keep Well Collaborative in Hampshire has been drawing together mental health and housing services to share knowledge and work collaboratively to provide better support.

6.2. Housing Quality and Neighbourhood Conditions

Senior executive described the geographic strategy of only developing in existing areas of housing stock, so having a concentration of stock to allow for a high quality of homes and standard of service. Having this concentration of stock allows VIVID to be a significant developer in the areas in which it operates as well as be a big player in the community:

" a unique selling point is that kind of tight geographical area that we've got, our knowledge of our stock and our customers is probably better than some of the larger organizations that operate over a much larger scale. And I think that also gives VIVID the opportunity, and particularly in Hampshire here to be a kind of a big player within the community." (MI04)

VIVID have historically invested in their stock transfer properties and continue to invest in high quality stock so have already a good standard of homes. However this can mean older decent condition housing can feel out-dated compared to new builds or regenerated areas. On disposals the moral argument to retain and improve homes against the financial argument around stock disposal continues as it does for most housing associations.

"In the main our stock is very high quality and so in theory, an older person who's been in their property for a number of years should still have relatively new

kitchen, bathroom and adaptations done that suits their age or lifestyle... I think all of our new buildings have a high quality and in some parts already higher quality to our existing stock, and one of the challenges that we've had, we're an organization that's got a long track record in regeneration and one of the downsides of regeneration is that you have to kind of stop somewhere. And you almost then artificially age the properties that are next door because suddenly there's a bright, shiny, new housing...and then you get back to homes that did never score as high in terms of needing to be knocked down or have any significant intervention to them but then suddenly look tired, in comparison to the new build." *(M101)*

" And in the old days that would be the ones that you look out for disposal, get rid of the ones that are costing the business money but we've made that conscious decision at the very start of the chain. And I think that becomes more of a moral thing for an organization, if you get rid of a poorly performing home because you can't do it, what's going to happen is someone else is going to have it, probably have the same customers in it. I'd rather being control and trying to make their lives better as much as possible, because I've got the financial clout and the ability to do it rather than a private landlord doing it - because we're not short of the financial ability to do things." *(M102)*

Evidence from the wellbeing surveys and tenant interviews do support the strategy to make homes as large as possible, adaptable for future- particularly future health- needs, with access to green spaces.

"I think a key part of our strategy is that make the make the homes as large as we possibly can to allow for people's change in them you know they're kind of future circumstances, and try and provide where possible, some, you know, self contained external green space for people to, you know, relax and, you know, perhaps more so over the last year, given how we're, we're all mostly working now." *(M101)*

"One simple thing we've been looking at our kitchens and more modern kitchens and some of the questions being asked about should we be looking at smarter kitchens, having space for different types of appliances or whatever within there? I think most people in our homes just want a workable functioning (kitchen)." (MI02)

Local knowledge was seen to be key in having meaningful data about housing stock and not to make assumptions based on meeting existing standards for example having local knowledge on housing conditions revealed that SAP ratings could be deceptive.

"We know some homes where the SAP ratings are very good, but from history, from sort of basic knowledge of the area that the homes are not good...probably more prone to damp and mould issues for instance within the homes but if we're just using data, we will look at it and go, 'oh that property's all right.'
If you're not using data or information from colleagues in other areas, or know repairs data about the damp and mould, then it might just be missed." (MI02)

Currently work is being undertaken at VIVID to gain a greater understanding about the quality of neighbourhoods in 'geographical patches'.

"In terms of neighbourhoods, we've organized them into geographical patches. And what we've been trying to do is to get all the information we can on one page around a particular patch. And then we would be in a position to understand a little bit more about the quality of the neighbourhood in any particular area." (MI04)

"So it's about just having that greater intelligence about what's going on, but also we could use it then to perhaps prioritize our community investment strategy to try and get more investment in estates." (MI04)

6.3. Asset Management and Repairs

Senior leaders outlined existing methods of collecting data to make quality decision around stock management and investment but also moving beyond traditional component and life cycle data to understanding the needs of tenants, who are captured customers.

"We look at the components data within the homes…looking at life cycles of those components and we use the decent home standards as well as our benchmark really pretty much as a minimum standard, also looking at the other regulations, making sure that we comply. And I think we're looking a bit broader than that as well; we're looking at the actual customer within the home, and this is where we're probably moving away from the more traditional bricks and mortar element. It's understanding how know people are in the home, and they probably in the main don't have a choice of which home." (MI02)

A distinction was made between the delivery of large planned maintenance work and smaller, responsive repairs.

"So in terms of the large planned maintenance stuff is that all external contractors. For some of the smaller works, is where the quality might vary depending on who we use. The contract is quite specific to the project in hand, and it will have the various the criteria and successes that are needed and what identifies a good project delivery." (MI02)

The impact of Covid-19 on repairs was noted and it was acknowledged that this was becoming a source of frustration for customers, and would be affecting their wellbeing.

"(Covid had) huge impact on our customers and also our ability to be able to carry out repairs during the lockdowns… we do have a big backlog of repairs to catch up, obviously there are some decisions to be made about you know how much money we put into catching up on that backlog and how quickly we do it. And as a result, we would have to slow down our planned maintenance program decisions around

whether we do external decorations or maybe want to put the money into catching up on our responsive repairs, so it's just about trying to find that balance." (MI03)

"I think customers are becoming more and more frustrated because we came out of Covid and they just expected that it's kind of all over really. So their expectations have increased dramatically, and we will not be able to meet them because there was, there is, a long wait for response of repairs at the moment...I think that does have a knock on effect on our customers and their well being."
(MI03)

6.4. Energy Performance and De-carbonisation

Energy performance and the insulation of homes were a recurrent theme both with regard to retrofitting older stock as well as new developments. Senior leaders all highlighted the challenge of decarbonisation policy drivers, with possible tensions between environmental benefits and customer benefits.

"We've got some challenges within the existing business around, and some of the energy ratings of some of our older stock... we try and target all of those increases in energy performance into the fabric of the building. So not by adding renewable tech to the building to lift that rating up but actually more about increasing the insulation in properties, making sure that the U values are as high as possible on windows and external doors so that actually would prevent heat leaking out of those properties" (M101)

"So we feel whatever we do around the sustainability agenda, it has to be an option that doesn't make things more expensive for our customers. So if you see the electric heating root source heat pumps have obviously got their issues, at the moment they're more expensive options for our customers. So we want to be clear that we don't want to put our customers in a worse situation financially by what we do to actually improve the sustainability and carbon rating of our homes. So there's a huge challenge out there." (MI03)

6.5. Affordability

Links between affordability and wellbeing are clearly a focus for corporate strategic management at VIVID, and part of this consideration is the disparity between rent levels and how that may impact on tenants.

" We of course have differences in terms of rent levels and rents… chances are somebody who has been a VIVID tenant for a long period of time will have a much lower rent than somebody who's just come in because that rent gets rebates towards market or whatever other metric that we've got to use to calculate. And so, potentially, you have a disparity then with people living in exactly the same road and possibly a mirror image of that house type." (MI01)

Maintaining shared ownership deposits at 25% rather than a lower offer is motivated around financial wellbeing and affordability considerations, and this is reflected in the survey evidence and interviews where shared owners mainly felt financially secure and that their mortgages were generally affordable.

"(Shared ownership) is a springboard so if you're unable to acquire your own home in the marketplace shared ownership is quite a good route to move into homeownership if that's your aspiration. And what we've tried to do as a business is to almost do the springboard and the safety net at the same point really. So all of our shared ownership homes are available and have been available for the last three years at 25% initial stake so it's not as low as we could offer…. It's not about the financial return for us, it's about you being able to sustain that property and, live there for as long as, as long as you want to."
(MI01)

6.6. Other External Challenges – Planning, Welfare policy and

Accountability to Lenders

Planning was cited as a critical external challenge along with welfare policy around under-occupation.

"It feels odd that that planning just seems to be there to slow down decision making and ultimately trying to block new housing as opposed to enable it. And then alongside that it's balancing that need and aspiration point really so whenever we talk to local authorities again they come from a housing need point of view and not housing aspiration. And again, there's welfare and well-being implications to that so people can't under occupy in affordable housing the benefit is kept to what they actually need. So I think that, I could again force you into having the wrong mix or not the right long term mix of new homes and new development program, and it's absolutely something that profit house builders exploit, because the answer is typically smaller." (MI01)

The overlap between decarbonisation regulation and planning infrastructure would also require further government guidance.

What I think is interesting is that in order to meet some of the decarbonisation agenda, there needs to be more happening in the infrastructure on the estates. So if you look at particularly in relation to electric cars, etc. we're sort of wondering, do we need to be providing stuff, but until the government gives greater guidance on what the national infrastructure will be like I think it's difficult for us to make plans as yet. (MI04)

The continuation of austerity was cited as another future challenge and would necessitate VIVID having to play an even bigger role in its communities.

I think we're probably heading for another period of austerity and we've seen the impact of the last period of austerity and I think it will lead to more poverty. So our welfare fund is expanding and the fact that we've set up VIVID+ is all to do with

filling in gaps that have occurred where government spending has been reduced in the community. (MI04)

Additional requirements around building safety for high rises were seen as a financial burden driven by lenders rather than customer safety.

"Obviously the customer is the reason why we're doing it (building safety). We're trying to keep the customer safe, and we're trying to keep the customer well, but then I think it's a bit more of a panic about our buildings...it's being driven by lenders against the asset and not about the safety of the people within the homes themselves and so we're spending billions as an industry on things to satisfy somebody, and they've got different driver (from) what we have." (MI02)

Brexit-related labour and material shortages are external drivers which continue to impact on service delivery already delayed by Covid.
"(Due to Covid) we weren't doing any repairs... which is definitely impacting on customer satisfaction. And of course this has been exacerbated by the impact of Brexit as well, with reduced labour available and increases in kind of material costs as well. " (MI04)

6.7. Future opportunities

Modern construction and developing modular homes were mentioned in all the management interviewees as a future opportunity and area for innovation around housing quality and consequently wellbeing.

"The growth of modular house building and the opportunity to really push and expand that development so that you can you can move homes on to site much more quickly in the future than we've ever been able to before, and a consistent level of quality and design ...so you know each of the properties comes to a set high standards. And you know that also implicitly then because of that improved

consistency of quality, will therefore have a knock on effect on well being for tenants in terms of the quality. (MI01)

7. Implications and Recommendations

This study has provided multi-layered and longitudinal insights into the subjective wellbeing of VIVID's customers in relation to the quality of their homes and neighbourhoods. These insights might be useful for VIVID in contributing to strategic decision-making around asset management, new development, neighbourhood services and community investment.

7.1.   Aspiration versus need in a post-Covid context

This research has shown that in a post-Covid context the welfare principles of under-occupation of social housing and the debate between housing aspiration and need should be challenged or reconsidered.

Regardless of possible future pandemics or variations of the Covid 19 virus, hybrid working looks set to continue due to more inclusive flexible working patterns, the need to reduce living costs such as commuting costs, as well as environmental motivations such as reducing travelling pollution.

The nature of home has been fundamentally transformed over the past 2 years, and therefore thinking around housing quality needs to be transformative too.

The need for home office or working spaces will require either 'spare' rooms or larger and flexible living spaces beyond minimum size standards. There are, in addition to spatial considerations for this, the financial wellbeing implications for working from home and cost of living crisis and fuel price surges due to economic and geo-political causes mean that more working from home (particularly over winter months when we are most likely to get resurgence of

viruses and public health interventions) will lead to higher living cost. This again challenges housing welfare regimes around occupancy and space.

7.2. Modern design, layouts and energy efficiency considerations

As VIVID continues to explore modular housing and modern methods of construction it would appear critical to customer wellbeing to maintain modern layouts, larger sizes of kitchens, which can fit dining/breakfast tables and windows.

Indeed sitting and eating or even working in a kitchen as a hub is part of a modern household lifestyle, and VIVID's focus on large kitchens does reflect in positive well-being outcomes for its customers. This study has shown residents living in new builds tend to be more satisfied with the layout, space, suitability and safety of the home, regardless of the type of housing tenure.

As net zero carbon policies drive future development and VIVID is focused on the operational carbon footprint and energy performance of its homes, there might be a consideration in the future to reduce window sizes to improve energy efficiency and lower energy leakage, but this would be detrimental to customer wellbeing. (VIVID could perhaps also explore achieving carbon neutrality by measuring overall embodied carbon including any reduction in carbon made through efficient modular construction, which would reduce material waste.)

Evidence from this study alludes to large windows not only making homes feel brighter and larger, but decreases loneliness being able to see into the outside world. Not explicitly evidenced in this study but mentioned in design literature, large windows can also help with community surveillance of communal spaces, with visibility a deterrent for more serious anti-social behaviour.

7.3. Health Needs and Adaptability

Health is one of the main indicators of wellbeing and typically the demographic profile illustrated that more social renters have current health needs, are caring for someone in the household with special health need or disabilities, or they themselves are suffering with long term health issues. For these customers the layout and design of their homes are critical to meeting those health needs, reducing anxiety and improving wellbeing.

Layouts which continue to future-proof health needs (e.g. spaces wide enough for a wheel chair usage) make customers feel reassured and secure that their homes would be adaptable if their health conditions deteriorated and removes the stress about needing to relocate to a more suitable property.

7.4. Responsive repairs

There is an acknowledged backlog with regard to responsive repairs due to the Covid-19 pandemic and not being able to access homes. While the development programme has caught up, on-going repairs that have not been addressed do cause anxiety for tenants, as well as the additional financial burden of trying to sort out the repairs themselves out of frustration. From a wellbeing rationale, it would make sense, if not already done so, to prioritising responsive repairs for those customers who do suffer from health conditions.

A VIVID repair service that could be bought in for shared owners would also positively contribute to wellbeing.

7.5. Affordability and value for money

Financial wellbeing is a key focus for VIVID. As there are variations in rent and mortgage levels across the stock, the link between 'value for money' and

wellbeing is particularly important, especially for captured customers of social housing where a huge national and regional demand far outstrips supply.

Shared owners feel like they are doing well in life, in the circumstances of life in which they find themselves, where the cost of their mortgage is fair for being able to partially own their home. Social renters are aware of rent disparities, and the difference between 'affordable' and 'social' rents but often equally relieved to have secured a social home after being on waiting lists or in poor private rented accommodation, so again feel there is value for money in the rent cost, in comparison to alternative housing options. This is reflected in survey evidence showing new-shared owners and social renters more likely to say their homes provide good value for money. Interestingly both qualitative and quantitative evidence also indicates that while new build homes may have high wellbeing and house quality associations, new builds don't significantly reflect a better value for money for VIVID's customers.

Having a clear and nuanced understanding of what value for money means for both social renters and shared owners could help inform spending priorities and investment decisions for VIVID. This evidence could be built on by including, wellbeing, financial well-being and value-for-money questions in VIVID's existing customer satisfaction or perception surveys.

Although energy efficiency does not feature as a concern for customers in all tenure types and in old or new buildings, as homes in the near future change from gas to alternative heating sources to fulfill net zero regulatory requirements, there will be both affordability issues for customers and wellbeing impacts. It would benefit VIVID to pre-empt these by starting to map and model future customer impacts as well as considering how existing customer engagement structures like the scrutiny committees or community co-design workshops could be involved to take customers on that journey.

7.6. Planning, Infrastructure and Amenities

While the government's long awaited planning reforms are still to be published, planning continues to be a strategic barrier for social housing developers. What is clear from this study is that key to well-being of customers is the public transport and road infrastructure of their neighbourhoods, as well as access to amenities like schools, GP surgeries and local shops especially for new developments. This was particularly crucial for the well-being of social tenants as shared owners were most likely to have cars and could drive to facilities, although rising fuel costs would see everyone needing to reduce living costs, including travel costs.

This study has shown the importance of access to green spaces for wellbeing particularly heightened by the pandemic and lockdowns. VIVID benefits from operating in rural and suburban locations with natural green spaces and coastal locations contributing to the wellbeing of tenants and shared owners.

For new developments this should continue to be prioritized and for existing estates especially blocks and high rises, there is an opportunity to increase access to green spaces through community investment activities through VIVID+ such as garden allotments or regular park/ outdoor community space activities or events.

As a large player in the concentrated geography and local authorities in which VIVID operates, there is an opportunity to leverage this position and local knowledge to influence local planning decision-making and planning in infrastructure, as well as lobbying for example against the loss of services in semi-rural areas e.g. bus routes.

There have been calls in the sector for the adoption of a decent neighbourhood standard like the Decent Homes, although there are challenges in being accountable for neighbourhoods which are not owned or managed like social homes. However as VIVID are already doing work around neighbourhood 'patches' to map their areas of operation, part of this work could be an internal decent neighbourhood standard linked to the neighbourhood conditions and facilities that are most closely aligned to customers positive wellbeing.

7.7. Community Trust and Anti-social behavior

Anti-social behavior undoubtedly reduces wellbeing and erodes community trust. This seemed to be worsening in certain areas and with around half of VIVID stock being blocks of flats; these in a sense are locked-in communities.

The pandemic seems to have exacerbated the problem of anti-social behavior, with reduced estate visits, and with schools and work places closed. VIVID+ has been set up as a community investment foundation and is doing work with HACT social value roadmap, and mapping areas of deprivation. There is also community engagement and co-design as part of new housing development schemes. If these continue to inform decisions around investing in and managing neighbourhoods, this should also improve wellbeing for customers. There are also opportunities to consider cross-pollinating ideas between departments e.g. if there are currently support services around employment and training in partnership with local colleges, this could be extended to specific building training (leading to employment) on retrofitting homes to improve carbon performance. As this is a huge industry skills gap, this could be a way of providing real employment and opportunity to existing customers, and enhancing social impact while responding to sustainable housing challenges.

Appendix

Table A1 Whether the VIVID home meets expectation by SWB

Panel A		Whether the VIVID home meets expectation?				
Satisfaction with life		Exceeded expectations	Met expectations	Not met expectations	Uncertain	Total
Much more than usual	N =	2	8	0	0	10
	% =	20	80	0	0	100
Rather more than usual	N =	4	8	2	0	14
	% =	28.57	57.14	14.29	0	100
No more than usual	N =	3	12	4	3	22
	% =	13.64	54.55	18.18	13.64	100
Less than usual	N =	0	2	5	0	7
	% =	0	28.57	71.43	0	100
Total	N =	9	30	11	3	53
	% =	16.98	56.6	20.75	5.66	100

Panel B		Whether the VIVID home meets expectation?				
Worthwhile		Exceeded expectations	Met expectations	Not met expectations	Uncertain	Total
Very worthwhile	N =	3	14	0	1	18
	% =	16.67	77.78	0	5.56	100
Fairly worthwhile	N =	4	11	3	2	20
	% =	20	55	15	10	100
Neutral/Somewhat	N =	1	5	8	0	14
	% =	7.14	35.71	57.14	0	100
Not at all worthwhile	N =	1	0	0	0	1
	% =	100	0	0	0	100
Total	N =	9	30	11	3	53
	% =	16.98	56.6	20.75	5.66	100

Table A2-1 Basic Logit model

VARIABLES	(1) d_satisfied	(2) d_worthwhile	(3) d_happy	(4) d_anxious
Male	0.315**	0.314***	0.650	1.492

	(0.133 - 0.746)	(0.160 - 0.614)	(0.368 - 1.146)	(0.824 - 2.701)
Age	1.025	1.053***	1.025*	0.964**
	(0.994 - 1.057)	(1.025 - 1.082)	(1.003 - 1.047)	(0.941 - 0.988)
Qualification (ref: no qual)				
Qual below degree	1.899	1.120	1.505	1.805
	(0.708 - 5.094)	(0.531 - 2.363)	(0.746 - 3.034)	(0.890 - 3.660)
Degree and above	2.509	0.675	1.889	1.476
	(0.812 - 7.753)	(0.280 - 1.630)	(0.836 - 4.267)	(0.628 - 3.468)
Employment (ref: full-time)				
PT- up to 15hr	1.036	1.306	0.932	1.646
	(0.400 - 2.684)	(0.596 - 2.866)	(0.457 - 1.901)	(0.786 - 3.446)
PT- 15hr+	0.228	1.038	0.415	1.464
	(0.042 - 1.237)	(0.318 - 3.389)	(0.116 - 1.486)	(0.467 - 4.591)
Not in paid work	1.341	0.524	1.248	2.451*
	(0.540 - 3.333)	(0.254 - 1.082)	(0.646 - 2.410)	(1.227 - 4.899)
Married	1.367	1.393	0.765	1.010
	(0.690 - 2.710)	(0.801 - 2.422)	(0.469 - 1.248)	(0.604 - 1.689)
# of dep children (ref: two)				
No depchild	0.411	0.489	0.466*	1.373
	(0.144 - 1.176)	(0.197 - 1.213)	(0.221 - 0.986)	(0.592 - 3.184)
Depchild- one	1.092	0.755	0.833	1.158
	(0.352 - 3.386)	(0.274 - 2.082)	(0.356 - 1.949)	(0.446 - 3.010)
Depchild- 3+	1.320	1.541	0.648	0.763
	(0.330 - 5.270)	(0.459 - 5.170)	(0.231 - 1.815)	(0.246 - 2.370)
Good health_status	4.238***	6.377***	2.798***	0.332***
	(2.095 - 8.572)	(3.571 - 11.388)	(1.681 - 4.656)	(0.199 - 0.552)
Income (ref: 400+ p/w)				
Up to £399	0.634	0.646	0.719	0.973
	(0.267 - 1.504)	(0.301 - 1.387)	(0.367 - 1.410)	(0.480 - 1.970)
Missing income	0.308**	0.601	0.541	0.990
	(0.135 - 0.701)	(0.294 - 1.228)	(0.289 - 1.014)	(0.510 - 1.923)
HS tenure (ref: existing SO)				
Existing tenants	0.447	0.662	0.645	1.189
	(0.176 - 1.135)	(0.306 - 1.431)	(0.339 - 1.230)	(0.584 - 2.419)
New tenants	3.750*	1.165	4.166**	0.883
	(1.070 - 13.137)	(0.386 - 3.512)	(1.740 - 9.973)	(0.313 - 2.489)
New SO	11.577**	3.231	3.885*	1.277
	(1.941 - 69.035)	(0.600 - 17.398)	(1.195 - 12.629)	(0.297 - 5.489)
New build	1.191	1.361	1.141	0.498
	(0.487 - 2.915)	(0.606 - 3.060)	(0.586 - 2.222)	(0.233 - 1.065)
Repair done	0.787	1.120	0.819	1.100
	(0.438 - 1.416)	(0.688 - 1.823)	(0.515 - 1.304)	(0.690 - 1.755)
Maintenance done	0.900	0.515	0.714	1.166
	(0.218 - 3.720)	(0.185 - 1.434)	(0.246 - 2.070)	(0.456 - 2.982)
Constant	0.053*	0.210	0.086**	0.883
	(0.005 - 0.544)	(0.033 - 1.332)	(0.016 - 0.450)	(0.156 - 4.998)
Observations	727	727	725	727
Number of ID	373	373	373	373

Notes: this table reports the estimated odds ratios from the Logit model. The dependent variables are the incidence of being satisfied with life, feeling worthwhile, happy and anxiety, respectively. Odds ratios larger than one indicate positive associations between the variable and the dependent variables, i.e., the SWB items. While odds ratio smaller than on indicate negative associations

between the variable and the dependent variable. *** p<0.001, ** p<0.01, * p<0.05

Table A2-2 Developed Logit model

VARIABLES	(1) d_satisfied	(2) d_worthwhile	(3) d_happy	(4) d_anxious
d_house_condition	1.284	1.606	0.991	0.691
	(0.455 - 3.620)	(0.684 - 3.772)	(0.456 - 2.151)	(0.361 - 1.322)
d_q_layout	0.860	1.124	2.104	0.773
	(0.208 - 3.547)	(0.356 - 3.550)	(0.714 - 6.201)	(0.326 - 1.829)
d_q_space	1.885	1.679	0.491	1.008
	(0.517 - 6.877)	(0.612 - 4.602)	(0.204 - 1.181)	(0.464 - 2.192)
d_q_suitable	0.973	1.988	0.947	0.668
	(0.334 - 2.835)	(0.827 - 4.781)	(0.427 - 2.101)	(0.348 - 1.284)
d_q_noharzard	0.953	1.137	0.766	0.713
	(0.451 - 2.011)	(0.590 - 2.194)	(0.443 - 1.325)	(0.426 - 1.194)
d_q_safety	1.037	0.893	3.026*	0.827
	(0.330 - 3.255)	(0.366 - 2.178)	(1.150 - 7.963)	(0.416 - 1.645)
q_neighbourhood	1.291	1.376*	1.200	0.969
	(0.913 - 1.827)	(1.017 - 1.861)	(0.931 - 1.546)	(0.766 - 1.226)
Residential location (ref: Urban)				
Rural	0.803	1.417	0.966	0.836
	(0.199 - 3.238)	(0.440 - 4.562)	(0.389 - 2.401)	(0.355 - 1.967)
Semi-rural	2.300	1.874	1.232	0.552
	(0.805 - 6.574)	(0.730 - 4.810)	(0.618 - 2.454)	(0.276 - 1.103)
Suburban	1.686	1.848	1.307	0.880
	(0.669 - 4.249)	(0.820 - 4.161)	(0.715 - 2.391)	(0.497 - 1.560)
Concern_noise	1.126	1.086	1.157	1.015
	(0.777 - 1.630)	(0.790 - 1.494)	(0.880 - 1.522)	(0.793 - 1.301)
Concern_traffic	0.790	0.952	0.946	0.928
	(0.541 - 1.151)	(0.694 - 1.307)	(0.723 - 1.237)	(0.725 - 1.187)
Concern_pollution	1.113	0.884	0.920	1.326*
	(0.746 - 1.662)	(0.631 - 1.237)	(0.690 - 1.226)	(1.018 - 1.727)
Concern_lackamenities	0.928	1.067	1.163	0.972
	(0.593 - 1.453)	(0.736 - 1.549)	(0.831 - 1.629)	(0.727 - 1.300)
Concern_facilities	0.785	0.707	0.743	1.187
	(0.484 - 1.274)	(0.474 - 1.054)	(0.516 - 1.071)	(0.872 - 1.616)
Concern_transport	0.992	1.036	1.011	1.013
	(0.705 - 1.395)	(0.767 - 1.400)	(0.788 - 1.298)	(0.802 - 1.279)
Concern_ASB	1.168	0.883	1.038	1.068
	(0.742 - 1.839)	(0.595 - 1.310)	(0.740 - 1.456)	(0.781 - 1.462)
Concern_crime	0.803	1.369	1.010	0.871
	(0.503 - 1.281)	(0.900 - 2.081)	(0.714 - 1.428)	(0.631 - 1.204)
Constant	0.032	0.012**	0.027**	1.794
				(0.180 -
	(0.001 - 1.113)	(0.001 - 0.284)	(0.002 - 0.337)	17.861)
Observations	674	674	672	674
Number of ID	362	362	362	362

90

Note: this table reports the estimated odds ratios from the Logit model. The dependent variables are the incidence of being satisfied with life, feeling worthwhile, happy and anxiety, respectively. Variables in the basic model are also controlled here but coefficients nor reported for brevity. Odds ratios larger than one indicate positive associations between the variable and the dependent variables, i.e., the SWB items. While odds ratio smaller than on indicate negative associations between the variable and the dependent variable*** p<0.001, ** p<0.01, * p<0.05.

Table A3 "The home provides good value for money" by SWB

	The home provides good value for money (%)			
Satisfied with life	Yes	No	Uncertain	
Much more than usual	77.8	11.1	11.1	100
Rather more than usual	67.2	23.4	9.4	100
No more than usual	60.0	16.5	23.5	100
Less than usual	47.3	31.2	21.5	100

	The home provides good value for money (%)			
Worthwhile	Yes	No	Uncertain	
Very worthwhile	74.0	14.3	11.7	100
Fairly worthwhile	62.3	21.0	16.7	100
Neutral/Somewhat wort	52.3	22.7	25.0	100
Not at all worthwhile	32.1	32.1	35.7	100

Figure A1 Difficulties in paying bills by concerns over heating and energy efficiency
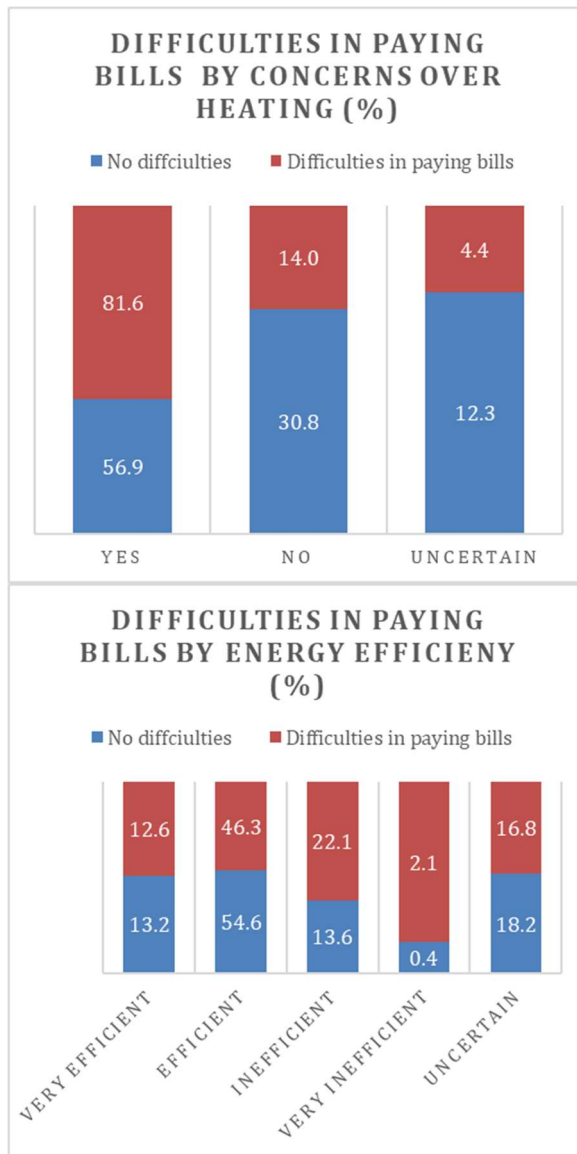
DIFFICULTIES IN PAYING BILLS BY CONCERNS OVER HEATING (%)

DIFFICULTIES IN PAYING BILLS BY ENERGY EFFICIENY (%)

Table A4 SWB by energy efficiency and concerns over heating

Panel A	satisfaction with life				
Energy efficiency	Much more than usual	Rather more than usual	No more than usual	Less than usual	Total
Very Efficient	13.6	29.6	45.5	11.4	100
Efficient	5.1	18.6	54.8	21.5	100
Inefficient	0.0	3.7	59.3	37.0	100
Very Inefficient	0.0	33.3	66.7	0.0	100
Uncertain	5.0	15.0	56.7	23.3	100
Concerns over heating					
Yes	2.9	14.9	53.9	28.2	100

No	8.3	24.0	50.0	17.7	100
Uncertain	7.9	13.2	57.9	21.1	100

Panel B			worthwhile		
Energy efficiency	Very worthwhile	Fairly worthwhile	Neutral	Not at all worthwhile	Total
Very Efficient	36.4	34.1	25.0	4.6	100
Efficient	22.6	36.7	36.7	4.0	100
Inefficient	3.7	44.4	38.9	13.0	100
Very Inefficient	0.0	100.0	0.0	0.0	100
Uncertain	21.7	35.0	36.7	6.7	100
Concerns over heating					
Yes	18.7	35.3	35.7	10.4	100
No	26.0	42.7	29.2	2.1	100
Uncertain	18.4	31.6	47.4	2.6	100

Table A5 Quality of minor repairs by long-term conditions

	Have long-term conditions that prevent undertaking paid work	
Quality of minor repairs done	No	Yes
Excellent	17.9	33.0
Good	39.5	31.3
Satisfactory	24.3	20.9
Unsatisfactory	8.7	8.7
Poor	8.7	5.2
Uncertain	0.9	0.9
Total	100	100

	Have long-term conditions that prevent carrying out daily activities	
Quality of minor repairs done	No	Yes
Excellent	17.7	33.9
Good	39.8	30.4
Satisfactory	24.0	21.4
Unsatisfactory	8.6	8.9
Poor	9.1	4.5
Uncertain	0.9	0.9
Total	100	100

Table A6 Percentage of respondents who are satisfied with life, happy or anxious across housing tenure and residential location

	Residential location			
Satisfied with life	**Rural**	**Semi-rural**	**Suburban**	**Urban**
ESR	16.7	22.7	13.1	7.7
ESO	0.0	27.8	35.7	25.0
NSR	0.0	75.0	40.0	45.5
NSO	0.0	100.0	66.7	66.7
Happy	**Rural**	**Semi-rural**	**Suburban**	**Urban**
ESR	12.5	16.7	17.2	13.5
ESO	0.0	27.8	32.1	28.6
NSR	0.0	75.0	40.0	36.4
NSO	0.0	100.0	50.0	40.0
Anxious	**Rural**	**Semi-rural**	**Suburban**	**Urban**
ESR	29.2	24.2	30.3	44.2
ESO	25.0	5.9	21.4	32.1
NSR	28.6	25.0	13.3	18.2
NSO	0.0	0.0	16.7	50.0