



Homes
England

The Housing and Regeneration Agency

SQW

Homes England – Measuring Social Value

Paper 4: Measuring the Wellbeing and Fiscal Impacts of Housing for Older People

Date: July 2024

Supplementary Report (Appendices)

The Housing and Regeneration Agency

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Disclaimer

This report has been prepared for Home England in accordance with our Proposal dated November 2022 and agreed revisions to it. SQW assumes no responsibility to any user of this document other than Homes England.

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Introduction

This document presents additional research and information that supports the main report which provides insights on the wellbeing and fiscal impacts associated with the delivery of housing for older people. **All appraisers should refer to the main report for full details on the values that should be applied in Green Book compliant business cases;** this document is intended to supplement the information provided in the main report.

This document includes the following appendices:

- **Appendix 1 – Survey Questionnaire:** shows the questionnaire that was distributed to both the comparator group (general market housing) and older people living in each of the typologies of housing for older people.
- **Appendix 2 – Analysis of Survey Results:** provides a more detailed breakdown of the survey results and the outcomes from the econometric analysis undertaken (building upon insights in Chapter 7 of the main report).
- **Appendix 3 – Fiscal Impacts Report:** provides a more detailed review of the evidence analysed on the fiscal impacts associated with the delivery of housing for older people (building upon the results presented in Chapter 9 of the main report).
- **Appendix 4 – Evidence from other Wellbeing Frameworks and associated papers:** provides a review of the wellbeing frameworks analysed to develop the wellbeing framework identified in Chapter 4 of the main report.

Appendix 1 – Survey Questionnaire

Wellbeing and housing for older people survey

Where you live

First, we would like to ask you some questions about where you live, your neighbourhood and your community.

Q1. Please choose the number which you feel best describes how dissatisfied or satisfied you are with your house/flat

Not satisfied at all		Not satisfied/dissatisfied			Completely satisfied	
1	2	3	4	5	6	7

Q2. Does your house/flat have any of the following?
Please tick all that apply

Damp and/or mould		Draughts from windows/doors	
Overcrowding		Too much space	
Prefer not to say		None of the above	

Q3. In your home, are you able to do the following?
Please tick all that apply

Keep the home a comfortable temperature (e.g. not too hot in summer or too cold in winter)		Have enough space to see friends or family, if you wish to	
Move around safely (e.g. no trip hazards)		Safely use every room that you want to (e.g. there are no rooms that you're unable to use)	
Prefer not to say		None of the above	

**Q4. Can you access any of the following, if you want or need to?
Please tick all that apply**

Social activities with others, e.g. games, arts and craft activities		Care or support workers, at all times	
Communal space (where you can meet with neighbours)		Care or support workers, at certain times	
Outdoor/green space		None of the above	

Q5. How safe do you feel generally when you are at home on your own?

Very safe	Fairly safe	A bit unsafe	Very unsafe	Never at home alone because I feel unsafe	Never at home alone, other reasons

Q6. To what extent do you agree or disagree with the statement ‘I feel like I belong to this neighbourhood’?

Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree

Your personal wellbeing

Now, we 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 we’d like you to give an answer on a scale of 0 to 10 where 0 is “Not at all” and 10 is “Completely”.

Q7. Overall, how satisfied are you with your life nowadays?

0 Not at all	1	2	3	4	5	6	7	8	9	10 Completely

Q8. Overall, to what extent do you feel that the things you do in your life are worthwhile?

0 Not at all	1	2	3	4	5	6	7	8	9	10 Completely

Q9. Overall, how happy did you feel yesterday?

0 Not at all	1	2	3	4	5	6	7	8	9	10 Completely

Q10. On a scale where 0 is “not at all anxious” and 10 is “completely anxious”, overall, how anxious did you feel yesterday?

0 Not at all	1	2	3	4	5	6	7	8	9	10 Completely

Your relationships

We'll now ask you some questions about the relationships in your life.

Q11. How often do you chat to your neighbours, more than just to say hello?

On most days	Once or twice a week	Once or twice a month	Less than once a month	Never	Don't have any neighbours

Q12. To what extent do you agree or disagree with the statement ‘If I needed help, there are people who would be there for me’?

Definitely agree	Tend to agree	Tend to disagree	Definitely disagree

Q13. How often do you feel that you lack companionship?

Hardly ever or never	Some of the time	Often

Q14. How often do you feel left out?

Hardly ever or never	Some of the time	Often

Q15. How often do you feel isolated from others?

Hardly ever or never	Some of the time	Often

Q16. How often do you feel lonely?

Often/always	Some of the time	Occasionally	Hardly ever	Never

Your health

We'll now ask you some questions about how you are feeling in terms of your health.

Q17. Please choose the number which you feel best describes how dissatisfied or satisfied you are with your health.

Not satisfied at all		Not satisfied/dissatisfied				Completely satisfied
1	2	3	4	5	6	7

Q18. Below are some statements about feelings and thoughts. Please tick the box that best describes your experience of each over the last 2 weeks

STATEMENTS	None of the time	Rarely	Some of the time	Often	All of the time
I've been feeling optimistic about the future					
I've been feeling useful					
I've been feeling relaxed					
I've been dealing with problems well					
I've been thinking clearly					
I've been feeling close to other people					
I've been able to make up my own mind about things.					

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Q19. Do you have any physical or mental health conditions or illnesses lasting or expected to last 12 months or more?

Yes	
No	
Prefer not to say	

Q20. Do any of your conditions or illnesses reduce your ability to carry out day-to-day activities?

Yes, a lot	
Yes, a little	
Not at all	
Prefer not to say	
Not applicable	

Q21. Do you look after, or give any help or support to, anyone because they have long-term physical or mental health conditions or illnesses, or problems related to old age?

No	Yes - 9 hours per week or less	Yes - 10 to 19 hours per week	Yes - 20 to 34 hours per week	Yes - 35 to 49 hours per week	Yes - 50 or more hours per week	Prefer not to say

Q22. Do you currently receive regular care or support from family members, friends or neighbours, e.g. people who are not paid carers?

No	Yes - 9 hours per week or less	Yes - 10 to 19 hours per week	Yes - 20 to 34 hours per week	Yes - 35 to 49 hours per week	Yes - 50 or more hours per week	Prefer not to say

Demographics

Finally, we'd like to ask you some questions about you. This is to make sure that we are taking the views of different types of respondents into account, and for analysis purposes. We will not use this information to identify any individual or for any other purposes.

You do not have to answer these questions if you'd prefer not to.

Q23. What is your sex?

Female	
Male	
Prefer not to say	

Q24. Is the gender you identify with the same as your sex registered at birth?

Yes	
No	
Prefer not to say	

Q25. What age are you?

Under 55	55-64	65-74	75-84	85 and over	Prefer not to say

Q26. How long have you lived in your current home for?

Less than a year	1-3 years	4-6 years	More than 6 years	Prefer not to say

Q27. What is your ethnic group?

Choose one section from A to E, then tick one box to best describe your ethnic group or background.

A. White

English, Welsh, Scottish, Northern Irish or British		Gypsy or Irish Traveller	
Irish		Roma	
Any other White background			

B. Mixed or Multiple ethnic groups

White and Black Caribbean		White and Asian	
White and Black African		Any other Mixed or Multiple background	

C. Asian or Asian British

Indian		Bangladeshi	
Pakistani		Chinese	
Any other Asian background			

D. Black, Black British, Caribbean or African

Caribbean		Any other Black, Black British or Caribbean background	
African background			

E. Other ethnic group

Arab		Any other ethnic group	
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Q28. What is your legal marital or registered civil partnership status?

Never married and never registered in a civil partnership	
Married or in a registered civil partnership	
Separated, but still legally married or in a civil partnership	
Divorced or dissolved civil partnership	
Widowed	
Prefer not to say	

Q29. How well would you say you yourself are managing financially these days?

Would you say you are...

Living Comfortably	Doing alright	Just about getting by	Finding it quite difficult	Finding it very difficult	Prefer not to say

Q30. Which region of England do you live in?

North East		East of England	
North West		London	
Yorkshire and Humber		South East	
East Midlands		South West	
West Midlands		Don't know	

Thank you for completing this survey. Your answers will be very important to Homes England.

Please return your completed survey by **Friday 10th November 2023**.

To return it, place the completed survey into the FREEPOST envelope provided, and return it to your centre manager, or place it in a post-box.



Appendix 2 – Analysis of Survey Results

This section contains further detail in relation to the analysis of survey data described in Sections 6 and 7 of the main report. Specifically it contains full regression outputs rather than extracts of the coefficients of interest presented in the main report (in Chapter 7).

All regression models have undergone robustness tests with particular attention to heteroscedasticity and multicollinearity: the former could be caused by, for example, response patterns typical for one or several typologies in focus of the analysis, while the latter would reflect the complexity of the relationship between various components of life satisfaction.

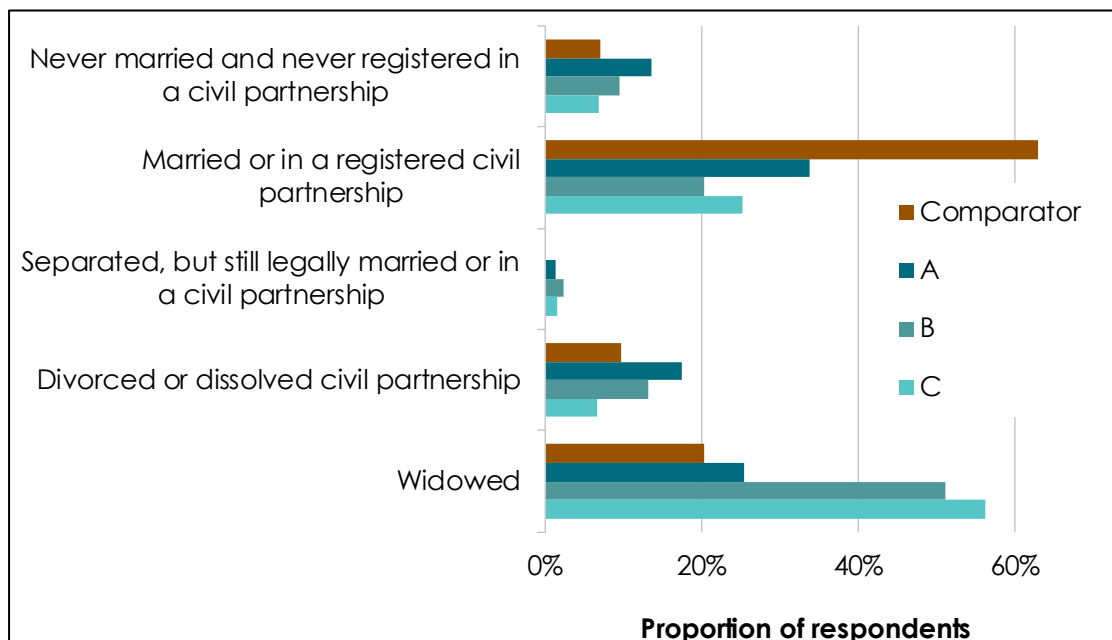
All final models were estimated using Ordinary Least Squares estimator (OLS) and used robust standard errors to determine the confidence intervals and levels of statistical significance. The sets of control variables were informed by the wellbeing framework developed as part of this study with final selection also taking into account such metrics as the variance inflation factor (and bilateral correlations between variables).

Survey questions

The following section provides the results from the survey from each of the questions that were asked for completeness.

For clarity, the following graphs exclude non-informative responses such as people who did not answer the question or responded with “don’t know.” The vertical axis always gives the proportion of responses relative to the typology (CATI, A, B, or C).

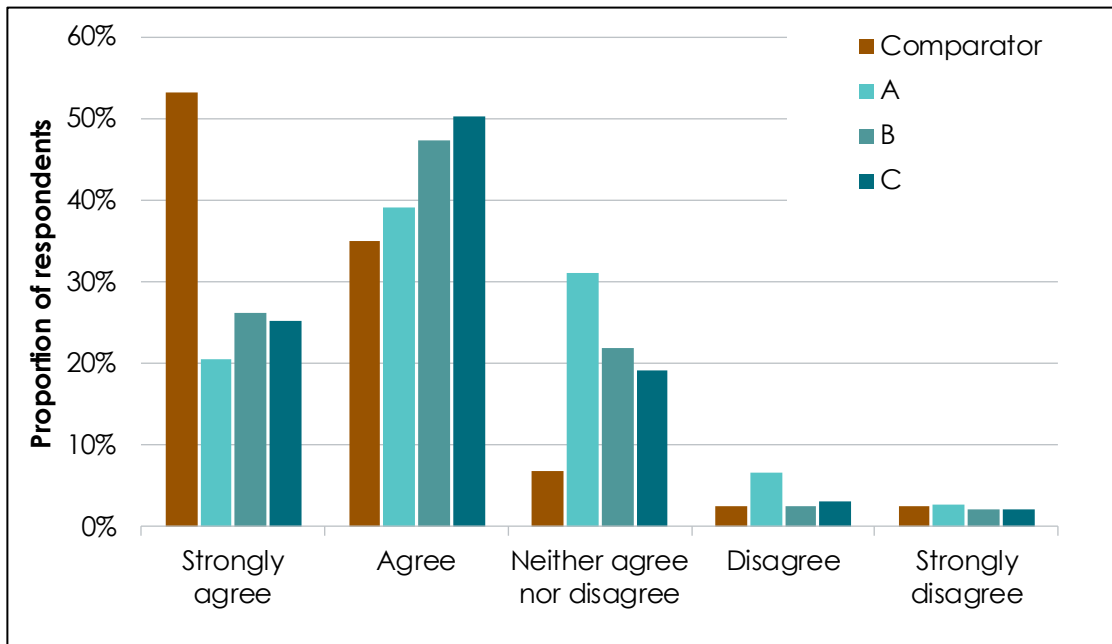
Figure A2.1: Marital status of respondents.



Source: SQW analysis of survey data

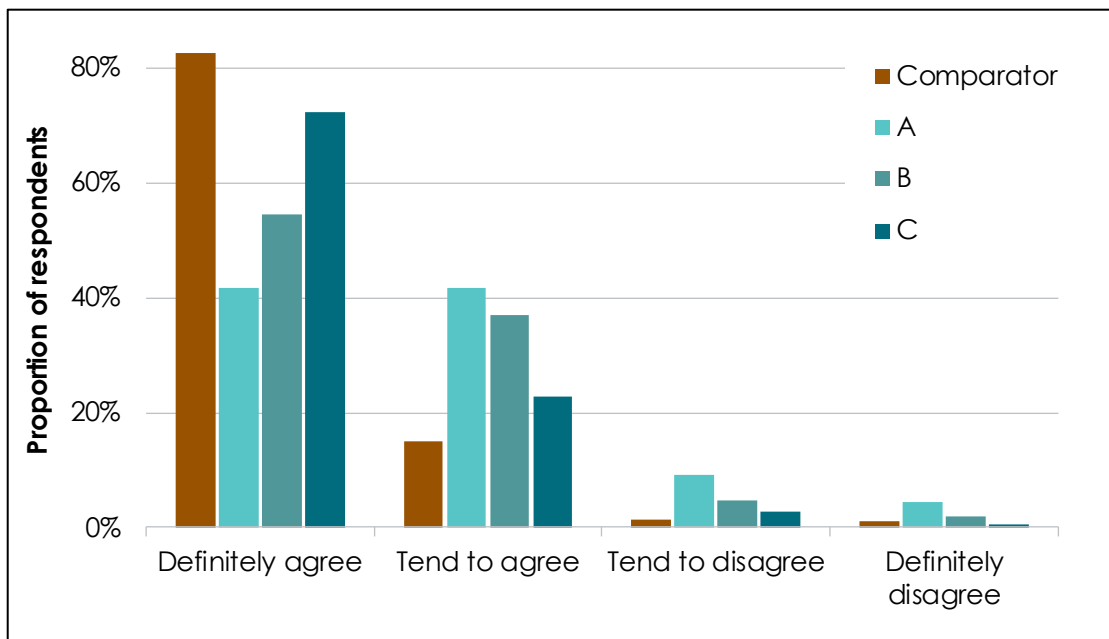
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Figure A2.2: Agreement with the statement, "I feel like I belong to this neighbourhood."



Source: SQW analysis of survey data

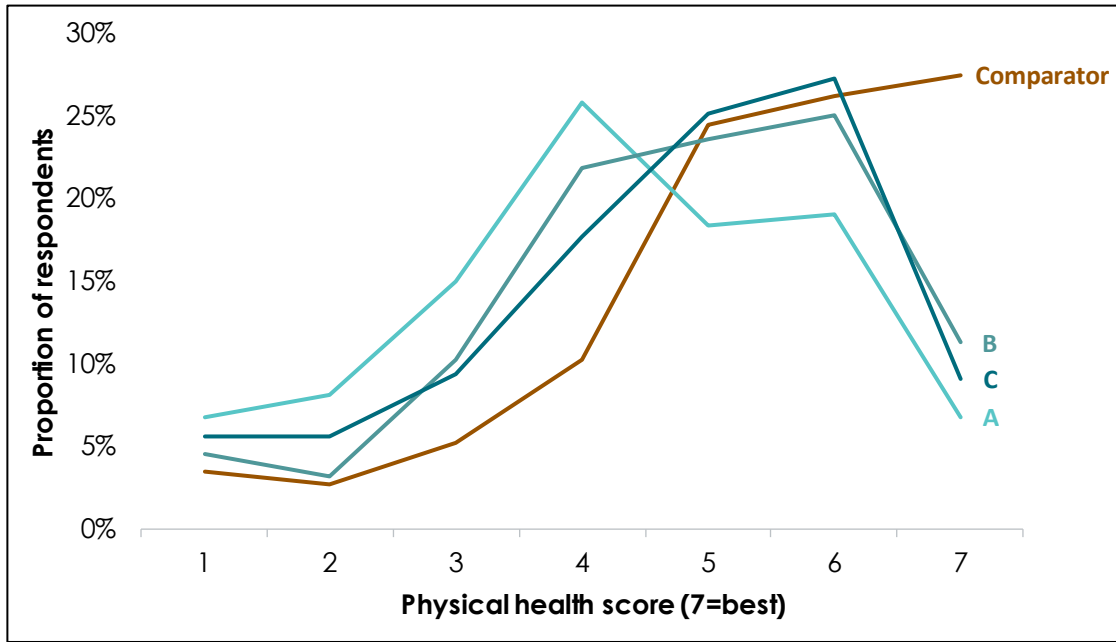
Figure A2.3: Agreement with the statement, "If I needed help, there are people who would be there for me."



Source: SQW analysis of survey data

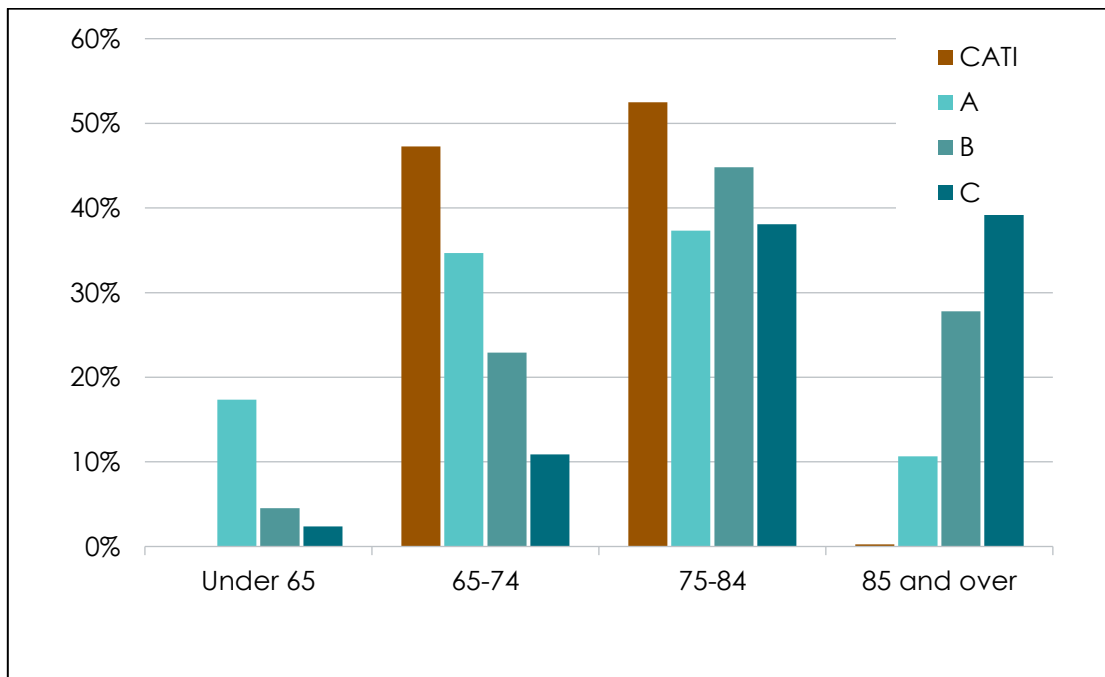
The Housing and Regeneration Agency

Figure A2.4: One-to-seven scale of self-reported health satisfaction.



Source: SQW analysis of survey data

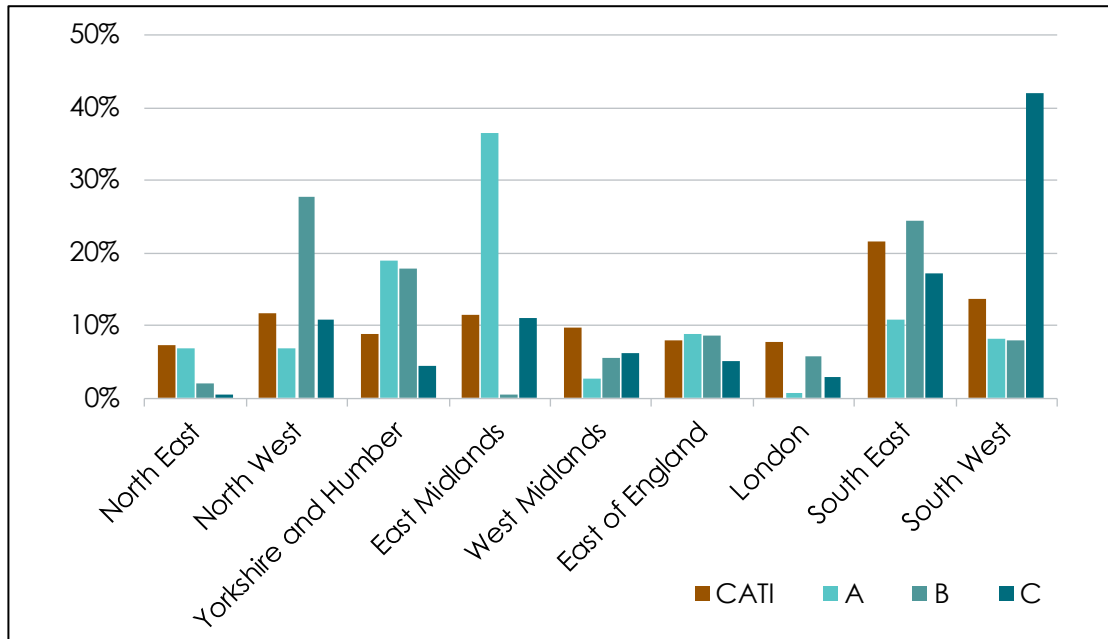
Figure A2.5: Could I ask how old you are?



Source: SQW analysis of survey data

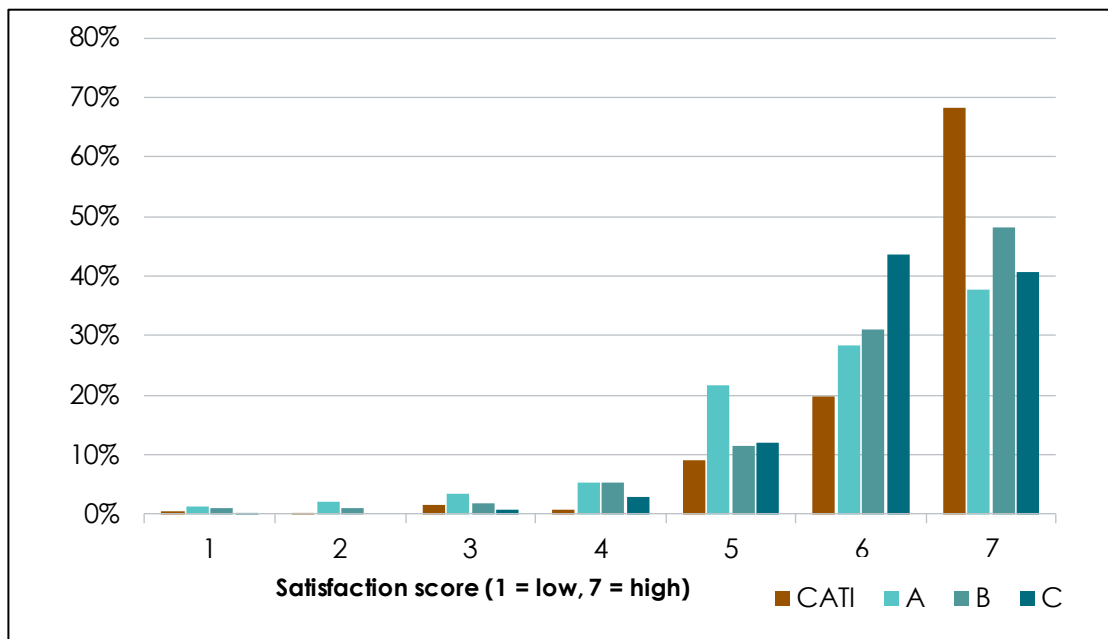
The Housing and Regeneration Agency

Figure A2.6: Which of the following regions of the UK do you live in?



Source: SQW analysis of survey data

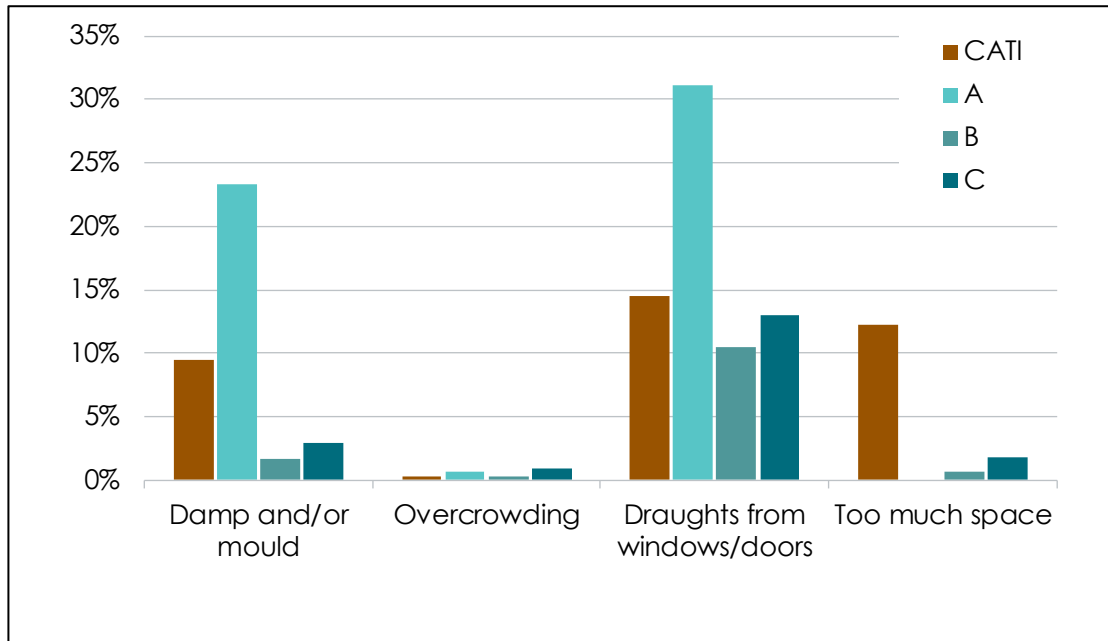
Figure A2.7: How dissatisfied or satisfied are you with your house or flat?



Source: SQW analysis of survey data

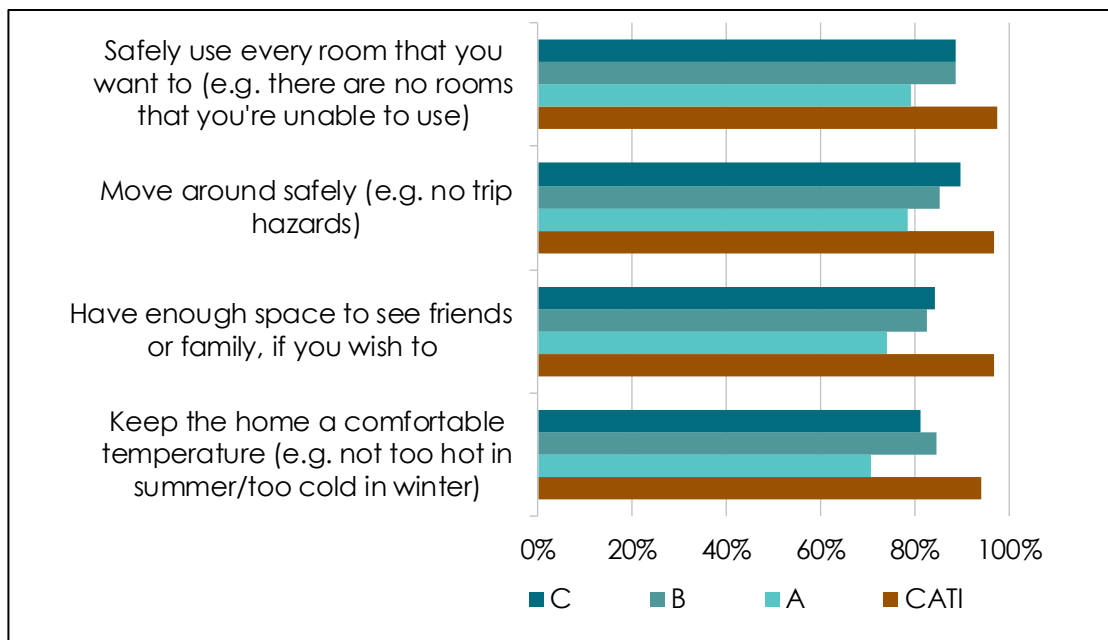
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Figure A2.8: Does your house/flat have any of the following?



Source: SQW analysis of survey data

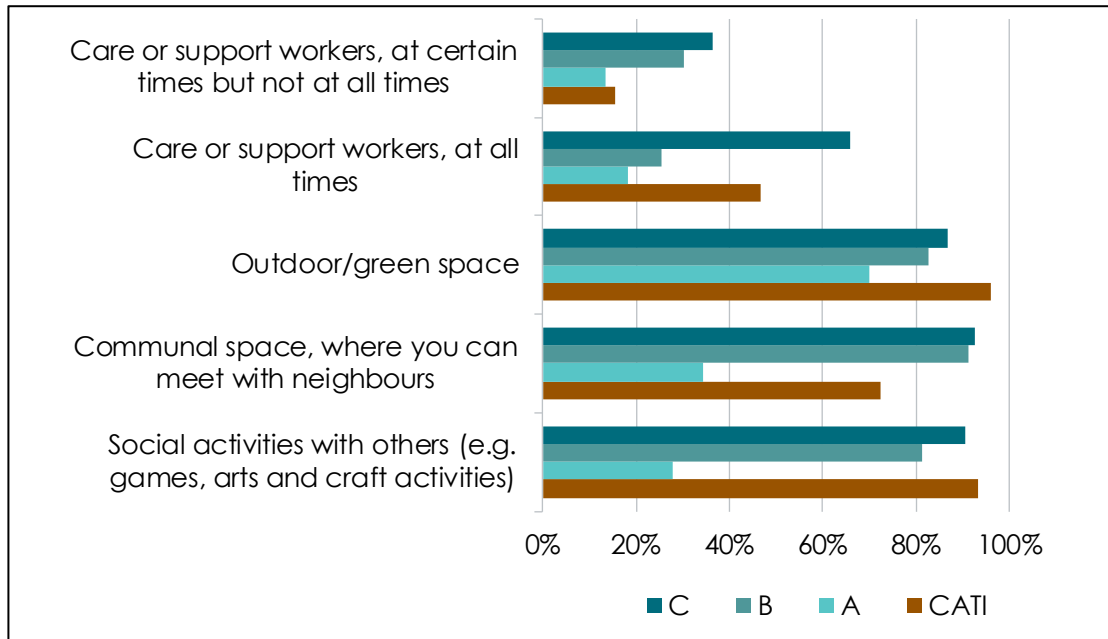
Figure A2.9: In your home are you able to do the following?



Source: SQW analysis of survey data

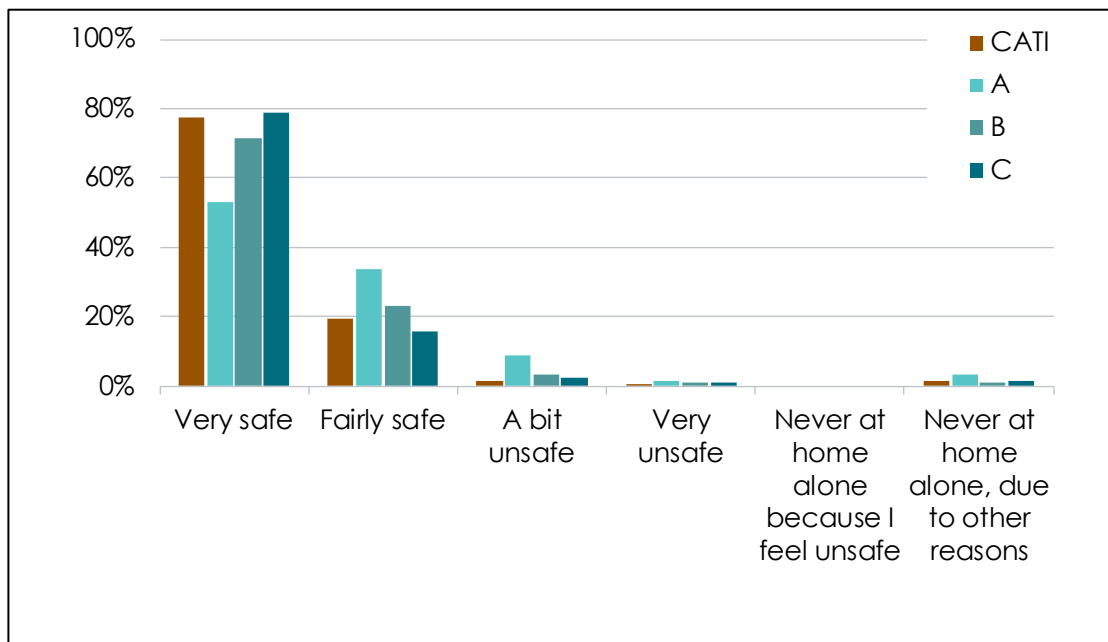
The Housing and Regeneration Agency

Figure A2.10: Can you access any of the following, if you want or need to?



Source: SQW analysis of survey data

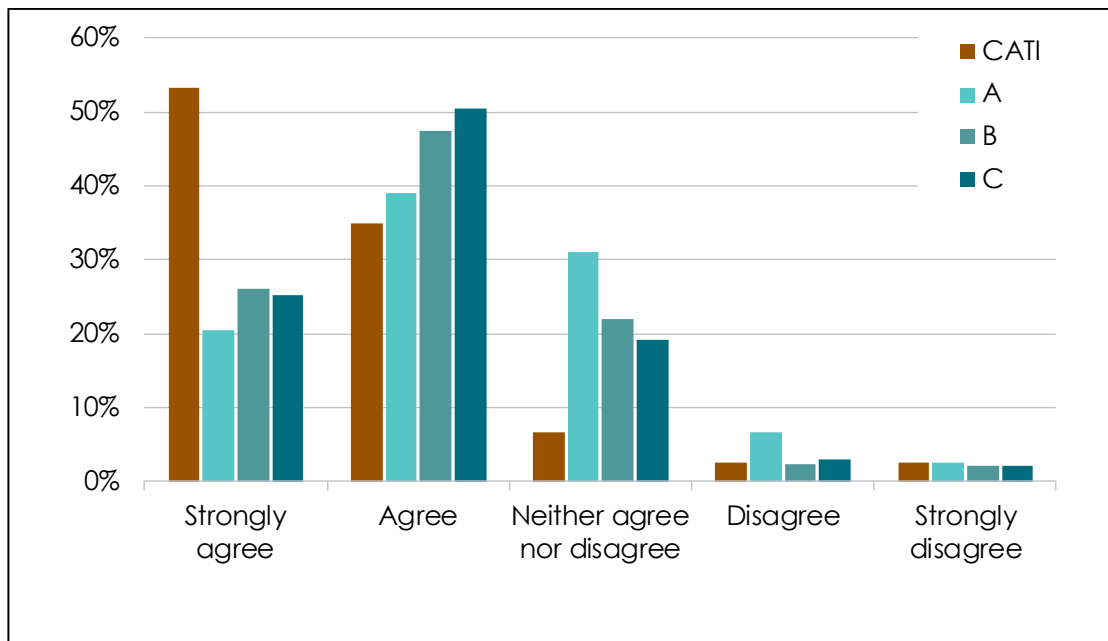
Figure A2.11: How safe do you feel generally when you are at home on your own?



Source: SQW analysis of survey data

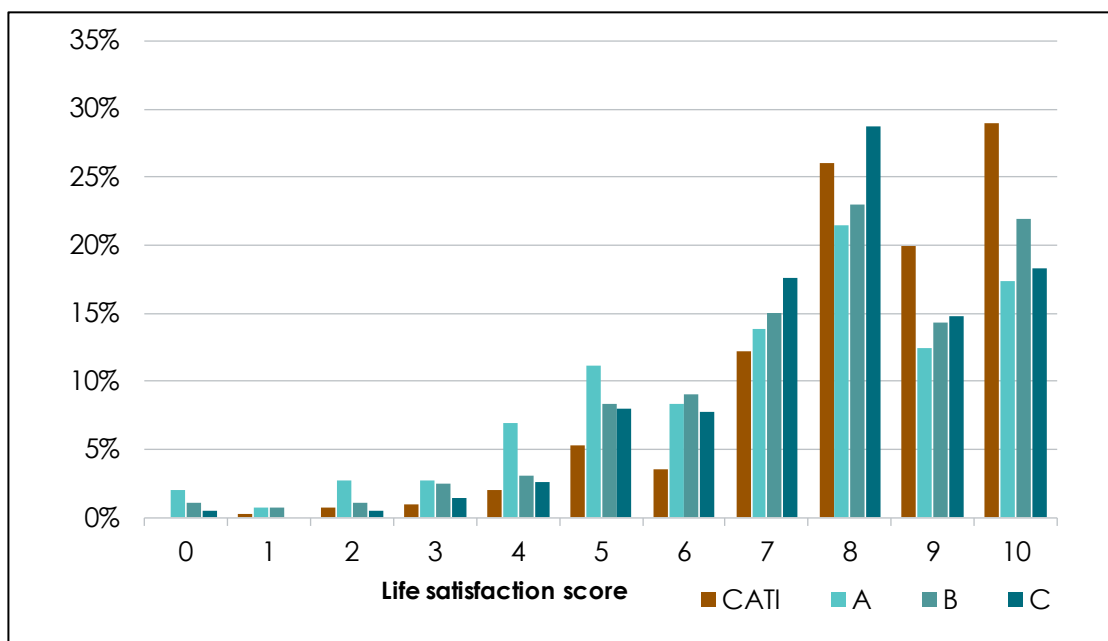
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Figure A2.12: To what extent do you agree or disagree with the statement "I feel like I belong to this neighbourhood"?



Source: SQW analysis of survey data

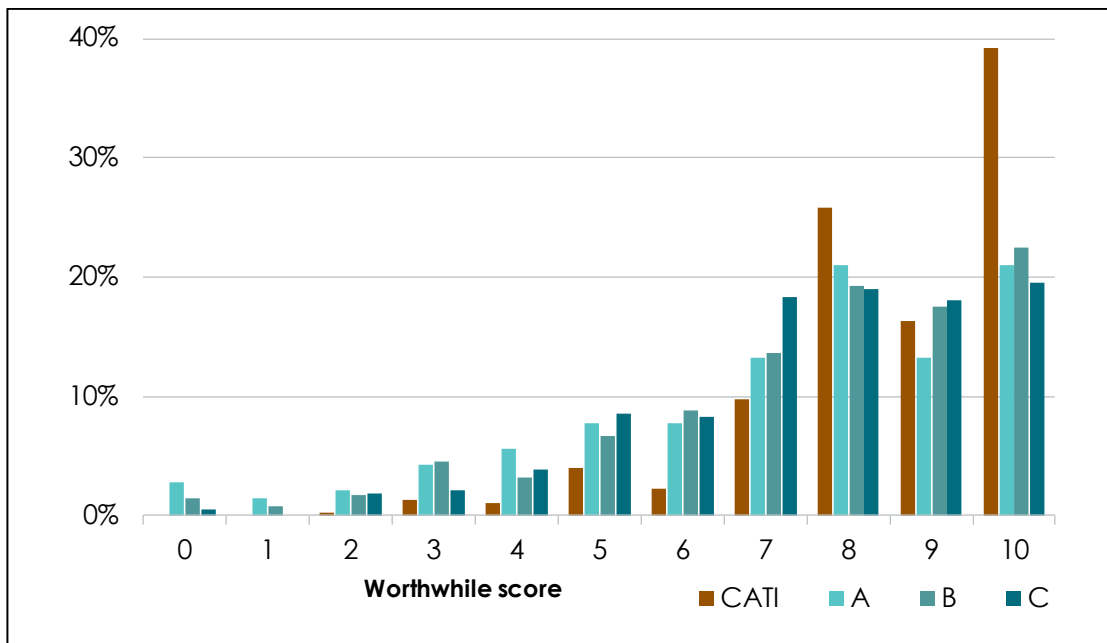
Figure A2.13: Overall, how satisfied are you with your life nowadays? (where 0 is low and 10 is high)



Source: SQW analysis of survey data

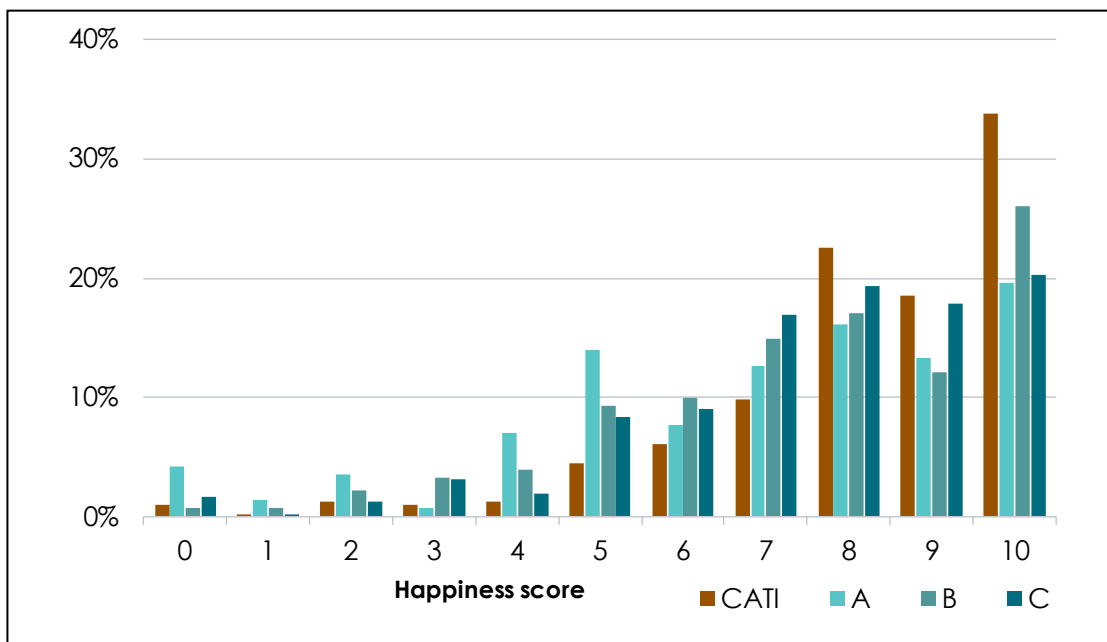
The Housing and Regeneration Agency

Figure A2.14: Overall, to what extent do you feel that the things you do in your life are worthwhile? (where 0 is low and 10 is high)



Source: SQW analysis of survey data

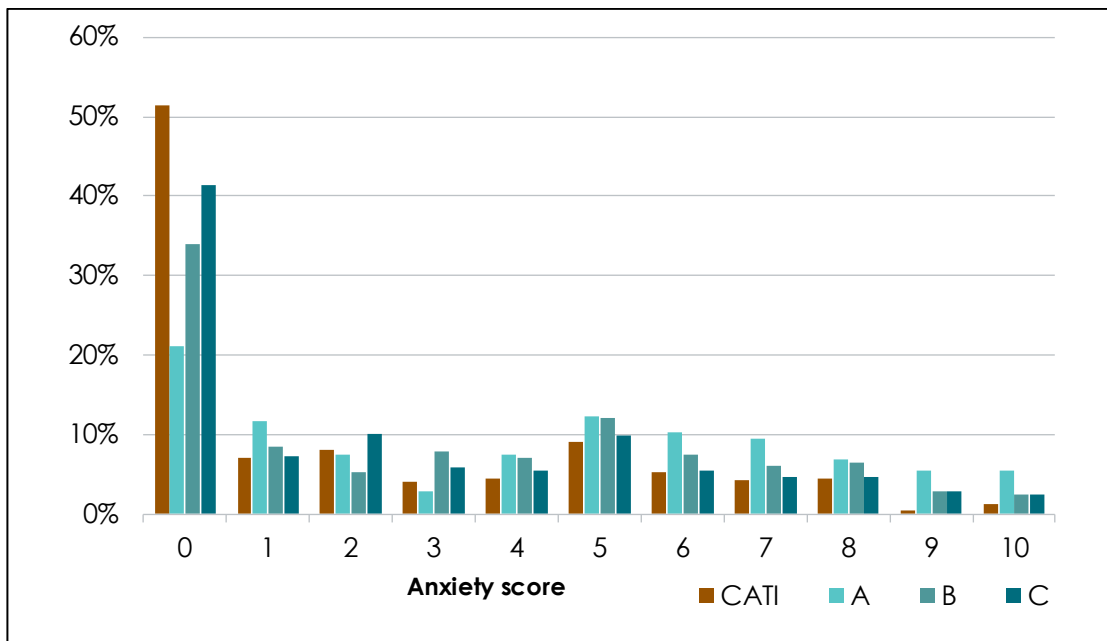
Figure A2.15: Overall, how happy did you feel yesterday? (where 0 is low and 10 is high)



Source: SQW analysis of survey data

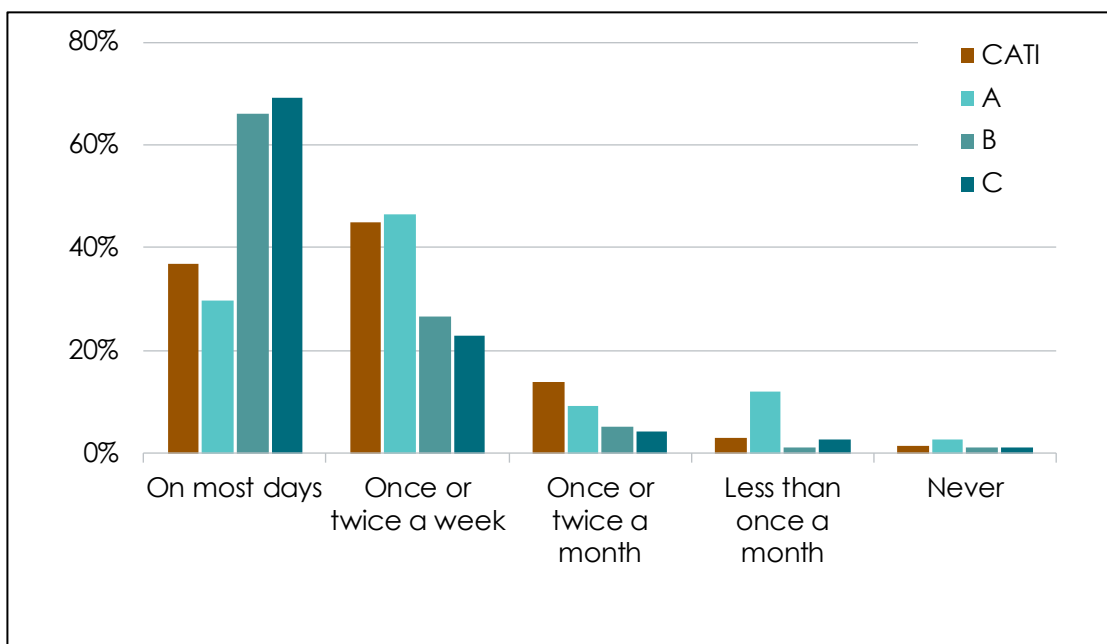
The Housing and Regeneration Agency

Figure A2.16: On a scale where 0 is "not at all anxious" and 10 is "completely anxious", overall, how anxious did you feel yesterday?



Source: SQW analysis of survey data

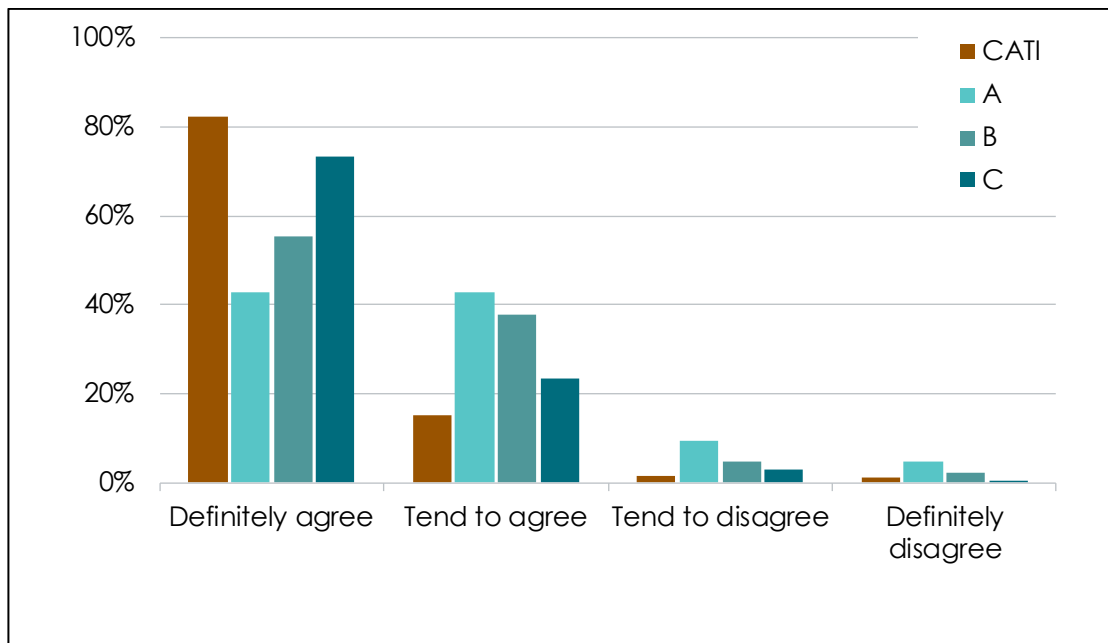
Figure A2.17: How often do you chat to your neighbours, more than just to say hello?



Source: SQW analysis of survey data

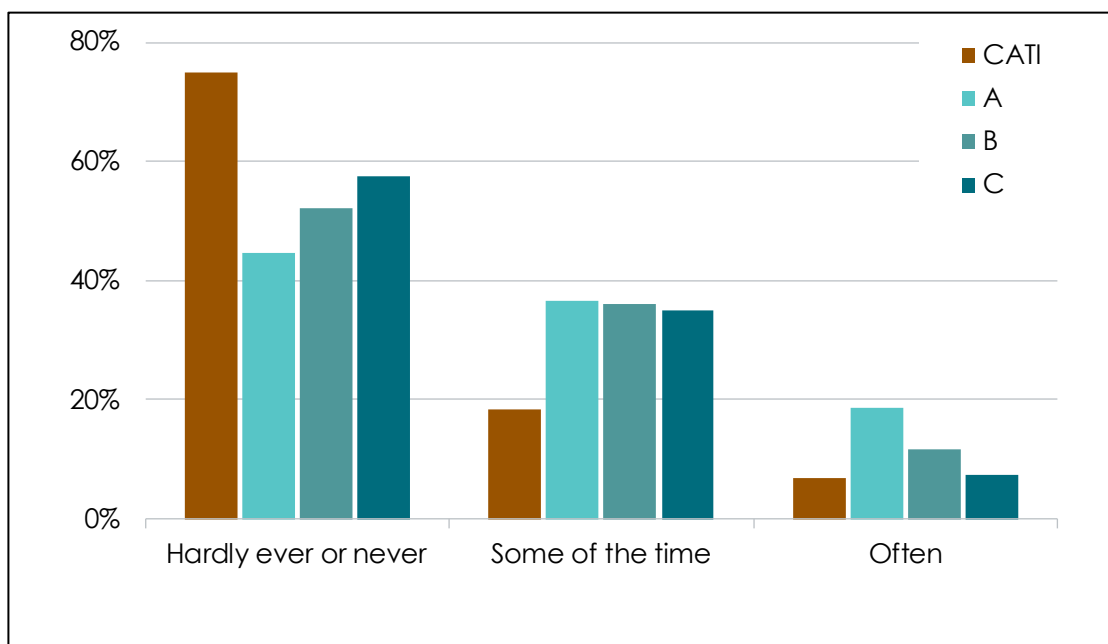
The Housing and Regeneration Agency

Figure A2.18: To what extent do you agree or disagree with the statement "If I needed help, there are people who would be there for me"?



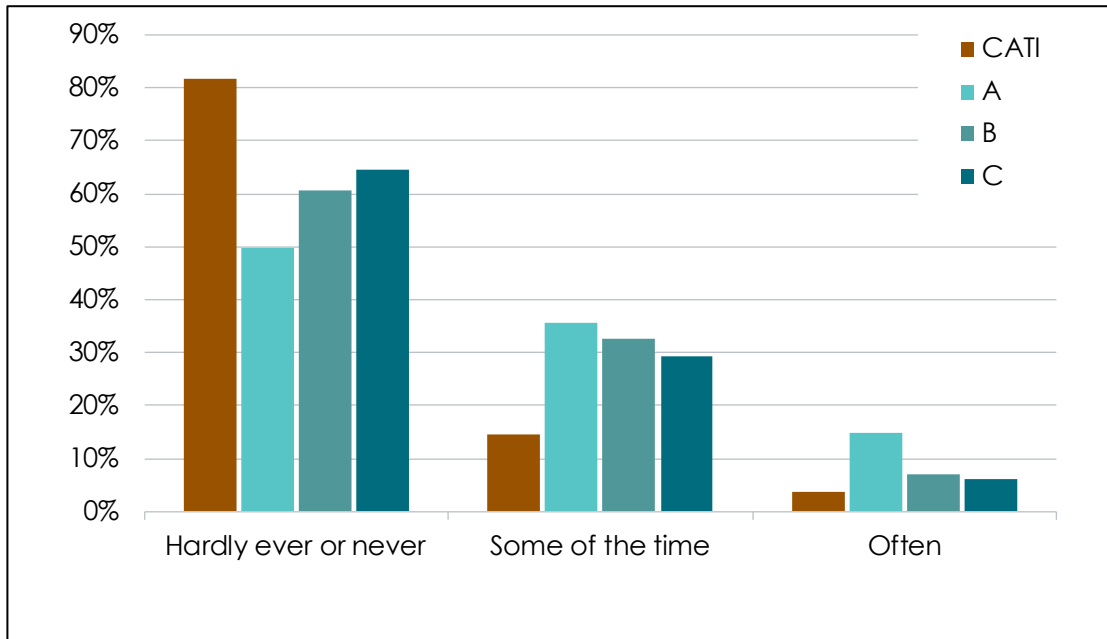
Source: SQW analysis of survey data

Figure A2.19: How often do you feel that you lack companionship?



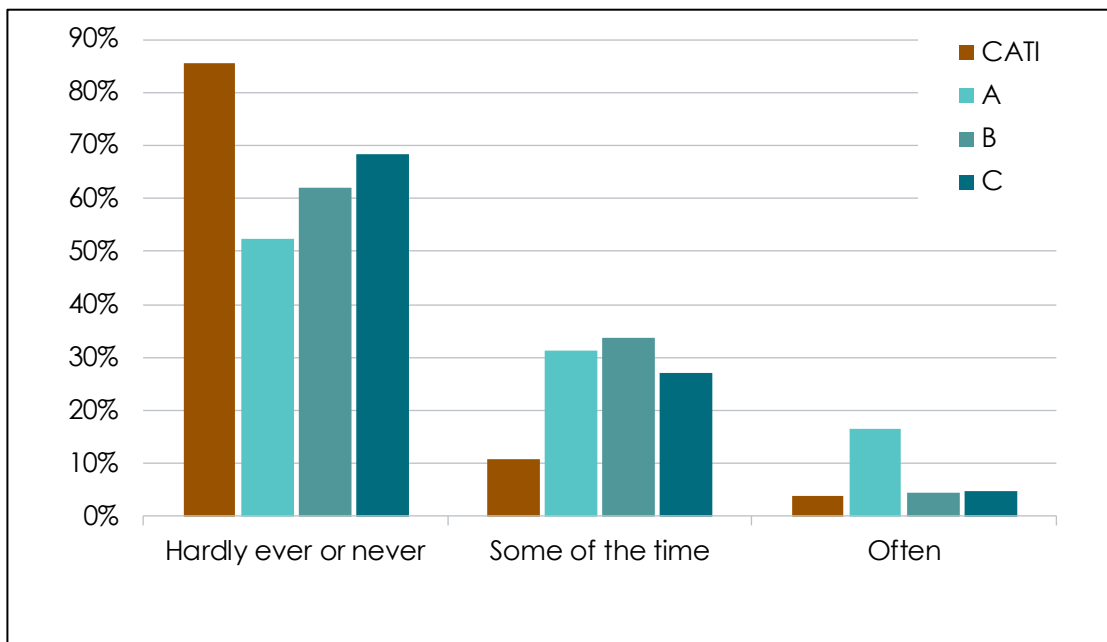
Source: SQW analysis of survey data

Figure A2.20: How often do you feel left out?



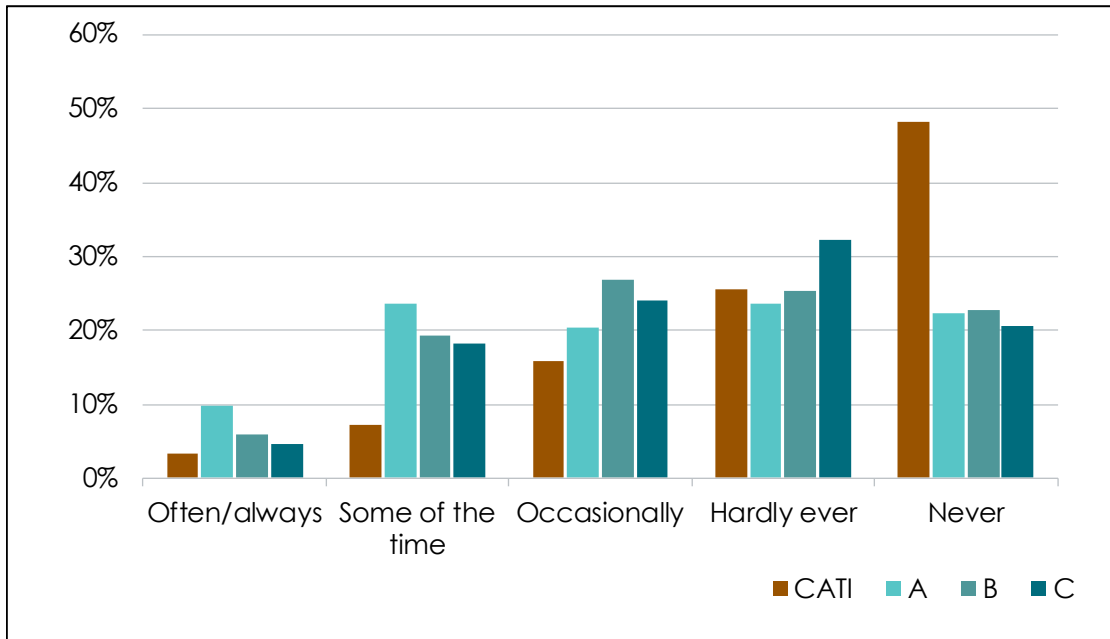
Source: SQW analysis of survey data

Figure A2.21: How often do you feel isolated from others?



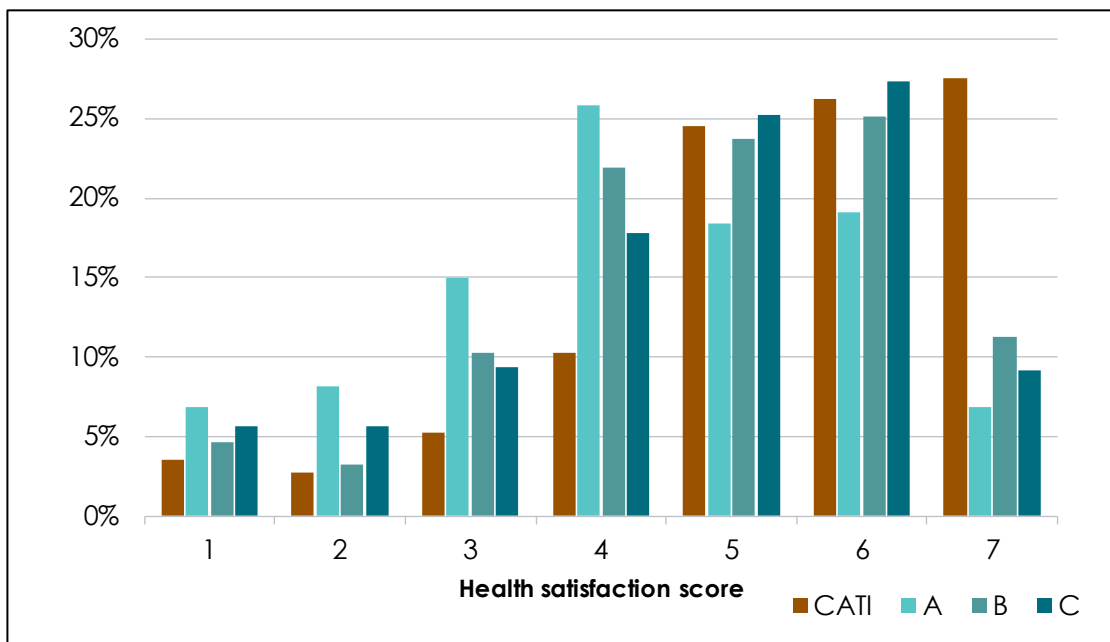
Source: SQW analysis of survey data

Figure A2.22: How often do you feel lonely?



Source: SQW analysis of survey data

Figure A2.23: On a scale of 1 to 7, where 1 is not satisfied at all and 7 is completely satisfied, how dissatisfied or satisfied are you with your health?



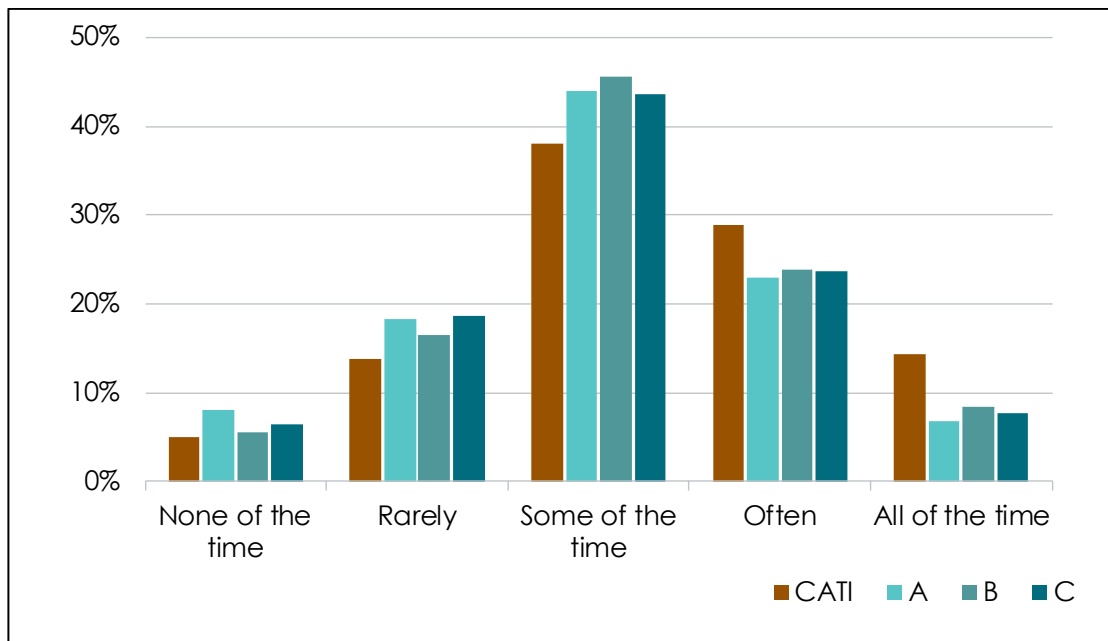
Source: SQW analysis of survey data

The following questions (25-31) are taken from the SWEMWBS survey.¹

¹ Short Warwick Edinburgh Mental Wellbeing Scale (SWEMWBS) © NHS Health Scotland, University of Warwick and University of Edinburgh, 2008, all rights reserved.

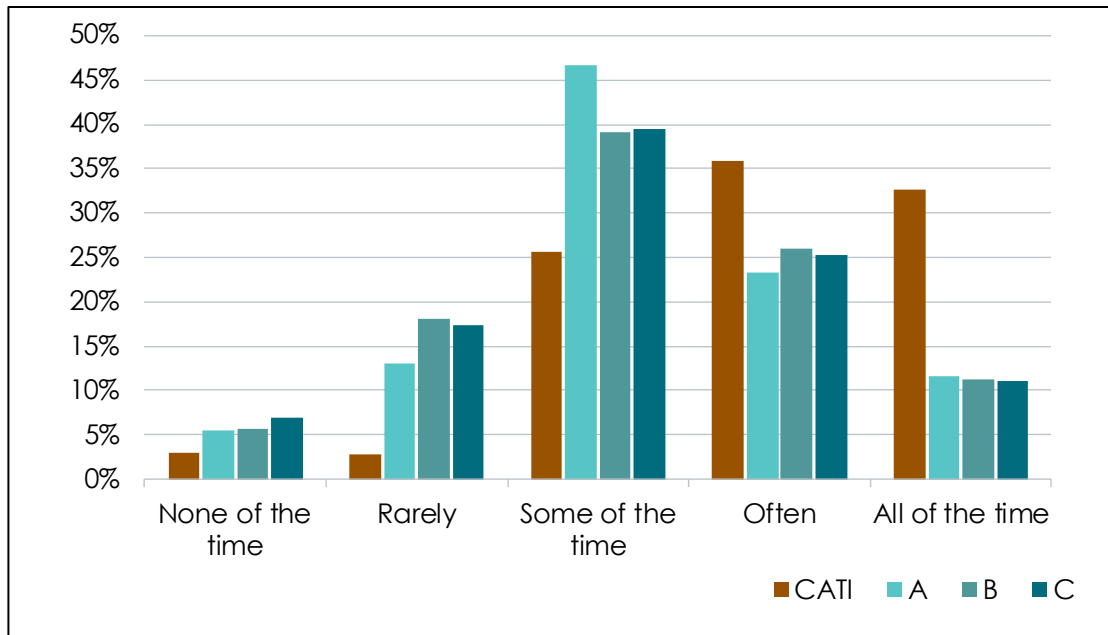
The Housing and Regeneration Agency

Figure A2.24: I'm going to read out some statements about feelings and thoughts. For each one, I'll ask you how often, if at all, you've experienced this over the last 2 weeks. - I've been feeling optimistic about the future



Source: SQW analysis of survey data

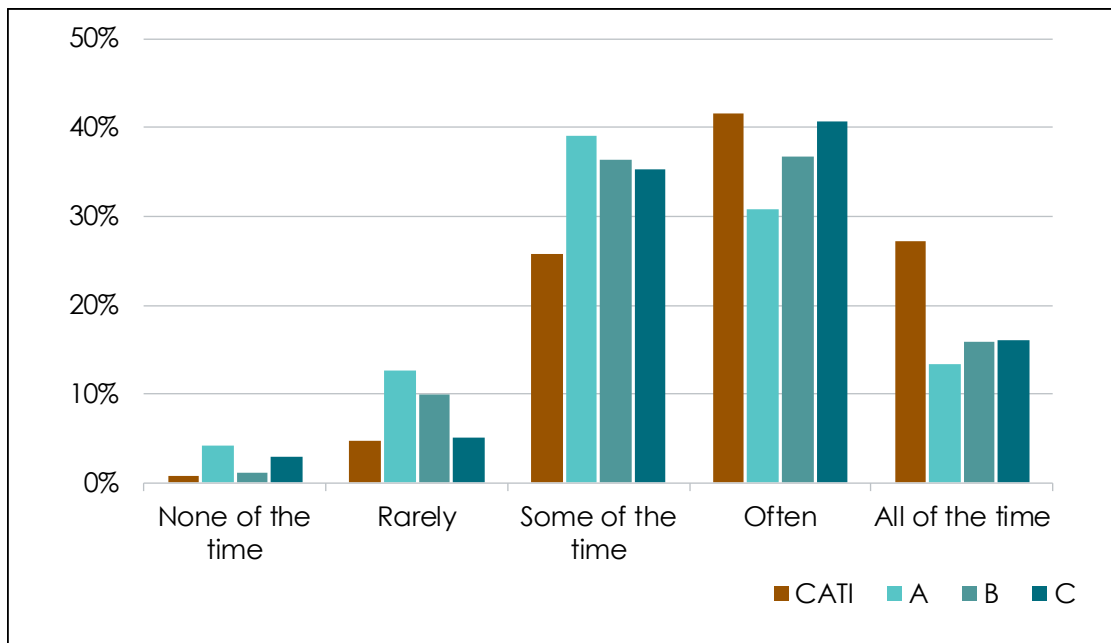
Figure A2.25: I'm going to read out some statements about feelings and thoughts. For each one, I'll ask you how often, if at all, you've experienced this over the last 2 weeks. - I've been feeling useful



Source: SQW analysis of survey data

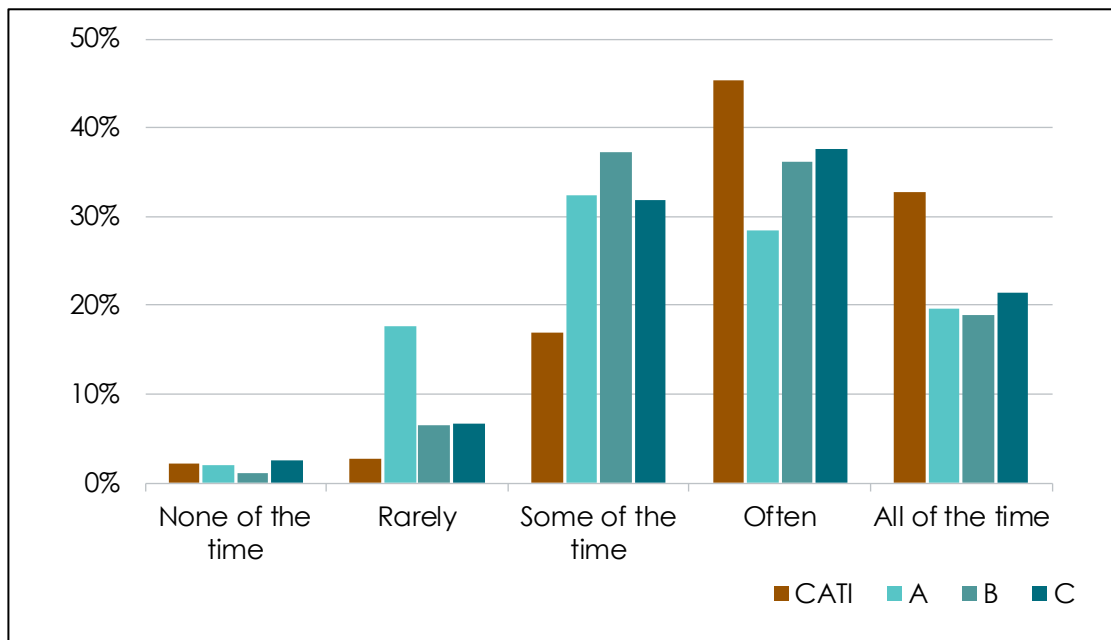
The Housing and Regeneration Agency

Figure A2.26: I'm going to read out some statements about feelings and thoughts. For each one, I'll ask you how often, if at all, you've experienced this over the last 2 weeks. - I've been feeling relaxed



Source: SQW analysis of survey data

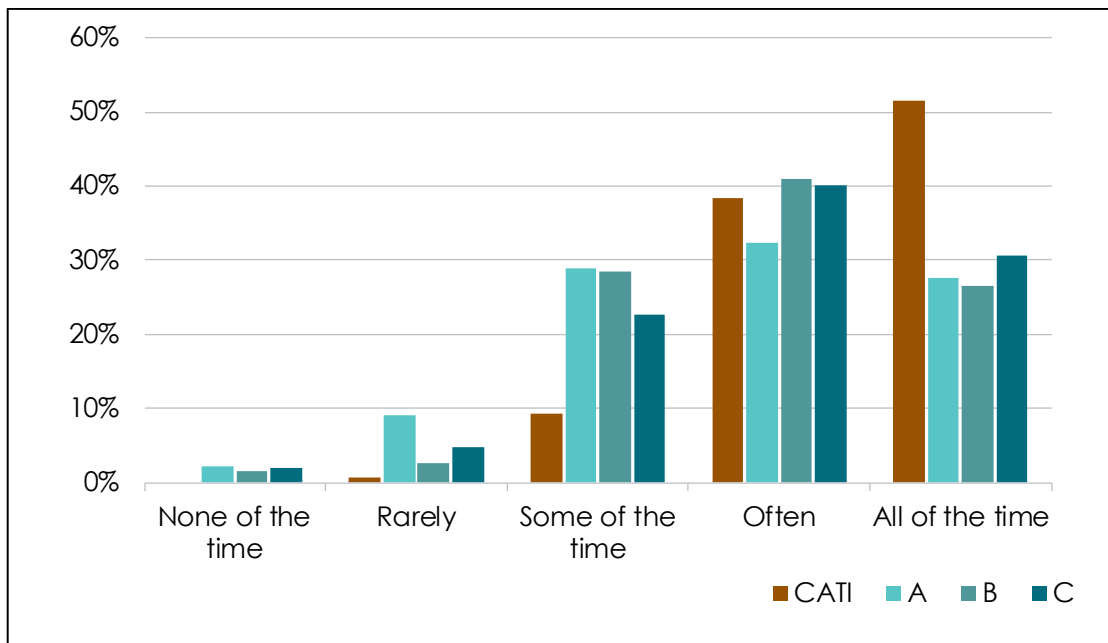
Figure A2.27: I'm going to read out some statements about feelings and thoughts. For each one, I'll ask you how often, if at all, you've experienced this over the last 2 weeks. - I've been dealing with problems well



Source: SQW analysis of survey data

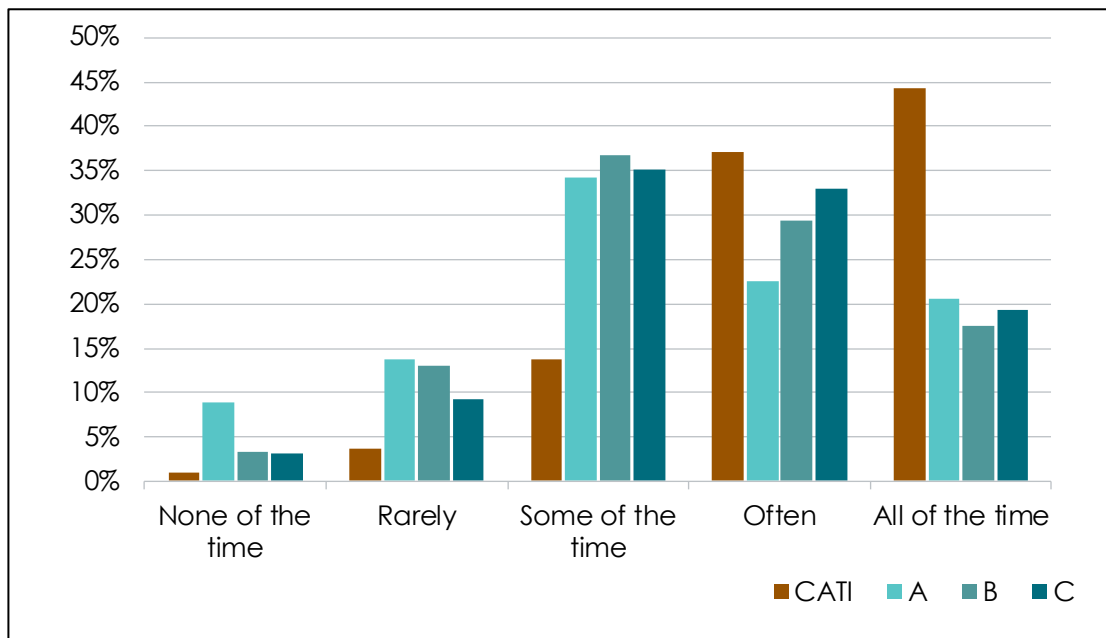
The Housing and Regeneration Agency

Figure A2.28: I'm going to read out some statements about feelings and thoughts. For each one, I'll ask you how often, if at all, you've experienced this over the last 2 weeks. - I've been thinking clearly



Source: SQW analysis of survey data

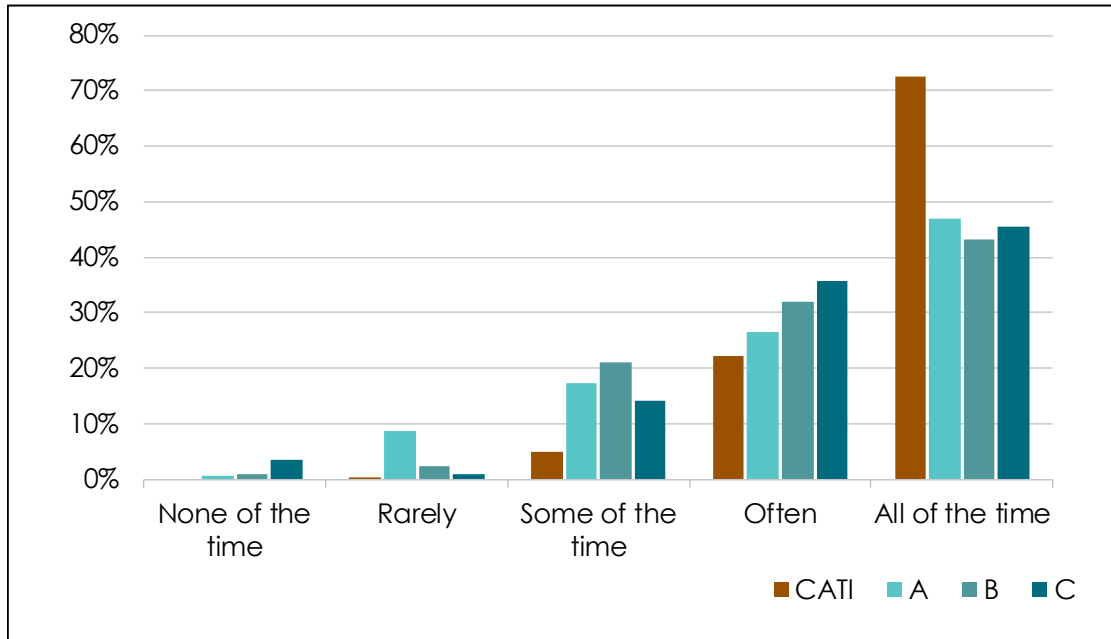
Figure A2.29: I'm going to read out some statements about feelings and thoughts. For each one, I'll ask you how often, if at all, you've experienced this over the last 2 weeks. - I've been feeling close to other people



Source: SQW analysis of survey data

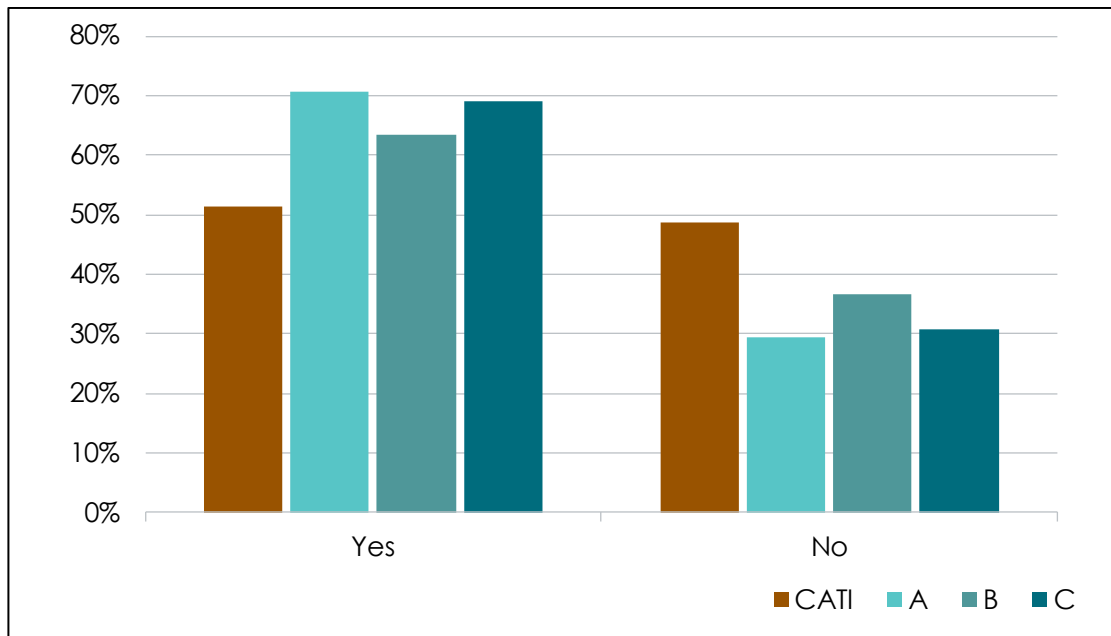
The Housing and Regeneration Agency

Figure A2.30: I'm going to read out some statements about feelings and thoughts. For each one, I'll ask you how often, if at all, you've experienced this over the last 2 weeks. - I've been able to make up my own mind about things



Source: SQW analysis of survey data

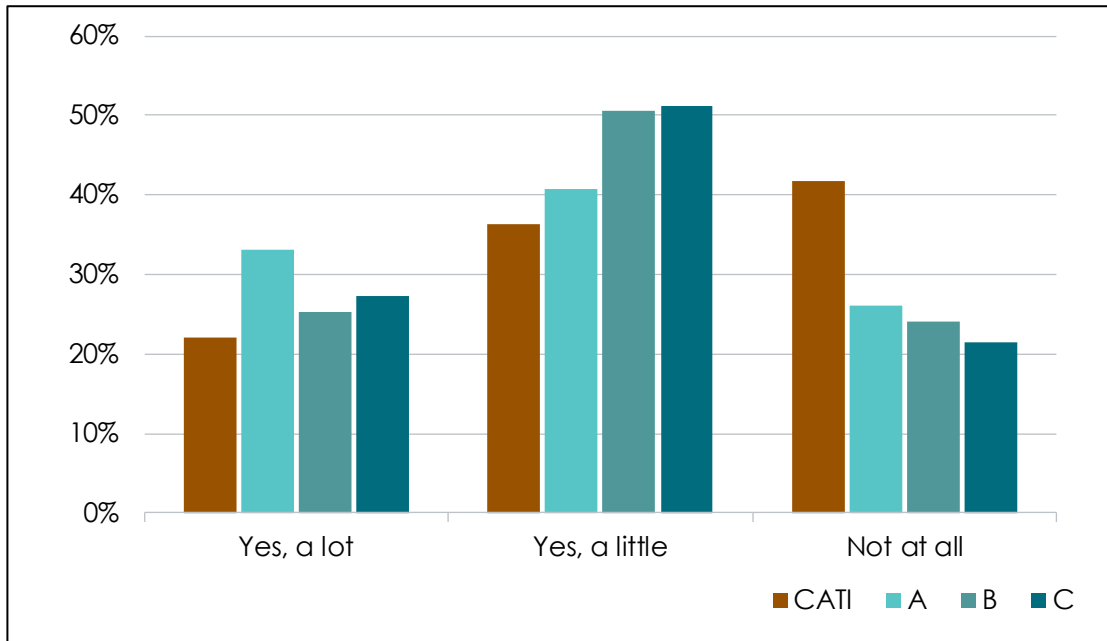
Figure A2.31: Do you have any physical or mental health conditions or illnesses lasting or expected to last 12 months or more?



Source: SQW analysis of survey data

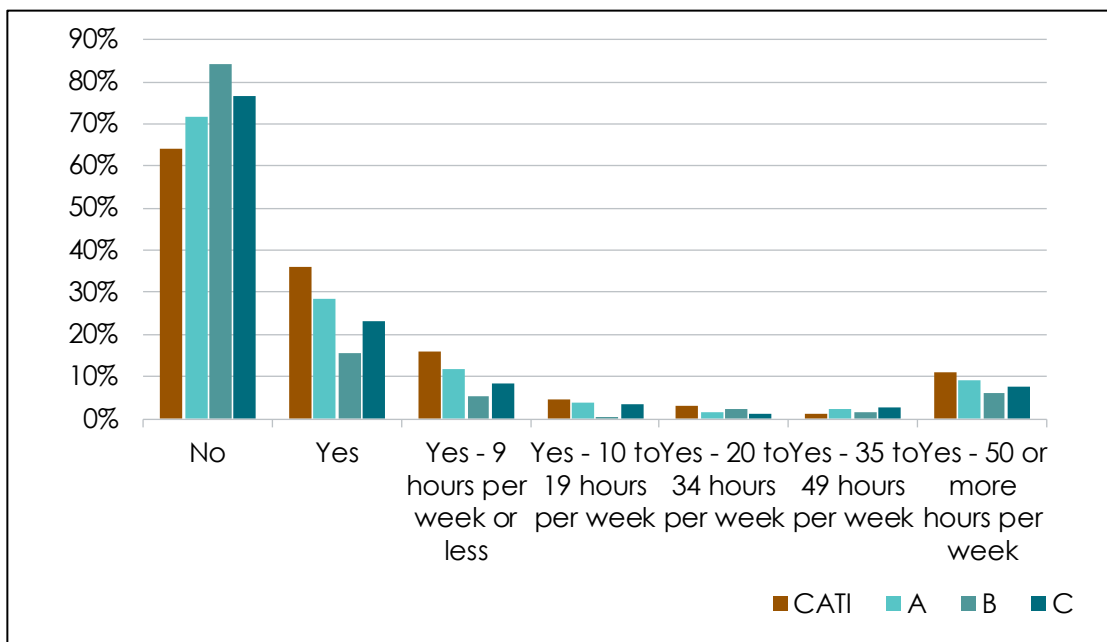
The Housing and Regeneration Agency

Figure A2.32: Do any of your conditions or illnesses reduce your ability to carry out day-to-day activities?



Source: SQW analysis of survey data

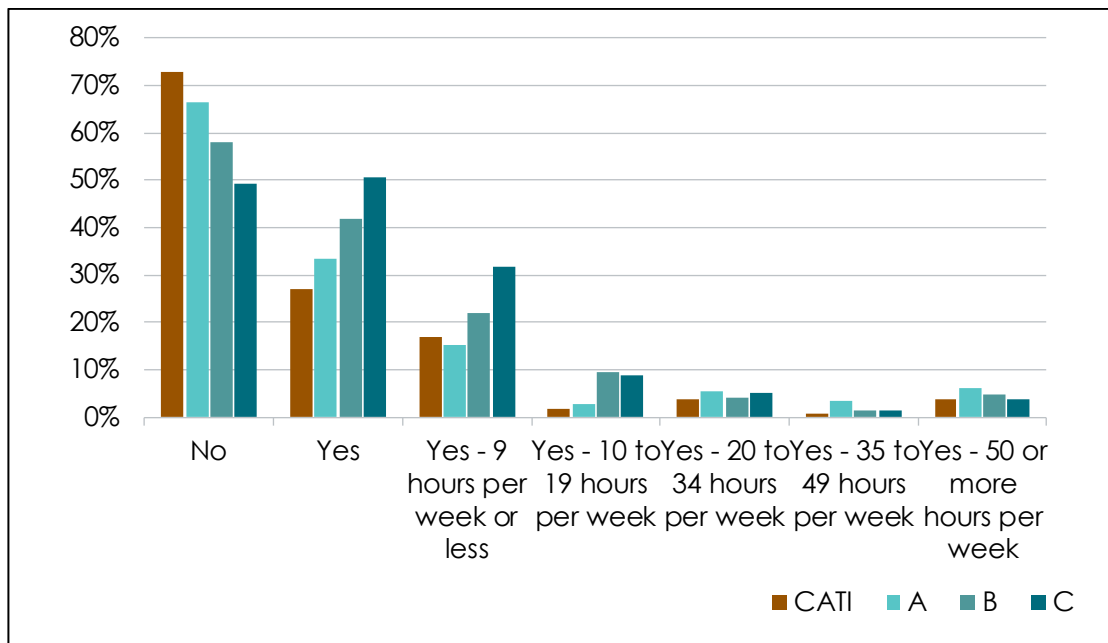
Figure A2.33: Do you look after, or give any help or support to, anyone because they have long-term physical or mental health conditions or illnesses, or problems related to old age?



Source: SQW analysis of survey data

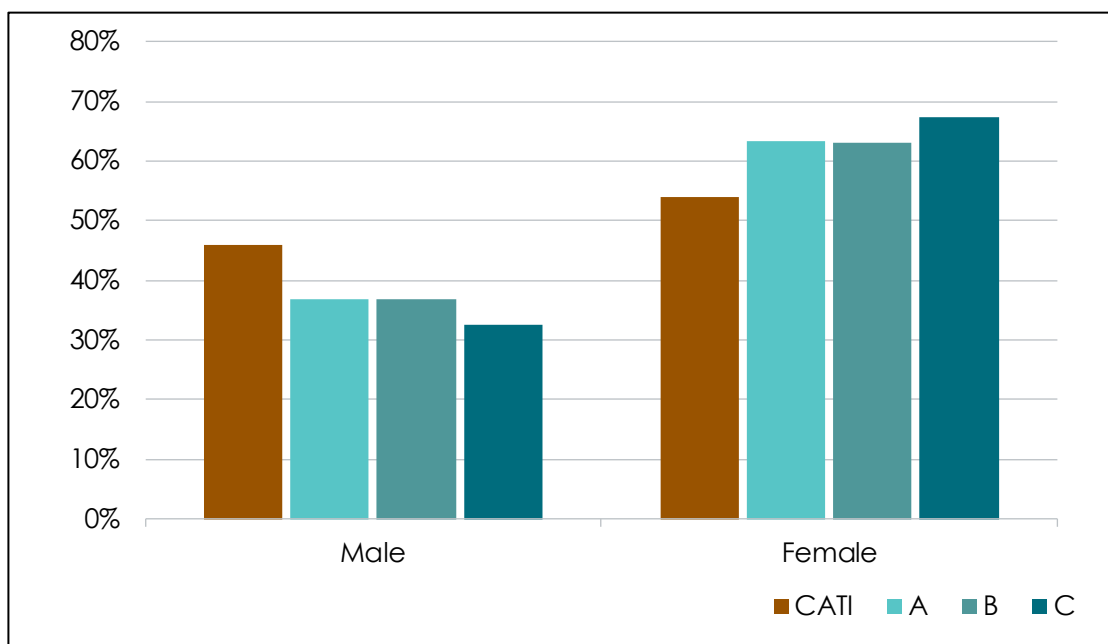
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Figure A2.34: Do you currently receive regular care or support from family members, friends or neighbours (e.g. people who are not paid carers)?



Source: SQW analysis of survey data

Figure A2.35: What is your sex?



Source: SQW analysis of survey data

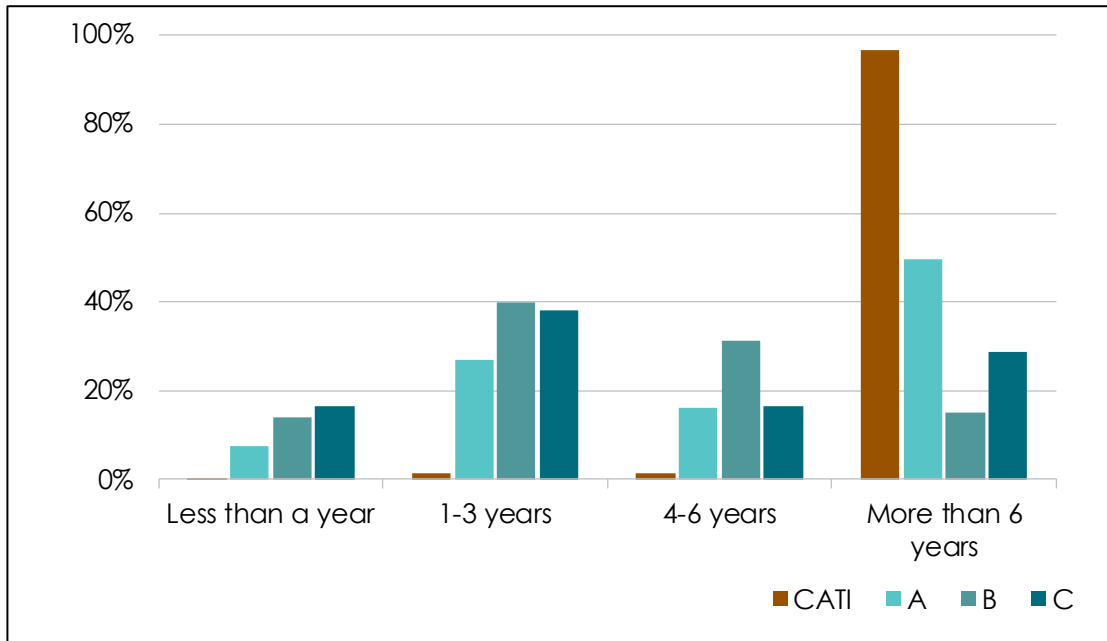
Figure A2.36: Is the gender you identify with the same as your sex registered at birth?

Figure removed due to disclosive response rate.

Source: SQW analysis of survey data

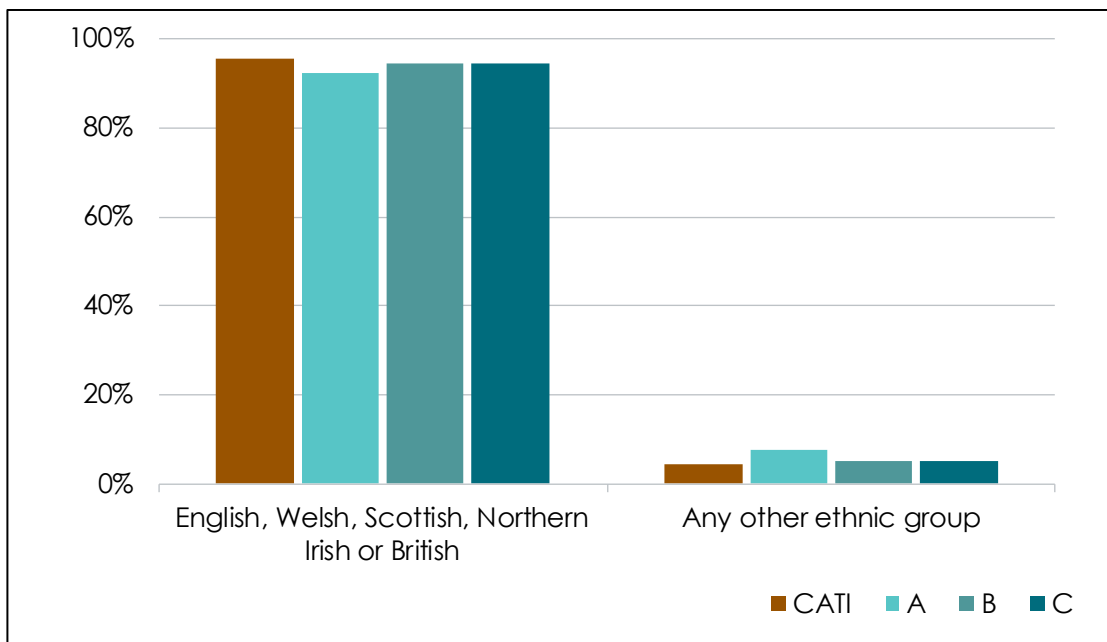
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Figure A2.37: How long have you lived in your current home for?



Source: SQW analysis of survey data

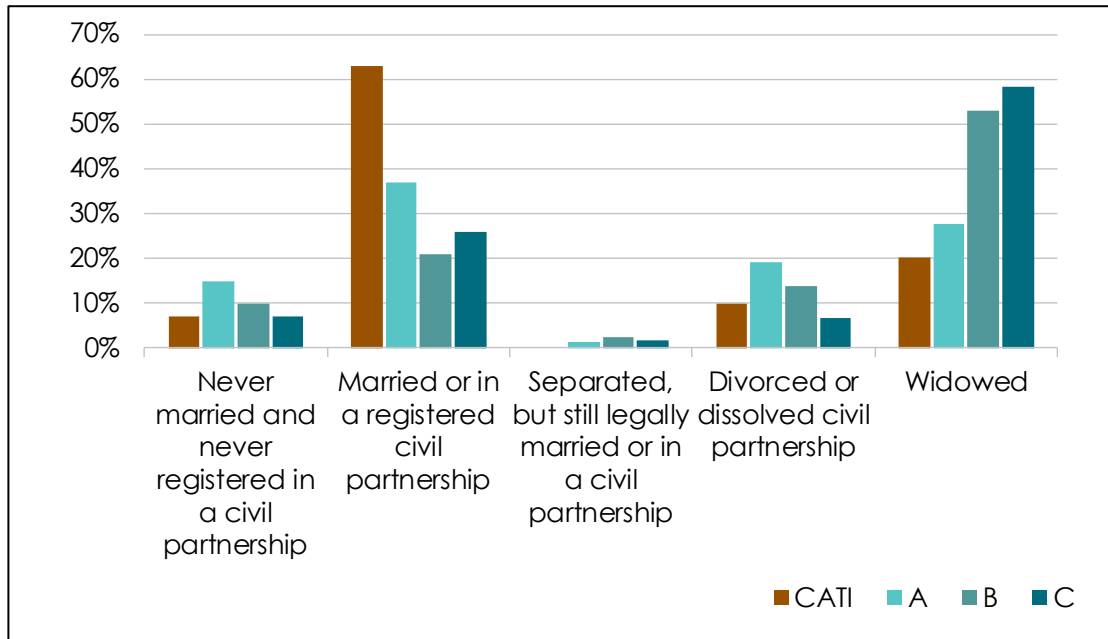
Figure A2.38: Which of the following best describes your ethnic group?



Source: SQW analysis of survey data

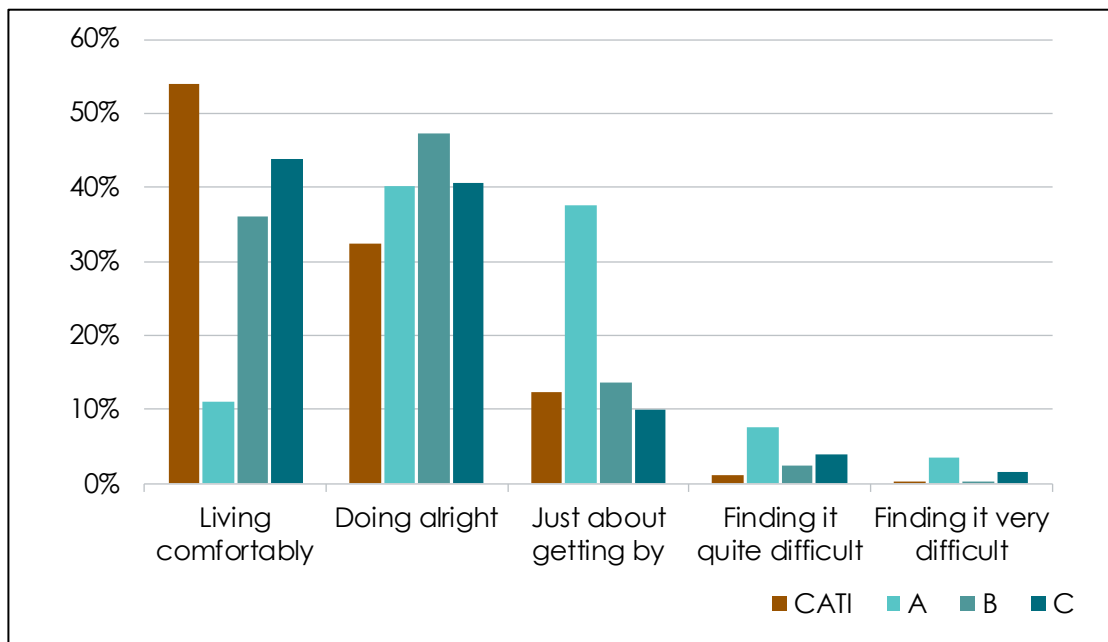
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Figure A2.39: Which of the following best describes your legal marital or registered civil partnership status?



Source: SQW analysis of survey data

Figure A2.40: How well would you say you yourself are managing financially these days?



Source: SQW analysis of survey data

ONS-4 metrics

Tables A2.1 - A2.3 below present regression outputs for the models that investigated the average differences in self-reported ONS-4 life satisfaction scores by typology (full sample as well as split by the length of stay at the current place of residence). Coefficients that are statistically significant at the 5% level are highlighted in light teal and those significant at the 10% level are highlighted with orange. 'Conf.low' and 'conf.high' columns show the lower and upper boundaries of the 95% confidence (conf.) interval.

Table A2.1: ONS-4 life satisfaction score, full sample					
	estimate	std.error	p-value	conf.low	conf.high
Intercept	1.732	0.498	0.001	0.720	2.743
Typology (base: comparator group)					
Typology A	0.305	0.152	0.048	0.003	0.607
Typology B	0.345	0.124	0.008	0.089	0.601
Typology C	0.283	0.126	0.038	0.016	0.550
Satisfaction with house (1 to 7 scale)	0.152	0.043	0.002	0.055	0.250
Number of physical issues with house	-0.043	0.062	0.479	-0.163	0.076
Num. of features (temp. control, enough space etc)	0.037	0.048	0.445	-0.058	0.131
Num of facilities able to access (care, green space, etc)	-0.035	0.042	0.384	-0.112	0.043
Belonging to the neighbourhood (base: Agree)					
Disagree	-0.551	0.227	0.034	-1.060	-0.043
Neither agree nor disagree	-0.150	0.111	0.193	-0.375	0.076
Strongly agree	-0.084	0.084	0.303	-0.243	0.076
Strongly disagree	0.111	0.229	0.672	-0.403	0.626
Satisfaction with health (1-7 scale)	0.121	0.029	0.001	0.051	0.190
sWEMWBS	0.006	0.011	0.603	-0.015	0.027
Long-term conditions reduce activity (base: no such conditions)					
Not at all	-0.233	0.117	0.047	-0.462	-0.003
Yes, a little	-0.195	0.126	0.171	-0.475	0.084
Yes, a lot	-0.116	0.155	0.486	-0.444	0.211
Worthwhile (ONS-4 0-10)	0.385	0.028	0.000	0.310	0.460
Happiness (ONS-4 0-10)	0.249	0.026	0.000	0.176	0.321
Anxiety (ONS-4 0-10)	-0.011	0.014	0.476	-0.041	0.019
Caring responsibility: Yes (base: No)	-0.208	0.085	0.031	-0.396	-0.020
Receiving care: Yes (Base: No)	-0.065	0.081	0.440	-0.230	0.100
Feeling lonely (base: hardly ever)					
Never	0.063	0.096	0.471	-0.109	0.236
Occasionally	-0.167	0.104	0.106	-0.369	0.035
Often/always	-0.370	0.208	0.208	-0.945	0.206
Some of the time	-0.212	0.120	0.055	-0.429	0.005
If needed there are people who would be there for me (base: definitely agree)					
Definitely disagree	-0.667	0.369	0.149	-1.573	0.240
Tend to agree	-0.210	0.090	0.019	-0.386	-0.034
Tend to disagree	-0.824	0.220	0.000	-1.150	-0.499
Age (base: under 65)					
65-74	-0.215	0.215	0.286	-0.611	0.180

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Table A2.1: ONS-4 life satisfaction score, full sample						
	estimate	std.error	p-value	conf.low	conf.high	
75-84	-0.179	0.214	0.377	-0.577	0.219	
85 and over	-0.123	0.229	0.573	-0.551	0.305	
Region (base: East Midlands)						
East of England	-0.147	0.172	0.436	-0.519	0.224	
London	-0.374	0.194	0.035	-0.723	-0.026	
North East	0.024	0.203	0.894	-0.324	0.371	
North West	-0.022	0.146	0.875	-0.302	0.257	
South East	-0.020	0.137	0.877	-0.279	0.238	
South West	0.026	0.139	0.859	-0.260	0.312	
West Midlands	-0.069	0.169	0.675	-0.393	0.255	
Yorkshire and Humber	0.226	0.153	0.108	-0.049	0.501	
Sex: Male (base: Female)	-0.021	0.074	0.760	-0.157	0.115	
Marital status (base: divorced or dissolved civil partnership)						
Married or in a registered civil partnership	-0.021	0.126	0.866	-0.267	0.225	
Never married and never registered in a civil partnership	0.098	0.161	0.520	-0.202	0.399	
Separated, but still legally married or in a civil partnership	-0.474	0.298	0.118	-1.068	0.120	
Widowed	-0.103	0.124	0.414	-0.352	0.145	
$R^2=0.717, F(44,878)=50.666, p\text{-value}=0.000$						

Note: highlighted coefficients are statistically significant at the 5% (teal) and 10% (orange) levels, robust standard errors. Source: SQW

Table A2.2: ONS-4 life satisfaction score, respondents lived in Typologies A, B and C for up to 4 years						
	estimate	std.error	p-value	conf.low	conf.high	
Intercept	1.948	0.647	0.005	0.603	3.292	
Typology (base: comparator group)						
Typology A	0.222	0.225	0.258	-0.163	0.606	
Typology B	0.374	0.145	0.016	0.071	0.676	
Typology C	0.374	0.152	0.022	0.055	0.693	
Satisfaction with house (1 to 7 scale)	0.112	0.055	0.069	-0.009	0.232	
No. of physical issues with house (characteristics)	-0.131	0.070	0.061	-0.268	0.006	
No. of features (temp. control, enough space etc)	0.119	0.069	0.100	-0.023	0.261	
No. of facilities able to access (care, green space, etc)	-0.017	0.051	0.736	-0.118	0.083	
Belonging to the neighbourhood (base: Agree)						
Disagree	-0.756	0.256	0.013	-1.352	-0.159	
Neither agree nor disagree	-0.082	0.139	0.538	-0.343	0.179	
Strongly agree	-0.079	0.098	0.395	-0.262	0.104	
Strongly disagree	-0.035	0.272	0.892	-0.550	0.479	
Satisfaction with health (1-7 scale)	0.096	0.034	0.022	0.014	0.178	
sWEMWBS	0.017	0.013	0.159	-0.007	0.040	
Long-term conditions reduce activity (base: no such conditions)						
Not at all	-0.155	0.123	0.210	-0.398	0.088	
Yes, a little	-0.229	0.134	0.142	-0.534	0.077	
Yes, a lot	-0.241	0.175	0.194	-0.604	0.122	
Worthwhile (ONS-4 0-10)	0.366	0.035	0.000	0.274	0.459	

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Table A2.2: ONS-4 life satisfaction score, respondents lived in Typologies A, B and C for up to 4 years					
	estimate	std.error	p-value	conf.low	conf.high
Happiness (ONS-4 0-10)	0.245	0.032	0.000	0.159	0.330
Anxiety (ONS-4 0-10)	-0.006	0.017	0.771	-0.043	0.032
Caring responsibility: Yes (base: No)	-0.261	0.097	0.020	-0.480	-0.041
Receiving care: Yes (Base: No)	-0.047	0.097	0.646	-0.245	0.152
Feeling lonely (base: hardly ever)					
Never	0.006	0.113	0.950	-0.189	0.201
Occasionally	-0.261	0.127	0.047	-0.518	-0.004
Often/always	-0.241	0.255	0.486	-0.919	0.438
Some of the time	-0.225	0.148	0.107	-0.499	0.049
If needed there are people who would be there for me (base: definitely agree)					
Definitely disagree	-0.507	0.515	0.411	-1.716	0.703
Tend to agree	-0.250	0.111	0.016	-0.454	-0.047
Tend to disagree	-0.865	0.284	0.000	-1.248	-0.483
Age (base: under 65)					
65-74	-0.369	0.281	0.167	-0.892	0.155
75-84	-0.373	0.281	0.167	-0.903	0.157
85 and over	-0.185	0.304	0.499	-0.720	0.351
Region (base: East Midlands)					
East of England	-0.085	0.209	0.713	-0.538	0.368
London	-0.532	0.217	0.009	-0.929	-0.136
North East	-0.086	0.233	0.682	-0.497	0.326
North West	-0.031	0.178	0.855	-0.368	0.305
South East	-0.132	0.166	0.394	-0.435	0.171
South West	-0.174	0.168	0.318	-0.516	0.168
West Midlands	-0.233	0.195	0.216	-0.604	0.137
Yorkshire and Humber	-0.020	0.187	0.905	-0.346	0.306
Sex: Male (base: Female)	-0.057	0.085	0.483	-0.215	0.102
Marital status (base: divorced or dissolved civil partnership)					
Married or in a registered civil partnership	0.080	0.147	0.579	-0.203	0.364
Never married and never registered in a civil partnership	0.194	0.190	0.300	-0.173	0.561
Separated, but still legally married or in a civil partnership	-0.462	0.407	0.195	-1.163	0.238
Widowed	-0.034	0.150	0.825	-0.334	0.266
$R^2=0.683$, $F(44,627)=30.729$, $p\text{-value}=0.000$					

Note: highlighted coefficients are statistically significant at the 5% (teal) and 10% (orange) levels, robust standard errors. Source: SQW

Table A2.3: ONS-4 life satisfaction score, respondents lived in Typologies A, B and C for over 4 years					
	estimate	std.error	p-value	conf.low	conf.high
Intercept	2.070	0.656	0.001	0.831	3.310
Typology (base: comparator group)					
Typology A	0.362	0.190	0.057	-0.011	0.734
Typology B	0.351	0.176	0.030	0.035	0.667
Typology C	0.261	0.171	0.114	-0.063	0.586
Satisfaction with house (1 to 7 scale)	0.144	0.051	0.013	0.031	0.256

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Table A2.3: ONS-4 life satisfaction score, respondents lived in Typologies A, B and C for over 4 years

	estimate	std.error	p-value	conf.low	conf.high
No. of physical issues with house (characteristics)	0.007	0.082	0.925	-0.145	0.160
No. of features (temp. control, enough space etc)	-0.014	0.065	0.840	-0.148	0.120
No. of facilities able to access (care, green space, etc)	-0.040	0.053	0.437	-0.141	0.061
Belonging to the neighbourhood (base: Agree)					
Disagree	-0.256	0.307	0.392	-0.842	0.331
Neither agree nor disagree	-0.235	0.152	0.132	-0.540	0.071
Strongly agree	-0.076	0.102	0.441	-0.271	0.118
Strongly disagree	0.135	0.303	0.681	-0.509	0.779
Satisfaction with health (1-7 scale)	0.122	0.037	0.006	0.035	0.210
sWEMWBS	-0.005	0.014	0.726	-0.032	0.022
Long-term conditions reduce activity (base: no such conditions)					
Not at all	-0.242	0.130	0.055	-0.488	0.005
Yes, a little	-0.215	0.144	0.204	-0.547	0.117
Yes, a lot	0.027	0.186	0.891	-0.367	0.422
Worthwhile (ONS-4 0-10)	0.435	0.035	0.000	0.341	0.528
Happiness (ONS-4 0-10)	0.217	0.032	0.000	0.128	0.306
Anxiety (ONS-4 0-10)	-0.042	0.018	0.035	-0.081	-0.003
Caring responsibility: Yes (base: No)	-0.164	0.101	0.136	-0.380	0.052
Receiving care: Yes (Base: No)	-0.201	0.105	0.083	-0.427	0.026
Feeling lonely (base: hardly ever)					
Never	0.059	0.117	0.588	-0.155	0.272
Occasionally	-0.198	0.135	0.151	-0.468	0.072
Often/always	-0.560	0.274	0.101	-1.228	0.109
Some of the time	-0.316	0.159	0.028	-0.598	-0.033
If needed there are people who would be there for me (base: definitely agree)					
Definitely disagree	-0.507	0.448	0.366	-1.607	0.594
Tend to agree	-0.237	0.118	0.038	-0.461	-0.014
Tend to disagree	-0.869	0.285	0.000	-1.277	-0.460
Age (base: under 65)					
65-74	-0.020	0.356	0.940	-0.542	0.502
75-84	0.010	0.355	0.969	-0.509	0.530
85 and over	0.063	0.375	0.835	-0.526	0.651
Region (base: East Midlands)					
East of England	-0.302	0.200	0.110	-0.672	0.068
London	-0.394	0.224	0.062	-0.808	0.020
North East	0.059	0.225	0.749	-0.305	0.424
North West	-0.034	0.175	0.840	-0.362	0.295
South East	-0.056	0.159	0.713	-0.351	0.240
South West	-0.049	0.170	0.794	-0.414	0.317
West Midlands	0.074	0.203	0.710	-0.318	0.466
Yorkshire and Humber	0.129	0.185	0.433	-0.194	0.452
Sex: Male (base: Female)	-0.023	0.095	0.796	-0.196	0.150
Marital status (base: divorced or dissolved civil partnership)					
Married or in a registered civil partnership	-0.091	0.155	0.524	-0.373	0.190

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Table A2.3: ONS-4 life satisfaction score, respondents lived in Typologies A, B and C for over 4 years

	estimate	std.error	p-value	conf.low	conf.high
Never married and never registered in a civil partnership	0.064	0.208	0.726	-0.293	0.421
Separated, but still legally married or in a civil partnership	-0.401	0.450	0.352	-1.245	0.443
Widowed	-0.189	0.159	0.226	-0.495	0.117
$R^2=0.513, F(41,893)=22.969, p\text{-value}=0.000$					

Note: highlighted coefficients are statistically significant at the 5% (teal) and 10% (orange) levels, robust standard errors. Source: SQW

Tables A2.4 - A2.6 show regression outputs for the models that looked at the average differences in self-reported ONS-4 scores in relation to happiness, anxiety and doing things that are worthwhile.

Table A2.4: ONS-4 happiness score

	estimate	std.error	p-value	conf.low	conf.high
Intercept	1.796	0.715	0.026	0.219	3.372
Typology (base: comparator group)					
Typology A	0.363	0.225	0.106	-0.077	0.803
Typology B	0.326	0.185	0.058	-0.011	0.663
Typology C	0.333	0.187	0.070	-0.027	0.692
Satisfaction with house (1 to 7 scale)	0.364	0.062	0.000	0.193	0.536
No. of physical issues with house (characteristics)	-0.061	0.092	0.486	-0.232	0.111
No. of features (temp. control, enough space etc)	0.120	0.072	0.125	-0.034	0.273
No. of facilities able to access (care, green space, etc)	-0.063	0.061	0.302	-0.183	0.057
Belonging to the neighbourhood (base: Agree)					
Disagree	-0.572	0.333	0.151	-1.355	0.210
Neither agree nor disagree	-0.413	0.164	0.027	-0.779	-0.048
Strongly agree	0.056	0.125	0.639	-0.178	0.290
Strongly disagree	-0.378	0.337	0.313	-1.114	0.357
Satisfaction with health (1-7 scale)	0.221	0.043	0.000	0.127	0.316
sWEMWBS	0.126	0.015	0.000	0.097	0.155
Long-term conditions reduce activity (base: no such conditions)					
Not at all	0.215	0.175	0.209	-0.120	0.550
Yes, a little	0.260	0.187	0.168	-0.110	0.630
Yes, a lot	-0.097	0.230	0.691	-0.579	0.384
Caring responsibility: Yes (base: No)	-0.246	0.127	0.052	-0.494	0.002
Receiving care: Yes (Base: No)	0.112	0.120	0.328	-0.113	0.338
Feeling lonely (base: hardly ever)					
Never	0.109	0.143	0.407	-0.150	0.368
Occasionally	-0.302	0.155	0.049	-0.604	-0.001
Often/always	-2.157	0.298	0.000	-2.890	-1.424
Some of the time	-0.834	0.176	0.000	-1.207	-0.461
If needed there are people who would be there for me (base: definitely agree)					
Definitely disagree	-1.323	0.550	0.039	-2.580	-0.067
Tend to agree	-0.475	0.134	0.000	-0.739	-0.212
Tend to disagree	-0.699	0.317	0.018	-1.276	-0.123
Age (base: under 65)					

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Table A2.4: ONS-4 happiness score						
	estimate	std.error	p-value	conf.low	conf.high	
65-74	-0.483	0.317	0.076	-1.017	0.050	
75-84	-0.223	0.316	0.405	-0.747	0.302	
85 and over	-0.701	0.338	0.019	-1.284	-0.117	
Region (base: East Midlands)						
East of England	0.500	0.255	0.061	-0.022	1.023	
London	-0.041	0.288	0.887	-0.612	0.529	
North East	0.042	0.298	0.903	-0.632	0.716	
North West	-0.033	0.218	0.897	-0.526	0.461	
South East	0.216	0.204	0.347	-0.235	0.668	
South West	0.017	0.207	0.941	-0.447	0.482	
West Midlands	-0.044	0.252	0.865	-0.557	0.468	
Yorkshire and Humber	0.438	0.226	0.070	-0.036	0.911	
Sex: Male (base: Female)	-0.154	0.109	0.158	-0.368	0.060	
Marital status (base: divorced or dissolved civil partnership)						
Married or in a registered civil partnership	-0.161	0.189	0.433	-0.563	0.241	
Never married and never registered in a civil partnership	0.088	0.240	0.714	-0.384	0.561	
Separated, but still legally married or in a civil partnership	-0.769	0.446	0.105	-1.699	0.162	
Widowed	-0.189	0.186	0.357	-0.591	0.213	
$R^2=0.696$, $F(44,593)=34.082$, $p\text{-value}=0.000$						

Note: highlighted coefficients are statistically significant at the 5% (teal) and 10% (orange) levels, robust standard errors. Source: SQW

Table A2.5: ONS-4 worthwhile score						
	estimate	std.error	p-value	conf.low	conf.high	
Intercept	1.830	0.647	0.005	0.540	3.120	
Typology (base: comparator group)						
Typology A	0.521	0.205	0.019	0.085	0.957	
Typology B	-0.024	0.167	0.889	-0.364	0.316	
Typology C	-0.052	0.170	0.766	-0.398	0.294	
Satisfaction with house (1 to 7 scale)	0.337	0.056	0.000	0.212	0.462	
No. of physical issues with house (characteristics)	0.102	0.085	0.270	-0.079	0.283	
No. of features (temp. control, enough space etc)	0.015	0.065	0.818	-0.115	0.146	
No. of facilities able to access (care, green space, etc)	0.043	0.056	0.476	-0.076	0.162	
Belonging to the neighbourhood (base: Agree)						
Disagree	-0.847	0.303	0.043	-1.668	-0.026	
Neither agree nor disagree	-0.412	0.149	0.023	-0.766	-0.058	
Strongly agree	0.201	0.114	0.054	-0.003	0.405	
Strongly disagree	-0.690	0.312	0.053	-1.390	0.010	
Satisfaction with health (1-7 scale)	0.188	0.039	0.000	0.100	0.276	
sWEMWBS	0.135	0.014	0.000	0.103	0.167	
Long-term conditions reduce activity (base: no such conditions)						
Not at all	0.125	0.159	0.360	-0.143	0.393	
Yes, a little	0.280	0.171	0.083	-0.036	0.596	
Yes, a lot	0.117	0.209	0.608	-0.329	0.562	

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Table A2.5: ONS-4 worthwhile score					
	estimate	std.error	p-value	conf.low	conf.high
Caring responsibility: Yes (base: No)	-0.057	0.115	0.601	-0.269	0.156
Receiving care: Yes (Base: No)	0.071	0.110	0.520	-0.145	0.287
Feeling lonely (base: hardly ever)					
Never	0.282	0.130	0.019	0.047	0.518
Occasionally	-0.082	0.140	0.562	-0.359	0.195
Often/always	-1.543	0.267	0.000	-2.317	-0.769
Some of the time	-0.503	0.160	0.005	-0.851	-0.155
If needed there are people who would be there for me (base: definitely agree)					
Definitely disagree	-1.172	0.499	0.080	-2.486	0.142
Tend to agree	-0.293	0.122	0.029	-0.557	-0.029
Tend to disagree	-0.690	0.289	0.036	-1.334	-0.047
Age (base: under 65)					
65-74	-0.381	0.288	0.108	-0.847	0.084
75-84	-0.361	0.288	0.129	-0.827	0.105
85 and over	-0.647	0.308	0.018	-1.180	-0.113
Region (base: East Midlands)					
East of England	0.477	0.231	0.039	0.025	0.929
London	-0.010	0.263	0.972	-0.569	0.549
North East	-0.091	0.275	0.768	-0.693	0.512
North West	0.178	0.197	0.401	-0.238	0.594
South East	0.117	0.184	0.534	-0.252	0.486
South West	0.051	0.186	0.798	-0.337	0.439
West Midlands	0.023	0.228	0.914	-0.397	0.443
Yorkshire and Humber	0.100	0.204	0.644	-0.325	0.526
Sex: Male (base: Female)	-0.193	0.099	0.041	-0.379	-0.008
Marital status (base: divorced or dissolved civil partnership)					
Married or in a registered civil partnership	0.071	0.171	0.701	-0.292	0.435
Never married and never registered in a civil partnership	0.018	0.219	0.940	-0.446	0.482
Separated, but still legally married or in a civil partnership	-0.747	0.405	0.188	-1.858	0.364
Widowed	-0.058	0.168	0.772	-0.448	0.333
$R^2=0.529$, $F(41,895)=24.504$, $p\text{-value}=0.000$					

Note: highlighted coefficients are statistically significant at the 5% (teal) and 10% (orange) levels, robust standard errors. Source: SQW

Table A2.6: ONS-4 anxiety score					
	estimate	std.error	p-value	conf.low	conf.high
Intercept	8.254	1.208	0.000	5.799	10.708
Typology (base: comparator group)					
Typology A	0.101	0.383	0.790	-0.645	0.848
Typology B	-0.107	0.314	0.719	-0.688	0.475
Typology C	-0.425	0.319	0.198	-1.071	0.222
Satisfaction with house (1 to 7 scale)	0.023	0.105	0.837	-0.196	0.242
No. of physical issues with house (characteristics)	0.188	0.156	0.212	-0.107	0.483
No. of features (temp. control, enough space etc)	-0.138	0.121	0.330	-0.417	0.140

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Table A2.6: ONS-4 anxiety score

	estimate	std.error	p-value	conf.low	conf.high
No. of facilities able to access (care, green space, etc)	-0.025	0.104	0.812	-0.228	0.178
Belonging to the neighbourhood (base: Agree)					
Disagree	-0.468	0.576	0.286	-1.326	0.391
Neither agree nor disagree	-0.497	0.279	0.059	-1.014	0.019
Strongly agree	0.220	0.213	0.307	-0.203	0.643
Strongly disagree	0.122	0.573	0.823	-0.947	1.192
Satisfaction with health (1-7 scale)	-0.064	0.073	0.415	-0.219	0.091
sWEMWBS	-0.208	0.026	0.000	-0.258	-0.159
Long-term conditions reduce activity (base: no such conditions)					
Not at all	0.361	0.298	0.222	-0.218	0.940
Yes, a little	0.592	0.319	0.057	-0.017	1.201
Yes, a lot	1.052	0.393	0.008	0.272	1.832
Caring responsibility: Yes (base: No)	0.543	0.215	0.016	0.103	0.983
Receiving care: Yes (Base: No)	-0.061	0.205	0.768	-0.463	0.342
Feeling lonely (base: hardly ever)					
Never	-0.418	0.242	0.083	-0.891	0.055
Occasionally	0.209	0.264	0.436	-0.318	0.736
Often/always	0.505	0.505	0.317	-0.485	1.494
Some of the time	-0.032	0.300	0.917	-0.628	0.565
If needed there are people who would be there for me (base: definitely agree)					
Definitely disagree	1.618	0.935	0.098	-0.297	3.533
Tend to agree	0.352	0.228	0.119	-0.090	0.794
Tend to disagree	1.065	0.558	0.063	-0.058	2.188
Age (base: under 65)					
65-74	-0.346	0.534	0.517	-1.392	0.701
75-84	-0.467	0.531	0.377	-1.503	0.570
85 and over	-0.616	0.568	0.268	-1.707	0.475
Region (base: East Midlands)					
East of England	-0.030	0.433	0.946	-0.902	0.842
London	-0.490	0.488	0.266	-1.354	0.375
North East	0.051	0.506	0.922	-0.961	1.062
North West	-0.016	0.369	0.967	-0.765	0.734
South East	-0.012	0.345	0.974	-0.714	0.691
South West	-0.041	0.349	0.912	-0.765	0.683
West Midlands	0.221	0.428	0.611	-0.632	1.075
Yorkshire and Humber	-0.760	0.382	0.037	-1.476	-0.044
Sex: Male (base: Female)	-0.612	0.185	0.001	-0.961	-0.263
Marital status (base: divorced or dissolved civil partnership)					
Married or in a registered civil partnership	0.316	0.320	0.305	-0.288	0.920
Never married and never registered in a civil partnership	0.756	0.407	0.070	-0.061	1.573
Separated, but still legally married or in a civil partnership	1.158	0.758	0.034	0.086	2.230
Widowed	0.465	0.314	0.119	-0.120	1.050
$R^2=0.249, F(41,895)=7.256, p\text{-value}=0.000$					

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Note: highlighted coefficients are statistically significant at the 5% (teal) and 10% (orange) levels, robust standard errors. Source: SQW

Mental and general health, and loneliness

Table A2.7 presents the results of regression analysis of the differences in mental health across the typologies and comparator group, while Figure A2.1 presents distributions of sWEMWBS² scores graphically by typology.

Table A2.8 contains results for self-reported satisfaction with general health and Table A2.9 shows the figures for loneliness (a seven point scale from 'never feeling lonely' to 'often or always'; in line with the approach outlined in the Green Book the loneliness scale is treated as a liner one).

Table A2.7: SWEMWBS score					
	estimate	std.error	p-value	conf.low	conf.high
Intercept	17.257	1.410	0.000	14.669	19.846
Typology (base: comparator group)					
Typology A	-0.301	0.465	0.499	-1.176	0.573
Typology B	-0.709	0.379	0.048	-1.410	-0.007
Typology C	-0.659	0.386	0.058	-1.340	0.021
Satisfaction with house (1 to 7 scale)	0.009	0.130	0.941	-0.229	0.247
No. of physical issues with house (characteristics)	-0.293	0.190	0.096	-0.638	0.052
No. of features (temp. control, enough space etc)	-0.081	0.147	0.614	-0.395	0.233
No. of facilities able to access (care, green space, etc)	0.025	0.127	0.859	-0.249	0.299
Belonging to the neighbourhood (base: Agree)					
Disagree	0.095	0.695	0.895	-1.325	1.515
Neither agree nor disagree	-0.330	0.339	0.230	-0.870	0.210
Strongly agree	0.953	0.255	0.001	0.405	1.501
Strongly disagree	0.889	0.701	0.268	-0.684	2.462
Satisfaction with health (1-7 scale)	0.306	0.089	0.001	0.117	0.494
Long-term conditions reduce activity (base: no such conditions)					
Not at all	-0.160	0.359	0.655	-0.860	0.541
Yes, a little	-0.422	0.386	0.281	-1.190	0.346
Yes, a lot	-0.280	0.476	0.581	-1.276	0.716
Worthwhile (ONS-4 0-10)	0.562	0.082	0.000	0.389	0.736
Happiness (ONS-4 0-10)	0.175	0.080	0.038	0.010	0.340
Anxiety (ONS-4 0-10)	-0.256	0.042	0.000	-0.341	-0.171
Caring responsibility: Yes (base: No)	0.817	0.259	0.002	0.295	1.338
Receiving care: Yes (Base: No)	-0.285	0.248	0.236	-0.756	0.186
Feeling lonely (base: hardly ever)					
Never	1.518	0.290	0.000	0.924	2.111
Occasionally	-0.698	0.318	0.013	-1.250	-0.146
Often/always	-0.484	0.635	0.509	-1.922	0.955
Some of the time	-1.269	0.364	0.000	-1.874	-0.664
If needed there are people who would be there for me (base: definitely agree)					

² sWEMWBS was developed by the Universities of Warwick, Edinburgh and Leeds in conjunction with NHS Health Scotland. ©University of Warwick, 2006, all rights reserved.

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Table A2.7: SWEMWBS score						
	estimate	std.error	p-value	conf.low	conf.high	
Definitely disagree	-0.402	1.130	0.632	-2.050	1.246	
Tend to agree	-0.450	0.276	0.112	-1.005	0.104	
Tend to disagree	-0.403	0.673	0.578	-1.822	1.016	
Age (base: under 65)						
65-74	0.485	0.658	0.426	-0.711	1.682	
75-84	0.677	0.655	0.269	-0.525	1.880	
85 and over	0.398	0.702	0.572	-0.983	1.779	
Region (base: East Midlands)						
East of England	-0.452	0.525	0.355	-1.410	0.506	
London	0.823	0.595	0.120	-0.215	1.860	
North East	1.422	0.619	0.022	0.202	2.643	
North West	0.177	0.448	0.679	-0.665	1.020	
South East	0.541	0.420	0.168	-0.229	1.311	
South West	-0.009	0.424	0.980	-0.759	0.740	
West Midlands	0.297	0.518	0.547	-0.670	1.264	
Yorkshire and Humber	0.430	0.468	0.372	-0.515	1.375	
Sex: Male (base: Female)	-0.129	0.225	0.571	-0.576	0.318	
Marital status (base: divorced or dissolved civil partnership)						
Married or in a registered civil partnership	-0.418	0.387	0.271	-1.164	0.328	
Never married and never registered in a civil partnership	-0.070	0.493	0.880	-0.980	0.839	
Separated, but still legally married or in a civil partnership	0.149	0.913	0.928	-3.081	3.378	
Widowed	0.152	0.380	0.679	-0.567	0.870	
$R^2=0.533, F(43,879)=23.355, p\text{-value}=0.000$						

Note: highlighted coefficients are statistically significant at the 5% (teal) and 10% (orange) levels, robust standard errors. Source: SQW

Table A2.8: General health 7-point scale						
	estimate	std.error	p-value	conf.low	conf.high	
Intercept	1.970	0.573	0.001	0.827	3.112	
Typology (base: comparator group)						
Typology A	0.146	0.142	0.344	-0.156	0.447	
Typology B	0.014	0.146	0.927	-0.291	0.319	
Typology C	0.102	0.049	0.065	-0.006	0.210	
Satisfaction with house (1 to 7 scale)	0.096	0.072	0.196	-0.050	0.243	
No. of physical issues with house (characteristics)	0.057	0.055	0.329	-0.057	0.171	
No. of features (temp. control, enough space etc)	0.048	0.048	0.302	-0.043	0.140	
Belonging to the neighbourhood (base: Agree)						
Disagree	0.402	0.262	0.113	-0.096	0.900	
Neither agree nor disagree	0.039	0.127	0.760	-0.212	0.290	
Strongly agree	0.062	0.096	0.543	-0.137	0.261	
Strongly disagree	0.231	0.262	0.467	-0.392	0.853	
sWEMWBS	0.041	0.012	0.002	0.015	0.066	
Long-term conditions reduce activity (base: no such conditions)						
Not at all	-0.499	0.134	0.000	-0.740	-0.258	

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Table A2.8: General health 7-point scale						
	estimate	std.error	p-value	conf.low	conf.high	
Yes, a little	-1.308	0.138	0.000	-1.591	-1.026	
Yes, a lot	-2.123	0.164	0.000	-2.496	-1.750	
Worthwhile (ONS-4 0-10)	0.084	0.032	0.017	0.015	0.152	
Happiness (ONS-4 0-10)	0.097	0.030	0.003	0.034	0.159	
Anxiety (ONS-4 0-10)	0.007	0.016	0.666	-0.025	0.040	
Feeling lack of companionship (base: hardly ever/never)						
Often	0.533	0.209	0.014	0.109	0.956	
Some of the time	0.085	0.116	0.453	-0.137	0.307	
Feeling left out (base: hardly ever/never)						
Often	-0.654	0.262	0.035	-1.261	-0.047	
Some of the time	-0.204	0.127	0.137	-0.473	0.065	
Feeling isolated from others (base: never/hardly ever)						
Often	-0.212	0.272	0.521	-0.862	0.437	
Some of the time	-0.007	0.133	0.963	-0.289	0.275	
Caring responsibility: Yes (base: No)	0.103	0.098	0.296	-0.090	0.295	
Receiving care: Yes (Base: No)	-0.060	0.094	0.539	-0.252	0.132	
If needed there are people who would be there for me (base: definitely agree)						
Definitely disagree	0.595	0.440	0.119	-0.152	1.343	
Tend to agree	0.120	0.105	0.257	-0.088	0.329	
Tend to disagree	0.190	0.262	0.472	-0.328	0.707	
Age (base: under 65)						
65-74	0.470	0.248	0.046	0.007	0.933	
75-84	0.207	0.248	0.374	-0.250	0.665	
85 and over	0.603	0.266	0.018	0.105	1.101	
Region (base: East Midlands)						
East of England	-0.045	0.196	0.814	-0.424	0.334	
London	-0.535	0.224	0.013	-0.955	-0.115	
North East	0.042	0.232	0.861	-0.425	0.508	
North West	0.041	0.169	0.818	-0.309	0.392	
South East	-0.190	0.158	0.258	-0.519	0.139	
South West	-0.066	0.159	0.696	-0.396	0.264	
West Midlands	0.095	0.195	0.642	-0.305	0.495	
Yorkshire and Humber	-0.105	0.176	0.544	-0.445	0.235	
Sex: Male (base: Female)	0.023	0.085	0.791	-0.146	0.191	
Marital status (base: divorced or dissolved civil partnership)						
Married or in a registered civil partnership	-0.065	0.146	0.670	-0.363	0.233	
Never married and never registered in a civil partnership	-0.042	0.185	0.829	-0.425	0.340	
Separated, but still legally married or in a civil partnership	0.031	0.341	0.935	-0.725	0.788	
Widowed	0.252	0.143	0.093	-0.042	0.545	

Note: highlighted coefficients are statistically significant at the 5% (teal) and 10% (orange) levels, robust standard errors. Source: SQW

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Table A2.9: 5-point loneliness scale						
		estimate	std.error	p-value	conf.low	conf.high
Intercept		2.713	0.378	0.000	1.931	3.495
Typology (base: comparator group)						
	Typology A	-0.116	0.115	0.303	-0.339	0.106
	Typology B	-0.043	0.094	0.643	-0.226	0.140
	Typology C	-0.096	0.096	0.323	-0.286	0.094
Satisfaction with house (1 to 7 scale)		-0.008	0.032	0.809	-0.074	0.058
No. of physical issues with house (characteristics)		0.025	0.047	0.610	-0.070	0.120
No. of features (temp. control, enough space etc)		-0.024	0.036	0.457	-0.087	0.039
Typology (base: comparator group)		-0.025	0.032	0.405	-0.084	0.034
Belonging to the neighbourhood (base: Agree)						
	Disagree	0.253	0.172	0.133	-0.077	0.584
	Neither agree nor disagree	0.031	0.084	0.725	-0.143	0.205
	Strongly agree	-0.037	0.063	0.560	-0.162	0.088
	Strongly disagree	-0.148	0.172	0.507	-0.586	0.290
Satisfaction with health (1-7 scale)		-0.005	0.022	0.819	-0.050	0.040
sWEMWBS		0.042	0.008	0.000	0.026	0.059
Long-term conditions reduce activity (base: no such conditions)						
	Not at all	0.112	0.089	0.205	-0.062	0.286
	Yes, a little	-0.030	0.095	0.745	-0.213	0.153
	Yes, a lot	0.005	0.117	0.968	-0.222	0.232
Worthwhile (ONS-4 0-10)		0.036	0.021	0.120	-0.010	0.082
Happiness (ONS-4 0-10)		0.054	0.020	0.011	0.012	0.097
Anxiety (ONS-4 0-10)		-0.004	0.010	0.684	-0.025	0.016
Feeling lack of companionship (base: hardly ever/never)						
	Often	-0.822	0.137	0.000	-1.115	-0.529
	Some of the time	-0.747	0.076	0.000	-0.912	-0.583
Feeling left out (base: hardly ever/never)						
	Often	-0.651	0.172	0.000	-0.994	-0.308
	Some of the time	-0.355	0.084	0.000	-0.527	-0.182
Feeling isolated from others (base: never/hardly ever)						
	Often	-0.532	0.178	0.009	-0.929	-0.136
	Some of the time	-0.356	0.087	0.000	-0.538	-0.173
Caring responsibility: Yes (base: No)		-0.083	0.064	0.181	-0.204	0.039
Receiving care: Yes (Base: No)		-0.013	0.062	0.837	-0.132	0.107
If needed there are people who would be there for me (base: definitely agree)						
	Definitely disagree	0.147	0.288	0.685	-0.561	0.855
	Tend to agree	0.107	0.069	0.117	-0.027	0.240
	Tend to disagree	-0.041	0.172	0.815	-0.384	0.302
Age (base: under 65)						
	65-74	0.084	0.163	0.501	-0.161	0.329
	75-84	0.080	0.162	0.525	-0.166	0.325
	85 and over	0.191	0.175	0.190	-0.095	0.477
Region (base: East Midlands)						
	East of England	-0.144	0.128	0.262	-0.397	0.108

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Table A2.9: 5-point loneliness scale						
	estimate	std.error	p-value	conf.low	conf.high	
London	-0.221	0.147	0.134	-0.510	0.068	
North East	-0.227	0.152	0.160	-0.545	0.090	
North West	-0.135	0.111	0.223	-0.353	0.082	
South East	-0.200	0.104	0.059	-0.407	0.008	
South West	-0.131	0.104	0.215	-0.338	0.076	
West Midlands	-0.111	0.127	0.394	-0.368	0.145	
Yorkshire and Humber	-0.184	0.115	0.097	-0.402	0.033	
Sex: Male (base: Female)	0.124	0.056	0.025	0.016	0.232	
Marital status (base: divorced or dissolved civil partnership)						
Married or in a registered civil partnership	0.224	0.096	0.020	0.035	0.413	
Never married and never registered in a civil partnership	0.040	0.121	0.745	-0.199	0.279	
Separated, but still legally married or in a civil partnership	0.042	0.223	0.869	-0.457	0.540	
Widowed	-0.163	0.094	0.078	-0.345	0.019	
$R^2=0.605$, $F(46,868)=28.934$, $p\text{-value}=0.000$						

Note: highlighted coefficients are statistically significant at the 5% (teal) and 10% (orange) levels, robust standard errors. Source: SQW

Appendix 3 – Fiscal Impacts Report

Introduction

This section covers:

- The background to this research and the wider context.
- The purpose of the research and what the research seeks to deliver.
- The range of housing typologies that are being considered as part of this research.
- The structure for this discussion paper.

Background

In December 2022, SQW (an independent research consultancy) with support from the What Works Centre for Wellbeing (WWCW) and Qa Research, was commissioned by Homes England to conduct a study to better understand the wellbeing value associated with the provision of homes that meet the needs of older people.

This research looks to better understand the fiscal and wellbeing impacts associated with these homes, with the headline objective of this study being **“to develop a monetised value for the wellbeing and fiscal impacts associated with the provision of housing for older people, for use in business cases.”**³

This research paper aims to better understand the fiscal impacts associated with the provision of housing for older people. It has been prepared to comply with the requirements for HM Treasury Green Book; namely for evidence to be robust, to be suitable for use to support business cases for new housing developments for older people.

Context

The UK’s ageing population is placing increasing burden upon the government to support its population, both in providing additional health services, care support and adaptations to support older people to live in their own homes. There is a growing body of research (explored in Chapter 2 of the main report) that shows that the provision of housing for older people can help people stay healthy in their own homes and live a more independent life, thereby reducing the burden upon the Exchequer to support older people.

Understanding the fiscal savings associated with the provision of housing for older people will provide a better indication of the benefits that the provision of this type of housing provides to the Exchequer in the long-term, helping to provide a more accurate assessment of the benefits associated with it.

For the purposes of this research, ‘older people’ have been defined as being 65+, although it is recognised that this specific type of accommodation can be marketed to and used by a younger cohort of ‘older’ people.

³ Homes England, 2022, *Invitation to tender: Wellbeing and housing for older people*

Housing Typologies Considered

There are a range of different housing typologies that have been developed for older people, providing a range of different accommodation, facilities and services to meet specific needs, budgets and wishes. To understand more about the current housing offer for older people, SQW reviewed existing literature and have spoken with a number of developers of older people’s housing and government departments (e.g. MHCLG, DHSC), which formed part of our ‘scoping consultations’ for the study.

A number of typologies of housing for older people were identified, building on existing frameworks for categorising housing for older people, including the Homes England *Capital Funding Guide* typologies, the Homes for Later Living *Healthier and Happier* report⁴, the NHS *Moving to a new home: housing options* page⁵, the Shelter *Older people and housing* report⁶, and the ARCO *Coming of Age: Better housing options for older people* report⁷. The housing typologies selected align with the *National Planning Policy Guidance*⁸ on housing for older and disabled people, as our scoping research indicated that these effectively capture the range of products offered by housing developers for older people, whilst remaining within a limited number of categories.

Figure A3-1: Housing Typologies for Older People



Further detail on each of the typologies is provided in the main report.

Typologies A-C (A. Age-restricted general market housing, B. Retirement living or sheltered housing, and C. Extra care housing or housing-with-care), effectively capture the types of housing for older people described during scoping consultations, and are within Homes England’s remit, and as such are considered for the purposes of the fiscal impacts discussed in this research.

⁴ Homes for Later Living & WPI Strategy, 2019, [Healthier and Happier: An analysis of the fiscal and wellbeing benefits of building more homes for later living](#)

⁵ NHS, 2023, [Moving to a new home: housing options](#)

⁶ Shelter, 2007, [Older people and housing](#)

⁷ ARCO, 2020, [Coming of Age: Better housing options for older people](#)

⁸ DLUHC, 2019, [National Planning Policy Guidance: Housing for older and disabled people](#)

Structure

This paper identifies the fiscal savings associated with housing for older people where it is deemed this evidence is robust enough to comply with HM Treasury Green Book standards. It is critical that evidence is of sufficient quality to meet HM Treasury Green Book standards to be included in this report, as the final fiscal saving calculated will be used within business cases that will need to meet these standards. An assessment of each piece of evidence identified has been undertaken (based on the methodology each study used and its sample size) to understand if it is credible enough to meet Green Book standards.

Evidence Review & Approach

This section covers:

- A review of the existing literature available in relation to the fiscal impacts associated with housing for older people.
- A summary of the key fiscal impact areas identified through the existing literature.
- An assessment of the robustness of existing evidence, and an overview of what this means for our methodological approach to calculating fiscal impact.

Review of Existing Literature

This section presents the review of the evidence identified regarding the fiscal impacts associated with housing for older people. This has followed a systematic review of existing publicly available evidence, related research, and other evidence shared with us through the scoping consultations (including unpublished evidence). Broadly the research has focused around four main impact categories for identifying potential savings to the Exchequer:

- **Health Care:** improvements to an older person's physical and/or mental health can reduce the burden on the NHS, reducing costs associated with health care.
- **Local Authority Social Care:** by providing adaptations and care services (in one location), this can reduce demand for local authority social care. This can include lower demand for home care services, less need to provide equipment and adaptations in people's homes, and reducing the population eligible for means-tested support.
- **Housing (market) benefit:** the delivery of new housing stock may have the potential to 'free up' under-occupied housing, helping to support younger people to access the housing market (which could reduce their need for long-term housing support).
- **Employment effects:** the construction and occupation of housing for older people supports employment and help to create new jobs. This may help to provide jobs for those currently claiming unemployment benefits, reducing expenditure for the Exchequer. In addition, when an older person moves to housing with care, this may free up relatives/friends who previously carried out caring tasks to do other activities, which may include paid employment (resulting in higher tax revenues for the Exchequer).

The rest of this section explores each of these impact categories in more detail. An assessment is then made as to which of the impact categories has the most robust evidence available regarding the fiscal impacts that may result from the provision of housing for older people.

Health Care

There are a number of existing research papers which have showed the physical and mental health improvements associated with the provision of housing for older people. This review does not look specifically at this evidence, but instead focuses on evidence which translates this improvement in physical and mental health to reduced demand for health services (NHS) and therefore a cost saving to the NHS.

The scale of fiscal impacts associated with improved physical and mental health varies from study to study, depending on the approach and methodology selected. The table below provides an overview of the existing literature in relation to cost savings for health services.

In the table below (and throughout the remainder of this report) we have identified how the type of housing discussed in each study corresponds to the typologies outlined in Chapter 4 of the main report, by including the corresponding typology in square brackets. Evidence relating to the robustness of each report is provided in the following chapter. Note that all cost savings shown in this table are reported as per the figures quoted in the report and have not been adjusted for inflation.

Table A3-1: Review of Evidence relating to Health Care	
Report	Headlines
<i>Costs and outcomes of an extra-care housing scheme in Bradford. [online] The Joseph Rowntree Foundation, Bäumer et al (2008)</i>	<p>This study examined the comparative cost before and after residents moved into a new Extra Care housing scheme [Typology C] in Bradford; note this uses a relatively small sample size (22 residents).</p> <p>For residents moving into the Extra Care housing scheme, NHS costs fell by an average of £68 per resident per week (or £3,536 per resident per year). Residents tended to make more use of GPs and nurses, but make less use of hospital services including A&E and outpatients.</p>
<i>McCarthy & Stone Local Area Economic Impact Assessment, IPC (2014)</i>	<p>Produced for McCarthy & Stone, this research aims to identify the economic impact associated with the provision of Retirement Living and Assisted Living Extra Care schemes [Typology B and C]. This study conducted interviews with 100 people across a range of McCarthy & Stone developments.</p> <p>Hospital admissions fell by 0.13 per resident per year, on average. They estimate that a typical scheme of 50 residents would therefore reduce NHS costs by £3,400 per resident per year. This was based on data published by PSSRU at the time of the study (Unit Costs of Health & Social Care 2012, Curtis, 2012), which calculated the average cost of a short non-elective in-patient admission as £523.</p> <p>GP visits fell by 0.66 per resident per year, on average. For a typical scheme of 50 residents, costs to the NHS would be lower by £1,419 per resident per year. The number of GP visits was lower for residents (4 visits per year) compared with the general population (6.7-7.4 visits per year).</p>
<i>Collaborative Research between Aston Research Centre for Healthy Ageing (ARCHA) and the ExtraCare Charitable Trust, Holland et al, 2015</i>	<p>This research identified 162 new residents in Extra Care settings and 33 control participants to understand how health conditions were impacted by a person moving into an Extra Care setting.</p> <p>Being in Extra Care [Typology C] results in significant savings for the NHS. Over a year, total NHS costs (including GP visits, practice and district nurse visits and hospital appointments and admissions) reduced by 38% for residents. This equated to an</p>

	<p>average saving of £1,115 per resident per year (based on published NHS tariffs at the time of the study).</p> <p>NHS costs for ‘frail’ residents reduced by a greater amount: 51.5% over a year.</p> <p>There was a significant reduction in the duration of unplanned hospital stays, from an average of 8-14 days to 1-2 days per year.</p> <p>A frail person’s average annual care costs were around £4,700 per resident after 12 months living in a retirement community, compared with around £61 for a pre-frail resident (most receiving no formal care), underlining the importance of preventative interventions to reduce the likelihood of a person becoming frail. The costs have been calculated based on published NHS tariffs at the time of the study.</p> <p>Social care costs were estimated to be significantly lower – in the range of £1,200-4,500 lower per person per year, depending upon level of need – for Extra Care residents compared with domiciliary care in the community. There is no source provided as to how these costs to the care sector have been calculated.</p>
<p><i>Integrated Homes, Care and Support, The ExtraCare Charitable Trust, Holland et al, 2019</i></p>	<p>Following the Holland et al (2015) study, a follow-up study was undertaken by The Extra Care Charitable Trust. This tracked the health outcomes of around 60 individuals over a three year period, with a control group of 30 individuals (note there are a higher number of observations for the baseline and 3 months-24 months period which has also been drawn upon). This found that:</p> <ul style="list-style-type: none"> • Residents in housing for older people [Typology C] average three fewer days in hospital per year relative to the general population. • Residents also make more effective use of healthcare resources (in part due to better advice delivered in-house) resulting in fewer visits to GPs, but increasing visits to Practice Nurses. <p>This equated to a cost saving of £1,994 per resident over a five year period (equivalent to a £399 saving per resident per year), based on NHS tariffs.</p>
<p><i>Healthier and Happier, WPI Strategy, Walker, 2019</i></p>	<p>There is very little evidence available within this report as to the assumptions / methodology used to calculate the scale of impacts described (e.g. any primary research, existing studies). There is no indication in the report as to the scale of the study and how the impact figures used have been calculated. With those caveats, the report states that:</p> <p>Residents living in specialist housing for older people [Typologies B and C] save the NHS and social services around £3,490 per resident per year. It is not clear what NHS cost information has been used to calculate this.</p> <p>This is one of the few reports to distinguish between different housing typologies for older people, with two types considered: ‘retirement living’ [Typology B] and ‘extra care’ [Typology C]. The savings to the NHS and social services were the greatest when additional services are provided as part of the accommodation offer (i.e. in ‘extra care’ settings). In these settings (‘extra care’) there was a saving of £7,200 per resident per year to the NHS and social services compared to £2,563 saving per resident per year in ‘retirement living’, although much of this saving can be attributed to reduced need for nursing care, not a reduction in adverse health outcomes. However there is no evidence presented to show how the scale of impact was calculated and the costs associated with this.</p>
<p><i>Identifying the health care system benefits of housing with care, Southampton City Council & Housing LIN, Strzelecka et al, 2019</i></p>	<p>The research identifies a number of mechanisms through which the provision of housing with care [Typology C] positively impacts on the health care system, which includes, amongst housing with care residents:</p> <ul style="list-style-type: none"> • reductions in the number of GP visits • reductions in the number of community health nurse visits

	<ul style="list-style-type: none"> • reductions in the number of non-elective admissions to hospital • reductions in length of stay and delayed discharges from hospital • reductions in ambulance call outs, typically linked to reduced incidence of falls <p>The research draws upon existing evidence to calculate the scale of impacts associated with individuals moving to housing with care. This includes Polisson (2011), Baumker et al. (2008), Kneale (2011), Holland et al. (2015) and Lloyd (2016). No additional primary research was undertaken to inform this research paper.</p> <p>Based on these positive health benefits, it is estimated that living in housing with care generates a health care system financial cost benefit of £1,976.44 per resident per year. This financial cost saving draws upon a range of estimates for the cost of healthcare, including Lloyd (2016), Holland et al (2015) and Kneale (2011), and therefore a consistent approach hasn't been taken to calculating this effect.</p>
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The majority of the studies outlined above make reference to Typology C; there is little evidence related to the fiscal savings associated with Typology B, and no evidence available which appears to relate to Typology A. Where evidence is available, it indicates that Typology C offers greater fiscal savings for the NHS than the other Typologies; typical savings associated with older people's housing range from £1,115 to £7,200 per resident per year (although these figures would need to be adjusted to account for inflation in order to present 2023-24 savings figures). These studies also vary significantly in terms of sample size.

Local Authority Social Care

The provision of housing for older people can lead to a reduction in demand for local authority social care, which has implications for local authority budgets. There are a number of different mechanisms for this identified in the literature, including:

- Lower demand for home care services, thereby reducing the need for local authorities to provide care services in an older persons' home.
- A reduction in local authority costs associated with the provision of equipment and adaptations within an individual's home, as this would be provided within housing for older people without cost to the local authority.
- Reducing the proportion of the population eligible for means-tested support, and therefore costs for local authorities having to provide this support.

The following table provides an overview of the evidence in relation to this impact area.

Table A3-2: Review of Evidence relating to Local Authority Social Care	
Report	Headlines
<i>Blazing a trail: Extra Care Housing in Blandford Forum, Dorset, Housing LIN, Goswell and Macbeth (2014)</i>	Provides a case study example of improvements in quality of life of residents at a 40 unit Extra Care Housing scheme [Typology C] in Dorset (54 people) relative to a control group of 16 people. This found that social care costs increased by around 76% upon entering housing-with-care, however they increased by around 90% for non-residents (the control group) over a six-month period. This suggests that individuals tend to enter housing-with-care when their needs increase, but the cost of that care is lower in housing-with-care than it would otherwise have been.
<i>Evaluating Extra Care – Valuing What Really Matters, Housing LIN, Lacey and Moody (2016)</i>	Provides a case study example of a number of planned Extra Care Housing schemes to be built in North Lincolnshire. It tracks data for 56 residents who took up the new housing offer to understand their outcomes relative to a control group of 66 people. Care package costs to the Local Authority for residents were reduced significantly following taking up residence, although they increased slightly in the following 7-9

	<p>months, but were still 16% below pre-admission levels for people with complex needs and 18% below for people with non-complex needs [Typology C].</p> <p>An estimate of savings to the Local Authority of home care or care home services compared with the likely costs estimated from those in market housing averages at c£4,600 per resident per year. It is unclear in the report as to how the financial savings have been calculated and any assumptions that have been made.</p>
<p>Valuing Retirement Housing: Exploring the economic effects of specialist housing for older people, Housing LIN, Lloyd (2016)</p>	<p>The study assumes that when individuals move into specialist retirement housing [most closely linked to Typology C] they retain their savings of housing equity, which lifts more people's wealth above the threshold of local authority means test support for home care. By reducing the number of people eligible for local authority funded home care, it is estimated that this will reduce local authority costs by around £18,500 per resident per year. However, there is no evidence presented within the report in relation to how the financial figure has been calculated.</p> <p>The study also identifies that the reduced need to provide older people with equipment and adaptations will lead to a saving for local authorities; it is estimated that this equates to around £100 per resident over 10 years. However, as above, no evidence is provided as to how this figure was calculated.</p>

All of the studies outlined above were conducted in Typology C housing. Where evidence is available, it indicates that Typology C offers greater fiscal savings for local authority budgets than the other Typologies, via the mechanisms outlined above (reducing the need for home care services, reducing costs related to provision of equipment and adaptations within homes, or reducing the proportion of the population eligible for means-tested support). Again, these studies vary in sample size.

Housing (market) benefit

A number of studies have argued that the provision of specialised housing for older people has a beneficial impact on the housing market, helping to free up larger, under-occupied housing, and move individuals into smaller and more suitable accommodation. However the evidence to show the impacts of this, and in particular the fiscal impacts associated with this, is limited. Only one study (Lloyd, 2016) has been identified which attempts to monetise the fiscal benefits linked to an improved housing supply, however care should be taken in interpreting the results (given the number of assumptions made and lack of underpinning evidence).

Table A3-3: Review of Evidence relating to Housing (market) Benefit

Report	Headlines
<p>Valuing Retirement Housing: Exploring the economic effects of specialist housing for older people, Housing LIN, Lloyd (2016)</p>	<p>The research states that if older person households move into specialist housing, this 'frees' up the housing ladder, potentially releasing 'first-homes' at the bottom of the chain. This may have the effect of enabling a younger household to move tenure from private rented accommodation into owner-occupation. In doing so, this may reduce the likelihood of a younger person needing Housing Benefit in the long-term and entitlement to means-tested social care funding (given increased wealth accumulation linked to being on the property ladder).</p> <p>It is estimated that for each new unit of specialist retirement housing built, this could lead to long-term benefits to the Exchequer of £54,800 over a lifetime (through reduced Housing Benefit expenditure and mean-tested social care costs). However there is very little evidence presented in the report to demonstrate how this figure was calculated and the assumptions that were made.</p>
<p>Does living in a retirement village extend life expectancy?</p>	<p>This research estimates that older people's 'space usage efficiency' is around 40-60%, which results in an inefficient housing market for younger people and young families.</p>

<i>The case of Whiteley Village, The International Longevity Centre Mayhew (2017)</i>	It also notes that older people will in future represent a larger proportion of the population. Between 2020 and 2040, the 65+ age group ‘will expand by 41% to 17.7 million as compared with a 7.5% increase in the 0-19 age group and 12.3% in the 20-64 age group’. Mayhew (2020) suggests this will lead to poorer health, with an ‘adverse impact on old people’s safety and quality of life if they live in isolation’ [Typology C].
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Employment effects

The development of new housing for older people has the potential to lead to the creation of new jobs, both during the construction and operational phases of the housing. This can lead to fiscal savings associated with bringing those currently claiming unemployment benefits back into the labour market, and therefore reducing their dependence on benefits handed out by the Exchequer.

A further hypothesis is that when an older person moves to housing with care, this may free up relatives/friends who previously undertook caring activities to do other activities, which may include paid employment. This may result in additional tax revenues for the Exchequer and/or reduced benefit claims.

None of the research identified directly identifies the fiscal impact associated within the provision of new jobs as part of the construction and operation of new housing for older people, although a number demonstrate the scale of jobs that are typically provided in such developments.

Table A3-4: Review of Evidence relating to Employment Effects	
Report	Headlines
<i>McCarthy & Stone Local Area Economic Impact Assessment, IPC (2014)</i>	During the construction phase of a development, schemes typically used a combination of local labour supply and up to eight local sub-contractors. During the operation phase of a development, the study found that across 10 Assisted Living schemes [Typology C] they employed an average of 17 staff, including a qualified estates manager, carers, catering, cleaning and gardening staff. Average expenditure on staffing was just under £180,000 in Assisted Living schemes [Typology C], compared with £18,900 for more traditional Retirement Living schemes [Typology B]. More than three-quarters (79%) of staff lived locally.
<i>Retirement Communities Fact Pack, ARCO (2021)</i>	This study identified that each new retirement community [Typology C] of around 250 units creates approximately 63 permanent jobs in areas such as housing management, care, grounds maintenance, leisure and retail, domestic services, and marketing and sales. This equates to a ratio of approximately 1 permanent job created for every 4 units built.

Approach for this Research

Having reviewed the existing literature regarding the fiscal impacts associated with the provision of housing for older people, SQW has analysed the robustness and quality of the evidence available for each of the fiscal impact areas identified. This is critical to ensuring that the approach to calculating the fiscal impacts is robust enough to be compliant with HM Treasury Green Book standards.

Based on this review, we have suggested which of the fiscal impact areas should be considered further in developing an estimate on the fiscal impact associated with the provision of housing for older people.

Table A3-5: Review of Evidence Available		
Fiscal Impact Area	Quality of Evidence Available	
	Assessment	Rationale
Health Care	✓	There is a relatively large body of existing evidence and methodologies available to calculate the health impacts associated with the provision of housing for older people, with information relating to the cost of NHS services being available to enable calculation of fiscal impacts. There are a number of studies that have been identified that provide robust evidence of the impact of housing for older people on demand for health services, including IPC (2014), Holland et al. (2015), Holland et al. (2019) and Strzelecka et al. (2019). Therefore it is felt there is sufficient evidence available (to HM Treasury Green Book standards) to be able to examine this fiscal impact area.
Local Authority Social Care	X	Although there are a number of studies which attempt to demonstrate the impact of housing for older people on local authority social care budgets, there are a number of concerns about the quality and/or scale of each of the studies. Each study identified has taken a different approach to calculating this (e.g. lower demand for home care services; reduced need for provision of equipment and adaptations; reduced proportion of the population eligible for means-tested supported). Of the three research papers identified, Gowell and Macbeth (2014) and Lacey and Moody (2016) both have relatively small cohorts that were examined, and Lloyd (2016) is not clear regarding the evidence used to calculate the scale of impact. Therefore there is insufficient evidence available (to HM Treasury Green Book standards) to be able to examine this fiscal impact area.
Housing (market) benefit	X	The existing literature in relation to the housing market impact is limited and there is some concern at the range of variables that are at play in the housing market and the number of assumptions required to calculate a fiscal impact associated with this. It is also assumed that for the purposes of economic appraisal (in which benefits will be discounted over a 60-year period) the scale of benefits that might be generated through this approach will be greatly reduced, as it will take time for the benefits to accumulate (particularly in relation to wealth creation). Of the two pieces of evidence identified, Lloyd (2016) does not provide any evidence as to how the impact calculation was undertaken, and Mayhew (2017) does not provide a scale of impact figure that could be used to calculate the fiscal impact. Therefore there is insufficient evidence available (to HM Treasury Green Book standards) to be able to examine this fiscal impact area.
Employment effects	X	No study has previously attempted to calculate the fiscal impacts associated with the creation of new jobs through the construction and occupancy of housing for older people. Therefore there is insufficient evidence available (to HM Treasury Green Book standards) to be able to examine this fiscal impact area.

Based on this assessment, only the fiscal impacts associated with improved health (and the subsequent financial savings for the NHS) were considered as part of this research.

There is a need for further research to provide a more robust and substantial evidence base in terms of measuring and assessing the scale of other fiscal impact areas identified; namely local authority social care, housing (market) benefit, and employment effects. Whilst it is recognised there are likely to be savings to the Exchequer resulting from these impact areas, the evidence is not robust enough to be compliant with HM Treasury Green Book standards at this time.

Based on the volume of evidence already in existence, SQW believes that the fiscal impact area that it may be possible to assess the benefits of (if further research was undertaken) may be fiscal savings associated with a

reduction in demand for local authority social care. At present, two studies (Gowell and Macbeth (2014) and Lacey and Moody (2016)) have examined this and found a positive relationship, although both of these studies have a relatively small sample size. Further research with a larger sample group could lead to results that could be included within the fiscal impacts associated with housing for older people.

Estimating the Fiscal Impact Savings Associated with the Provision of Housing for Older People

This section covers:

- The evidence and assumptions used to calculate the fiscal impact savings associated with the provision of housing for older people.

Following the assessment of the existing literature in the previous section, the section presents evidence that will develop a value that can be used in economic appraisal, to demonstrate the fiscal savings to the Exchequer in relation to the health care system.

The approach builds upon the evidence analysed above (in addition to a wider body of evidence) to calculate the financial cost-benefits to the Exchequer resulting from the provision of housing for older people. The structure and approach selected for calculating the financial cost-benefits builds upon the work undertaken by Strzelecka et al (2019), which analyses five different areas in which the health care system benefits from the provision of housing for older people.

Calculation of Fiscal Cost-Benefit

Strzelecka et al (2019) identifies five mechanisms through which the provision of housing for older people impacts upon the health care system. These are:

- impact on the number of GP visits
- impact on the need for community health nurse visits
- impact on non-elective admissions to hospital
- impact on the length of stay and delayed discharges from hospital
- impact on ambulance call outs, typically linked to reduced incidence of falls

This approach has been replicated here but with the inclusion of new evidence and data sources as appropriate, and with a more critical review of the evidence and assumptions used in calculating a fiscal impact (including exploring whether this is robust enough to comply with HM Treasury Green Book standards).

GP visits

Overview of Evidence

There is a body of evidence that has examined the impact of the provision of housing for older people on demand for GP visits, however much of this research has different mechanisms of measuring this change (making it difficult to compare studies):

- Holland et al (2015) estimated that Extra Care [Typology C] results in reduced demand for GP visits by 46%⁹.
- The follow-up study by Holland et al (2019) found that residents in Extra Care housing [Typology C] make more effective use of healthcare resources, reducing the number of visits they make to GP visits (but increasing the number of visits to Practice Nurses).¹⁰
- IPC (2014) found that amongst residents in nine McCarthy & Stone developments [Typology B & C], the number of GP visits fell by 0.66 visits per resident per year on average.¹¹
- Strzelecka et al (2019) use the same scale of impact in their calculations as identified by Holland et al (2015); note that the updated Holland et al (2019) research had not been published at the time Strzelecka et al (2019) when to publication.

For the purposes of this study, we have selected the evidence presented by Holland et al (2019), given this is a longitudinal study that builds upon the research undertaken by the earlier Holland et al (2015). This research has undertaken a five-year assessment of those moving into Extra Care [Typology C] accommodation to understand the impact of this on GP and practice nursing visits. The evidence found that those living in Extra Care accommodation were more likely to visit a practice nurse, but less likely to visit a GP each year. The results from the research are presented in the table below.

	Baseline	Average visits in subsequent 5 yrs	Mean change per year
Practice Nurse, planned visit	0.89	1.93	+1.04
Practice Nurse, unplanned visit	0.04	0.17	+0.13
GP, planned visit	3.13	2.17	-0.96
GP, unplanned visit	0.61	1.12	+0.51

Source: Holland et al (2019)

Financial Cost-Benefit Calculation

To calculate the financial cost-benefit to the NHS associated with this scale of impact, Unit Costs of Health and Social Care (2023)¹² provides the cost of GP and practice nurse appointments. This finds that GP visits cost the NHS £42 per

⁹ This longitudinal study had a sample size of 162 residents, and were compared with measures from 39 control participants at 3, 12 and 18 months.

¹⁰ This is a longitudinal study that builds upon the research undertaken by the earlier Holland et al (2015) study. The sample size fluctuates over the course of the study – the total sample (including the control group) ranges from 193 participants at baseline, 186 at 3 months, 173 at 12 months, 168 at 15/18 months, 90 at 24 months, 96 at 36 months, 55 at 48 months and 24 at 60 months.

¹¹ This study consisted of interviews with 100 owners across nine schemes.

¹² Jones et al (2023), Unit Costs of Health and Social Care 2022 Manual Available at:

https://kar.kent.ac.uk/100519/1/Unit_Costs_of_Health_and_Social_Care_2022%20%287%29.pdf

appointment and practice nurse appointments cost £9 per appointment. Applying these costs to the impacts reported in Holland et al (2019) leads to the following cost savings to the NHS.

Table A3-7: Mean change after 12 months or more of living in Extra Care housing (up to 5 years)			
	Mean change per year	Cost (as per Unit Costs of Health and Social Care (2023))	Cost Implication to NHS
Practice Nurse, planned visit	+1.04	£9	£9.36
Practice Nurse, unplanned visit	+0.13	£9	£1.17
GP, planned visit	-0.96	£42	-£40.32
GP, unplanned visit	+0.51	£42	£21.42
TOTAL			-£8.37

Source: Holland et al (2019); Cost base year = 2023

Based on this approach, this results in a saving of **£8.37 per person per year** to the NHS. The research only provides evidence for Typology C, although evidence from IPC (2014) suggests that the scale of impact is similar for Typologies B & C. Therefore it is thought that the saving will be experienced by residents living in Typologies B & C, but not Typology A.

Caveats and Assumptions with this Approach

Estimates from the Jones et al (2023) assume that the average GP survey consultation was 9.22 minutes, which was for the whole population, and not specific to those aged over 65, who may have more complex needs and co-morbidities, potentially requiring longer than average appointments. This might lead to greater long-term costs for the NHS (which may be underestimated in this methodology).

There is no differentiation within the Holland et al (2019) research for different housing typologies identified as part of this research; it only considers 'Extra Care Housing' [Typology C]. Evidence from IPC (2014) suggests a similar impact may be experienced across Typologies B & C, so this has been applied to both, however not enough evidence exists to suggest what scale of impact is felt amongst Typology A residents.

It is unclear if a reduction in the number of visits to GPs has a subsequent impact on future health care needs, e.g. any effect on admissions to hospital/A&E, prescription needs, and/or community care needs due to health conditions escalating.

Community health nurse visits

Overview of Evidence

Evidence demonstrating the relationship between the provision of housing for older people and demand for community health nurse visits is more limited. Currently the following evidence is available:

- Bäumker et al (2008) found that the proportion of residents who were visited by a nurse at home increased (32% vs 73%) but the mean number of consultations per resident decreased from approximately 22 to 11 visits in 6 months.¹³

¹³ This study consisted of interviews with 40 residents (out of 52 eligible residents) in one extra-care scheme; follow-up responses at six months was obtained for 22 residents.

- Strzelecka et al (2019) used the Bäumker et al (2008) research to demonstrate the scale of impact that may come from reduced community health nurse visits.

Having reviewed the existing literature, there is only one study which has developed evidence in relation to the impact that housing for older people has on community health nurse visits. SQW reviewed the approach undertaken in the Bäumker et al (2008) study, and have concerns about the robustness of the evidence; it is based on one Extra Care scheme, a 46-unit Extra Care housing unit in Bradford (Rowanberries). Given the limited sample size, SQW does not believe this is robust enough to meet the standards associated with HM Treasury Green Book. Further evidence is required to make the case that the provision of housing for older people leads to a reduction in the number of community health nurse visits.

Financial Cost-Benefit Calculation

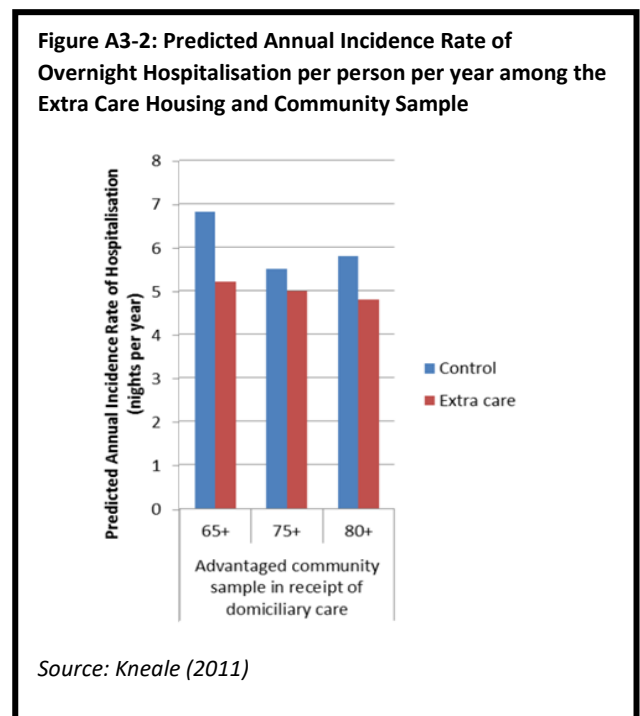
If evidence was available to calculate the relationship between the provision of housing for older people and the number of community health nurse visits, then the monetisation of this would be possible. Evidence from the Jones et al (2023)¹⁴ provides the cost of community-based health visits, which is £42 per visit.

Non-elective admissions to hospital

Overview of Evidence

With the delivery of housing for older people, it might be expected that the number of admissions to hospital is reduced, as older people may experience fewer falls etc. In addition, less serious conditions that might have led to a hospital admission may be treated within a person's own accommodation (especially in housing typologies with more care services on-site). Current evidence to demonstrate this link includes:

- IPC (2014) found that hospital admissions for residents within ten of its developments fell by 0.13 per resident per year, on average.
- Kneale (2011)¹⁵ found that those in housing with care [Typology C] tend to be more likely to only be admitted to hospital for serious conditions, and therefore may only be treated as outpatients for less serious conditions (whereas those in the community have a higher rate of admission).
- Strzelecka et al (2019) used the evidence presented by Kneale (2011) to identify the impact of housing with care on the number of non-elective admissions to hospital.



¹⁴ Jones et al (2023), Unit Costs of Health and Social Care 2022 Manual Available at:

https://kar.kent.ac.uk/100519/1/Unit_Costs_of_Health_and_Social_Care_2022%20%287%29.pdf

¹⁵ This study uses longitudinal data on almost 1,400-1,600 properties collected as part of an annual census between 2002 and 2010.

Having reviewed the available evidence in relation to the link between the provision of housing for older people and a reduction in the number of non-elective admissions to hospital, SQW has chosen to use the evidence presented by Kneale (2011), which uses longitudinal data on almost 1,400-1,600 properties collected as part of an annual census between 2002 and 2010.

Financial Cost-Benefit Calculation

Evidence from Kneale (2011) shows that those living in accommodation that benefited from domiciliary care were less likely to be admitted to hospital over the course of the year. The author explains that the rationale for this is that those in Extra Care housing are only admitted overnight to hospital for serious conditions and are more likely to be treated as outpatients for less serious conditions.

Based on cost estimates at the time of the research for inpatient elderly hospital attendances from the Personal Social Services Research Unit (PSSRU)¹⁶, Kneale (2011) has estimated that the reduction in hospital admissions has the potential to equate to a potential saving of up to £512 from hospital budgets (inpatients) per person per year. Unfortunately no further detail on the change in the number of admissions and the saving per admission is provided within the report; only the final financial saving to the NHS.

Uplifting this value using the GVA Deflator¹⁷, results in a value of **£646.55 per person per year**. Evidence is only available for Typology C accommodation, and there is no evidence which clearly demonstrates the differences between typologies, and so this financial cost-benefit can only be applied to Typology C for the purposes of this research.

Caveats and Assumptions with this Approach

It has been assumed that NHS costs have not increased at a different rate to the rate of inflation (as measured by the Consumer Price Index). We are aware of the NHS Cost Inflation Index, however this does not provide information prior to 2015/16, with the predecessor to this data source (the Hospital and Community Health Services (HCHS) Index) being unavailable for public viewing.

There is no differentiation within the Kneale (2011) research for different housing typologies identified as part of this research; it only considers 'Extra Care Housing' [Typology C]. As a result, this impact has only been applied to Typology C in our analysis.

The methodology assumes that older people have timely access to outpatient care and that their condition doesn't escalate in the meantime. If a person has care in-house this may mitigate some of the escalation of their condition, potentially reducing costs.

Length of stay and delayed discharges from hospital

Overview of Evidence

Better adapted homes and on-site support can mean that those living in specialised housing for older people can have a reduced stay in hospital and can be more quickly discharged. This is because their accommodation is typically more suitable (or can more easily be adapted) to suit their needs. The evidence suggests that:

¹⁶ Curtis, L. (2010) Unit Costs of Health and Social Care 2010, Personal Social Services Research Unit, University of Kent, Canterbury

¹⁷ <https://www.ons.gov.uk/economy/grossdomesticproductgdp/timeseries/cgbv/pn2>

- Holland et al (2015) found there was a significant reduction in the duration of unplanned hospital stays, from an average of 5 – 7 days to 1-2 days for Extra Care residents [Typology C].
- Holland et al (2019) found that there was a significant reduction in the duration of stay for Extra Care residents [Typology C], with a 31% reduction in the duration of stay. This results in an average of 3 days less per year per resident in hospital over a five year period.
- Kneale (2011) found that an average individual in receipt of domiciliary care in the community, would be expected to spend around 6 nights of the year in hospital. By comparison, Extra Care residents [Typology C] with similar demographic characteristics spend around 5 nights.
- Walker (2019)¹⁸ found that the number of hospital bed days per person are estimated to reduce from 12.5 to 6.25 for retirement housing residents [Typology B], but by a greater amount (from 12.5 to 1.5) for housing-with-care residents [Typology C].
- Strzelecka et al (2019) used the scale of impact identified within the Holland et al (2015) study to calculate the reduction in length of stay and delayed discharges from hospital; note that the updated Holland et al (2019) research had not been published at the time Strzelecka et al (2019) went to publication.

Based on the evidence available, SQW believe that the Holland et al (2019) research provides the most robust evidence base for calculating the impact of housing for older people on the length of stay and delayed discharge from hospital.

Financial Cost-Benefit Calculation

Evidence from the King's Fund¹⁹ states that there is not currently an official estimate of the direct costs associated with delayed discharge from hospital (i.e. staff time spent on additional NHS care and overheads from an overnight stay). They have attempted to estimate the cost by uplifting Reference Costs last produced by NHS Improvement in 2020²⁰ to produce an estimate of £395 per night.

Evidence from Holland et al (2019) found there was a significant reduction in the duration of unplanned hospital stays, with this equating to an average of 3 fewer days in hospital per year per resident compared to the general population. Based on the estimate provided by the King's Fund, this equates to a reduction of **£1,185 per year per resident**.

Evidence from Holland et al (2019) relates to Extra Care housing [Typology C] and therefore this value is only applicable to Typology C. The only evidence that relates to other typologies (Walker, 2019) is not considered robust enough to enable to value to be calculated for Typology A and/or B, as there is no evidence presented for the assumptions used in the report.

Caveats and Assumptions with this Approach

The financial cost data (for the cost of a delayed discharge) has been uplifted (using the CPI inflation rate) by the King's Fund from 2017/18 cost estimates produced by the NHS. However, this may not reflect the current cost for the NHS, particularly following the COVID-19 pandemic.

¹⁸ This study contains findings from a survey of 1,400 Homes for Later Living residents and analysis of existing public datasets, however there is no clear data analysis or explanation of methodology applied within the report.

¹⁹ The Hidden Problems behind Delayed Discharges and their Costs, The King's Fund, 2023. Available at:

<https://www.kingsfund.org.uk/blog/2023/03/hidden-problems-behind-delayed-discharges>

²⁰ <https://webarchive.nationalarchives.gov.uk/ukgwa/20200501111106/https://improvement.nhs.uk/resources/reference-costs/>

There is no differentiation within the Holland et al (2019) research for different housing typologies identified as part of this research; it only considers 'Extra Care Housing' [Typology C]. As a result, we have only applied this value to Typology C.

Ambulance call outs

Overview of Evidence

Better adapted housing for older people helps to reduce the likelihood of accidents and falls amongst its residents, helping to reduce the number of ambulance call-outs required. There are a couple of evidence sources which seek to quantify this impact:

- Evidence from the Strategic Society Centre (Lloyd, 2016) estimates that people aged over 65 have a 33% probability of experiencing a fall each year, but this is reduced to between a 11% and 22% likelihood in specialist retirement housing.
- Evidence from Walker (2019) suggests that falls are estimated to reduce from 50% to 25% in retirement housing, whereas in housing-with-care they are estimated to reduce from 60% to 30%. However there is no evidence presented to back up this claim.
- Strzelecka et al (2019) used the approach undertaken by Lloyd (2016) to demonstrate the scale of impact associated with the reduction in ambulance call outs.

Having reviewed the existing literature which has examined the reduction in ambulance call-outs, SQW do not believe there is enough robust existing evidence which meets the standards associated with HM Treasury Green Book. The two research articles identified (Lloyd, 2016; Walker, 2019) do not provide any evidence within their research as to the assumptions/rationale made for selecting the scale of impact that has been identified. Further evidence is required to make the case that the provision of housing for older people leads to a reduction in ambulance call-outs for this to be included.

Financial Cost-Benefit Calculation

If evidence was available to calculate the relationship between the provision of housing for older people and ambulance call-outs, then the monetisation of this would be possible. Evidence from the Department of Health and Social Care²¹ shows that the cost associated with providing an NHS ambulance is £231 for each call out.

²¹ <https://www.gov.uk/guidance/nhs-injury-costs-recovery-scheme-tariff-and-charges-from-1-april-2022>

Summary of Findings

This section covers:

- The overall fiscal impact associated with the provision of housing for older people.
- Further areas for research where evidence gaps have been identified.

Overview of Findings

Based on a critical assessment of the existing literature available to ensure this research aligns with HM Treasury Green Book principles, the financial cost-benefit has been identified for each of the housing typologies. It has not been possible (using the literature available) to identify a healthcare system financial cost-benefit for all of the housing typologies; evidence relating to Typology C is more robust.

It has been estimated each older person living in **Typology B** housing (retirement living or sheltered housing) would **generate a healthcare system financial cost-benefit of £8.37 per person per year**, and an older person living in **Typology C** housing (Extra Care housing or housing-with-care) would **generate a healthcare system financial cost-benefit of £1,852.88 per person per year**.

Table A3-8: Financial Cost-Benefit by Housing Typology (2023 prices)

Impact Area Considered	Financial Cost-Benefit (per resident per year)		
	Typology A <i>Age-restricted general market housing</i>	Typology B <i>Retirement living or sheltered housing</i>	Typology C <i>Extra Care Housing or Housing-with-care</i>
GP Visits	£0	£8	£8
Community health nurse visits	N/A	N/A	N/A
Non-elective admissions to hospital	N/A	N/A	£647
Length of stay and delayed discharges from hospital	N/A	N/A	£1,185
Ambulance call outs	N/A	N/A	N/A
TOTAL	£0	£8	£1,840

Application in Green Book Appraisal

Further guidance on how to apply the financial cost-benefit calculated in this research is provided within the main report; **all appraisers should refer to this before using the values presented above in an economic appraisal.**

Further Areas for Research

As highlighted above, there are a number of potential fiscal impact areas that could be incorporated into this analysis if better and more robust evidence was available. Areas in which further research is required in order to potentially incorporate this into the values presented above includes:

- Health: better understanding of how the provision of housing for older people impacts upon community health nurse visits and ambulance call outs (typically linked to reduced incidence of falls).

- More evidence relating to the differentiation between different housing typologies, in particular housing typologies A and B.
- More evidence in relation to the three potential impact areas excluded from this research, namely around local authority social care, housing (market) benefit and employment effects.

Appendix 4 – Evidence from other Wellbeing Frameworks and associated papers

As part of the desk-based research, SQW reviewed 16 wellbeing frameworks and associated reports and discussion papers, to build on the existing evidence and identify common features across relevant existing frameworks. This is to avoid ‘reinventing the wheel’ with the wellbeing framework.

Key commonalities across frameworks included:

- The majority of the frameworks distinguished between **individual wellbeing and community wellbeing**, and highlighted the importance of distinguishing between the two, as well as highlighting how the two interrelate.
- Similarly, the majority of the frameworks highlighted the difference between **objective and subjective measures of wellbeing**. A number also noted the difference between quality of life and material living conditions in their definitions of wellbeing.
- The frameworks used a wide range of domains and sub-domains; however, the most commonly used domains included the following²²:
 - **personal or subjective wellbeing**
 - **health**, including physical and mental
 - **relationships** and social connections
 - **place, housing** and surrounding environment
 - **education**
 - **work and employment**

A number of frameworks and reports also use the ONS definition of wellbeing, as well as the 10 ONS domains of wellbeing as organising principles.

Detail regarding the frameworks and papers/reports reviewed is outlined overleaf.

²² We have re-labelled these and grouped some (sub-)domains together where necessary; not all of the documents reviewed used these exact terms or labels.

Wellbeing framework or related paper/report	Focus, context and rationale	Definition of wellbeing	Key domains
<p>Wellbeing Guidance for Appraisal: Supplementary Green Book Guidance, HM Treasury, 2021.</p>	<p>This guidance explains where, when and how wellbeing concepts, measurement and estimation may contribute to the appraisal of social or public value in Green Book appraisal.</p>	<ul style="list-style-type: none"> • The framework uses the ONS definition of wellbeing – ‘how we are doing’ as individuals, communities, and as a nation - and personal wellbeing as measured through subjective reports of satisfaction, purpose, happiness and anxiety (ONS-4). • The framework defines community wellbeing as “a combination of societal, economic, environmental, cultural and political conditions that people and communities need to fulfil their potential.” • The framework defines objective wellbeing as visible factors (how someone’s life looks from the outside) and subjective wellbeing as people evaluating their own life. 	<ul style="list-style-type: none"> • Physical or mental health • Relationships • What people do • Where people live • Personal finance • Education and skills • Governance • Economy • Environment
<p>Housing Scoping Review, What Works Centre for Wellbeing, 2017.</p>	<p>This work forms part of the Community Evidence Programme, whose remit is to explore evidence on the factors (including community level factors) that determine individual and community wellbeing. This review is a Stage 1 scoping review of existing review-level evidence, to identify the strengths and weaknesses in existing knowledge and current gaps in the evidence base.</p>	<ul style="list-style-type: none"> • The definition of wellbeing adopted for this review is that agreed by the What Works Centre for Wellbeing, itself taken from ONS which defines national wellbeing as having 10 broad dimensions which have been shown to matter most to people in the UK, as identified through a national debate. • Community wellbeing is defined as “the levels of trust, connectedness, social support and feelings of belonging, along with inclusion” within an area; community wellbeing is a determinant of the subjective wellbeing of individuals. 	<ul style="list-style-type: none"> • Personal (subjective) wellbeing • Our relationships • Health • What we do • Where we live • Personal finance • Education and skills • Governance • The economy • The natural environment <p>The review also outlines a number of domains related to housing specifically:</p> <ul style="list-style-type: none"> • Physical infrastructure of housing (sub-domains: home safety; cold, damp and mouldy homes; pest management; fuel poverty, warmth and efficiency)

Wellbeing framework or related paper/report	Focus, context and rationale	Definition of wellbeing	Key domains
			<ul style="list-style-type: none"> • Economic housing situation of individuals (sub-domains: insecure housing; housing mobility and tenure) • Housing and neighbourhood regeneration • Homes for vulnerable people (sub-domains: social inclusion; interpersonal relations; material wellbeing; emotional wellbeing; physical wellbeing; self determination; personal development and rights) • Housing design and housing environment (sub-domains: housing design to promote healthy behaviours)
<p>Creating an Asset Base – A review of literature and policy on housing with care, Atkinson, T J, Evans, S, Darton, R, Cameron, A, Porteus, J & Smith, R., 2014.</p>	<p>Appropriate housing for the growing population of older adults is becoming an international concern. This paper reports on a review of UK and international literature part of a project exploring the commissioning and delivery of social care in housing within care settings.</p> <p>The review has three main themes:</p> <ul style="list-style-type: none"> • How care and support is provided • Role of built environment • Benefits for resident wellbeing 	<p>The review focuses on maximising social wellbeing and independence in extra care housing, and the potential of extra care housing to reduce loneliness and enhance the social lives of residents.</p>	<p>Social wellbeing domains:</p> <ul style="list-style-type: none"> • Opportunities for social interaction – promoting sense of identity and belonging • Connecting with the wider community • Good design and location • Involvement of family carers • Staff training and culture of care • Provision of appropriate facilities • Adequate space to facilitate visiting family and friends <p>Independence domains:</p> <ul style="list-style-type: none"> • Use of personal budgets • Self-directed care • Access to transport and amenities • Safety of neighbourhood

Wellbeing framework or related paper/report	Focus, context and rationale	Definition of wellbeing	Key domains
<p>The impact of housing interventions on health outcomes for older and vulnerable people, SQW & Homes England, 2020.</p>	<p>A rapid evidence review on links between housing accessibility and health outcomes for older people.</p>	<p>n/a</p>	<p>Accessibility of local amenities/transport links:</p> <ul style="list-style-type: none"> • Proximity to local amenities • Proximity to transport links • Amount of walking <p>Communal facilities:</p> <ul style="list-style-type: none"> • Availability of communal space • Amount of living space (enough to undertake different tasks, encourage activity and promote social interaction) • Improved mental health • Reduced feelings of isolation <p>Green space:</p> <ul style="list-style-type: none"> • Access to landscaped green areas/community gardens/walking loops; Physical and mental health • Mood and stress levels/emotional stability/depression; Feelings of independence; Natural light in building <p>Loneliness and isolation:</p> <ul style="list-style-type: none"> • Mental and physical health • Design for accessibility and mobility • Visual design shouldn't provoke feeling of institutionalisation • Design for thermal comfort <p>Safety:</p> <ul style="list-style-type: none"> • Adaptations in bathrooms • Thermal comfort

Wellbeing framework or related paper/report	Focus, context and rationale	Definition of wellbeing	Key domains
<p>Healthier and Happier: An analysis of the fiscal and wellbeing benefits of building more homes for later living, Homes for Later Living & WPI Strategy, 2019.</p>	<p>The report discusses the fiscal and wellbeing impacts associated with homes for later living.</p>	<p>n/a</p>	<p>Independence:</p> <ul style="list-style-type: none"> • Safe and secure place to life • Access to amenities; laundry, guest suite, hairdressers <p>Safe and secure place to live:</p> <ul style="list-style-type: none"> • Number of falls • Number of hospital admissions • Reduced risk of health challenges • Temperature of home • Housing design; good lighting, secured rugs/carpets, easy access storage • Lower feelings of anxiety <p>Social isolation:</p> <ul style="list-style-type: none"> • Communal areas hosting social events • Exercise classes • Positive behaviours i.e. not smoking, drinking, over-eating
<p>Quality of Life Discussion Paper, National Infrastructure Commission, 2022.</p>	<p>A discussion paper to set out the National Infrastructure Commission’s position on its quality of life objectives. The paper covers 3 broad areas:</p> <ul style="list-style-type: none"> • The commission’s definition of quality of life. • Infrastructure and quality of life in the UK. • How the commission will measure this objective. 	<p>Quality of life: captures how happy or satisfied people are in their lives – it encompasses a complex and interacting set of factors which operate at different scales, from individuals to communities and countries, and can be measured objectively and subjectively.</p> <p>Wellbeing definitions fall into two main categories:</p> <ul style="list-style-type: none"> • Objective – includes measures of an individual’s income, wealth and health (and measures of wider socioeconomic and environmental context) 	<p>6 domains:</p> <ul style="list-style-type: none"> • Health: impacts of infrastructure services on physical and mental health • Local and natural surroundings: the impact of infrastructure design and operation on the local and natural environment • Connection: physical connections (transport networks) and digital connections (broadband) that link people, communities and businesses • Affordability: the distributional impact of the cost of infrastructure services that domestic consumers pay through bills or fares and the overall cost of infrastructure over time • Comfort and convenience: users’ experience with infrastructure services including the level of satisfaction derived from these services • Employment: how infrastructure acts as an enabler for patterns of economic activity and therefore access to jobs

Wellbeing framework or related paper/report	Focus, context and rationale	Definition of wellbeing	Key domains
		<ul style="list-style-type: none"> Subjective – using quantitative measures to capture individuals’ perceptions of their wellbeing 	
<p>Understanding local needs for wellbeing data: measures and indicators, What Works Centre for Wellbeing, 2017.</p>	<p>This report seeks to develop a consistent framework using local authority level indicators to measure what matters at a local level.</p>	<p>The report aims to capture the key factors known to be associated with individual wellbeing, but with particular reference to factors which are important for a community as a whole.</p>	<p>7 domains:</p> <ul style="list-style-type: none"> Personal wellbeing Equality Health (sub-domains: health behaviour, overall health, mental health) Education and childhood (sub-domains: child learning, adult learning, children’s wellbeing) Economy (sub-domains: unemployment, job quality, material deprivation) Social relationships (sub-domains: close support, generalised trust, personal relationships, community cohesion, volunteering) Place (sub-domains: green space, housing, democracy, local environment, crime and security, culture)
<p>Australian Wellbeing Framework, ACT Government, 2020.</p>	<p>Existing measures of economic progress don’t capture all the issues that may be important to a community. Measuring the factors that drive wellbeing will help the government to evaluate policy and programs and guide future policy design and decision making to ensure these have the best outcomes for overall wellbeing.</p>	<ul style="list-style-type: none"> Subjective measures of wellbeing consider an individual’s own preferences, needs and experiences. Personal wellbeing is defined as: ‘a measure of an individual’s satisfaction with their standard of living, health, what they are achieving in life, relationships, safety, community-connectedness, and future security.’ 	<p>12 domains:</p> <ul style="list-style-type: none"> Access and connectivity: access to services, liveable city, transport, digital access Economy: employment, economic performance, business conditions and economic diversity, income inequality Education and lifelong learning: early childhood education, learning growth, equity of educational outcome, student belonging, learning for life Environment and climate: healthy and resilient natural environment, connection to nature, climate resilient environment and community Government and institutions: trust in government, trust in other institutions, feeling that voice and perspective matter, access to justice and restorative practice, human rights Health: overall health, best start to life, life expectancy, mental health, access to health services, healthy lifestyle Housing and home: homelessness, rental stress, housing affordability and availability, housing suitability

Wellbeing framework or related paper/report	Focus, context and rationale	Definition of wellbeing	Key domains
			<ul style="list-style-type: none"> • Identity and belonging: sense of belonging and inclusion, support for multiculturalism, arts and culture. • Living standards: income levels, net worth, cost of living, financial position • Safety: feeling safe, victims of crime, domestic and family violence, road safety, workplace safety, emergency services • Social connection: sense of social connection, levels of loneliness, levels of volunteering, participation in community activities • Time: quality of time, work-life balance, time spend travelling, unpaid work including caring
<p>New Zealand Wellbeing Framework, Te Tai Ohanga 2021.</p>	<p>The aim is to develop a Living Standards Framework (LSF), to understand the drivers of wellbeing and consider the broader impacts of policy advice in a systematic and evidenced way.</p>	<p>The LSF focuses on three levels:</p> <ul style="list-style-type: none"> • 1. Individual and collective wellbeing • 2. Our institutions and governance • 3. Overall wealth of place <p>It discusses two common ways of assessing community wellbeing:</p> <ul style="list-style-type: none"> • Objective measures such as unemployment rates or hospital admissions, which provide community level indicators of wellbeing • Subjective individual assessments of life in the community, such as sense of belonging or whether they like the neighbourhood, which can be averaged into community-level wellbeing scores 	<p>Domains of individual and collective wellbeing:</p> <ul style="list-style-type: none"> • Health • Knowledge and skills • Cultural capacity and belonging • Work, care and volunteering • Engagement and voice • Income, consumption and wealth • Housing • Environmental amenity • Leisure and play • Family and friends • Safety • Subjective wellbeing

Wellbeing framework or related paper/report	Focus, context and rationale	Definition of wellbeing	Key domains
<p>Different People, Same Place, What Works Centre for Wellbeing, 2022.</p>	<p>This paper seeks to address a key question: How can resources best be allocated to improve individual and community wellbeing in line with the levelling up agenda? The piece aims to understand the link between subjective individual wellbeing and objective community wellbeing.</p>	<ul style="list-style-type: none"> • Individual wellbeing: Feeling good and functioning well. Affected by internal and external factors such as the physical and social context of the place where we live and personal relationships • Community wellbeing: This is how we are doing as a community. It is about how a group of people are doing as a group and goes beyond just adding up the individual wellbeing of the people in that group, to include considerations of how wellbeing is distributed. <p>It can be difficult to capture community wellbeing because people might belong to multiple communities that do not overlap, and what individuals perceive as their communities can differ from those defined by researchers or policymakers.</p>	<ul style="list-style-type: none"> • Sense of belonging • Sense of cohesion • Perceptions of social support and collective control • Social networks
<p>SEED Framework, Carnegie UK, 2022.</p>	<p>A wellbeing framework helps governments to understand what matters most to people, set goals and measure progress.</p>	<p>Collective wellbeing happens when social, economic, environmental and democratic wellbeing outcomes are seen as being equally important and are given equal weight. Collective wellbeing means everyone having what they need to live well, now and in the future.</p>	<ul style="list-style-type: none"> • Access to education • Access to health, care and other services • Good quality homes in safe, welcoming communities • Good quality jobs and fair work • Money to meet needs like heating, eating and housing • Access to good quality local environment • Access to the infrastructure we need to succeed • We have a voice within community
<p>Canadian Index of Wellbeing (CIW).</p>	<p>The CIW is guided by a conceptual framework that shifts the focus solely from the economy to include other critical</p>	<p>n/a</p>	<p>Community vitality:</p> <ul style="list-style-type: none"> • Social relationships; social engagement, social support, community safety • Social norms and attitudes; attitudes towards others and community <p>Democratic engagement:</p>

Wellbeing framework or related paper/report	Focus, context and rationale	Definition of wellbeing	Key domains
	<p>areas of people’s lives that lead to enhanced wellbeing. The CIW framework encourages people to question the way decisions are currently made, and to consider alternative ways to promote a higher quality of life for Canadians as well as a healthy economy.</p>		<ul style="list-style-type: none"> • Participation, communication, leadership <p>Education:</p> <ul style="list-style-type: none"> • Social and emotional competencies, basic educational knowledge and skills, academic achievement/ attainment /participation <p>Environment:</p> <ul style="list-style-type: none"> • Air, energy, freshwater, non-renewable materials <p>Healthy populations:</p> <ul style="list-style-type: none"> • Personal wellbeing, physical health conditions, mental health, functional health, lifestyle and behaviour, healthcare <p>Leisure and culture:</p> <ul style="list-style-type: none"> • Participation, opportunities <p>Living standards:</p> <ul style="list-style-type: none"> • Average and median income wealth, income and wealth distribution, income volatility, economic security <p>Time use:</p> <ul style="list-style-type: none"> • Work life balance, time with friends, time spend not working (not by choice), commute time, flexibility of hours, time pressure, amount of time sleeping
<p>OECD Better Life Index, Organisation for Economic Co-operation and Development (OECD).</p>	<p>The aim of the index is to involve citizens in the measuring of wellbeing.</p>	<p>Reflects on what the OECD has identified as essential to wellbeing in terms of material living conditions (housing, income, jobs) and quality of life (community, education, environment, governance, health, life satisfaction, safety and work-life balance).</p>	<ul style="list-style-type: none"> • Housing: dwellings without basic facilities, housing expenditure, rooms per person • Income: household net adjusted disposable income, household net wealth • Jobs: labour market insecurity, employment rate, personal earnings • Community: quality of support network • Education: educational attainment, student skills, years in education • Environment: air pollution, water quality • Civic engagement: stakeholder engagement for developing regulations, voter turnout • Health: life expectancy, self-reported health • Life satisfaction: life satisfaction • Safety: feeling safe walking alone at night, homicide rate

Wellbeing framework or related paper/report	Focus, context and rationale	Definition of wellbeing	Key domains
			<ul style="list-style-type: none"> • Work-life balance: Employees working very long hours, time devoted to leisure and personal care
<p>Understanding wellbeing in a local area (Camden example), What Works Centre for Wellbeing, 2022.</p>	<p>Camden Council is aiming to develop a wellbeing index for the borough, in order to gain a deeper understanding of how residents are doing and what the reality of their lived experience is, as part of a project titled Good Life Euston.</p>	<p>n/a</p>	<ul style="list-style-type: none"> • Secure livelihoods: affordable and good quality housing, secure and meaningful work, breaking the poverty cycle • Community richness, culture and identities: celebrating diversity, community heritage, freedom of expression • Environmental revitalisation: clean environments, safe environments, welcoming environments, sustainable and resilient environments • Our spaces and services: affordable transport services, health and wellbeing services, sports and leisure activities, community spaces and services • Positive connections: connections to the wider community, connections to family, friends and neighbours, connections to mentors and community champions • Formal and informal learning: early years, lifelong learning, skills and training for work, educational outcomes for young people • Positive state of being: feeling secure, developing as a person, physical and mental health, feeling control over one's future
<p>Defining and measuring rural wellbeing, Department for Environment, Food & Rural Affairs, 2021.</p>	<p>The aim is to identify particular aspects (domains) of the social and natural environment that influences the wellbeing of individuals in rural areas, and their relative importance. The framework is driven by fact that there is less evidence on elements of rurality that have an impact on wellbeing.</p>	<ul style="list-style-type: none"> • Broad definition of wellbeing: “how we are doing as individuals, communities and as a nation, and how sustainable our wellbeing is for the future” (ONS). • The framework uses a dynamic model of wellbeing: recognises how external conditions/personal resources influence individual wellbeing. • The framework distinguishes between individual wellbeing and community wellbeing. • Subjective wellbeing of individuals is measured by the ONS using four components: an individual's feelings of 	<ul style="list-style-type: none"> • Equality: health, income, gender, social, ethnicity • Access: healthcare, jobs/opportunities/communities, environment/nature, services • Economic opportunity: poverty, education, jobs/opportunities • Community: social capital, influence/power, community hubs, environment • Environment: natural, culture/heritage, built, safety • Health: physical health, mental health, physical and mental health

Wellbeing framework or related paper/report	Focus, context and rationale	Definition of wellbeing	Key domains
		satisfaction with life, whether they feel the things they do in their life are worthwhile and their positive and negative emotions; and anxiety.	
<p>London Wellbeing and Sustainability Measure, Greater London Authority, 2023.</p>	<p>It brings together data on the multiple aspects that form the basis of collective wellbeing. The intention is for GLA to track which aspects get better over time, and focus on areas that need improvement.</p>		<p>Accessible services and safe neighbourhoods:</p> <ul style="list-style-type: none"> • Core measures: living in a safe neighbourhood, access to diverse local services, accessible and affordable public transport • Supporting measures: good quality of services, satisfied with local area, can influence local area, trust in city and local institutions, preserving local heritage <p>Having a decent home:</p> <ul style="list-style-type: none"> • Core measures: good quality housing, affordable housing, secure housing, having a home (not homeless or sleeping rough) • Supporting measures: satisfied with housing, access to fixed-line broadband internet, able to keep accommodation warm in winter, housing not overcrowded, good quality care home accommodation <p>Positive connections and belonging:</p> <ul style="list-style-type: none"> • Core measures: good social contact with friends and family, a cohesive local community • Supporting measures: actively participating in culture, sports and leisure activities, volunteering <p>Being healthy:</p> <ul style="list-style-type: none"> • Core measures: healthy life expectancy, good physical health, good mental health, a worthwhile and satisfying life • Supporting measures: healthy behaviours, fewer vulnerable children <p>Improving our environment:</p> <ul style="list-style-type: none"> • Core measures: good air quality, access to quality green and blue space • Supporting measures: reducing carbon emissions, energy efficiency, waste reduction, low noise pollution, improving tree canopy <p>Good employment and opportunities to succeed:</p> <ul style="list-style-type: none"> • Core measures: secure employment, Fair Pay (London Living Wage), good qualifications at age 16

Wellbeing framework or related paper/report	Focus, context and rationale	Definition of wellbeing	Key domains
			<ul style="list-style-type: none"> • Supporting measures: satisfaction with job, opportunities for adult learning, access to childcare, being ready for school, developing digital skills, opportunities for young people, high local employment rate <p>Feeling financially secure:</p> <ul style="list-style-type: none"> • Core measures: a decent income (not in poverty), avoiding financial stress (e.g. can afford food, can pay bills) • Supporting measures: increasing local incomes, reducing income inequality