HOUSING ADAPTATIONS FOR AGEING IN THE UK: POLICY, LEGISLATION AND PRACTICE

Wusi Zhou

Submitted for the degree of Doctor of Philosophy

Heriot-Watt University

School of Energy, Geoscience, Infrastructure and Society

June 2018

The copyright in this thesis is owned by the author. Any quotation from the thesis or use of any of the information contained in it must acknowledge this thesis as the source of the quotation or information.

ABSTRACT

Demographic change has imposed financial strains on the healthcare system in the UK. In face of such a challenge, the concept of "ageing in place" was introduced as national policies to support older people living independently in their own homes. Housing adaptation was characterised as a very foundation for successful independent living and has been given a greater political priority. However, so far there is no legislation or guidance that identifies one primary organisation responsible for the delivery of adaptations. Instead, different local authorities are allowed to decide their own guidelines, procedures and eligibility criteria. Consequently, housing adaptation practice varied significantly across the country and sometimes confusing. This study is aimed at reviewing the current status of housing adaptation in different parts of the UK, assessing the effectiveness of the existing practice and making relevant suggestions for its improvement.

A mix-methods sequential explanatory research strategy was employed for this study. In the first quantitative phase, a questionnaire survey was carried out, involving all 378 local authorities in England, Scotland and Wales. It focused on finding out how local authorities plan, organise and monitor their adaptation services. The second qualitative phase included twelve interviews and a focus group meeting with stakeholders, including social worker, occupational therapists, housing officers, staff from care and repair and older service users; the aim was to explore the statistical results in more depth from different perspectives.

The results from the survey indicate some good practices, such as partnership guidance, the key caseworker, regular progress reports and agreement on the specification. However, the current implementation of adaptation policies is limited in most local areas. There is a relatively small number of adaptations with low levels of spending, compared with the potential needs from an aging population. There are noticeable differences between the different nations in the UK. Overall, Welsh government gave more attention to adaptation services and made them a higher political priority than England and Scotland; and provided a higher level of funding. In Scotland, local authorities focus primarily on middle- and small-scale adaptations with a cost up to £3,000. In England, the adaptation

service is complex with the involvement of two tier government – district and county councils.

Some common deficiencies have caused inefficiencies and ineffectiveness of the service, presenting important implications for policies related to healthy aging and community care. First, the way of setting adaptation budget based on the previous year's spending is problematic; it does not reflect the changing needs. As the general population aging, demands for housing adaptation are set to increase. Local authorities should adopt ways of assessing the real need before setting adaptation budget. Currently, multiple organisations are involved in the adaptation delivery process. Poor cooperation between partnering organisations is a major barrier to timely and effective service delivery. Practical guidance should be provided to improve joint working in partnership particularly across different local authorities. Besides, there are many inconsistencies and inequities in the adaptation process between local authorities, including initial referral, assessment arrangements and eligibility criteria. To ensure equal access to adaptation services across the whole country, it is important to introduce a unified national approach for housing adaptations with a minimum eligibility threshold applied in all local areas. Furthermore, delays are often found in the delivery of adaptations. Some priority systems lead to faster processing of urgent cases. However, a reasonable maximum waiting time should be set even for non-urgent applicants. Finally, although performance management is widely adopted, different monitoring methods and a variety of performance indicators are used in different local authorities. A standard framework in this regard will be useful in driving up overall performance of adaptation service delivery.

ACKNOWLEDGEMENTS

I would like to express my sincerest gratitude to my PhD supervisors, Dr. Adekunle Sabitu Oyegoke and Professor Ming Sun, for giving me the opportunity to carry out this research project and for providing me continuous support and guidance throughout the study. It was a real privilege and a great honour for me to learn their exceptional scientific knowledge and extraordinary human qualities. Their meticulous suggestions, astute criticism and inexhaustible patience were determinants for the accomplishment of the work present in this thesis.

I would also like to give my special appreciation to Professor Burkhard Schafer and Professor Sheying Chen for teaching me the logical steps to organise and write a good research paper, encouraging me to pursue the doctorate degree, and supporting my research in many ways.

My sincere thanks go to Care and Repair Scotland, who helped me to understand the adaptation process and to identify older clients for interviews. Sincere thanks are also to all local authorities across the UK who responded to the questionnaire and provided valuable insight to their adaptation systems, and to other research participants who shared their time and experiences.

A special thanks to the financial support for my research study from the Centre of Excellence in Sustainable Building Design at Heriot-Watt University through a PhD scholarship. I would also like to thank our research support assistants for their general administrative work.

I am very thankful to my husband, Chao, and my son, Lawrence, for being there for and with me through all of my ups and downs during the study. Without their support, I would not have come to this far in my academic journey.

I would express a deep sense of gratitude to my parents, Hao and Juxiang, and my parents-in-law, Yonghui and Xiaowen, for their constant love, unconditional support, and encouragement. They have always stood by me in times of need.

ACADEMIC REGISTRY
Research Thesis Submission

Name:	WUSI ZHOU		
School:	School of Energy, Geoscience, Infrastructure and Society		
Version: *(i.e. First, Resubmission, Final)*	Final	Degree Sought:	Doctor of Philosophy

Declaration

In accordance with the appropriate regulations I hereby submit my thesis and I declare that:

1) the thesis embodies the results of my own work and has been composed by myself
2) where appropriate, I have made acknowledgement of the work of others and have made reference to work carried out in collaboration with other persons
3) the thesis is the correct version of the thesis for submission and is the same version as any electronic versions submitted*.
4) my thesis for the award referred to, deposited in the Heriot-Watt University Library, should be made available for loan or photocopying and be available via the Institutional Repository, subject to such conditions as the Librarian may require
5) I understand that as a student of the University I am required to abide by the Regulations of the University and to conform to its discipline.
6) I confirm that the thesis has been verified against plagiarism via an approved plagiarism detection application e.g. Turnitin.

* *Please note that it is the responsibility of the candidate to ensure that the correct version of the thesis is submitted.*

Signature of Candidate:	WUSI ZHOU	Date:	18/06/2018

Submission

Submitted By *(name in capitals)*:	WUSI ZHOU
Signature of Individual Submitting:	WUSI ZHOU
Date Submitted:	18/06/2018

For Completion in the Student Service Centre (SSC)

Received in the SSC by *(name in capitals)*:			
CHAPTER 1 *ethod of Submission* *(Handed in to SSC; posted through internal/external mail):*			
CHAPTER 2 *-thesis Submitted (**mandatory for final theses)***			
Signature:		Date:	

CONTENT

CHAPTER 1: THE INTRODUCTION ... *1*

1.1 Overview ... **1**

1.2 Background ... **1**

1.2.1 World and UK Demographics ... 1

1.2.2 Impact of Population Ageing ... 4

1.2.3 Ageing in Place: Housing Adaptations for Independent Living ... 7

1.3 Definition of Housing Adaptation ... **11**

1.4 Statement of Gaps in Knowledge ... **12**

1.5 Research Aim, Objectives and Questions ... **14**

1.5.1 The Overall Aim ... 14

1.5.2 Research Objectives ... 15

1.5.3 Research Questions ... 15

1.6 Research Methods ... **16**

1.7 Thesis Outline ... **18**

1.8 Summary ... **21**

CHAPTER 2: POLICY AND LEGISLATIVE FRAMEWORK ... *23*

2.1 Introduction ... **23**

2.2 Multi-Level Politics in the UK ... **23**

2.2.1 Governance in England, Scotland and Wales ... 23

2.2.2 The Role of Local Government ... 28

2.3 Policy Objectives of Housing Adaptations ... **33**

2.3.1 The Overarching Ageing Strategy in England, Scotland and Wales ... 33

2.3.2 National Strategies on Housing for Older People ... 36

2.3.3 Local Implementation Plans on Adaptations ... 39

2.4 Statutory Responsibilities for Adaptation Provision ... **43**

2.4.1 The Equality Legislation ... 44

2.4.2 The Welfare and Housing Legislation in England and Wales ... 46

2.4.3 The Welfare and Housing Legislation in Scotland 51
2.4.4 Discussion 56

2.5 Summary 58

CHAPTER 3: HOUSING ADAPTATION PRACTICE 60

3.1 Introduction 60

3.2 Environment and Ageing Theory 60

3.3 Current Provision and Future Demand 64
3.3.1 Characteristics of Older Person 64
3.3.2 The Meaning of Home in Old Age 66
3.3.3 Need and Supply of Housing Adaptations 68

3.4 The Adaptation Process 72
3.4.1 Referral to Allocation 73
3.4.2 Assessment to Grant Application 75
3.4.3 Grant Approval to Installation 76
3.4.4 Follow-Up Visit 78

3.5 Value, Problems and Guidance 79
3.5.1 Benefits towards Individual 79
3.5.2 Benefits towards Family and Government 81
3.5.3 Problems and Causes 83
3.5.4 Guidance on the Provision of Adaptations 86

3.6 Home Improvement Agencies 88
3.6.1 Nature, Origins and Development 88
3.6.2 The Role of HIAs in Adaptations Delivery 90
3.6.3 Future Challenges for HIAs 91

3.7 Summary 93

CHAPTER 4: RESEARCH METHODOLOGY 95

4.1 Introduction 95

4.2 Research Process 95
4.2.1 Research Philosophy – Critical Realism 99
4.2.2 Research Approach – Abduction 103
4.2.3 Methodological Choices – Mixed-method 105

4.2.4 Research Strategies – Evaluation 108
4.2.5 Time Horizon – Cross-sectional 110
4.3 Phase 1 of Data Collection – Questionnaire Survey 112
4.3.1 Sampling 113
4.3.2 Questionnaire Structure 115
4.3.3 Validity and Reliability 118
4.3.4 Pilot Survey 121
4.3.5 Processing 121
4.4 Phase 2 of Data Collection – Interviews and Focus Group Meeting 122
4.4.1 Semi-Structured Interviews 123
4.4.2 Focus Group Meeting 125
4.4.3 Data Quality Issues 127
4.5 Data Analysis 129
4.5.1 Quantitative Data Analysis 129
4.5.2 Qualitative Data Analysis 130
4.6 Ethical Considerations 132
4.7 Summary 135
CHAPTER 5: QUESTIONNAIRE SURVEY RESULTS 136
5.1 Introduction 136
5.2 Service Planning 136
5.2.1 Budget Setting and Management 136
5.2.2 Partnership Work 138
5.3 Delivery Process 139
5.3.1 Referral to Allocation 140
5.3.2 Assessment to Funding 142
5.3.3 Installation 145
5.4 Performance Monitoring 147
5.4.1 The Monitoring System 147
5.4.2 Delivery Outcomes 149
5.4.3 Timelines 150
5.5 Reflections on the Survey Results 152

5.6 Summary **156**

CHAPTER 6: ANALYSIS AND RECOMMENDATIONS ON SERVICE PLANNING.. .... *158*

6.1 Introduction **158**

6.2 Budget Setting and Management **158**

6.2.1 Different Funding Streams 158

6.2.2 The Way of Setting the Budget 161

6.2.3 The Level of Funding 163

6.2.4 Budget Management 167

6.3 Partnership work **168**

6.3.1 The Role of HIA/C&R 168

6.3.2 Links between Partner Organisations 171

6.3.3 Features of Cooperation 173

6.3.4 Better Information Sharing 175

6.4 Summary **177**

CHAPTER 7: ANALYSIS AND RECOMMENDATIONS ON DELIVERY PROCESS… *179*

7.1 Introduction **179**

7.2 Referral to Allocation **179**

7.2.1 Routes to Making Referrals 179

7.2.2 Awareness of the Adaptation Service 183

7.2.3 Initial Screening Mechanism 185

7.2.4 Reactive rather than Proactive 188

7.3 Assessment to Grant Application **190**

7.3.1 The Structure of Assessment 190

7.3.2 Local Eligibility Criteria 193

7.3.3 Bottlenecks in the Assessment Systems 198

7.3.4 Procedures for Financial Authorisation 201

7.4 Grant Approval to Installation **207**

7.4.1 Specification of the Adaptation Work 207

7.4.2 Planning and Building Control 209

7.4.3 Quotations from Contractors 211
7.4.4 Review of Approved Grants 214

7.5 Summary 219

CHAPTER 8: ANALYSIS AND RECOMMENDATIONS ON PERFORMANCE MONITORING 223

8.1 Introduction 223

8.2 The Monitoring System..223

8.2.1 The Importance of Aftercare...224
8.2.2 Performance Indicators 225
8.2.3 Key Elements of Effectiveness 230

8.3 Delivery Outcomes 233

8.3.1 Different Levels of Adaptation Provision...233
8.3.2 Relationship between the Number of Adaptations and the Amount of Spending 236

8.4 Timelines 238

8.4.1 Complexity of Practice 238
8.4.2 Comparison of Waiting Times..241
8.4.3 Individual Cases..243
8.4.4 Main Causes of Delays 247

8.5 Summary 250

CHAPTER 9: CONCLUSIONS AND FUTURE RESEARCH 252

9.1 Introduction 252

9.2 Answers to the Research Questions 252

9.2.1 How does government policy and legislation shape and influence the provision of housing adaptations? 253
9.2.2 How do local authorities plan, organise and monitor their adaptation services?...255
9.2.3 What did not work well with local delivery systems for housing adaptations and why did not they?..257
9.2.4 What improvements can be made to guarantee the minimum standards and facilitate the best practice?..260

9.3 Contributions of this Study 262
9.3.1 Contribution to Knowledge 262
9.3.2 Contribution to Practice 264
9.3.3 Potential Contribution to Policy 266
9.3.4 Potential Contribution to Legislation 267
9.4 Limitation of this Study 269
9.5 Further Research 272
9.6 Summary 273
REFERENCES 275
APPENDIX 305

LIST OF TABLES

Table 1.1 Projected population by age group, United Kingdom, 2014-2039 3
Table 2.1 Devolved legislative powers in Scotland and Wales.................................... 25
Table 2.2 Ageing strategies and their housing initiatives in the three countries 35
Table 2.3 Comparison of local strategic objectives and initiatives on housing adaptations... 41
Table 2.4 Legislation on the provision of adaptations 48
Table 2.5 Funding avenues for adaptations in different tenures (England and Wales).. 51
Table 4.1 Characteristics of quantitative, qualitative and mixed methods 105
Table 4.2 The flowchart of conducting this sequential mixed-method research.......... 107
Table 4.3 The survey process in this study 112
Table 4.4 Sample selection criteria for the survey in this study.................................. 114
Table 4.5 The description of questions in the questionnaire 116
Table 4.6 The description of professionals in interviews.. 123
Table 4.7 The description of older clients in interviews 125
Table 4.8 The description of focus group meeting... 126
Table 4.9 Themes and subthemes... 130
Table 5.1 Descriptive statistics of variables related to budget setting and management 137
Table 5.2 Descriptive statistics of variables related to joint work 139
Table 5.3 Descriptive statistics of variables related to the referral process 140
Table 5.4 Target waiting time for assessment and completion rate 141
Table 5.5 Descriptive statistics of variables related to the assessment process 142
Table 5.6 Descriptive statistics of variables related to the installation process 146
Table 5.7 Descriptive statistics of variables related to performance management 148
Table 5.8 Number of approved adaptations and amount of allocated funding 2014/2015 149
Table 5.9 Timelines between stages of the adaptation process................................... 151
Table 6.1 Relationship between budget change and total amount 163
Table 6.2 Relationship between supply and demand 164
Table 6.3 Crosstabs among cooperation guidance, the number of organisations and partnership effectiveness... 172

Table 7.1 Relationship between self-referral services and delivery outcomes 182
Table 7.2 Relationships between the use of initial screening and the number of adaptations...186
Table 7.3 Relationship between the set of target timescales and the number of adaptations...188
Table 7.4 Crosstabs between only OT assessment and effectiveness of assessment arrangements 191
Table 7.5 Statistical analysis of factors in relation to eligibility criteria......................196
Table 8.1 Crosstabs between service guidance and performance monitoring 226
Table 8.2 Correlations among partnership effectiveness, assessment effectiveness, time delays and overall effectiveness..230
Table 8.3 Local authorities completed different levels of adaptations.........................234
Table 8.4 Local authorities paid out different total amount..235

LIST OF FIGURES

Figure 1.1 Proportion of population aged 65 or over in different regions 2010-2070 2
Figure 1.2 Percentage of persons aged 65 and over by country, 1985, 2010, 2035 4
Figure 1.3 Life expectancy at birth and healthy life expectancy at birth, by region, WHO 2013 5
Figure 1.4 The determinants of active ageing 9
Figure 1.5 The relationships between healthy ageing, ageing in place, and housing adaptation 11
Figure 1.6 The process of this research 17
Figure 2.1 Three levels of administrative divisions in England 28
Figure 2.2 Comparison of responsibilities for major services between local authorities 29
Figure 2.3 Key features of the Concordat 2007 31
Figure 2.4 National objectives to housing adaptations in the three countries 38
Figure 2.5 From national strategies to local implementation on housing adaptations ... 43
Figure 2.6 The funding arrangements for adaptations in different tenures 55
Figure 3.1 The ecological theory of adaptation and ageing 61
Figure 3.2 Correlation between age of household and long-term illness or disability 2012 65
Figure 3.3 Trend in numbers of people with a serious medical condition or disability, by age/tenure and whether accommodation meets their needs, England, 2002-03 to 2007-08 69
Figure 3.4 Total value, number and average value of DFGs in England 70
Figure 3.5 Estimate of future need for adaptations among pensioner households 70
Figure 3.6 Adaptation required and supplied by local authorities 71
Figure 3.7 The process of undertaking housing adaptations 73
Figure 4.1 Crotty's four-step model for justifying the research process 96
Figure 4.2 Creswell's model for conducting the research 97
Figure 4.3 Saunders Lewis and Thornhill's research onion model 98
Figure 4.4 This study's research onion 98
Figure 4.5 Elements of four key philosophical positions 102
Figure 4.6 The deductive and inductive research approach 103

Figure 4.7 The abductive approach 104
Figure 4.8 Formative evaluation structure in this study 110
Figure 4.9 Stages occur to prove the validity and reliability of a question 118
Figure 7.1 Correspondence analysis of partnership effectiveness and assessment effectiveness 200
Figure 8.1 Correlation between total allocated funding and total approved number ... 236
Figure 8.2 Average number, average amount and average value in three countries 236
Figure 8.3 Overall numbers and costs of adaptations in three countries 237
Figure 8.4 Average waiting time for each stage 242
Figure 8.5 The timeline of the adaptation provided for Client A 244
Figure 8.6 The timeline of the adaptation provided for Client B 245

GLOSSARY

AWG	Adaptation Working Group
C&R	Care and Repair
COSLA	Convention of Scottish Local Authorities
CSDP Act	Chronically Sick and Disabled Persons Act
DFG	Disabled Facilities Grants
DH	Department of Health
DWP	Department for Work and Pensions
EC	European Commission
EHCS	English Housing Condition Survey
FPNC	Free Personal and Nursing Care
GP	General Practitioner
HAC	Home Adaptations Consortium
HGCR Act	Housing Grants, Construction and Regeneration Act
HLE	Healthy Life Expectancy
HRA	Home Repair Assistance
LE	Life Expectancy
LGH Act	Local Government and Housing Act
NA Act	National Assistance Act
NAW	National Assembly for Wales
ONS	Office for National Statistics
UN	United Nations
WHO	World Health Organization
SCC	Scottish Constitutional Convention
SPSS	Statistical Package for The Social Science

LIST OF PUBLICATIONS

1. Zhou. W, Oyegoke, A.S., and Sun, M. (2014). Realising smart homes for ageing in place: the role of the building regulations (paper accepted but not published due to the funding). *CIB Conference*.

2. Zhou, W., Oyegoke, A.S., and Sun, M. (2016). Adaptations for older people in Great Britain: lessons from policy and practice. *Aging & Society Interdisciplinary Conference.*

3. Zhou, W., Oyegoke, A.S., and Sun, M. (2017). Service planning and delivery outcomes of home adaptations for ageing in the UK. *Journal of Housing and the Built Environment*. https://doi.org/10.1007/s10901-017-9580-3, (in press).

4. Zhou, W., Oyegoke, A.S., and Sun, M. (2018). Housing adaptations for ageing in Great Britain: legislation, policy and practice. *COBRA Conference Proceedings*.

5. Zhou, W., Oyegoke, A.S., and Sun, M. Adaptation for aging at home in the UK: a survey of current practice. *SSCI Journal*, (under review).

CHAPTER 1: THE INTRODUCTION

1.1 Overview

Demographic change has posed a significant challenge to the sustainability of the UK healthcare system. The concept of "ageing in place" was introduced as a national policy to support older people to stay in their own homes longer and enjoy a good quality of life. Housing adaptation is recognised as an effective intervention for successful independent living and has been given a greater political priority. However, adaptation policies and practice varied regionally, reflecting statutory limits, policy choices and local actions. This study is aimed at reviewing the current adaptation practices in different parts of the UK, investigating their effectiveness and making relevant suggestions for service improvement. It will identify the extent to which local authorities have sought to implement the ambitions of national policies and strategies in relation to housing adaptations.

This chapter introduces the context underpinning the rationale for this study, beginning with a discussion about the impact of an ageing society on public expenditure. It then moves on to highlight the importance of housing adaptations in facilitating ageing in place. After this, the scarcity of literature about housing adaptations is highlighted to justify the need for this study; the study's definition of housing adaptation is then offered. The last section of the chapter provides an overview of the thesis, including the research aim, the guiding questions and a summary of each chapter.

1.2 Background

1.2.1 World and UK Demographics

The global population is ageing: the proportion of people aged 60 or over will almost triple to reach 2.43 billion in 2050, from 894 million in 2010 (Rutherford and Social and General Statistics, 2012). This means in 40 years from 2010, around 1 in every 5 individuals is expected to be at least 60 years old. Figure 1.1 shows that over the next six decades, different regions of the world will experience a variety of ageing trends. Europe

and United States have the first (16%) and second (14%) highest proportions of people aged 65 and over in 2010, which are projected to be 27% and 24% respectively by 2070. Over the same period, Sub-Saharan Africa's older population is estimated to grow by 5% and Southern Asia's by 14%. Eastern Asia and Latin America are ageing at a much faster rate than developed countries: the shares of the older populations in both countries is expected to reach 28% in Eastern Asia and 26% in Latin America by 2070, compared with 10% and 6% in 2010.

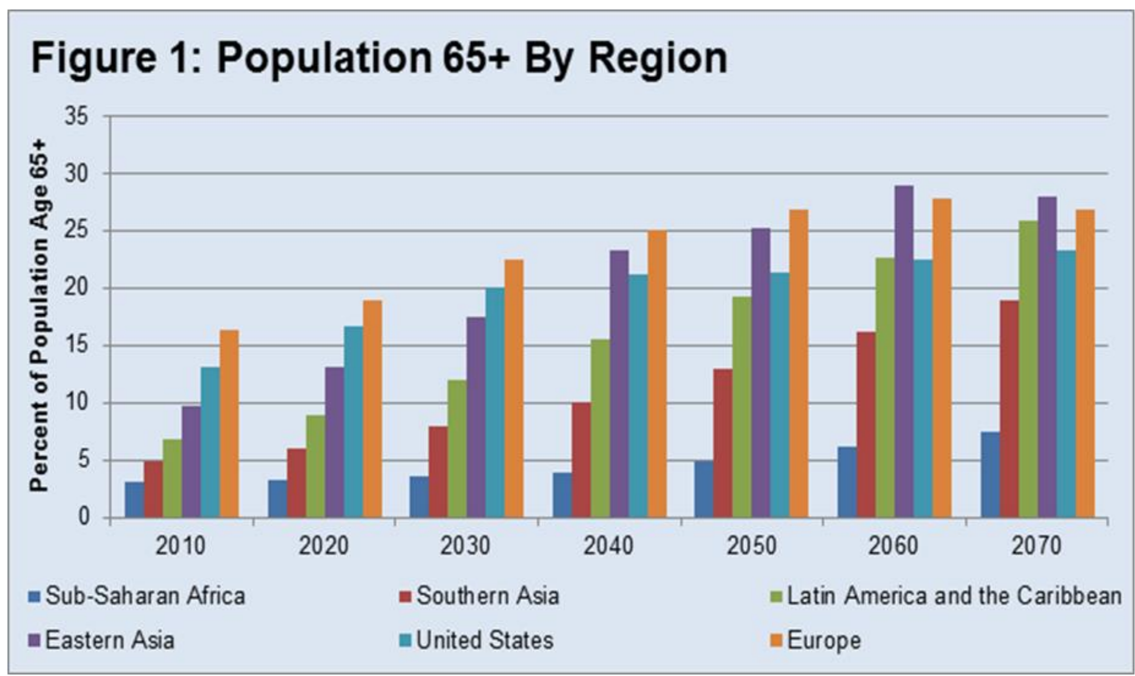


Figure 1.1 Proportion of population aged 65 or over in different regions 2010-2070 (Source: United Nations Population Division, 2013)

There are also very rapid demographic shifts in the UK. According to the 2014 based population projection, the total population is estimated to increase by 15% from 64.6 million to 74.3 million over the next 25 years (Table 1.1). However, the growth is not spread evenly between different age groups: the populations in children's age group and working age group are expected to see a slight increase by 8.8% and 11.4% respectively; while the pensionable age population is estimated to have a sharp rise of 32.7%. The growth rate among the "middle-old" and the "oldest-old" groups in the UK is even higher: the number of people aged 75 years or over is projected to nearly double to 9.9 million in 2039 from 5.2 million in 2014. This means that more than 1 in 8 of the UK's population is projected to be aged 75 or over by 2039. Apparently, the age structure in the UK is

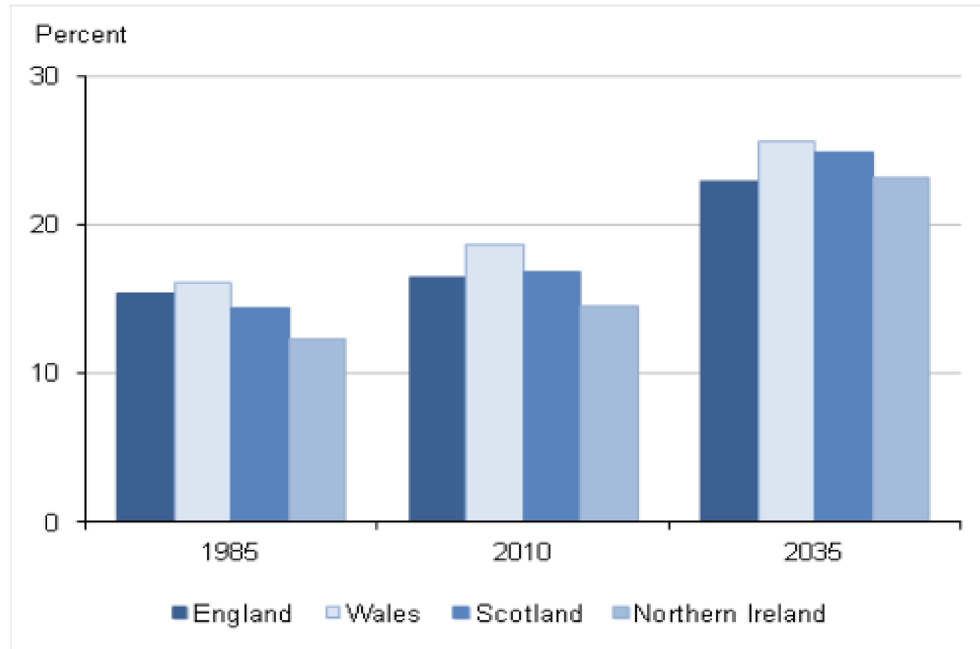
changing, with ageing is taking place not only in the overall population but also within the pensionable population itself.

Table 1.1 Projected population by age group, United Kingdom, 2014-2039 (Source: Office for National Statistics, 2015)

						millions
Ages	2014	2019	2024	2029	2034	2039
0-14	11.4	12.0	12.3	12.3	12.3	12.4
15-29	12.6	12.4	12.3	12.6	13.2	13.5
30-44	12.7	12.9	13.6	13.7	13.3	13.2
45-59	13.0	13.4	12.9	12.6	12.7	13.4
60-74	9.7	10.4	11.1	12.0	12.4	12.0
75 & over	5.2	5.8	7.0	7.8	8.7	9.9
75-84	3.7	4.1	4.9	5.4	5.6	6.3
85 & over	1.5	1.7	2.0	2.4	3.2	3.6
All ages	64.6	66.9	69.0	71.0	72.7	74.3
Children	12.2	12.7	13.1	13.1	13.2	13.2
Working age	40.0	42.0	43.0	44.2	44.3	44.6
Pensionable age	12.4	12.2	13.0	13.6	15.2	16.5
Old Age	310.4	290.4	301.3	308.1	344.1	369.6

Notes: 1. Children are defined as those aged under 16. 2. Working age and pensionable age populations based on state pension age (SPA) for given year. 3. Between 2012 and 2018, SPA will change from 65 years for men and 61 years for women, to 65 years for both sexes. 4. Then between 2019 and 2020, SPA will change from 65 years to 66 years for both men and women. 5. Between 2026 and 2027 SPA will increase to 67 years and between 2044 and 2046 to 68 years for both sexes. This is based on SPA under the 2014 Pensions Act.

Figure 1.2 illustrates the growth rates of the populations aged 65 and over, among the four nations in the UK between 1985 and 2035. In 1985, Wales recorded the highest figure of people aged 65 or over at 16%, which was slightly higher than 15% in England and 14% in Scotland. Northern Ireland had the lowest proportion of 12%. By 2035, Wales is expected to maintain the highest rate, increased to 26%. The older population of Scotland is projected to grow more quickly than the other nations and to reach the second highest proportion of 25%. Both England and Northern Ireland will increase to 22%.



Notes: 1985 to 2010 Mid-year estimates, ONS, NRS, NISRA, 2011 to 2035 National Population Projections, (2010-based), ONS.

Figure 1.2 Percentage of persons aged 65 and over by country, 1985, 2010, 2035 (Sources: Northern Ireland Statistics and Research Agency, 2012)

1.2.2 Impact of Population Ageing

Ageing is partly a consequence of substantial progress in improving health and reducing mortality, meaning that people are living longer and more actively than before (United Nations [UN], 2015). England, for example, has seen a steep decline in deaths of people before they reach 65 years of age, from 48% in 1948 to 14% in 2010 (Office for National Statistics [ONS], 2013a). The increased human longevity can bring certain benefits to older people (e.g. secondary career, further education), their families (e.g. financial assistance, childcare support) as well as the society (e.g. voluntary care, prolonged working life) (World Health Organization [WHO], 2015). However, the extent to which these contributions can be obtained depends on one critical issue: ‘whether longer lives have those extra years of life in good health’ (UN, 2013).

From the biological perspective, the ageing process represents the accumulation of damages to cells and tissues over time (Rattan, 1995), which results in a gradual deterioration of the immune system, a steady decline in physical and mental capacities, and an enhanced vulnerability to infectious disease and chronic illness (Jin, 2010). Apart

from biological changes, the health status in old age is associated with other factors, such as environments, behaviours and life transitions (Brooks-Wilson, 2013). In spite of diversity, age is always recognised as the most powerful predictor of the average health risks people face (WHO, 2015). In other words, as people age they are more likely to be living with morbidity, disability or frailty. The WHO found that in 2013 life expectancy (LE)[1] at birth across the world was 71 years while the corresponding healthy life expectancy (HLE)[2] was only 62 years (Figure 1.3). This implies that on average people lost nine years of heathy life because of disability. It was further revealed that people living in countries with longer LE tended to spend a larger proportion of their lives with disability or illness, compared with those in nations with shorter average life spans (WHO, 2015). So far, despite life extension, there is little evidence to support the argument that today's people, in later life, live more healthily than their preceding generations (Beard and Bloom, 2015).

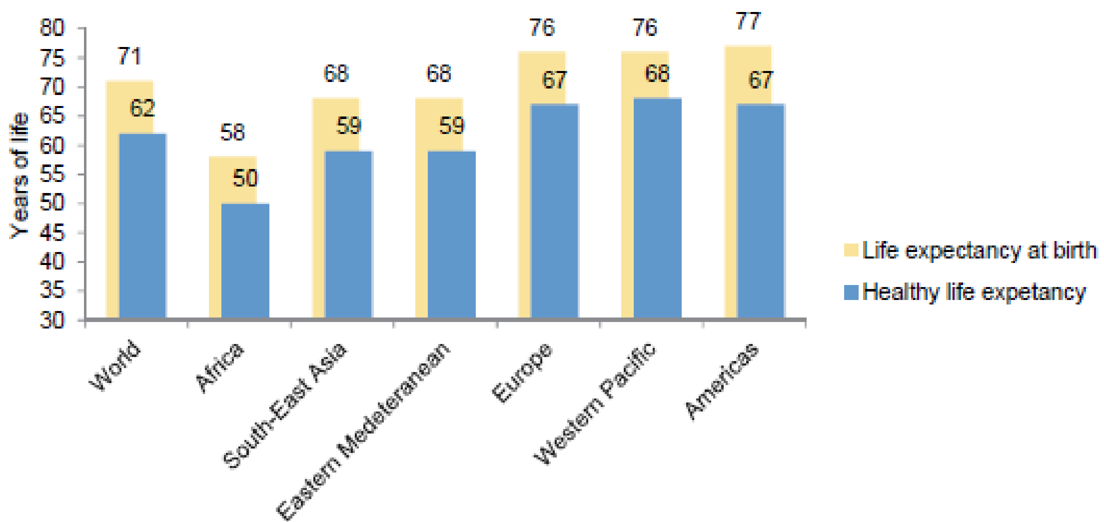


Figure 1.3 Life expectancy at birth and healthy life expectancy at birth, by region, WHO 2013 (Source: World Health Organization, 2014)

Therefore, the growing share of older people in the population inevitably leads to an expanding demand for long-time care and hospitalisation (Mihailidis et al., 2012). It is reported that in Europe the long-time care expenditure could more than double to 2.9%

[1] Life expectancy is the average number of years an individual can expect to live. See more in World Health Organization, Health topics, available: http://www.who.int/topics/life_expectancy/en/.

[2] Health life expectancy is the length of time that a person can expect to live in "full health" by considering years lived with disease or injury. See more in World Health Organization, Health statistics and information systems, available: http://www.who.int/healthinfo/statistics/indhale/en/.

of GDP by 2050 (Scheil-Adlung and Bonan, 2012); an estimated 1,000,000 of health workers will be deficient by 2020 while 15% of necessary health care will fail to be covered (European Commission [EC], 2011). According to the WHO's assessment, costs of healthcare for older people's chronic diseases, such as heart disease, stroke and diabetes, have resulted in economic losses of US$84 billion for the whole 23 low- and middle-income countries in 2015 (WHO, 2011). Indeed, this demographic trend has posed a significant challenge to the sustainability of the healthcare systems in both developed and developing countries. To address this issue and promote active ageing, a range of strategic initiatives have been set up by such organisations as the UN (e.g. Madrid International Plan of Action on Ageing), the WHO (e.g. Towards an Age-friendly World), and the European Union (e.g. European Innovation Partnership on Active and Healthy Ageing).

Similarly, the unavoidable demographic shifts in the UK have been intensifying pressures on public services and finances. Based on the hypothesis that the state and the individual share the responsibility for long-term care, in 1999 the Royal Commission recommended that nursing and personal care should be available without charge to everyone accessed. The Government recognised the importance of improving older people's quality of life and accepted the Committee's recommendation on free nursing care[3] (Department of Health [DH], 1999). As a result, during 2012/2013 the UK government spent £17.2 billion on adult social care, of which £8.8 billion (over half) was allocated to people aged 65 or over (Health and Social Care Information Centre, 2014). It is estimated that by 2018 there will be over 4 million older people with a limiting longstanding illness, with an additional investment of £5 billion being required for their health and social care (ONS, 2013b).

The situation is even worse in Scotland, as compared to other nations in the UK. The Scottish Executive not only endorsed the Commission's view of offering nursing care free of charge in line with other nations, but also moved further to implement a free personal care policy[4] (Care Department Group, 2001). This free personal and nursing care (FPNC) policy, owing to the ageing of the population, poses ever-increasing challenges to the sustainability of public finances of Scotland (Jeffery, 2009; Sutherland, 2008).

[3] Nursing care, as an international concept, has been recognised as care requiring the knowledge or skills of a qualified nurse. The Regulation of Care (Scotland) Act 2001 had listed a range of care services.

[4] Personal care was defined by the Royal Commission as care needs which give rise to the major additional costs of frailty or disability associated with old age.

According to the latest statistics (Scottish Government, 2015), the spending on FPNC for people aged 65 and over more than doubled to £494 million in 2013-14 from £241 million in 2004-05. However, the Scottish Budget has been cut continuously since 2010/2011, by more than 7% in 2012/2013 and 11% in 2013/2014 (Scottish Government, 2013). This inverse equation has led to unmet needs among older people and funding gaps for local government (Audit Scotland, 2014). It was reported that an additional investment of £1.1 billion was needed in 2016 to satisfy the increasing healthcare demand from an ageing population (COSLA, Scottish Government and NHS Scotland, 2011). Such an incredible growth in expenditure wherever it is in the UK, subject to today's budget limitations, appears to be virtually impossible.

Therefore, when LE has increased dramatically with the rise in morbidity, it is crucially important to improve older people's health and shorten their time in need of healthcare. As pointed out by Scottish Parliament (2013), 'HLE is key with regards to what the fiscal pressures of an ageing population will be' (p.7). However, HLE has lagged behind the growth in LE in the UK. In fact, the gap between HLE and LE has not been closed but widened (Jagger, 2015). To tackle the health inequalities, it is necessary to have a more holistic view of active ageing, including all its determinants and their interactions (Paúl, Ribeiro and Teixeira, 2012).

1.2.3 Ageing in Place: Housing Adaptations for Independent Living

"Healthy ageing" and other alternative terms, such as "successful ageing", "positive ageing", "active ageing", "productive ageing", and "ageing well", raise awareness about population ageing and the need to address its challenges toward individuals, families and nations (Fernández-Ballesteros et al., 2013). They also represent a positive view on the ageing process, or rather, a new paradigm for gerontology science (Fernández-Ballesteros, 2008). This new paradigm is based on fundamental principles of human right, autonomy and independence. It shifts the previous "needs-based" approach of recognising older adults as positive objects to today's "rights-based" approach of emphasizing older people's rights to equality in all aspects of life (WHO, 2002). It should be noted that some scholars often use these expressions interchangeably while others tend to define them differently. This thesis treats these terms equally since all of them lead to achieving the

same goal of improving health of older people and compressing their morbidity (Fries, 2002).

The notion of healthy ageing has been discussed widely in policy reports and research documents during previous decades. For instance, according to the WHO's report, active age is concerned with 'the process of optimizing opportunities for health, participation and security in order to enhance the quality of life as people age and active is continuing participation in social, economic, cultural, spiritual and civic affairs, not just the ability to be physically active or to participate in the labour force' (2002, p.12). In the response to world population ageing, the EC (2002) summarised that core active ageing practices include life-long learning, working longer, being active after retirement and engaging in capacity-enhancing and health-sustaining activities. These practices aim to improve the average quality of personal lives, reduce dependency burdens and produce substantial cost savings to pensions and health. Therefore, it represents win-win strategies for people of all ages. In the Healthy Ageing Project[5], healthy ageing is defined as 'the process of optimising opportunities for physical, social and mental health to enable older people to take an active part in society without discrimination and to enjoy an independent and good quality of life' (EC, 2007, p.17).

These definitions clearly underline two aspects: firstly, the main purpose of healthy ageing is to realise complete physical, social and emotional health in later life; secondly, healthy ageing depends on a set of social and material determinants. Figure 1.4 shows six major aspects of active ageing, namely physical environment, social determinants, economic determinants, health and social services, behavioural determinants, and personal determinants. Although each influence applies to health and well-being of older persons, a number of empirical studies have demonstrated that the key ageing dimensions, such as physical, social and emotional health, are more likely to be achieved when environmental conditions are age-friendly (Prohaska et al., 2006; Wahl and Oswald, 2010).

[5] In 2003, the Swedish National Institute of Public Health, with the support of the European Commission and twelve partners including the WHO, AGE, EuroHealthNet and Member States' public health institutes, ministries and universities initiated the three-year "Healthy Ageing" project under the EU Public Health Programme. The project aims to exchange experience and increase knowledge about how to promote health and quality among older people.

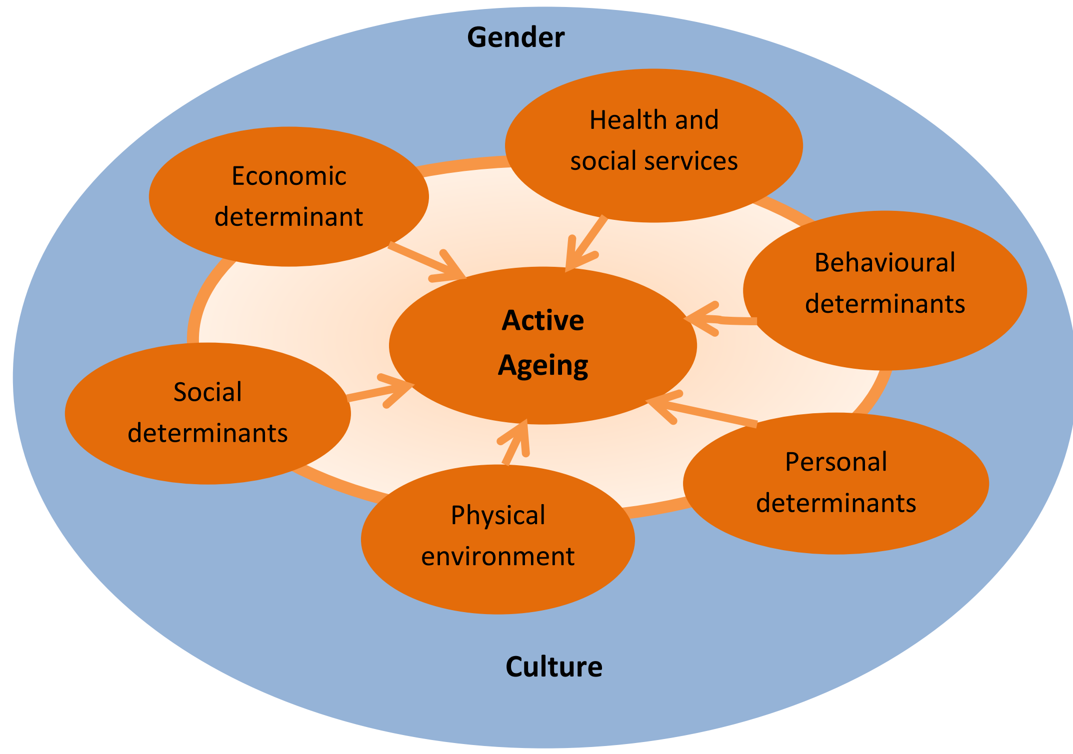


Figure 1.4 The determinants of active ageing (Source: WHO, 2002)

Recognition of the role the physical environment played in the process of healthy ageing has opened up more investigations of the interrelationship between housing and healthy ageing (e.g. Burton, Mitchell and Stride, 2011; Gitlin, 2003; Oswald et al., 2007; Rubinstein and De Medeiros, 2014). Evidence has shown that there is a noticeable correlation between the age of households and long-term illness or disability (Adams, 2016; Van Hoof, Kort and Van Waarde, 2009). Life limiting illnesses create environmental barriers for older people to live independently, such as stopping them to reach the toilet, have a bath or go upstairs (Heywood, Oldman and Means, 2002). In other words, household hazards are more easily to cause injuries, isolation and depression among older people (Jackson, 2003; Lopez, 2012). In addition, when people are getting older, they spend a large proportion of their time (approximately 80% in very old age) within the home (Baltes et al., 1999; De Jonge et al., 2011). In this regard, housing quality and suitability is of the essence for successful ageing in place (Cunningham and Michael, 2004; Milligan, 2012). If home environments are inadequate or inappropriate for older people to perform activities of daily living, they often have to move to residential settings or even institutional care (Iecovich, 2014; Iwarsson, Wahl and Nygren, 2004). This is apparently much more expensive than the provision of home-based care (Chappell et al.,

2004; Horner and Boldy, 2008; WHO, 2007). On the other hand, over 85% of older people have a strong desire to remain in their own homes and communities for as long as possible (e.g. Croucher, 2008; Cutchin, 2004; Davey et al., 2004; Keeling, 1999). Therefore, supporting people to live independently in their own home can make a profound and positive impact on individuals, their families and the wider society (Chiatti and Iwarsson, 2014; Wilken et al., 2002). Unsurprisingly, many social policies and programmes have been developed across the world to promote ageing in place.

In response to the challenges of a growing older population, "ageing in place", as an established concept, is also embraced by the UK government. This concept highlights the importance of 'ability to live in one's own home and community safely, independently, and comfortably, regardless of age, income, or ability level' (Centres for Disease Control and Prevention, 2010). It underpins a new care approach that delivers services to support elderly people remaining at home rather than requiring them to move to hospitals or care homes (Burgess and Morrison, 2016; Kempton and Gawin, 2011). Central to this approach is the principle of independent living. To achieve the maximum independence for older adults, three things are essential (Heywood, Oldman and Means, 2002): (i) the home needs to be in good conditions to prevent causing any physical or mental illness; (ii) service is available when required to help with housework; (iii) adaptation is required to make all the rooms and facilities accessible for older occupants. In this context, housing and related services are not simply the "bricks and mortars", but also the provision of a stable foundation for health and independent living (Howard-Wilsher et al., 2016).

Housing adaptation is recognised as an effective intervention to enhance home accessibility and suitability (Pettersson et al., 2017). When health deteriorates and mobility reduces, older people can remove obstacles or adapt their house to manage daily activities at home and participate in social life (Sixsmith et al., 2014; Thordardottir et al., 2016). Both physical activity and social participation have important implications for ageing in place (Haak et al., 2007). Therefore, housing adaptations are not only vital vehicles for moving to a broader choice of independent living (Fänge and Iwarsson, 2003; Renaut et al., 2015), but also sophisticated machines for guaranteeing an effective usage of public resources (Heywood and Turner, 2007; Howard-Wilsher et al., 2016). As pointed out by Hwang et al. (2011), 'home modifications play an important role in facilitating aging-in-place, with clear implications for health and social policy for older people' (p.255).

To conclude, healthy ageing presents a holistic and life-course approach, which incorporates the values and principles of ageing in place (Sixsmith and Sixsmith, 2008). Housing adaptation has featured as a crucial element in meeting the changing situations across the life course and promoting people ageing in place (Hwang et al., 2011; Sakellariou, 2015). Figure 1.5 displays inclusion relationships among active ageing, ageing in place and housing adaptations. In practice countries, including UK and France, have placed ageing in place policies in the broader context of active ageing strategies (Mestheneos, 2011; Renaut et al., 2015). Meanwhile, the ageing in place policies have included special measures and approaches to facilitate housing adaptations for independent living (Davey, 2006).

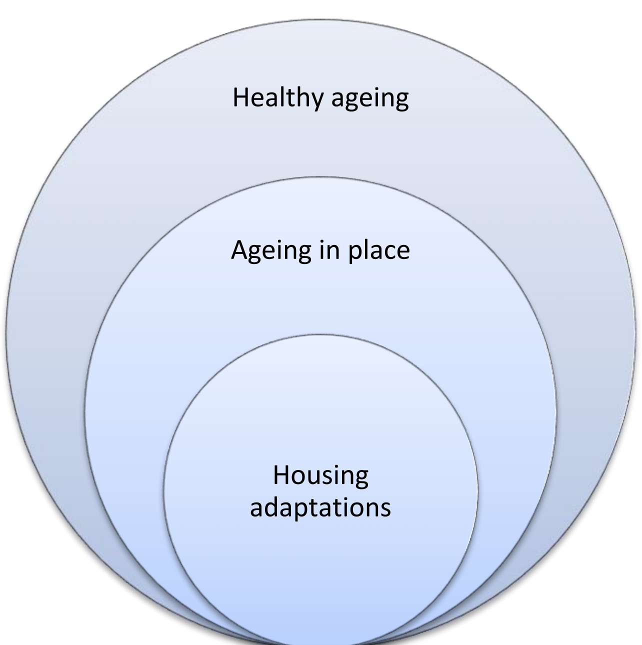


Figure 1.5 The relationships between healthy ageing, ageing in place, and housing adaptation

1.3 Definition of Housing Adaptation

Housing adaptation has been used interchangeably with "home modification" and defined in many different ways. Some literature used the term to describe a temporary rearrangement of furniture or fittings (e.g. removal of carpet) and a provision of equipment or devices (e.g. shower chair, movement sensors) (Pynoos, Nishita and

Perelma, 2003; Sanford, 2012); others explained it as an alternation to permanent features of the physical environment (e.g. replacement of a bath, installation of a ramp) that enables an individual with functional limitation to perform everyday activities at home (Chiatti and Iwarsson, 2014; Hwang et al., 2011). Stark (2003) gave a broader definition from the perspective of occupation therapists, which specified three types of home modification – the physical change to the home environment including the provision of equipment, the alternation of occupation to enhance activity, and the delivery of home care. Although defined differently, there was general agreement that housing adaptation aimed to increase independence, safety and security of those living with a chronic disease or disability and having limitations to carry out an activity (Bridges, 2010; Russell, 2016).

In this study, housing adaptation refers to modifications of physical features in the indoor and immediate outdoor environment, including changes to the layout or the structure features and installation of fixtures and fittings, in order to reduce environmental barriers and to restore independent living. Thus, the physical home environment is adapted to meet the specific needs of individuals who are experiencing the difficulty in performing daily activities at home (Fänge and Iwarsson, 2005). The underlying assumption that removing environmental barriers can improve performance and engagement is based on the theoretical concept of person-environment fit, which the person with decreased competence is more vulnerable to environmental influences (further discussion in Chapter 3).

1.4 Statement of Gaps in Knowledge

There is a developing literature which explores the effects of housing adaptations on aging in place. The ENABLE-AGE UK project found evidence that housing adaptation was a key determining factor for aging in place and older person who received adaptations were likely to live longer in their own houses than those who did not (Hwang et al., 2011). Through conducting interviews and questionnaires with recipients in England and Wales, Heywood found that well-designed adaptations can benefit both physical and mental health of not only disabled people but other household members (2004). A randomised trial showed that home interventions prevented fall accidents at home (Cumming et al., 1999). One third of those who responded to a survey in another research reported that adaptations slowed down deterioration in their quality of life (Bamford, 2000). A similar

study in Nottingham demonstrated that major adaptations were positively correlated with quality of life (Watson and Crowther, 2005). The benefit of housing adaptations in removing physical barriers and promoting greater independence in later life is reported by several other studies (Connell et al., 1993; Fäng and Iwarsson, 2005; Tabbarah, Silverstein and Seeman, 2000). Beyond health and independence, a qualitative study further highlighted that home modifications can enhance older people's experience of home by restoring home as a place of safety, security, control and comfort (Tanner, Tilse and De Jonge, 2008). Similar results were found in a Swedish study by Pettersson, Löfqvist and Malmgren Fänge (2012), which found that feeling at home was considered as a prerequisite for safety in everyday life and adaptations facilitated this feeling.

In the UK, local government has the statutory duty to fund housing adaptations for disabled people. There are various types of financial assistance, depending on the housing tenure and where a person actually lives. For example, in England and Wales, although disabled facilities grants (DFGs) are available to people in all housing tenures, local authorities and housing associations normally use their own budgets (e.g. housing revenue account, housing association funding) to undertake adaptations for their tenants. Therefore, DFG is the major funding source for housing adaptations of private households. According to the Housing Grants, Construction and Regeneration (HGCR) Act 1996, a DFG should be awarded when the housing authority is satisfied that an adaptation is necessary and appropriate to meet the needs of a disabled applicant and it is reasonable and practicable for such an adaptation to be carried out given the property's condition. During the funding application assessment process, the housing department should consult the social services department to establish whether the adaptation work is necessary and appropriate. In addition, since the introduction of home improvement agencies (HIAs) in the Local Government and Housing Act 1989, many local authorities have cooperated with them during the delivery of adaptations. Therefore, it is quite common to find that the adaptation process is administered by multiple departments and organisations in many local authority areas (Heywood, 1994; Ramsay, 2010). So far, there is no legislation or guidance that identifies one primary organisation responsible for the provision of housing adaptations (Adaptations Working Group [AWG], 2012; Bull and Watts, 1998). Instead, different local authorities are allowed to decide their own guidelines, procedures and eligibility criteria. Consequently, the current adaptation implementation is fragmented and sometime confusing (Audit Scotland, 2004; Boniface et al., 2013).

To modernise the adaptation systems and meet the rising demand, national housing strategies, such as *Lifetime Homes Life Time Neighbourhoods* in England, *Age, Home and Community* in Scotland, and *Living Longer, Ageing Well* in Wales, have set out a number of objectives, focusing on information accessibility, joint work, grant eligibility and delivery process. Given the central-local government relation, these policy objectives represent a framework within which local authorities have an opportunity to develop their own policies and action plans. In other words, the degree to which the improvement of housing adaptations could be achieved depends on how local authorities design the services and deliver them. Therefore, it is critically important to investigate local systems and practice for housing adaptations.

However, it is surprising to find that so little empirical research has been conducted on local adaptation systems and practice. Very few studies, such as Bibbings et al. (2015), Jones (2005) and Keeble (1979), have focused on reviewing the provision of housing adaptations and improving their effectiveness, which is essential for disabled/older people to receive timely assistance and overcome the risks of environmental barriers. Therefore, there is an urgent need for reviewing the current practice of delivering housing adaptations across local authority areas in the UK, assessing their effectiveness and suggesting ways to make them more effective. This study is aimed at filling this gap by conducting a sequential mix-method research. In the first phase, the survey questionnaire to local authorities will identify the key features of local adaptation practices in terms of service planning, delivery and monitoring. In the second phase, qualitative interviews with stakeholders will be used to understand aspects of the adaptation provision from the perspectives of different stakeholders, including service providers and service users.

1.5 Research Aim, Objectives and Questions

1.5.1 The Overall Aim

This study aims to investigate the current status of housing adaptation in different parts of the UK, assess the effectiveness of the existing practices and offer relevant suggestions for improvement.

1.5.2 Research Objectives

i. To understand policy objectives and legislative context of housing adaptations in the UK.
ii. To survey local provision of housing adaptations, including service planning, delivery process and performance monitoring.
iii. To identify common issues with current local adaptation practice and to examine the reasons behind them.
iv. To make recommendations, at both national and local levels, for the improvement of future delivery of housing adaptations.

1.5.3 Research Questions

Following the overall research aim and its main objectives discussed above, four guiding central questions have been formulated:

Question 1: How does government policy and legislation shape and influence the provision of housing adaptations?

This research question is defined to understand the policy context that determines the country's objectives towards housing adaptations, the legislative framework that sets out the powers and duties of local authorities to provide housing adaptations, and the guidance that serves to develop good practice in delivering adaptations. The examination of such information is significant because it enables the researcher to map the current adaptation systems and to identify improvements to the current systems. This question will be addressed in Chapter 2 and 3.

Question 2: How do local authorities plan, organise and monitor their adaptation services?

This research question is framed to grasp current administrative and financial arrangements for housing adaptations among local authorities. These arrangements help the researcher to understand how local authorities set and manage the adaptation budget, which partners work together for the delivery of housing adaptations, how the key stages of the adaptation process are organised, and how performance is monitored. This question will be answered in Chapter 5.

Question 3: What did not work well with local delivery systems for housing adaptations and what are reasons?

After finding out how each local authority organises the adaptation service, this research question is posed to make comparison of local adaptation practice and to identify common issues with the current delivery systems. It helps the researcher to examine what works well and what does not with legislation, policy and practice in relation to housing adaptations. Furthermore, it guides the researcher to explore the underlying causes of these systemic issues. This question will be addressed in Chapter 6 to 8.

Question 4: What improvements can be made to guarantee the minimum standards and to strive for the best practice?

Based on findings from the third research question, this research question is intended to identify ways in which the delivery system could be streamlined for better outcomes to be achieved. It enables the researcher to propose basic changes that are needed to address the existing problems identified within the current arrangements for housing adaptations. Answers to this question will be detailed in Chapter 6 to 8.

1.6 Research Methods

Figure 1.6 summarises the process of this research. The study started with a review of policy documents, research reports and journal papers, which revealed considerable variations among local adaptation practices. A mixed-methods sequential explanatory research strategy was employed. In the first quantitative phase, a questionnaire survey is conducted to investigate how local authorities plan, organise and monitor their adaptation services. The survey covered questions on service planning, joint work, delivery process, and performance monitoring. At the end of this process, a total of 112 local authorities responded to the survey, with 61 completed questionnaires returned by stamped envelopes, 28 responses received from online, and another 23 returned by emails. The second qualitative phase included eleven interviews and one focus group with stakeholders, including social workers, occupational therapists (OTs), housing officers, a policy officer, staff from Care and Repair (C&R) and older clients; the aim was to explore the statistical results in depth from different perspectives. The interviews were explanatory, designed to gain a more comprehensive picture of current adaptation

provision from the perspectives of different stakeholders, including service providers and service users.

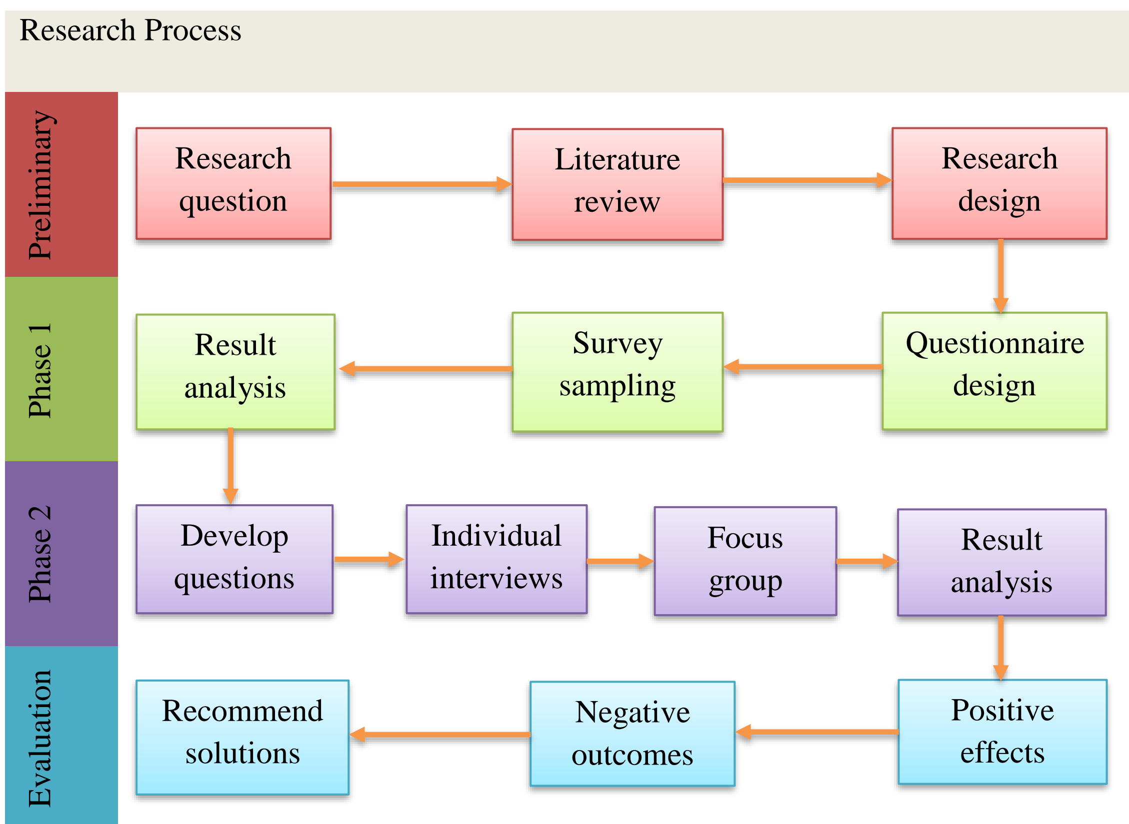


Figure 1.6 The process of this research

In such a research design, the quantitative results inform the qualitative data collection and the qualitative analysis offers more in-depth explanations for issues identified in the quantitative phase (Creswell, 2003; Greene, Caracelli and Graham, 1989). The rationale for this design is that neither quantitative nor qualitative method in themselves is sufficient to obtain a deep understanding of the research question but their combination can complement mutually for a more comprehensive analysis (Ivankova, Creswell and Stick, 2006; Schwingel et al., 2016). Considering the main aim of this study, priority was given to the quantitative method, as it provides the main evidences on the current status and the factors that affected service planning, process and management in different local authorities. The lesser qualitative component was targeted at capturing experiences and views of stakeholder representatives on key issues identified by the quantitative results. The findings of both research methods were combined during the discussion sections.

The data were analysed in accordance with the specific procedures in the mixed methods sequential explanatory design (Creswell, 2003). First, quantitative data were analysed by using the Statistical Package for the Social Science (SPSS 22, Inc., Chicago, IL, 2013). Frequencies tables display percentage of local authorities who answered "yes" to different questions and measured central tendency to summarise the common practices in organising adaptations from planning to completion. Correlation and regression analysis (Rioux and Werner, 2011), examined relationships between variables to identify key factors that impacted the effectiveness of adaptation services. Secondly, data from interviews and focus group were analysed using NVivo 10 (QSR International, Melbourne, Australia, 2012) and coding was generated to seek core categories and themes (Ivankova, Creswell and Stick, 2006). The emerged themes were reinvestigated and divided into subthemes.

1.7 Thesis Outline

This thesis is divided into nine chapters that reflect the research process as follows:

Chapter 1: The Introduction

This is the introductory chapter that presents the rationale for undertaking this study. It establishes a framework for the research, which consists of the background information about the role of housing adaptation in ageing in place, the definition of housing adaptation, the deficiencies in previous literature, the research aim and questions, and the chapter-by-chapter review of the thesis content. It also provides a brief summary of the approaches taken for data collection and analysis in the quantitative and qualitative studies, as a prelude to a more detailed explanation in the Methodology chapter.

Chapter 2: Policy and Legislation Framework

This chapter looks at the policy and legislation context that shapes the provision of housing adaptations. It first explains the intergovernmental relations following devolution and decentralisation and reveals the central role of local authorities in implementing national strategies and making policy decisions towards housing adaptations. Then it discusses the key pieces of legislation that covers the provision of housing adaptations. Within a local government, the social service department and the housing department

have general duties in the delivery of housing adaptations, with the former providing assessment and the latter approving grants.

Chapter 3: Housing Adaptation Practice

Reviewing existing literature about housing adaptation is a preliminary step to demonstrate why this topic can and should be researched. This chapter brings together previous studies on healthy ageing and housing adaptations to show current understanding of adaptation services and their performance. It first explains why and how housing adaptations improve the individual's ability of performing daily activities from a theoretical perspective of environmental gerontology. Then it offers useful insights in terms of service need and supply, the delivery system for housing adaptations and existing issues with the system. Finally, the review explores the role of HIAs in the delivery of housing adaptations as well as highlights their contributions and future challenges.

Chapter 4 Research Methodology

This chapter gives details on the methodological approach taken in this study. Saunders Lewis and Thornhill's research onion is adopted to describe the research process. The framework introduces the researcher's epistemological view on the development of knowledge that underpins the critical realism philosophy for conducting this study. It also explains the abductive theory that guides the mix-method sequential explanatory research strategy for data collection and analysis. In the first quantitative phase, a questionnaire is produced and sent out, followed by a second qualitative phase which involved individual interviews and a focus group. The final section considers the major ethical issues such as harm, informed consent, privacy and deception, as well as difficulties and limitations experienced during the research process.

Chapter 5 Questionnaire Survey Results

This chapter reports the findings from the questionnaire survey towards all local authorities in England, Scotland and Wales about how adaptation services are planned, organised and monitored. It presents descriptive statistics to first show local financial and partnership arrangements for the provision of housing adaptations, then outlines the characteristics of the key stages of the adaptation process from referral to completion, and finally identifies measurements used for monitoring the achievement of service performance. These quantitative results provide a view of the adaptation systems and

reveal key features of local adaptation practice. They also provide contextual background for the following qualitative studies.

Chapter 6 Analysis and Recommendations on Service Planning

This is the first of three discussion chapters, which integrate quantitative results with qualitative results to identify common issues with the adaptation systems and to suggest ways for improvement. This chapter focuses on service planning and partnership working for the provision of housing adaptations. It first looks at the funding sources available for adaptation services and examines ways of setting and managing the adaptation budget. Examination of structures for cooperation between all the departments and organisations for effective adaptation services then follows. The chapter then describes service outcomes, including the number of adaptations and the amount of grants, to analyse whether the estimated demand has been met.

Chapter 7 Analysis and Recommendations on Delivery Process

This second discussion chapter is concerned with the whole process of adapting properties from initial referral to work completion. It begins with a discussion about the stages of making initial requests for adaptations and allocating these requests for assessment. Then, the discussion moves to the stages of assessing the needs against eligibility criteria and awarding the grants. In the final section, the installation stage is examined with regard to the specification of adaptation works and the selection of a reliable contractor.

Chapter 8 Analysis and Recommendations on Performance Monitoring

This third discussion chapter presents findings about performance monitoring of adaptation services. It first explores performance indicators currently used by local authorities to measure the achievement of adaptation services. After this, it examines the average waiting time for each key stage of the adaptation process as well as the specific timeline of adaptation provision within two cases. Finally, the chapter analyses the causes of delays and investigates factors correlated with the overall effectiveness of the adaptation systems.

Chapter 9 Conclusions and Future Research

This final chapter brings together the research's main findings to answer the set research questions, followed by an evaluation of its contribution to the improvement of housing

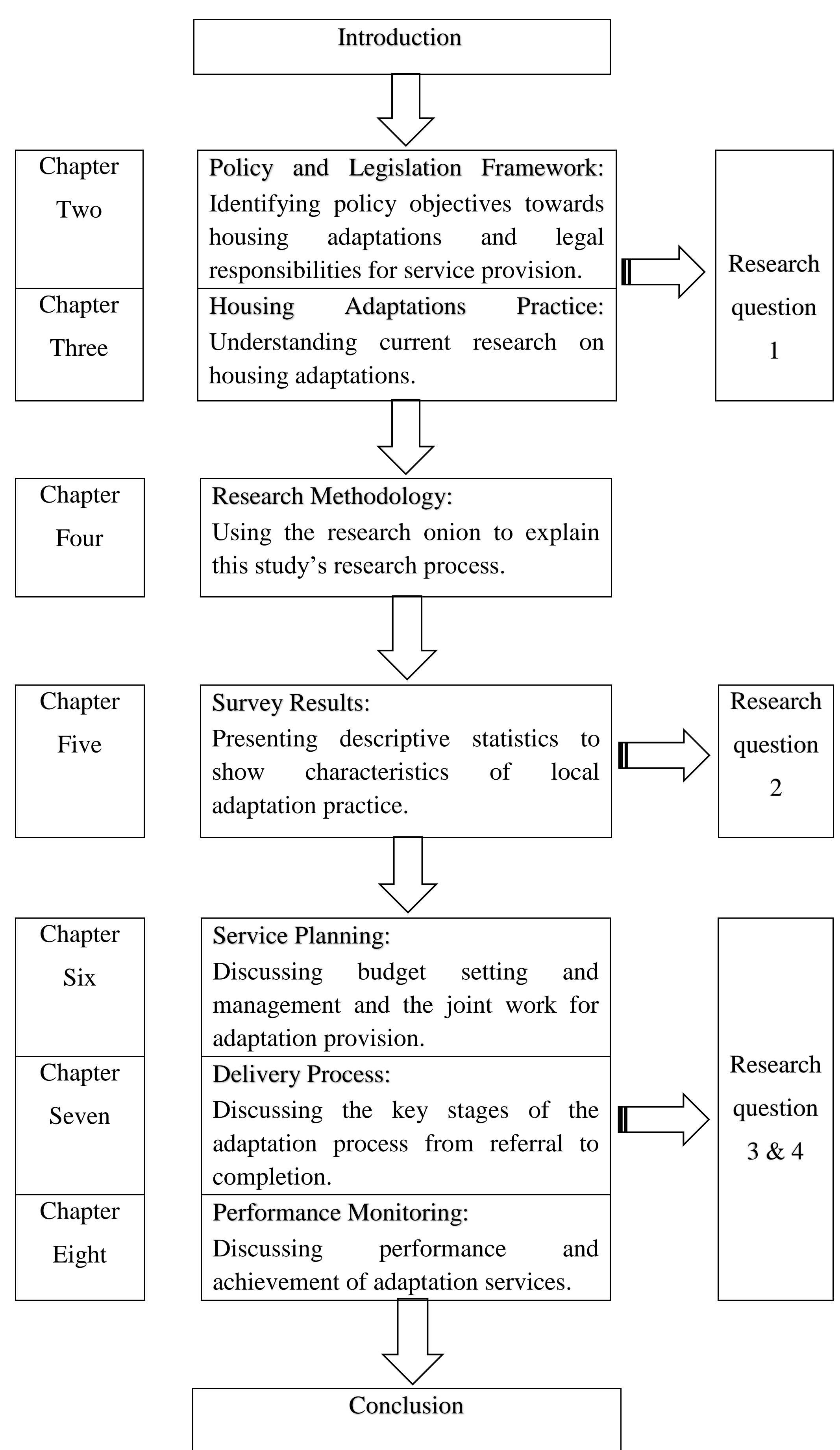
adaptation practice and its implications for policy and legislation development. It finishes with a section that expands from this study's conclusions to future research opportunities.

1.8 Summary

This introductory chapter has showed the rational reasons for investigating the effectiveness of housing adaptation practice in this study:

- In the UK, in response to the impact of demographic change on the healthcare system, housing adaptations were provided to support elderly people ageing in their homes.
- However, procedures for providing housing adaptations varied significantly across the country.
- This study aims to review the current status of housing adaptations, assess the effectiveness of the existing practice and propose recommendations for its improvement.
- To achieve this research aim, four central questions have been developed to guide the research process, including quantitative and qualitative data collection and analysis.

Housing adaptation was recognised as a vital element for moving to a broader choice of independent living and has been given a greater political priority. Local authorities have the statutory duty to provide grants for housing adaptation that is assessed as being necessary to improve the accessibility of the property and to help people with disabilities remaining in their own homes. These facts show that it is first and foremost to introduce the policy and legal framework for the delivery of housing adaptations in the next chapter.



Structure of the thesis

CHAPTER 2: POLICY AND LEGISLATIVE FRAMEWORK

2.1 Introduction

This chapter provides background information about the relationship between central and local governments and highlights the important role of local authorities in making arrangements for housing adaptations. Then it introduces policy objectives of national ageing and housing strategies towards the provision of housing adaptations. Based on these national objectives, local authorities have developed their own policies and action plans for adaptation services. Finally, the chapter explains the current legal framework under which housing adaptations are carried out. There are mainly two types of legislation: equality legislation that sets out the fundamental right to access to adaptation services, followed by welfare and housing legislation that specifies the powers and duties of local authorities to assist with housing adaptations.

2.2 Multi-Level Politics in the UK

Since responsibilities for matters in relation to housing, health and social care were transferred to the newly created Scottish Parliament and Welsh Assembly under devolution settlements in the UK, the policy for the delivery of housing adaptations has been determined and operated by those devolved governments. Following decentralization and localism within each nation, intergovernmental relations between central and local governments are closely connected to policies on healthy ageing. The central government determines high-level "top-down" policy directions and outcomes, whilst local authorities adopt the "bottom-up" approach to make decisions on implement policies and action plans. Since home adaptations help people to access health, housing and social care, there is a wide range of legislation that provides the context for service provision. Understanding this legal context is an essential foundation for good practice.

2.2.1 Governance in England, Scotland and Wales

In the UK, since ageing in place policy initiatives draws on a wide range of disciplines, it is necessary to understand the broad constitutional structure and intergovernmental

relations that shapes policy development and implementation. Historically, the UK originated from the amalgamation of separate territories; its establishment did not result in the eradication of pre-existing entities but the union of the four nations – England, Scotland, Wales and Northern Ireland (Mitchell, 2011). Through the process of devolution, Scotland, Wales and Northern Ireland have established their own parliament or assembly, with different levels of legislative, administrative and budgetary autonomy. England does not have a devolved government; its matters are administered directly by the Her Majesty's Government which, in turn, is accountable to the parliament of the UK. This was mainly due to the legacy that the UK was assumed to be established as a unitary state in spite of different unions (Rose, 1982). The anomaly that powers were devolved to Scotland, Wales and Northern Ireland but not to England led to the "West Lothian question": whether MPs from Scotland, Wales and Northern Ireland should be able to vote on legislation that only affects England whereas English MPs cannot influence these policies that have been devolved to the Scottish Parliament, the Welsh Assembly and the Northern Ireland Assembly. To address this, one attempt was made to establish elected assemblies for individual regions of England (Gallagher, 2012). The referendum of 1998 succeeded in creating the London Assembly[6], but further progress was blocked by the following rejection of an assembly in North East England. Consequently, all regional development agencies outside Greater London were dissolved, with their powers being transferred to local government. Against this background, England has seen a significant shift of powers from Westminster government to local communities (Bochel and Bochel, 2010).

Prior to administrative devolution, although the ultimate power over the political landscape was firmly in the hands of Westminster (McAteer and Bennett, 2005), the 1707 Treaty of Union of Scotland with England allowed some powers to be retained by Scottish agencies (Paterson, 1994). The powers accumulated over time in the Scottish Office and its associated institutions, leading to the establishment of the Scottish Constitutional Convention (SCC) in 1989 (Brown, McCrone and Paterson, 1996; Trench and Jeffery, 2007). The SCC later built a detailed framework for devolution and its backing eventually resulted in the creation of the Scottish Parliament under the Scotland Act 1998[7]. On the

[6] The London Assembly is an elected body and established in 2000, part of the Greater London Authority that has the power to amend the Mayor's annual budget and reject the Mayor's draft statutory strategies. See more information at: https://www.london.gov.uk/about-us/london-assembly/about-london-assembly.

[7] In 1998, the Labour government introduced the Act, which created the Scottish Parliament and specifically identified certain powers to be devolved from the UK Parliament. This act was subsequently amended in 2012 and 2016.

first of July 1999, a range of responsibilities regarding education, local government, health, social care, the environment, housing, policing, Scottish civil and commercial law were transferred to the new devolved Parliament (Table 2.1), with certain key areas that continued to be dominated by the UK Parliament, such as foreign policy, defence and social security (Moffatt et al., 2012).

Table 2.1 Devolved legislative powers in Scotland and Wales (Source: Trench, 2007)

Devolved Policy Areas	
Scotland	**Wales**
Health	Health and health services
Social care	Social welfare
Education and training	Education and training
Housing	Housing
Local government	Local government
Planning	Town and country planning
Economic development	Economic development
The administration of the European Structural Funds	The administration of the European Structural Funds
Public transport	Highways and transport
Law and home affairs	Public administration; Water and flood defence; Food
Fire services	Fire and rescue services and promotion of fire safety
Environment	Environment
Agriculture, fisheries and forestry	Agriculture, fisheries forestry, rural development
Tourism	Tourism
Sport and the arts	Sport and recreation; Culture;
Research and statistics in relation to devolved matters	Ancient monuments and historic buildings
Other powers expanded through the Scotland Act 2012/2016	The Welsh language; The National Assembly for Wales

As in Scotland, the establishment of the Welsh Office was inherited from institutional developments. When the Labour Party came into power in 1964, it appointed the Secretary of State for Wales, who had a seat in the Cabinet to preside over Welsh matters. Initially, the Office of the Secretary of State took responsibilities for affairs such as sewerage, housing, roads, water, economic planning, town and country planning, and other government services. After continuous debates with the Prime Minister, the Welsh Officer's functions were subsequently granted further powers in areas such as education, health and agriculture. The increasing role of the Welsh Office gave built to a distinctive brand of Welsh politics, which in turn contributed to the Government of Wales Act 1998 and the National Assembly for Wales (NAW). The Welsh Assembly originally absorbed the executive powers of the Office and was empowered to make secondary legislation, for example, to lay down regulations, to set out standards, and to draw up guidelines. In 18 fields in relation to planning, training, education, health, social services and local government, however the primary legislation for these matters still remained at Westminster. It was not until 2011 that the new Government of Wales Act empowered the Assembly's legislative powers to be increased to 20 policy areas (Table 2.1), an extension to the 18 policy areas in the 1998 Act.

Notably, localism in Northern Ireland was quite distinct. In the early 1970s, local government only had a minor role in public services provision, which were largely administered by the UK Government Northern Ireland Office or other executive agencies. The road to devolution made efforts to reorganise local government by providing enhanced responsibilities, but the success was not deemed likely. As criticised by Trench and Jeffrey (2007), Northern Ireland has very limited responsibilities for local issues including ageing, as compared to Scotland and Wales. It was not until May of 2007 that the Northern Ireland Assembly was fully operational. In addition, Health and Social Services in Northern Ireland have been integrated into a unified structure that shapes the delivery of housing adaptations, which is different from other nations in the UK (Boniface et al., 2013). Therefore, this study is exclusive of Northern Ireland and will focus predominantly on England, Scotland and Wales.

The separation of powers either between London and Edinburgh or between London and Cardiff appears, on the surface, simple and neat (Jeffery, 2009). However, it is surprisingly complex for the public to comprehend in practice (Trench and Jeffery, 2007). Often it is almost impossible for a single policy area to capture all the features of healthy

ageing; it tends to be the joining up of policies across several service areas or different levels of government. Take long-term care for example, the responsibility for social care is under the jurisdiction of Scotland or Wales, whilst Westminster is still able to exercise its discretion in the relevant field (e.g. social security benefits containing payments to compensate for care needs). Furthermore, there are many potential interdependencies between devolved and reserved matters; the dividing lines between Scottish and UK powers have “jagged edges” (Keating, 2005). As argued by Jeffery (2009), ‘the division of powers set out there was not the product of a considered reflection about what would most appropriately be done by a UK Parliament acting for the UK as a whole and a Scottish Parliament acting for Scotland’ (p.11). Indeed, it was the result of historical development and administrative structures. Therefore, although devolution has enlarged the scope of policy making and strengthened the devolved administration, the devolved government is still restrained by the actions of the UK Government at Westminster and faces difficulties in adopting an integrated policy approach (Bell, 2010). The FPNC policy is a typical example. When the Scottish Government chose a variant to provide free personal care, the UK Government did not interfere with its implementation but blocked distribution of attendance allowance to recipients in Scotland. Because benefits were reserved at the Westminster Parliament, the Department for Work and Pensions (DWP) refused to revise the regulations that attendance allowance does not apply to residents who have received care funding from local authorities (Trench and Jeffery, 2007). As a result, there have been financial losses in Scotland, which indicates that the devolved government’s competence for introducing new public policy is relatively limited (Keating, 2005). In this context, the policy network on older people and ageing has become a multi-disciplinary community that comes across different levels of government within the UK.

In terms of housing for the elderly, some policies such as welfare benefits are subject to UK legislation (Wilcox et al., 2017). However, other features related key social policy areas, including housing, health and social care, which are all fully devolved matters in either Scotland or Wales. In practice, each devolved nation has developed and implemented its own policies in housing, health and social care (McCormick, McDowell and Harris, 2009). Accordingly, policy decisions related to the provision of housing services for older people are made and implemented more domestically (Moffatt et al., 2012). This research seeks to assess the effectiveness of housing adaptations for ageing in place and to focus on policies at both national and local levels.

2.2.2 The Role of Local Government

For the purposes of shifting power from the centralised state to local communities, the administrative divisions of England are organised into three hierarchical levels (Figure 2.1). The highest tier of sub-national division is known as government office regions. Nine regions were established in 1994 to provide direction and facilitate partnerships between public and private sectors engaged in economic, physical and social development. They operated through non-elected administrations between 1998 and 2010. From 2010, regionalisation was rejected on the grounds that setting up regional assemblies not only was an expensive operation but also created an unnecessary bureaucracy (Pearce and Mawson, 2009). As a result, except for Greater London which has a directly elected London Assembly, other regions have become powerless bodies without any territorial administrative function and are now mainly used for statistical and economic analysis. When the regions no longer had any administrative functions, the importance of local government was reasserted by gaining new responsibilities for managing and delivering a range of quality services, such as housing services and social care (Docherty, Gulliver and Drake, 2004). Therefore, local government plays a central role in the delivery of housing adaptations.

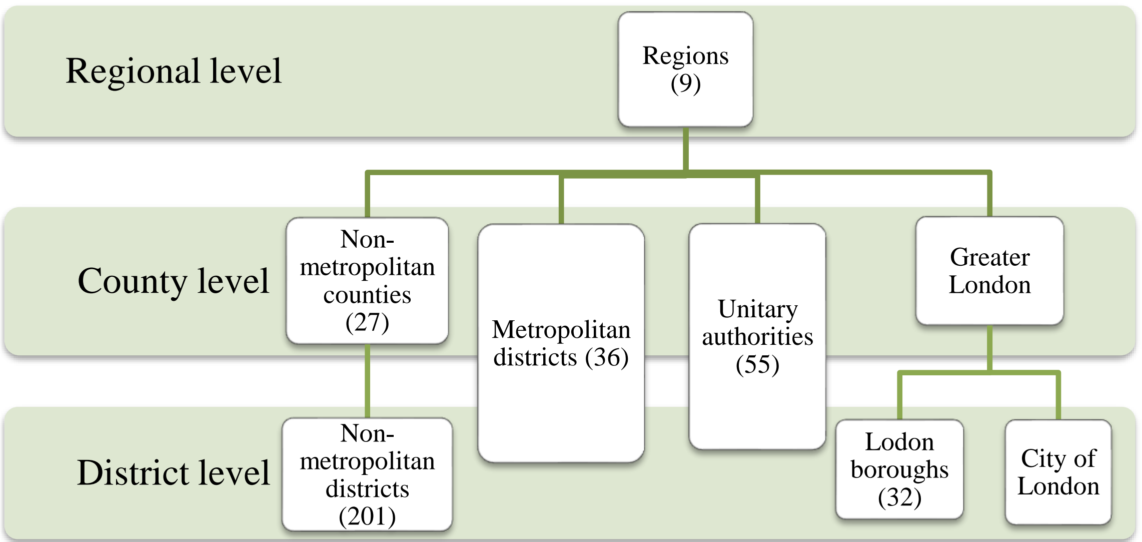


Figure 2.1 Three levels of administrative divisions in England

Local government in England is somewhat more complex, operating under either a single tier administrative structure – unitary authority, or a two-tier system – county council and

district council. In most non-metropolitan areas, there are two levels of local government, with responsibility for council services split between them. Figure 2.2 shows that the county councils are responsible for the majority of public services (e.g. education, social services, strategic planning and public transportation) while the district councils mainly carry out more local service functions (e.g. building, housing, environmental health and local planning). This division of government responsibilities, especially for social services and housing, indicates that there needs to be cooperation between the county council and the district council in developing strategic policies and joint approaches to provide housing adaptations for the elderly (further discussion in Section 2.4).

	Shire areas			Metropolitan areas	London	
	unitaries	county councils	district councils	metropolitan districts	London boroughs	GLA
Education	✓	✓		✓	✓	
Highways	✓	✓		✓	✓	✓
Transport planning	✓	✓		✓	✓	✓
Passenger transport	✓	✓				✓
Social care	✓	✓		✓	✓	
Housing	✓		✓	✓	✓	
Libraries	✓	✓		✓	✓	
Leisure and recreation	✓		✓	✓	✓	
Environmental health	✓		✓	✓	✓	
Waste collection	✓		✓	✓	✓	
Waste disposal	✓	✓		✓	✓	
Planning applications	✓		✓	✓	✓	
Strategic planning	✓	✓		✓	✓	✓
Local taxation collection	✓		✓	✓	✓	

Figure 2.2 Comparison of responsibilities for major services between local authorities (Source: DCLG, 2009)

As with non-metropolitan areas, there used to be two layers of administration in six large urban areas of England, with powers shared between the metropolitan counties and the metropolitan districts/boroughs. However, the metropolitan county councils were abolished in 1986, but the geographical county areas still remain for some purposes such as statistical presentation. As a result, the metropolitan district councils now operate as single-tier authorities with nearly full local administration. Following the major reforms of the British system of local government in 1990s, the unitary authorities were introduced to have one level of government responsible for all local services. Greater London is a unique case, which has been created as a two-tier administration but not defined as a county council and has only limited power over London-wide policy areas such as transport and strategic planning. Similar to the metropolitan district councils, the subdivision of Great London Authority into London borough councils has resulted in these councils having responsibility for almost entire local government services. Therefore, metropolitan district councils, unitary authorities and London borough councils govern and administer functions covering all major public services including social services and housing. This means that policy decisions on the delivery of housing adaptations for ageing in place are ultimately taken by the single local government within these areas, which is not the case for the two-tier county/district councils.

In Scotland, the intergovernmental relations between central and local government are closely connected to policies on housing and ageing (Jeffery, 2009). Pre-devolution the local government was recognised as the "creature of Parliament" (McConnell, 2006) and their functions were severely restricted by the central government (Mitchell, 2006). During the Conservative era of 1979 to 1997, the relationship between the centre and the locality had deteriorated sharply across the UK (Hood and McGarvey, 2002), with a consequence of rising central control and weakened local accountability (Wilson, 2003). Deterioration in Scotland has differed in degree from that in other parts of the UK (McGarvey, 2002). Although there were many pressures from Scottish Office, local government had some moderated administrative autonomy that was evidently lacking in England and Wales (Lowndes, 1999). This was, as stated by Carmichael (1992), 'a reflection of the way things are done not of what is done' (p.30). Meanwhile, Scottish local authorities, along with their association – the Convention of Scottish Local Authorities (COSLA)[8], have advocated a culture of partnership and cooperation between

[8] COSLA, established in 1975, is the representative voice of Scottish local government and exists to protect the interests of all 32 councils in Scotland.

central and local government as well as lobbying for an incremental local democracy to serve their communities (Carley, 2006). This was mirrored in the SCC (1995), which highlighted 'the aim of the Parliament should be, firstly, to safeguard and where possible increase the area of discretion available at the level of the local authority' (p.5). Therefore, when Labour returned to Westminster in 1997, the reform of the British political system was carried out, with the intention of decentralization (Judge, 2005).

Post-devolution it was generally believed that some major changes of Scottish political landscape, have led to a better central-local government relationship, with a closer central government and a greater local democratic control (McAteer and Bennett, 2005). However, there were some criticisms against this view. For example, Hassan and Warhurst (2002) argued that devolution simply tailored Westminster policies into the Scottish context and the Scottish Executive failed to break the UK's rules of games. McConnell (2006) further commented that in terms of legislative, financial and policy constraints, the shift in the balance of power between central and local governments in Scotland are superficial – that is, the political patterns of central-local relations remain the same under devolution. Instead of establishing genuine partnerships with local government, central government tended to apply consistent policies throughout Scotland and shape how local councils operate (Jeffery, 2009).

- **A commitment that the Scottish Government will not undertake structural reform of local government during the term of this Parliament.**
- **There will be a move to a Single Outcome Agreement (SOA) for every council, based on the agreed set of national outcomes (underpinned by agreed national indicators).**
- **SOA processes will be supported by streamlined external scrutiny and effective performance management systems, and more focused and proportionate inspection regimes replacing the myriad of existing systems.**
- **The Scottish Government will reduce substantially the number of separate funding streams to local government.**
- **Local authorities agree to deliver on a specified set of commitments from within the funding provided.**
- **Local authorities will be able to retain – for the first time - all their efficiency savings to re-deploy against ongoing pressures.**
- **COSLA and the Scottish Government will put in place arrangements jointly to oversee and monitor the new partnership and, as part of this, to assess how the new arrangements are working and how each side is fulfilling the commitments made.**

Figure 2.3 Key features of the Concordat 2007(Source: McGarvey, 2009)

However, local councils should be treated by the Scottish Executive as serious partners for delivering its policies and objectives (McGarvey, 2002). Therefore, they strongly resisted the centralisation of power and have come into conflict with the Scottish Government. Meanwhile, COLSA has battled with the Scottish Executive for a larger scope of autonomy at the local level (McConnell, 2006). In the end, a "Concordat" was created by the Scottish Government in 2007, which set out a new central-local relationship. Figure 2.3 illustrates some key features of the Concordat, with the purpose of loosening centralised power and freeing up local autonomy. More specifically, the Scottish Government determines the "top-down" policy directions and overarching outcomes, while each council adopts the "bottom-up" approach to make commitments in their Single Outcome Agreement and implement state-wide policies (Trench and Jeffery, 2017). Within this context, success of housing adaptation strategies and policies depends largely on the actions and operations of local government.

In Wales, the system of local governance was made up of elected county councils, country councils and district (urban and rural) councils during most of the 20th century. It remained in place until 1974 when the system was restructured into two tiers of local government – the county councils and the district councils which split responsibility for local services (NAW, 2013). In the 1990s, this two-tier model of service provision has been harshly criticized for its bureaucracy and ineffectiveness (John and Whitehead, 1997). As a result, another significant reorganization was scheduled in 1996, which led to the establishment of 22 unitary authorities. All these authorities are single-tier administrative units and responsible for all local government functions. In this sense, local authorities have become the key players in implementing the Welsh Government's or even the UK Government's policies (Jeffery, 2006). However, there has been continuous debate as to whether local government can exercise its functions and organise local services (Simpson et al., 2011). To address this, the Welsh Local Government Association was created to represent the interests of local authorities and support them with full autonomy to deal with Welsh affairs. Consequently, both the Welsh Government and local government signed a significant agreement known as "compact", with the aim of setting a new centre-local relationship and delivering improved services to communities. This compact highlighted the importance of local government in strategically planning public services, clarified the commitment to strengthen democratic accountability for service management, as well as asserting the role of the Welsh Government in supporting local governments for effective service delivery (Welsh Government, 2011). Therefore,

in Wales, local authorities have an important role to play in providing housing adaptation services for older people.

On the whole, the decentralization of state functions towards localism is key trend in England, Scotland and Wales, which means that local authorities and communities have taken on more responsibilities and gained greater autonomy (Iorwerth, 2013; Martin, 2008). As the case stands, the central government provides policy direction and advice, whilst local government make decisions on specific polices and action plans. In fact, local authorities have held the decision-making power in many policy fields, including housing, social care, health and strategic planning that are closely connected to policies on healthy ageing. Within this context, they play a crucial and fundamental role in shaping places and delivering adaptation services for older people to live independently at home for as long as possible (Mortimer, 2014). Such localism raises both opportunities and challenges. On the one hand, since the growth of the older population varies from local council to local council, different policies are required. More decentralised power enables local authorities greater empowerment and flexibility to respond to local needs and to promote ageing in place (Jeffery, 2009). On the other hand, more democracy at the local level may result in inconsistent policies as local authorities can adopt different priorities and develop govern in different ways. For example, the local authority Single Outcome Agreements in Scotland are found in many variations. Such variations may cause potential inequality or "postcode lottery" for service users. For instance, what is eligible for a grant for housing adaptation in one place is not eligible elsewhere (Scottish Government, 2012). In this case, the broad vision of national policy is perhaps lost in its local implementation (Jeffery, 2009). Given multi-level governance and intergovernmental relations in the UK, policy coordination between central and local government are crucially important to the delivery of adaptation services for older people, especially efficient policy formulation and implementation at local levels.

2.3 Policy Objectives of Housing Adaptations

2.3.1 The Overarching Ageing Strategy in England, Scotland and Wales

In response to an unprecedented demographic challenge, England, Scotland and Wales have developed their own strategy to promote health and well-being in old age. The

earliest strategy for older people was published by the Welsh government in 2003, *the Strategy for Older People*. This strategy includes three phases. Two of them have been delivered between 2003 and 2013, which includes mechanisms that have been built at both national and local levels to ensure the voice of elderly people to be heard. Since 2013, the third phase has been launched covering the next ten years, with the purpose of removing older people's physical barriers and improving their well-being (Welsh Government, 2013). To achieve this purpose, the strategy has identified three action areas: social, environmental and financial resources. Housing was recognised as an important environmental factor and has been given strategical priority, with an overall objective to ensure that 'older people have access to housing services that support their needs and promote independence' (Welsh Government, 2013, p.13). More specifically, the strategy has defined aids and adaptations as effective services that can help old people remain independent.

In 2005, the Westminster government produced its ageing strategy, *Opportunity Age* (DWP, 2005), in order to improve quality of life in later life and meet the needs of an ageing population. This five-year strategy has set out three key areas for actions: work and income, active ageing, and services. In terms of services, the strategy sought to promote well-being and independence. It highlighted three groups of services, including support at home, income, and health. To support independent living at home, housing related services including housing adaptations were considered as being indispensable. These services need to be developed and simplified so that older people can have access to them easily. Later, in order to better prepare for a growing population, the government refreshed and reissued its ageing strategy, *Building a Society for All Ages* (DWP, 2009). This strategy set out a coordinated approach to bring together services across all sectors of government as well as put forward a series of actions to support the changes for individuals, families and communities. In terms of housing, the strategy reasserted the vision of home design or adaptations to meet the people's changing needs through life and underlined the role of handyperson services such as small building repairs and minor adaptations in helping maintain independent living.

In Scotland, as its population ages, the national policy of shifting the balance of care towards more community-based facilities to support people living independently in their own homes rather than hospitals or care homes has received most attention. The overarching strategy that articulated the challenges facing older people was the *Strategy*

for a Scotland with an Ageing Population – All Our Futures: Planning for a Scotland with an Ageing Population (Scottish Executive, 2007). It sought to address the role of older people in its policy formation and to ensure that the elderly's views are central to future policy making. The strategy highlighted six priority themes for action: (i) improving opportunities and removing barriers; (ii) forging better links between the generations; (iii) improving and maintaining health and wellbeing; (iv) improving care, support and protection for older people; (v) developing housing, transport and planning services; (vi) offering learning opportunities throughout life. Moreover, in order to ensure that the housing is in place for all ages, the strategy specified one requirement to 'provide support for services and grants that enable older people to make changes and improvements to their homes so that they can remain there wherever possible' (Scottish Executive, 2007, p.26). When the Scottish National Party came into power in 2007, this strategy continued to be implemented, with most of the actions remaining unchanged.

Table 2.2 Ageing strategies and their housing initiatives in the three countries

Countries	Ageing Strategies	Housing Objectives	Adaptation Perspectives
Wales	Strategy for Older People 2003-2013 & 2013-2023	Older people have access to housing and service that supports their needs and promote independence.	To ensure effective services that can provide appropriate aids and adaptations to help independence.
England	Opportunity Age 2005 & Building a Society for All Ages 2009	The design of home meets the changing needs of people throughout their lives.	To provide practical support for older people to help them live independently at home.
Scotland	All Our Futures 2007	Houses, buildings, communities, transport and infrastructure are well-designed and accessible, and can be used by older people in safety and with confidence.	To provide services and grants that enable older people to make changes and improvements to their homes so that they can remain there wherever possible.

Overall, there were few major differences between national strategic objectives to healthy ageing (Table 2.2). They share similar themes, focusing on aspects of ageing such as health, education, leisure, economics and environment. Housing, as a key to environmental health, has kept a high profile within these ageing strategies. The governments made commitments to provide accessible and suitable housing that is a vital component in enabling vulnerable people to remain living at home as independently as possible. To ensure accessibility and suitability, the strategies highlighted the need to award grants that allow older people to make alternations or modifications to their own houses. In other words, housing adaptation services should be provided when household environments restrict functional abilities. The overarching ageing strategies have set out the fundamental aim of promoting independent living and providing adaptation services. However, they did not develop detailed policy initiatives and directions towards the provision of housing adaptations.

2.3.2 National Strategies on Housing for Older People

After recognising the strong link between housing and health and the significant contribution of housing related services to independent living, national governments published new strategies to focus specifically on the housing needs of older people. In 2008, the UK government launched its first housing strategy for older people, *Lifetime Homes Lifetime Neighbourhoods* (DCLG, 2008), to maximise the impact of the built environment in promoting independent living. This strategy set out four basic policy targets: (i) to plan for housing and community at national and local levels so that older people can remain in their homes as long as possible; (ii) to provide older adults advice on information services and specialist housing; (iii) to ensure that the design of home and community can meet needs of today's and future older people; (iv) to integrate services into housing and neighbourhood for helping the elderly live independently. Clearly, housing related services like adaptation was central to the realisation of these policy objectives. Accordingly, an array of actions, such as strengthening housing information and advice services, introducing new small repair and adaptation schemes, encouraging joint work with HIAs, and modernising DFGs, were proposed to improve the provision of adaptations in meeting the needs and preferences of the older generation.

As in England, after recognising the crucial part housing played in promoting older people's quality of life and independence, the government in Scotland published its strategy document, *Age, Home and Community – A Strategy for Housing for Scotland's Older People 2012-2021* (Scottish Government, 2012). The special strategy created a clear vision on housing and housing related support for older people's lives and identified five key areas for actions covering: clear strategic leadership, information and advice, better use of existing housing, preventative support, and the provision of new housing. Housing adaptation, due to its importance of overcoming environmental barriers and preventing falls, was highlighted in the strategy as a key contribution to enabling the elderly to sustain independent living and make full use of their own homes. As arrangements for the provision of housing adaptations were complex, the strategy proposed three areas where improvements and actions were in particular needed in order to streamline the service process: (i) strategic planning – to strengthen partnerships between housing, health and social care with greater use of shared performance framework; (ii) availability of information – to review and improve information and advice services, (iii) service delivery – to ensure that delivery and funding arrangements are fit for purpose.

Wales was considered as having a unique approach and the Welsh Government specified housing policies applicable to older people in its overarching age strategy rather than issuing a separate strategy. As discussed above, the phase three of the strategy, *Living Longer, Ageing Well* (Welsh Government, 2013), set out what should be achieved for older people's housing and focus on a greater collaboration of public services. Its central objective was to ensure that homes and communities are suitable for older people's needs and support their independence, with special emphasis on aids and adaptations, housing improvements and alternative housing. Furthermore, in order to promote continuous improvement of housing adaptation services, the strategy specified its delivery plans and performance indicators including the number of DFGs and the waiting timelines. Also, the strategy recognised that the availability and accessibility of service information was of great importance to older people and there should be information and advice in the right format and at the right place.

To sum up, similar to the overarching ageing policies, it was hard to see any significant difference between the objectives of national housing strategies towards adaptation services. They all set out the overall commitment to making best use of housing and

housing-related services in supporting people to live independently at home for as long as possible. Housing adaptation, as an 'individual solution to the problems of people experiencing disabling environments' (DCLG, 2006, p.6), has received particular consideration in these housing strategies. A range of policy targets were published to remove obstacles for better adaptation outcomes, with the main focus on information accessibility, partnership coordination, grant eligibility and delivery process (Figure 2.4). These policy aims, given the national-local government relationship, represented a framework within which local authorities could produce their own distinctive action plans. In other words, the degree to which the service improvement could be brought by the housing strategy objectives depends on how local authorities design the related policies and carry out their implementation. In this regard, policies and initiatives at local levels were closely connected to the provision of housing adaptations for ageing in place.

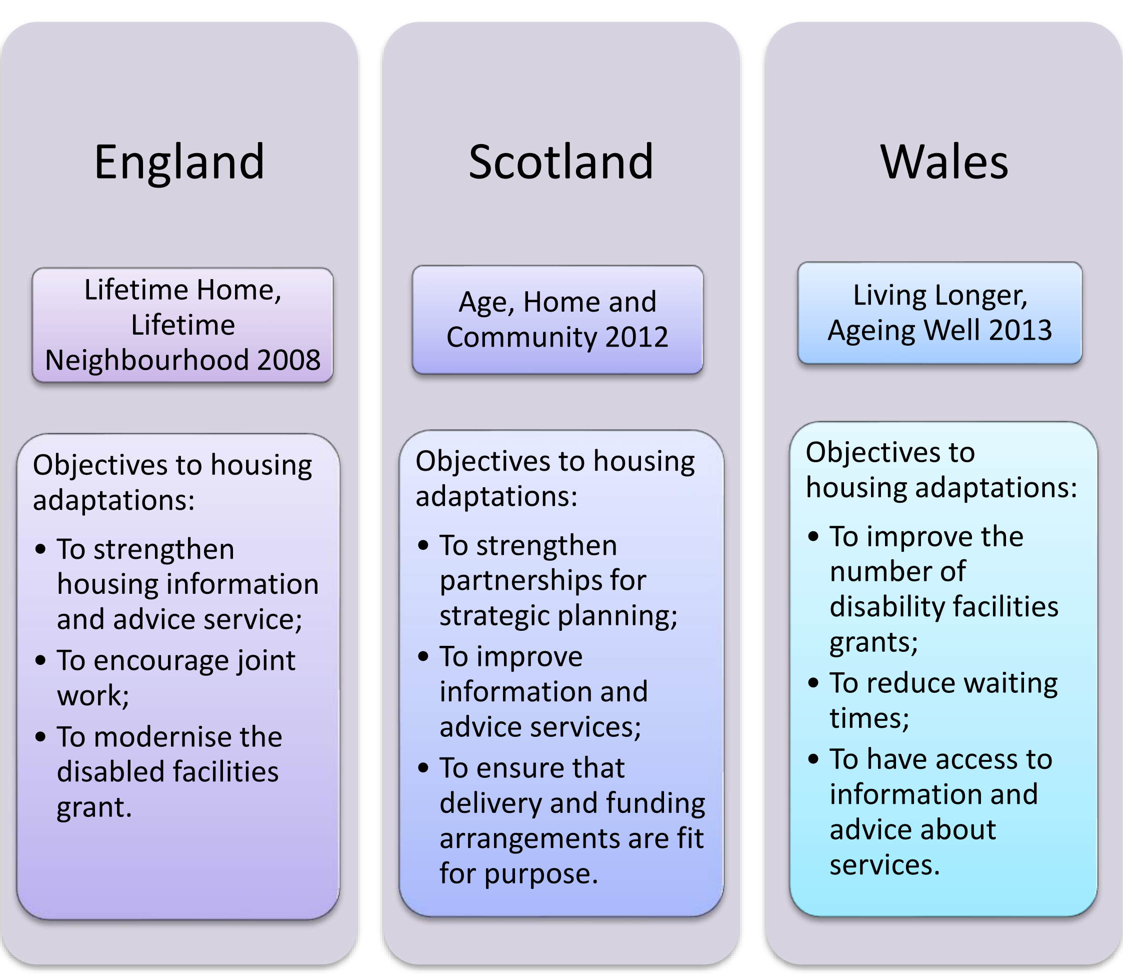


Figure 2.4 National objectives to housing adaptations in the three countries

2.3.3 Local Implementation Plans on Adaptations

In order to achieve national outcomes towards housing adaptations, local authorities across the UK have published their own housing policies and action plans to deliver adaptation services for supporting ageing in place (Table 2.3). In England, a unitary council adopted a very bold view of the role of housing in later life and issued a strategic guidance on the delivery of housing for an age-friendly city. The strategy aimed to raise the profile of housing support and improve health outcomes for older people. It highlighted five key aspects, consisting of information advice, retirement housing, neighbourhoods, independence, and social participation. To maximise independence in older people, the strategy recognised the importance of housing adaptations as a credible factor as well as the need for the availability of service information, such as where and how to make the request for an adaptation and what criteria to support decision-making. It also integrated housing, health, and social care to deliver preventative housing services and to improve health care outcomes. Clearly, these strategic objectives reflected a broad vision towards housing adaptations, but there was a lack of detailed blueprint plans or projects.

Under a two-tier structure, older people's strategies can be produced on a more flexible basis (DCLG, 2008). In one county, the six district councils worked in partnerships to introduce their unified housing strategy and investment plan, focusing on three leading themes of new housing, independence and old stock. Given evidence that the funding failed to meet the need for supported housing and the provision of adaptations was unsustainable, the strategy further specified a series of actions towards DFGs. Firstly, all organisations involved should join up working and pool their resources together to ensure adequate funding for the growing demand. Secondly, the councils should increase the number of adaptations and make better use of existing adapted properties. Thirdly, partner organisations should reduce the length of time taken to complete an adaptation and ensure a more consistent process to deliver better customer service. Fourthly, the executive group should offer training sessions to staff in order to raise their awareness of the integrated service. These action plans, if implemented properly, will undoubtedly produce massive cost savings and significant outcome gains. Similarly, the housing strategy in another borough council set out the objective of providing effective adaptation services to help older people remain independence in their own homes. To achieve this objective, the local council made a range of commitments, such as maintaining the delivery of DFGs,

reviewing the budget, reducing the waiting time for OTs, and developing partnership across housing, health, social care and other agencies.

The ethos of "independent living" was also embodied in Scottish and Welsh local housing strategies. Their overall message was that there would be an adequate supply of accessible housing and support services to meet the varying needs of older people and to help them remain independence for as long as possible. To achieve this overarching outcome, local authorities agreed on a range of strategic actions respectively. For example, one local council in Scotland set out the overall objective of supporting more people with special housing needs to stay in their own houses. It made arrangements to ensure the effective provision of housing services including adaptation and C&R services, to improve service access and delivery, and to develop collaboration and joint planning. These arrangements drew attention to the number of adapted properties, the number of people needing access to adaptations, the percentage of households requiring adaptations, and the financial support for adaptations. In a Welsh local authority, a housing strategy has been developed with one of its fundamental elements being to enable independent living. It highlighted the importance of C&R services in providing advice, assistance and adaptations for older people and proposed some key actions to deliver a greater number of housing adaptations. These actions focused on three aspects: (i) the procedure and impact of adaptations provision; (ii) the record and allocation of adapted houses; (iii) the joint work between departments and C&R. In addition, some local authorities have published not only the housing strategy but also a separate adaptation policy. The housing strategy specified a policy target of providing housing adaptations to help older people and disabled people to live safely and independently at home. The adaptation policy set out priorities to improving adaptation provision, including partnership arrangement, funding sources, delivery process, eligible criteria, waiting timescales and agency services. These local councils have recognised the importance of effective support for adaptations, in order to plan for and respond to an ageing population. In contrast, in some other local areas, although the housing strategy set the same objective to promote ageing in place through the provision of suitable housing and support services, they did not give sufficient emphasis to the role of housing adaptation. As a result, there was a lack of specific targets and committed actions towards adaptation services.

Table 2.3 Comparison of local strategic objectives and initiatives on housing adaptations

Countries	Local housing strategies (key theme – adaptations)	Objectives towards housing adaptations	Performance indicators (action plans)
England	Council A Independence	• To make adaptation services information accessible; • To draw together the housing, health, and welfare departments for adaptation provision	None
	Council B Support independence	• To develop joint work for better delivery; • To improve the adaptation process; • To record adapted properties for future allocation; • To raise awareness of adaptation services.	• Integrated service; • Number of adapted properties; • Better use of resources; • Length of time for the process; • Customer satisfaction.
	Council C Live independently	• To maintain the DFG programme; • To work in partnership across housing, health, social care and other agencies; • To improve home improvement agency service.	• Provision of DFGs.
	Council D Independent living	• To ensure the effective provision of adaptation services; • To improve service access and delivery;	• Number of adapted properties; • Number of people access to adaptations;

Scotland		• To develop collaboration and joint planning.	• Percentage of household requiring adaptations; • Financial support for adaptations.
	Council E Live independently	• To monitor the procedures and impact of adaptations; • To increase supply of adapted housing; • To work together with health, social work and C&R; • To record adapted houses.	• Number of adaptations completed by C&R • Allocation of adapted houses.
	Council F Live independently	• To provide appropriate housing support for older people; • To review C&R service.	None
Wales	Council G An ageing population	• To promote partnership with other relevant organisations; • To provide appropriate adaptations;	• Number of DFGs; • Reduced waiting time; • Number of support from Care and Repair; • Rapid response adaptation programme.
	Council H Housing and older people	• To continue to provide DFGs and other adaptation grants; • To develop better joint work to make best use of resources.	• Supply of adaptations; • Average waiting time for a DFG.

Following decentralisation and localism within each nation in the UK, local government plays a central role in setting out proposals for the provision of housing adaptations and deciding the implementation of these proposals. Clearly, local housing strategies and implementation plans have recognised the importance of housing adaptations in supporting independent living and healthy ageing. They all introduced a number of specific and operational objectives towards housing adaptations. However, these strategical objectives have focused on different aspects. Some local authorities aimed at improving joint work and service process, while others set objectives to secure better delivery outcomes and grant mechanisms. This indicates that local authorities have adopted different approaches to carrying out housing adaptations and there might be varying practices and systems used across the country. Therefore, the degree to which national strategical objectives towards housing adaptations could be achieved depends on how local authorities design the services and deliver them (Figure 2.5).

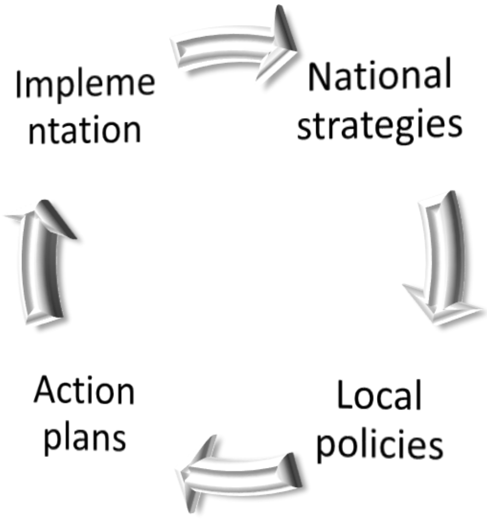


Figure 2.5 From national strategies to local implementation on housing adaptations

2.4 Statutory Responsibilities for Adaptation Provision

Given the existence of devolved administrations within the UK, it is crucially important to understand the broad constitutional structure that shapes intergovernmental law-making. Under devolution settlements, a range of legislative powers on matters such as education, health, social care and housing have been transferred to the Scottish Parliament and the Welsh Assembly, with certain areas in regard to foreign policy, defence and social

security that continue to be dominated by the UK Parliament (Jeffery, 2006). Technically, the devolved governments pass laws on devolved subjects within their territories, whilst the UK Parliament makes laws related to England as well as on retained services across the UK (Bevan, 2014). However, due to the asymmetric devolution, the constitutional arrangements for Wales are unlike those for Scotland in many ways (Greenberg, 2013). One of the most distinguishing differences is that Scotland has constituted a separate legal jurisdiction, while Wales shares a unified justice system with England (Stevenson and Huws, 2014). In other words, English law applies in England and Wales, whilst Scottish Law applies in Scotland. Since the current legislative framework for adaptation services derive from the fields of welfare and housing, there is a different legislative framework operated in Scotland from England and Wales. Even so, what should be understood is that, English law and Scottish law share greater similarities in many spheres including health, care and housing (Davidson and MacGregor, 2008). Housing adaptations support people to access to social care, health, housing, education and employment (Scottish Government, 2009a); laws underpinning adaptations provision cross over a broad range of fields. As a whole, there are two main types of legislation that have exercised an influence on the adaptation cycle: firstly, the equality legislation; secondly, the welfare and housing legislation.

2.4.1 The Equality Legislation

It is generally known that disabled environment can restrict the potential of these vulnerable people to participate in education, employment and entertainment. Housing adaptations can overcome these environmental barriers to assist people in performing their normal daily activities as well as taking good control of their own life at every stage. Within this context, housing adaptations go beyond services provision and seek to promote social inclusion in which everyone including disabled and aged people enjoy equality of opportunity or equal rights to take part in all aspects of society (Heywood, 2001). From this perspective, housing adaptations have become ‘part of everyday life’ (Scottish Executive, 2003, p.18) and should be explored in a broader view of social justice.

The Race Relations Act 1976 imposes the duty on local authorities and NHS to ensure race equality and to prevent direct or indirect discrimination when they assess needs for goods, facilities and services[9]. This duty implies that people from different cultures

[9] Section 12 (1) in the Race Relations Act 1976. See more at http://www.legislation.gov.uk/ukpga/1976/74.

should have the same rights to access to adaptation services. The Disability Discrimination Act 1995 also addresses disability discrimination in terms of the provision of goods, facilities and services. Section 19 to 21 stipulates that service providers such as local authorities and NHS shall not treat disabled persons less favourably than someone else just because of their disability. Section 21 further specifies that service providers shall take steps to make reasonable adjustment if physical features prevent disabled people from engaging in the service[10]. This legislation recognises the responsibility of public bodies for providing all disabled persons with the necessary services as well as the development of adaptation provision.

In addition to legislation against discrimination, the human rights law offers another basis for providing and improving adaptation services. Article 8[11] of the Human Rights Act 1998 contains a fundamental right to respect for private and family life, which has a close bearing on decision-making by public authorities on social care, health and housing (Mandelstam, 2003). For example, a decision for or against the provision of housing adaptation, if it interferes with a person's private life and home, would constitute a breach of Article 8.1, unless such interference is justifiable under Article 8.2. In 2010, the Equality Act came into force and provided a legal framework to advance equal opportunity for all and to encourage the provision of housing adaptations. Section 13 to 19 prohibits direct or indirect discrimination against age, disability, marriage/civil partnership, race and sex. Furthermore, Section 20 imposes a duty to make reasonable adjustments for disabled people, including removing, altering or avoiding a physical feature (e.g. a building's design, construction, quality) that places a disabled individual at a substantial disadvantage[12]. These clauses indicate that adaptation services give equal emphasis to all members of the public and is the cornerstone for building an inclusive society. As commented by the Scottish Executive, 'housing adaptation is a crucial area of social policy in which the objectives of social inclusion and equality of opportunity for disabled and older people need to be more rigorously addressed to underpin all development for the future' (2003, p.18).

Quite evidently, these equality laws could be approached positively to support the delivery of housing adaptations for older people. However, such legislation only briefly summarised the basic duties to provide or the fundamental right to access to adaptation

[10] Section 19 to 21 in the Disability Discrimination Act 1995. See more at http://www.legislation.gov.uk/ukpga/1995/50/part/III/crossheading/goods-facilities-and-services

[11] Article 8 in the Human Rights Act 1998. More details at http://www.legislation.gov.uk/ukpga/1998/42/schedule/1.

[12] See further at http://www.legislation.gov.uk/ukpga/2010/15/part/2/chapter/2.

services and was void of detailed provisions on procedures or practices for providing adaptations. Without clear procedures, actions can be taken differently at each stage of the adaptation process. As a result, an older adult may be unable to receive an adaptation within a reasonable time (Audit Scotland, 2004). In this sense, the potential impact of the equality legislation, in respect of how adaptation services are organised, appeared to quite limited. However, effective service provision enables greater access to home adaptations and is the key to support more people ageing in place (Hall and Social Work Services Inspectorate, 2001; Scottish Government, 2012). Therefore, it is necessary to understand legislation and regulation that governs the process of housing adaptations.

2.4.2 The Welfare and Housing Legislation in England and Wales

In England and Wales, the legislative framework that sets out the powers and duties of local authorities to provide adaptations consist of five pieces of legislation (Table 2.4). The legislative powers available to local authorities to make arrangements for housing adaptation services were originally laid out in social welfare provision for disabled persons. There are two landmark pieces of laws: firstly, the National Assistance Act 1948 (NA Act), which sets out powers for the local authority welfare department to provide assistance in promoting the welfare of disabled people; secondly, the Chronically Sick and Disabled Persons Act 1970 (CSDP Act), which requires local authorities to identify the numbers of disabled people with special needs and to provide them with practical assistance, including home adaptations or other facilities to secure greater safety or convenience. Unlike "promoting welfare" being the framework for general social services under Section 29[13] of the NA Act, the CSDP Act made the first reference to a mandatory duty for local authorities to provide housing adaptations for the disabled. Under Section 1[14], local authorities take on these duties: (i) to identify the number of disabled people as defined in Section 29 of the NA Act within their area; (ii) to publish information about all their services; (iii) to inform disabled people of any other services provided relevant to their needs. Section 2 further specified that the local welfare authority is obliged to make arrangements for the appropriate services if they are satisfied that the provision is necessary to meet the needs of disabled people, including 'the provision of assistance for that person in arranging for the carrying out of any works of adaptation in his home or

[13] Further information is available at: http://www.legislation.gov.uk/ukpga/Geo6/11-12/29/section/29.
[14] See further at: http://www.legislation.gov.uk/ukpga/1970/44.

the provision of any additional facilities designed to secure their greater safety, comfort or convenience' (CSDP Act 1970, s.2). Here, the term of "satisfied" is critical, meaning that local authorities take responsibility for deciding whether there is the need to provide home adaptation. In this sense, the local authority 'is the sole arbiter' (Keeble, 1979, p.41).

They could manipulate the concept of need at two levels (Mandelstam, 1997). The first is at the planning level, when local authorities set the criteria for what are eligible needs. The second is at the assessment level, when local authorities consider what sort of services should be provided to meet each person's specific needs. As a result, there have been wide variations between local authorities on the definition of need, eligible criteria, and adaptation practices. In spite of this, the CSDP Act is productive, in that it has firmly clarified the responsibility of the social services authority for assessing the housing needs of individuals and providing relevant services including housing adaptations (Heywood, 1994). Consequently, local authorities employ OTs to assess the need, specify the adaptation work, and then carry it out.

Although Section 3 of the CSDP Act requires the local authority housing department to consider the special needs of the disabled, it was not until the Housing Act 1974[15] that brought additional financial assistance (e.g. improvement grant, intermediate grant, special grant and repairs grant) from central government to support the housing department providing adaptation services for the handicapped. Since then, responsibilities for meeting the housing needs of disabled and older people appeared to be divided, with some of them transferring from the social service authority to the housing authority. Nevertheless, housing authorities responded positively by providing housing adaptations for their tenants, coupled with some responsibilities for identifying the local community's needs and planning services provision accordingly (Bull and Watts, 1998).

An update of the Housing Act 1985 transferred the role of housing authorities from a main provider of public housing into a key player in developing strategic housing services for both the public and private sectors. When the Local Government and Housing Act 1989 (LGH Act) introduced the DFG to help with adaptations, the housing authority was empowered to administer the grant. The DFG is a mandatory grant that can be used to

[15] Section 56 Grant by local authorities 1) Grants of the descriptions specified in subsection (2) below shall be payable by local authorities in accordance with the following provisions of this Part of this Act towards the cost of works required for- (a) the provision of dwellings by the conversion of houses or other buildings, (b) the improvement of dwellings, (c) the repair of dwellings, and (d) the improvement of houses in multiple occupation by the provision of standard amenities. More details at: http://www.legislation.gov.uk/ukpga/1974/44/pdfs/ukpga_19740044_en.pdf.

Table 2.4 Legislation on the provision of adaptations (Source: Zhou, Oyegoke and Sun, 2017)

Legislation	Gives powers to	Duties
National Assistance Act 1948 (NA Act)	Social service department	• Provide assistance for promoting the welfare of disabled people
Chronically Sick and Disabled Persons Act 1970 (CSDP Act)	Social service department	• Identify the numbers and needs of disabled people • Provide housing services including any works of adaptations
Housing Act 1974	Housing department	• Bring additional financial assistance to support adaptation services: 1. Improvement grant 2. Intermediate grant (mandatory) 3. Special grant 4. Repairs grant
Local Government and Housing Act 1989 (LGH Act)	Housing department	• Abolish all above grants and introduce new housing grants: 1. Renovation grant (mandatory) 2. Common parts grant 3. Disabled facilities grant (mandatory, the level of grant is up to £20,000 and subject to a test of resources) 4. HMO grant 5. Minor works assistance • Set up home improvement agencies to help older people
Housing Grant, Construction and Regeneration Act 1996 (HGCR Act)	Social service department Housing department	• Replace the above 1, 2, 4 grants with discretionary grant • Retain mandatory DFG with some changes (e.g. a maximum of £30,000 and the test of resources only applies to the applicant and partner) • Rename minor works assistance with home repairs assistance

remove barriers which stopped disabled person to live in their own homes. Funding for the grant was initially ring-fenced, with 60% coming from central government and local authorities contributing the balancing 40%.

To award a DFG, the housing authority must be satisfied that the DFG work is necessary and appropriate to meet the disabled people's needs and that the work is reasonable and practicable in consideration of the property's age and condition[16]. In deciding whether the adaptation work is necessary and appropriate, the housing department should consult the social service department. Therefore, the adaptation process normally involved at least two local authority departments: the social service department carries out an assessment of needs and makes a recommendation about necessity and appropriateness; then, the housing authority makes the final decision about reasonableness and practicability. Normally, decision on the approval of a DFG should be issued no later than six months after receipt of the completed application[17].

As with other mandatory grants, the DFG is subject to the test of resources[18], which decides whether the applicant needs to make a financial contribution towards the cost of the adaptation work. This test applies to the applicant, their spouse and any other person living in this property when grant application was made. The rationale for the test is that government assistance can be provided only when applicants have contributed their maximum available share to the cost of the work. Initially there was not a grant limit, but since 1994 the DFG was set to have a maximum threshold of £20,000 in England and £24,000 in Wales. In addition to DFGs, another two new housing grants, mandatory renovation grants and minor work assistance, were introduced to improve or repair properties which are unfit for residents or damaged. Furthermore, independent organisations like HIAs were established to provide additional support for older people with repair, improvement and adaptation works.

The DFGs have evolved and are presently the principal source of statutory support for housing adaptations, when the Housing Grant, Construction and Regeneration Act 1996 (HGCR Act) retained this mandatory grant but replaced the minor work assistance with the discretionary grants. The mandatory renovation grants were renamed the home repair assistance (HRA) with a wider eligibility scope. This Act brought five principal changes

---

[16] Article 114 (1) in the Local Government and Housing Act 1989. See more at: http://www.legislation.gov.uk/ukpga/1989/42/pdfs/ukpga_19890042_en.pdf.

[17] Article 116 (1) in the Local Government and Housing Act 1989.

[18] Article 109 (1) in the Local Government and Housing Act 1989.

towards DFGs: (i) all owner-occupiers and tenants (private or social) are eligible for DFGs, meaning that access to assistance with adaptations is tenure neutral (Wilson, 2013); (ii) the test of resources is only applied to applicants and their partners; (iii) in addition to mandatory DFGs, the discretionary DFG could be added where there is the insufficient mandatory grant; (iv) although local authorities have to notify the applicant of approval or refusal of their application within six months, they are empowered to delay the payment of a mandatory DFG for up to twelve months from the date of the application under certain circumstances; (v) the eligible adaptations should be carried out within twelve months from the approval date for grants, but the local authority may allow further period in particular situations that could not have been reasonably foreseen at the time of application.

Subsequent statute updated the DFG mechanism periodically. The Regulatory Reform (Housing Assistance) (England and Wales) Order 2002 abolished the discretionary DFG. The upper limit on mandatory DFG has been increased gradually, from £20,000 to £25,000 and then to £30,000 in England[19], from £24,000 to £30,000 and then to £36,000 in Wales[20]. Since 2008, the requirement that local authorities have to match the central government allocation (40% to 60%) has been removed, along with the ring fence around the DFG. Consequently, DFGs has been pooled together with other grants and paid to local authorities as part of the Single Capital Pot. This enables local authorities to enjoy greater flexibility of determining the use of these grants against local priorities (Wilson, 2013). Notably, although people in all tenures, whether owner occupiers or tenants of rented properties, can apply for DFGs for housing adaptations, local housing authorities and housing associations are encouraged to undertake adaptations for their tenants using their own budgets, such as housing revenue account and housing association funding instead of DFGs. In practice, local authorities tended to avoid approving DFGs for adaptations in the social sector housing (Mandelstam, 2016). Therefore, unsurprisingly, most DFGs went to provide private sector adaptations.

---

[19] The Disabled Facilities Grants (Maximum Amounts and Additional Purposes) (England) Order 2008 (SI 2008/1189). Maximum amount of disabled facilities grant: 2. Where a local housing authority must approve an application for disabled facilities grant by virtue of section 23(1) of the Act (grants: purposes for which grant must or may be given), the maximum amount which the authority may pay in respect of the application shall be £30,000. More information at: http://www.legislation.gov.uk/uksi/2008/1189/pdfs/uksi_20081189_en.pdf.

[20] The Disabled Facilities Grants (Maximum Amounts and Additional Purposes) (Wales) Order 2008 (SI 2008/2370. See further at: http://www.assembly.wales/Laid%20Documents/SUB-LD7212%20-%20The%20Disabled%20Facilities%20Grants%20(Maximum%20Amounts%20and%20Additional%20Purposes)%20(Wales)%20Order%202008-09092008-96272/sub-ld7212-e-English.pdf.

There are various funding avenues people could access to assistance with adaptations, depending on the types of tenure (Table 2.5). These different channels for the provision of adaptations are bound to the blurring of responsibilities (Mandelstam, 1997). By way of explanation, the housing department has powers and duties to award DFGs and HRA for assisting people with home adaptations (e.g. DFGs for major adaptations and HRA for minor adaptations), while the social services department is legally responsible for mostly minor adaptations but sometimes major adaptations as well. Housing departments or housing associations use the housing revenue or the rental income to adapt their own stock for their tenants. Because of the complicated web of legislation, it is quite common to find that the adaptation process is administered by multiple department and organisations in many local authority areas. Clients, especially the elderly, often feel frustrated and confused when they have to deal with a variety of organisations and professionals during the process of applying for housing adaptations. To address this, there needs to be a close cooperation between partner organisations as well as a strategic planning for effective provision of adaptation services.

Table 2.5 Funding avenues for adaptations in different tenures (England and Wales) (Source: Zhou, Oyegoke and Sun, 2017)

	Owner occupiers	**Private tenants**	**Council tenants**	**Housing association tenants**
Disable facilities grants	✓	✓	✓	✓
Home repair assistance	✓	✓	×	✓
Social services budgets	✓	✓	✓	✓
Housing revenue or other resources	×	×	✓	×
Housing association funding	×	×	×	✓

2.4.3 The Welfare and Housing Legislation in Scotland

Under Section 12 of the Social Work (Scotland) Act 1968, local authorities must make advice, guidance and assistance available to improve social welfare as well as assess the person's needs to secure the provision of community care services[21]. The person refers in

[21] Article 12 General social welfare services of local authorities & 12A Duty of local authority to assess needs. More details at http://www.legislation.gov.uk/ukpga/1968/49/section/.

particular to an individual who is not less than eighteen years old and requires 'assistance in kind or, in exceptional circumstances constituting an emergency, in cash, where the giving of assistance in either form would avoid the local authority being caused greater expense in the giving of assistance in another form, or where probable aggravation of the person's need would cause greater expense to the local authority on a later occasion' (Social Work (Scotland) Act, 1986, s.12). Since housing adaptation is a type of assistance that can prevent hospital admissions or residential care and produce direct savings for local government (Heywood and Turner, 2007), the SW Act is sufficiently broad to cover this service. In other words, local authorities have the responsibility for assessing the person's care needs and providing financial assistance for housing adaptation. However, such responsibility is a general duty towards all the population, which is hardly enforced by any individual (Mandelstam, 2003). It is ultimately the local authority's decision about the needs of an individual and the provision of any service.

The Chronically Sick and Disabled Person (Scotland) Act 1972 specifies duties of local authorities to provide housing adaptations for a disabled person or person with a mental disorder. It amends Section 29(2) of the CSDP Act so that its Sections 1 and 2 apply to Scotland. In principle, if the resident has a special need and it is necessary to meet the need, the local authority should make arrangements for various welfare services including housing adaptations[22]. In this sense, when a person is assessed and meets the eligibility criteria, then it is an absolute duty for the local authority to meet that person's need, regardless of a lack of resources. Nevertheless, if there is more than one option for meeting the assessed need, the local authority has the power to choose the cheapest option, provided that it can prove that the cheapest option will meet the need (*R v Lancashire County Council, ex parte Huddleston*[23]). Therefore, although this legislation governs the provision of housing adaptations, it fails to set out detail duties concerning procedures of providing this service, such as the assessment of clients and authorisation of funding.

The Housing (Scotland) Act 1987 includes a general duty for the housing authority to provide a mandatory grant for standard washing and hygiene amenities to meet the special needs of a disabled person. Its successor, the Housing (Scotland) Act 2006, further addresses issues with the condition and quality of private sector housing as owner occupation is the largest tenure today. In general, local authorities should provide assistance to homeowners/private tenants when adaptations are essential to make the

[22] More information at http://www.legislation.gov.uk/ukpga/1970/44/section/2.

[23] R. v Lancashire CC Ex p. Huddleston. (1986). 2 All E.R. 941, 25 April 1986.

accommodation suitable for the disabled. Given that there is a policy that public funds should not add value to the private property, Part 2 of Scheme of Assistance for Housing Purposes in the 2006 Act separates applications for assistance with adaptations from applications for assistance with repairs and renovations. More specifically, work to adapt a house generally does not add to the value of the property, which is different from work to repair a house that the owner may have requested to improve the house and increase its value. Within this context, the provision of financial assistance for adaptations goes further than improvement and must be provided by local authorities. Private sector tenants also have the right to receive assistance for adaptations to their rented houses after obtaining the landlord's consent. Under the 1987 Act, the prescribed improvement and repair work was funded by the private sector housing improvement and repair grant, which was a ring-fenced grant provided by the Scottish Government to the local authority. The 2006 Act recognises the new relationship between central and local government and incorporates the private sector housing improvement and repair grant into the total allocation awarded to local authorities from 2010/2011. Thus, it is up to each local authority to determine the amount of funding available for adaptation services (Wane, 2016). Meanwhile, in view of limited resources and various demands, the 2006 Act requires local authorities to publish the criteria against which the type of assistance such as adaptation and repair will be provided. Furthermore, it has widened the scope of assistance to include not only direct financial support but also advice, loans and practical assistance.

The Housing (Scotland) Act 2006 (Scheme of Assistance) Regulations 2008 sets out more specific duties to establish a simpler and fairer financial system for home adaptations. It introduced some fundamental changes in comparison with the 2006 Act. Firstly, the scope of mandatory grant was extended to include essential structure adaptations but excluded work to extend property to offer additional living accommodation. Housing adaptation is defined as 'structural work or work that involves other permanent changes to the house but excluding (a) work to extend any structure to create additional living accommodation, and (b) work to create living accommodation in separate building from the current living accommodation' (Regulations, 2008, s.3). Such a definition reflects a more consistent framework across Scotland. Unfortunately, the 2008 Regulations do not further specify any types of structural work, which leave local authorities to decide what are considered to be structural adaptations and therefore eligible for a mandatory grant. Secondly, the level of mandatory grant for essential work can be anywhere between 80% and 100%. Regulation 4 sets out a minimum of 80% mandatory grant for adaptations or 100% where

the applicant is in receipt of certain benefits (income support, pension credit, income-based jobseeker's allowance or employment and support allowance). There has been no limit to the grant that could be approved, as the 2006 Act abolished the requirement that the cost of assistance with adaptations beyond £20,000 should be approved by the Scottish Minister under the 1987 Act, and further prohibited the local authority to impose an expenditure limit for the adaptation work[24]. Thirdly, the 2008 Regulations require local authorities to provide advice and information on alternative resources when the essential adaptation work is not covered by the housing grant.

In order to put the 2006 Act and the 2008 Regulations into practice, the Scottish Government issued the guidance of Implementing the Housing (Scotland) Act 2006: Statutory Guidance for Local Authorities, Volume 6 Work to Meet the Needs of Disabled People in 2009. This guidance reconfirms that local authorities have a duty to meet any identified adaptation needs. If an applicant is eligible for 80% of the cost but is unable to afford the remaining 20%, the local authority should use their discretionary powers to top up the grant to meet the need under welfare legislation, mainly the CSDP Act. This indicates that in addition to the mandatory grant, there should be a non-mandatory grant to fund the adaptation work at the local level. As housing adaptations regulations span housing, social work and community care, the guidance highlights the importance of cooperation between the relevant organisations within the local authority. Cooperation mainly focuses on four factors: (i) assessment of an individual's needs; (ii) determining priorities and eligibility for assistance; (iii) process of agreeing on how best to meet need; (iv) decisions on financial assistance. These four aspects underline the basic route into the adaptation system: (i) an application for adaptation is referred to a suitable specialist (e.g. social worker, OT); (ii), the applicant's needs is assessed in line with local community care priorities and eligibility criteria; (iii) alternative housing options are explored as the way of meeting the needs; (iii) where the adaptation work is approved through the assessment procedure, the grant should be processed accordingly within a reasonable timescale. Indeed, this guidance shows an increasing emphasis on the importance of the service pathway and its effectiveness.

As with owner occupiers and private tenants, social tenants either local council or housing association tenants are able to ask their landlord for assistance when adaptations are considered essential. Normally, local authorities set aside a certain amount from the

[24] Section 76 The approved expense. See more details at http://www.legislation.gov.uk/asp/2006/1/part/2.

housing revenue account to fund adaptations in their own properties; consequently, there is no need for tenants to make substantial contribution towards the cost of adaptations. For adaptations in housing association properties, the full costs are often covered by housing association grant available through the Scottish Government's Affordable Housing Investment Programme. Also, housing associations are expected to use their own resources for delivering adaptations when the demand outstrips the housing association grant. Technically, a tenant in the social rented housing sector can apply for the same grant under the 2006 Act as a home owner or private sector tenant. However, the 2009 Guidance has made it clear that such application is subject to exceptional circumstances.

	Private sector housing		Social rented housing		
	Owner occupier	Private rented sector tenant	Local authority tenant	Housing association (RSL) tenants[6]	
				Non stock transfer RSLs	*Stock transfer RSLs*
Funding source	LA private sector grant funding		Housing revenue account	HAG (Scottish Government or LA in Glasgow & Edinburgh) *and/or* RSL resources	RSL resources
Level of funding	80-100%	80-100%	100%	100%	100%
Access to funding	LA private sector teams, *or* grants officers		LA housing service	RSL	RSL
Management of process	LA private sector teams/ grants officers *or* Care & Repair *or* individual owner/tenant		LA housing or property services	RSL	RSL

Figure 2.6 The funding arrangements for adaptations in different tenures (Source: Scottish Government, 2010)

Likewise, organisational and funding arrangements for adaptations vary depending on the tenure of the property in Scotland (Figure 2.6). On the whole, local authorities and housing associations are responsible for adaptations in their own properties, while home owners and private sector tenants manage the adaptation process themselves, sometimes with the assistance of voluntary agencies such as C&R. There are different funding streams for adaptations in different housing tenures: mandatory and discretionary grants (either topping up or adding to) apply to adaptations in private sector housing, whilst housing revenue account or housing associations' resources are available to adaptations

in social rented housing. The mandatory grant under the 2008 Regulation and 2009 Guidance indicates that local authorities must assist with private sector adaptations where assessed as necessary. However, this cannot be interpreted as meaning that home owners or private tenants can simply obtain whatever adaptations they pursue. Local authorities have the final word, as they decide what monetary resources can be attributed to adaptation services, whether the adaptation is essential and what the eligibility threshold is. In this sense, local authorities have a high degree of flexibility in providing housing adaptations for people living in the private sector.

2.4.4 Discussion

In the UK, the legislative framework, which sets out powers and duties of local authorities to assist people with home adaptations comprise a range of statutes. In brief, social services authorities have an overall duty to provide adaptation services under social care legislation, while housing authorities award grants for adaptations under housing legislation. Following the growth in housing grants for adaptations, the housing authority has developed as the major provider of adaptation services. The social services authority encourages this development and sometimes has completely overlooked its own continuing duty to carry out adaptations under social care legislation. However, the essence is that, when the housing grant system is applicable, adaptation belongs to 'a matter of housing rights' (Heywood, Oldman and Means, 2002), while when the system is not applicable, it becomes a benefit of welfare provision.

There are differences in the type of financial assistance for housing adaptations in the different nations within the UK, but they share the same principle of housing tenure determining the types of help available. In England and Wales, people in all tenures, owner occupiers or tenants of rented properties, may apply for DFGs for housing adaptations. However, in practice local housing authorities and housing association are encouraged to undertake adaptations for their tenants using their own budgets, such as housing revenue account and housing association funding. Policies in Scotland follow similar lines. Home owners or private sector tenants receive grants for adaptations through Scheme of Assistance, while tenants in the public sector apply for alternative funding from their landlords. In addition, due to the specific adaptation funding (e.g. DFGs in England and Wales, mandatory grant in Scotland) having been transferred into the total local government budget from central government, decisions on public spending

for adaptations and their eligibility criteria are at the discretion of each local authority. As concluded by Bull and Watts, 'successful implementation depends on authorities taking an enabling approach to their responsibilities' (1998, p.30). This, on the one hand, allows local authorities to design and provide their adaptation services in the light of their local circumstances, priorities and resources (Mandelstam, 2016). On the other hand, it might lead to a wide range of delivery outcomes amongst local authorities (Wane, 2016).

In recent years, legislation has moved from permissive to a more positive approach and requirement for housing adaptation provision is set out in greater detail. For approval of a housing grant, the housing authority should be satisfied that an adaptation is necessary and appropriate to meet the applicant's needs and the proposed work is reasonable and practicable. Furthermore, the housing department should consult the social services department to establish whether the adaptation work is necessary and appropriate. Therefore, the adaptation process normally involves at least two local departments in the unitary authority, with the social services department responsible for assessment and the housing department for grant approval. It becomes more complex in some parts of England under a two-tier administrative structure, where the county council provides OT assessment and the district council awards grants. Since the introduction of HIA and C&R, many local authorities have worked with those agencies who offer assistance from discussing the applicant's needs to supervising the building work during the delivery of housing adaptations. As a result, it is quite common to find that the adaptations process is administered by different departments and organisations in different local authorities. Unsurprisingly, applicants have to deal with a variety of organisations and professionals when carrying out home adaptations.

Because of imprecise legislation and fragmented responsibilities, all national governments have launched policies to encourage collaboration between social services and housing departments for better services under a broader context of community care. Initiatives, such as *Caring for People* in England, *Community Care – The Housing Dimension* in Scotland, and *Well Being* in Wales, have recognised housing as a key component of community care and placed emphasis on providing housing-related services including adaptations for improving independence in later life. These initiatives have unconsciously given social services, housing departments and other agencies a reduced role in straightforward service delivery, but a more collaborative role in strategic policy development.

Furthermore, new legislation came into effect to promote greater integration between health and social care, which overtakes this research and is considered to be bound up with adaptations. In England, the Care Act 2014[25] replaces some adult social care statutes including the CSDP Act 1970, with a view to ensuring that social services and housing department can work in partnership for better delivery of care and support. Although the Act does not explicitly mention adaptations, some of its regulations (e.g. general responsibilities of local authorities and assessing needs) are highly relevant to the service. Likewise, in order to advocate close collaboration between housing and social services, the Social Services and Well-being (Wales) Act 2014 came into force in 2016 and its section 34[26] refers s in particular to the services of aids and adaptations. Meanwhile, the Better Care Fund in England and the Intermediate Care Fund in Wales are intended to build a wider single pooled budget for effective integration care. In Scotland, the Public Bodies (Joint Working) (Scotland) Act 2014[27] was introduced to bring health and social care together, with the adaptation service being delegated to the integration authority. Since this study takes an evaluation approach and its field work focuses on the delivery of housing adaptations in the financial year of 2014/2015, these statutes do not affect the study's results but their influence on adaptation services has emerged at the end of the study.

2.5 Summary

This chapter has explored with the wider policy and legislation context for the provision of housing adaptations:

- It was difficult to determine any significant differences between national policy objectives to housing adaptations in England, Scotland and Wales. However, there have been substantial variations in local priorities for reaching the national objectives, leading to different adaptation practice across local authorities.

[25] The Care Act 2014 came into force in England in 2015 and applies to adult social care in England. Further information at: http://www.legislation.gov.uk/ukpga/2014/23/pdfs/ukpga_20140023_en.pdf.

[26] Section 34 How to meet needs (2) The following are examples of what may be provided or arranged to meet needs under sections 35 to 45— (a) accommodation in a care home, children's home or premises of some other type; (b) care and support at home or in the community; (c) services, goods and facilities; (d) information and advice; (e) counselling and advocacy; (f) social work; (g) payments (including direct payments); (h) aids and adaptations; (i) occupational therapy. See further at: http://www.legislation.gov.uk/anaw/2014/4/pdfs/anaw_20140004_en.pdf.

[27] The Public Bodies (Joint Working) (Scotland) Act 2014 was passed by the Scottish Parliament in 2014 and came into force in 2016. More information at: http://www.legislation.gov.uk/asp/2014/9/pdfs/asp_20140009_en.pdf.

- The current legal system for the provision of adaptations is complex and complicated. While, local social services departments have general duties under the welfare legislation to fund adaptations, the housing authorities usually assist with adaptations through housing grants under housing legislation and have become the major provider of adaptation services.
- There are differences in the types of financial assistance for housing adaptation in the different countries, but they share the same principle of housing tenure determining the types of help available. These tenure-driven mechanisms were the legacy of imprecise legislation, which also resulted in fragmented service delivery.
- Instead of one primary organisation responsible for the delivery of adaptations, the adaptation process has been administered by multiple departments and organisations. Their collaboration and cooperation both at a strategic and operational level is fundamental to deliver efficient and effective adaptation services.

Some in-depth discussion of multi-level politics in the UK has been provided to illustrate intergovernmental relations between central and local governments that have affected practical arrangements for adaptation services. In general, the national government sets the adaptation policies and strategy; local authorities are responsible for policy/strategy implementation. Therefore, the next chapter will look into housing adaptation service practices at the local level.

CHAPTER 3: HOUSING ADAPTATION PRACTICE

3.1 Introduction

This chapter critically reviews studies that are closely related to ageing in place and housing adaptations. It starts by examining the theoretical concepts from environmental gerontology to explain the relationship between the ageing person and the physical-social environment, which justifies the importance of housing adaptation in improving older people's functional performance to match environment demands. The chapter then identifies the current supply of housing adaptations and the future demands of an ageing population. After this, the key stages of the adaptation process are explored, followed by a discussion on the benefits of housing adaptations, their delivery systems problems, and current guidance on their provision. Finally, the chapter discusses the contributions of HIAs to the delivery of housing adaptations and their future challenges.

3.2 Environment and Ageing Theory

A number of theoretical concepts and frameworks have been developed to investigate the relationships between healthy ageing and its determinants. Each relationship is seen as pluralistic, encompassing various disciplines, mixed methodology and empirical findings (Wahl and Weisman, 2003). As a consequence of this diversity, there is no uniform conceptual and theoretical framework that might improve our understanding of the person-environment interaction in later life (Kendig, 2003). The built environment of senior citizens has been extensively overlooked for over thirty years (Lawton, 1982; Tabbarah, Silverstein and Seeman, 2000). This problem was partially corrected by a growing research in environmental gerontology (e.g. Gitlin, 1998; Lawton, 1976; Matthews and Stephens, 2017; Sixsmith, 1986; Wahl, 2001), which disclosed that old age is an essential stage in the life course and can be profoundly shaped by the physical environment. As claimed by McPherson (1990), 'for older adults who experience changes in health, income, or marital status, the type and quality of environment may become an important factor in determining the level of personal well-being and independence' (p.157).

Environmental gerontology is based on Lewin's ecological equation B = f (P, E), which highlights that behaviour (B) is a function of the person (P) and the environment (E) (Lewin, 1951). As described by Scheidt and Windley (2006), 'behaviour is dependent on the qualities and dynamic interaction of both persons and environment' (p.117)). It emphasises an interdisciplinary understanding of person-environment fit processes in ageing, with the aim of optimising the relationship between the ageing person and the physical-social environment or of seeing a society better meeting the needs of an ageing population (Nahemow and Lawton, 1973; Wahl and Weisman, 2003). The Ecological Theory of Ageing, developed by Lawton and Nahemow (1973), is recognised as one of the most referenced and prominent theories in the field of environmental gerontology (e.g. Fäng and Iwarsson, 2003; Gitlin, 2003; Renaut et al., 2015) and continues to hold a pivotal model of person-environment belonging research (Gitlin, 2003).

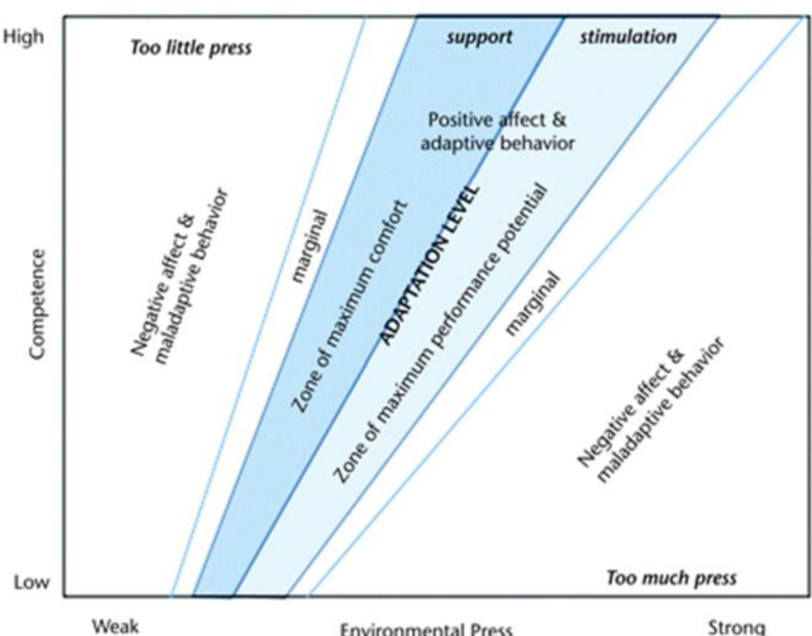


Figure 3.1 The ecological theory of adaptation and ageing (Source: Lawton and Nahemow, 1973)

Lawton and Nahemow's ecological theory of ageing involves two valuable concepts of personal competence and environmental press, and therefore known as the competence-press model. Personal competence, according to Murray (1938), is generally defined as an acquired characteristic to one person including external resources (e.g. social support) and internal capabilities (e.g. personality trait). Environmental press refers to the physical demands of the environment, aesthetic appearance and amenities (Gory, Ward and

Sherman, 1985). Figure 3.1 shows features of this theoretical model, with personal competence going on the vertical axis and environmental press on the horizontal axis. Different outcomes are graphically displayed on the figure, depending on the match between competence degree and press level. This indicates that 'adaptive behaviour and/or positive affect may result from a wide variety of combinations of individual competences and environmental press' (Lawton, 1986, p.11). Positive outcomes are the results of small mismatches between competence and press, while negative outcomes are associated with larger mismatches. As described by Lawton et al (1982), 'those with low competence encountering a strong environmental press are more likely to have negative affect and maladaptive behaviour and those having high competence and encountering weak environmental press are more likely to have positive affect and adaptive behaviour' (p.43). Therefore, there is an optimal person-environment fit when personal competence is compatible with the environmental demand, while a misfit occurs when the environmental press exceeds individual ability.

The competence-press model was subsequently elaborated, leading to the development of two key hypotheses – the environmental docility hypothesis and the environmental proactivity hypothesis. The docility hypothesis recognises that the person with decreased competence is subject to environmental factors or influences (Lawton, 1976; 1990). As expressed by Rowles (1978), 'when physiological and health constraints upon agility increase, environmental barriers become more significant' (p.161). Conversely, the proactivity hypothesis declares that environmental resources are likely to be used by the person with higher competence (Lawton, 1985). This is also suggested by Lawton (1990), 'older people, like all others, choose, alter, and create environments' (p.94). These hypotheses show that there is a bi-directional relationship between the person and the environment (Edwards and Shipp, 2007).

This established person-environment fit theory provides a useful basis to investigate the interaction or adaptation between the person and the environment (e.g. Oswald et al., 2002; Verbrugge and Jette, 1994; Wahl, Iwarsson and Oswald, 2012). Various theoretical frameworks were further developed to account for person-environment transactions (Bhidayasiri et al., 2015; Law et al., 1996; Rowles, 1983). Rowles (1978) employed qualitative methodologies to study older people's experience of their living environment and found that, adaptation to old age is a series of accommodations to changing biology and external circumstances, including home spaces, residential care facilities and the urban/rural environment. He proposed the concept of "physical insideness" to highlight

the cognitive connection between the person and their place. Rowles's transactional view is to explain that the cognitive connections to the personal environment are of primary importance. Kahana (1982) stated in her person-environment congruence model that desired behaviors are more likely to occur when the environment satisfies the person's needs rather than personal capabilities of controlling the environment. Congruence is a person-environment condition that contributes to psychological well-being, while incongruence results in impaired psychological health.

Based on the competence-press model and the congruence model, Carp and Carp (1984) proposed the complementary/congruence model, which advocates that favourable outcomes are linked with environmental functions and existing skills can be complemented by these environmental features when they begin to decline. Cutchin (1999) proposed a comprehensive approach to capture the dynamic process of the person-environment interaction. He put forward the concept of place integration that emphasised the dynamics of people in everyday activities at home and connected different aspects of person and environment (Johansson, Cutchin and Lilja, 2013). The integration of person and place can be regarded as a process of continuous transactions into a new situation (Johansson, Josephsson and Lilja, 2009; Marcheschi et al., 2015). Any change in personal life and home environment is linked to a disintegration or disconnection of the person and place relationship which leads to action and experiences for new integration (Cutchin 1999; 2003). In this regard, adaptation to the home environment for older people is a place integration process that requires focusing on connections among macro aspects like the interaction between national policies and local practices, as well as among micro aspects like the relationship between service providers and older people (Barling and Griffiths, 2003; Rubinstein and De Medeiros, 2014).

These different theoretical models have contributed to our understanding of the physical, social and psychological aspects of person and environment, which underpin older people's desire to adapt their houses for ageing in place (Wahl, Iwarsson and Oswald, 2012). There are two principal factors, "physical necessity" and "spatial restriction" (Smith, 2009). Physical necessity suggested that after years of residence in one place older adults have been well aware of their own environments and so been in a position to adopt and maximise their physical function when their health deteriorated. Smith also (2009) presented, 'having physical insideness with a familiar environment enables the masking of functional health declines and the maintenance of stable levels of physical functioning in the face of decline' (p.15). This indicates that an acute awareness of the physical

environment aids the promotion of independent living in old age. According to Lawton (1985), years of living in a dwelling form an inherent knowledge of the residential area, such as who his/her neighbours are, where the shops are, when public transport runs and which safe paths to use under different weather conditions, which enables greater positive responsiveness and flexibility to changes in personal competence and/or environmental resource.

Spatial restriction is another underlying reason to carry out adaptations for ageing at home (Smith, 2009). It has been widely, acknowledged that when ageing brings a decline in functional health, a disabling environment might appear to cause increased spatial restriction (Cho et al., 2016). Such restriction becomes less significant for older people who stay in their own homes, because they are more likely to adjust to the environmental challenges (Rowles, 1978). This associates with two basic elements. The first is an older person's potential capacity to manipulate their living environment (Lawton, 1985). Empirical studies have demonstrated that older home-owners can modify or restructure their physical environment to minimise environmental barriers and to compensate for their declining health (Rubinstein, 1986). The second refers to "geographical fantasy". Rowles (1978) found within his research of geographical experiences that long-time residence fosters imagination or fantasy about a geographical location by incorporating the past settings with the contemporary place, which can set older people free from the spatial restriction. Within this context, older adults staying in the same environment may experience more successful ageing. As summarised by Smith (2009), 'when spatial restriction occurs, the process of ageing is made easier if one remains in place' (p.15).

3.3 Current Provision and Future Demand

3.3.1 Characteristics of Older Person

One distinct characteristic associated with old age is the deterioration in functional abilities caused by senile diseases, such as diabetes, arthritis and sensory impairment (e.g. Slaug et al., 2011; Tinker, 2002; Verbrugge and Jette, 1994). According to the English Housing Condition Survey (EHCS) in 2012, there were around 43% (9.5 million) of the estimated 21.9 million households where the oldest member was aged 55 years or over and of these; 40% (3.8 million) were households which contain people with aged-related diseases or disability. Moreover, there was a noticeable correlation between the age of

households and the proportion of long-term illness or disability (e.g. Adams, 2016; Banks et al., 2012; Hansen and Gottschalk, 2006; WHO, 2015). In 2012, 34% of people aged 55 to 64 were reported to have a long-standing health problem or disability that limited their daily activities compared with 40% of those aged 65 to 74, and this increased to 52% in the age group of 75 and over (Figure 3.2).

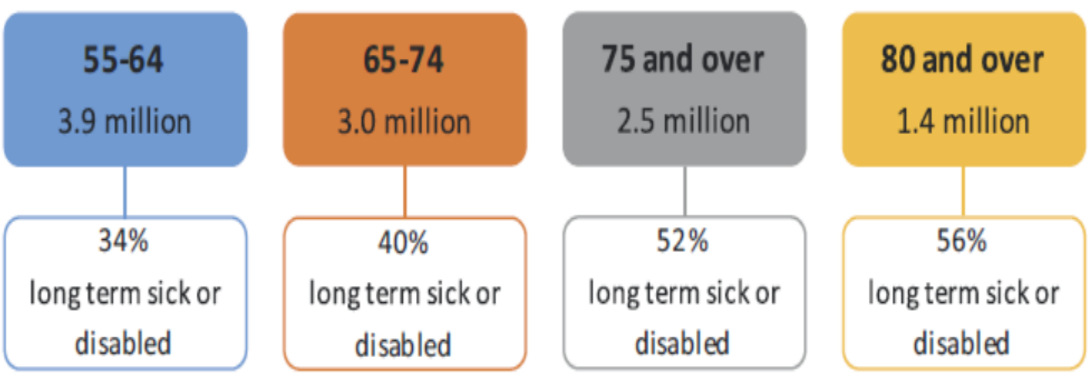


Figure 3.2 Correlation between age of household and long-term illness or disability 2012 (Source: Adams, 2016)

Life limiting illnesses often result in older people facing environmental barriers at home, such as stopping them to reach the toilet, have a bath or go upstairs (e.g. Baltes and Mayer, 2001; Heywood, Oldman and Means, 2002; Lopez, 2012). More worryingly, there is evidence that older households were more likely to live in poor-condition homes (e.g. Abramsson and Andersson, 2016; Garrett and Burris, 2015; Jackson, 2003). The 2012 EHCS showed that around 21% (1.2 million) of households aged 65 years or over lived in a house that failed to meet the Decent Home Standard[28] and of these, 79% (934 thousand) were owner occupiers and another 10% (122 thousand) were private renters (Adams, 2016). Even worse, in terms of accessibility to upper floors, single-level flooring, sufficiently wide doors for wheel chair access, and circulation space and WC's at entrance levels, the private sector housing is more likely to lack any of these features and is less well adapted to meet the needs of people with mobility problems compared to the social housing (Ota, 2015). Garrett and Burris (2015) further demonstrates that one in five older residential occupants live in unfit dwellings. Unsuitable housing conditions can result in preventable falls and increased risks of long-term illness experienced by older people (Lawler, 2001; Renaut et al., 2015). According to the WHO (2007), falls at home were

[28] The Decent Home Standard is a nationally defined standard, which is measured by indicators including need for urgent repair, age of the kitchen and bathroom facilities and thermal comfort, and category 1 hazard that presents a significant risk to the health of the occupant.

the prominent cause of injury or ill health among older people and every year approximately 35% of people aged 65 or over had experienced falls. Injuries caused by falls normally result in hospitalizations. UK statistics revealed that in 2011 the NHS treatment costs for fall-related injuries reached 435 million (Public Health England, 2017). When population ageing increases, there will be a corresponding incredible rise in health care costs driven by falls and injuries (Kannus et al., 2007). In addition, when people are getting older, they spend more time (approximately 80% in very old age) within the home (Baltes et al., 1999; De Jonge et al., 2011).

Therefore, housing quality and suitability are fundamental determinants of health and well-being (Iwarsson and Ståhl, 2003; Oswald et al., 2007). As Bull and Watts highlighted, 'much disability is a consequence not of the "impairment" experienced by the individual but by the environment in which they, and we, all live' (1998, p.17). More specifically, an older man with osteoarthritis may or may not experience any disability dependant on the extent to what his living environment supports or hinders his physical activity and social participation (Jette, 2006). In this regard, the extent to which poor housing conditions interfere with the elderly's ability to live independently depends on whether their homes are supportive or adaptable.

3.3.2 The Meaning of Home in Old Age

When the ageing process results in gradual loss in physical capacity, environmental barriers frequently turn older people's home into a place of embarrassment or confinement (Aneshensel et al., 2007; Iwarsson, Isacsson and Lanke, 1998). However, over 85% of older people have a strong desire to "stay put" in their own houses and to remain engaged in the community (Frank, 2002; Wiles, 2005). Behind this desire lies a strong attachment to the home (Australian Institute of Health and Welfare, 2013; Farber et al., 2011; Sixsmith and Sixsmith, 1991). As pointed out by Van Steenwinkel, Baumers and Heylighen (2012), 'home represents something like the next layer after the embodied mind, an extra skin around a person' (p.202).

There is extensive literature exploring the meaning of home to older people from different perspectives. Firstly, the home environment keeps people busy and active, which makes a positive contribution to physical and mental health (Dsouza, 1993; Sixsmith et al., 2014). Because of the reduced ability to move around, elderly people perform most of their daily activities (e.g. reading, watching, playing, cleaning) at home which helps to maintain their

physical and mental health and fitness. Secondly, home can be seen as a place of security and refuge. Dahlin-Ivanoff et al. (2007) found that an older adult can experience a sense of security through interacting with household machines or furniture/fitting, living in a familiar community, developing friendships with neighbours, and building memories of the past life. Thirdly, home is a private territory that shields privacy and freedom (Means, 2007). In terms of privacy, home is a protective place, which enables people to explore the outside world and be protected from the same outside world (Bollnow, 2011). Home owners also have the freedom to make decisions on when to go out and when to return, what to do, and who is allowed to enter (Madanipour, 2003; Heywood, 2005). Fourthly, compared with the public institution, the private home extends the sense of self and boosts the feeling of identity. The connection between home ownership and identity was also confirmed by Feddersen and Lüdtke (2014), when you cannot identify yourself at home, then you do not dwell, then you lodge. Such identity further helps in the development of independence and autonomy (Willcocks, Peace and Kellaher, 1987). After moving into nursing or residential care homes, older adults frequently found their independence and autonomy limited (Sherwin and Winsby, 2011).

Therefore, when people grow old with decreased mobility and increased loneliness, their home becomes more significant and meaningful (Gitlin, 2003). It represents not only a static place but also an ongoing transition (McHugh, 2003), which 'is physically, psychologically, and socially constructed in both "real" and "ideal" forms' (Sommerville, 1997, p.226). These objective and subjective aspects of housing are associated with health and well-being (Oswald et al., 2007). However, there is a close connection between people's age and housing conditions. The longer people have lived in the same building, the more likely this building is in worse condition (Leather and Mackintosh, 1993). As the above discussion attested, older people were more likely to live in poor condition properties.

Despite this, there was a higher level of satisfaction with poor housing among the older age group, compared with the young age group (e.g. Baba and Austin, 1989; Perez et al., 2001; Fine-Davis and Davis, 1982; Satsangi and Kearns, 1992). This is largely because of older people's lack of awareness, given the fact that people in poor housing should be less satisfied with their living environment (Leather and Mackintosh, 1994; Thomas, 1986). The subsequent study further explained that satisfaction should not be confused with either unawareness or ignorance and lack of knowledge should distinguish from tolerance or reluctance to acknowledge (Heywood, 1997). In general, people have

become accustomed to the defects of their house when they lived there for a long time (Ewart and Harty, 2015; Gurney, 1990). This appears more common among older people, who spend most of their time at home and tend to tolerate bad conditions of their property. In addition, due to fear of the consequences of moving to specialised housing and the high cost of repair work, older adults are unwilling to admit their dissatisfaction with their homes (Heywood, 1997; Morton, 1982). There are also other reasons for not revealing housing crisis, such as having to organise building work and the resultant disruption to everyday life (Ekstam, Fänge and Carlsson, 2016; Heywood, Oldman and Means, 2002).

Therefore, although housing adaptation is of greatest relevance for successful independent living, the elderly are usually afraid to admit to their needs (King and Copeman, 2009; Morton, 1982). One reason said to be that the older age group was, besides more at risk of physical limitations and unsafe environments, more likely to be owner occupiers having low incomes and being unable to afford to pay for the necessary repair work or specialised housing (Gilderbloom and Markham, 1996; Heywood, 1997). Based on the latest statistics (Shale et al., 2015), around 14% (1.6 million) of pensioners lived in poverty, with weekly incomes less than £224 after housing costs; 36% (3.5 million) of those aged 65 or over stayed at home as single occupiers. To address these issues, government-funded adaptations were subsequently introduced in the UK. Evidence of adaptations that have already taken place seems encouraging, however, there were still substantial unmet needs, which remained a clear challenge for many local authorities (DCLG, 2011; Foundations, 2008; Scottish Government, 2010).

3.3.3 Need and Supply of Housing Adaptations

According to the EHCS 2007/08, there were over 6 million households that included at least one member with serious medical condition or disability. Of these households, around 1.5 million reported the need for specially adapted accommodations (DCLG, 2009). Meanwhile, about 56% of people with medical conditions or a disability and who had a need for housing adaptations were aged 65 or over, lived in private sector housing. Figure 3.3 provides an overview of the trend that, between 2002 and 2008, there has been a total increase of 185,000 in the number of persons with a serious medical condition or disability requiring specially adapted accommodation. There was a relatively high proportion of people aged 65 or over reporting that their accommodation was suitable for coping with their disabilities or serious medical conditions. This may again reflect the

fact that many older people were unaware of their poor housing conditions and that a number of houses which were considered by older people to be suitable were revealed to be unsuitable (Adams and Ellison, 2009). Even so, around 120,000 people still reported that their accommodation remained unsuitable to meet their housing needs (DCLG, 2009). As a result, the older population have been the major recipients of assistance with adaptations and will continue to be given the prevalence arising from the likelihood of both serious medical condition and disability in later life.

All household members

Age of person	Persons with a serious medical condition or disability requiring specially adapted accommodation						Percentage of people with serious medical condition or disability who say that their current accommodation is suitable					
	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08
						thousands						*percentages*
0-15	54	55	57	58	44	63	*50*	*53*	*68*	*47*	*54*	*66*
16-24	34	34	26	26	34	33	*55*	*61*	*87*	*64*	*74*	*81*
25-44	124	111	139	157	136	163	*60*	*66*	*76*	*62*	*69*	*71*
45-64	358	364	367	397	408	417	*71*	*75*	*75*	*72*	*76*	*74*
65-74	265	315	301	301	256	312	*75*	*79*	*81*	*81*	*79*	*84*
75-84	372	373	350	407	370	379	*83*	*82*	*85*	*81*	*80*	*88*
85+	145	116	139	158	160	172	*82*	*85*	*84*	*82*	*88*	*87*
Total	1,353	1,368	1,380	1,503	1,408	1,538	*74*	*77*	*80*	*75*	*78*	*80*
Tenure												
Owner-occupiers	660	660	753	820	718	783	*77*	*79*	*82*	*78*	*79*	*84*
Social renters	622	624	556	609	594	673	*72*	*76*	*79*	*75*	*76*	*79*
Private renters	71	84	71	73	96	82	*65*	*67*	*63*	*53*	*72*	*57*
Total	1,353	1,368	1,380	1,503	1,408	1,538	*74*	*77*	*80*	*75*	*78*	*80*
Number of persons in sheltered housing[1]												
	102	129	103	160	138	158	*93*	*93*	*95*	*88*	*88*	*88*

Figure 3.3 Trend in numbers of people with a serious medical condition or disability, by age/tenure and whether accommodation meets their needs, England, 2002-03 to 2007-08 (Source: DCLG, 2009)

Figure 3.4 shows a clear increase in the total amount of DFGs, the number of housing adaptations and their average value across England. In 1991/1992, there were only 13,741 housing adaptations delivered by local authorities, with a total cost of £43.3 million and an average value of £3,156. Ten years later, the number of DFGs went up nearly double to 25,510, costing up to £145,120 representing an average value of £5,689. By the year of 2007/2008, 38,130 grants were paid by a total value over £250 million with an average value of £6,559, meaning a 177% increase in the number of DFGs, a 477% increase in

total cost, and a 108% increase in an average value since 1991/1992 (Adams and Ellison, 2009). Despite this, the provision never matched the potential demand. If all the above-mentioned 120,000 unsuitable houses are adapted at the average cost of £6,559 in 2007/2008, the total cost is equal to £787 million, which is far greater than the estimated annual expenditure of £250 million.

Year	Total value 000s	Number of Grants	Average value 000s
1991/92	43,364	13,741	3.156
1992/93	64,960	16,126	4.028
1993/94	74,915	18,472	4.056
1994/95	90,533	21,866	4.140
1995/96	97,532	23,380	4.172
1995/96	92,230	20,060	4.598
1996/97	100,410	21,990	4.566
1997/98	107,100	22,180	4.829
1998/99	116,530	22,720	5.129
2000/01	130,720	24,730	5.286
2001/02	145,120	25,510	5.689
2002/03	173,780	30,100	5.773
2003/04	201,980	37,170	5.434
2004/05	210,310	38,550	5.456
2005/06	221,340	34,940	6.335
2006/07	232,830	37,270	6.247
2007/08	250,100	38,130	6.559

Figure 3.4 Total value, number and average value of DFGs in England (Source: DCLG, 2009)

Pensioner households with someone with a life limiting illness with a need for adaptations					
2008	2013	2018	2023	2028	2033
66300	72578	79634	87660	97216	106174

Figure 3.5 Estimate of future need for adaptations among pensioner households (Source: Scottish Government, 2010)

Based on the Scottish House Condition Survey, the Scottish Government estimated that there were 15% of households with at least one disabled or seriously ill occupant in need of housing adaptations (Scottish Government, 2008). Based on this ratio, there might be approximately 66,300 out of 442,000 pensioner households in which someone reported a

life limiting illness or disability that required housing adaptations in 2008 (Scottish Government, 2010). Assuming that nothing changes, applying the above ratio to the estimated growth in the older population will provide an indicative likely future need for adaptations. For example, demand for adaptations among older households with a life limiting illness is expected to reach 87,660 and ten years later it envisaged to rise to 106,174, which represents strong trend growth in demand (Figure 3.5).

Although government-funded adaptations have been provided for years in Scotland, there are substantial variations in the pattern of need and supply between local authorities (Figure 3.6). Glasgow City Council have provided the largest number of adaptations (61,000), but there was still the highest level of demand (11,000). In contrast, Edinburgh City Council had a quite low demand after delivering the second largest number of 46,000 adaptations. It also showed that some local authorities had a very large number of people requiring housing adaptations in comparison to other local areas (Scottish Government, 2008).

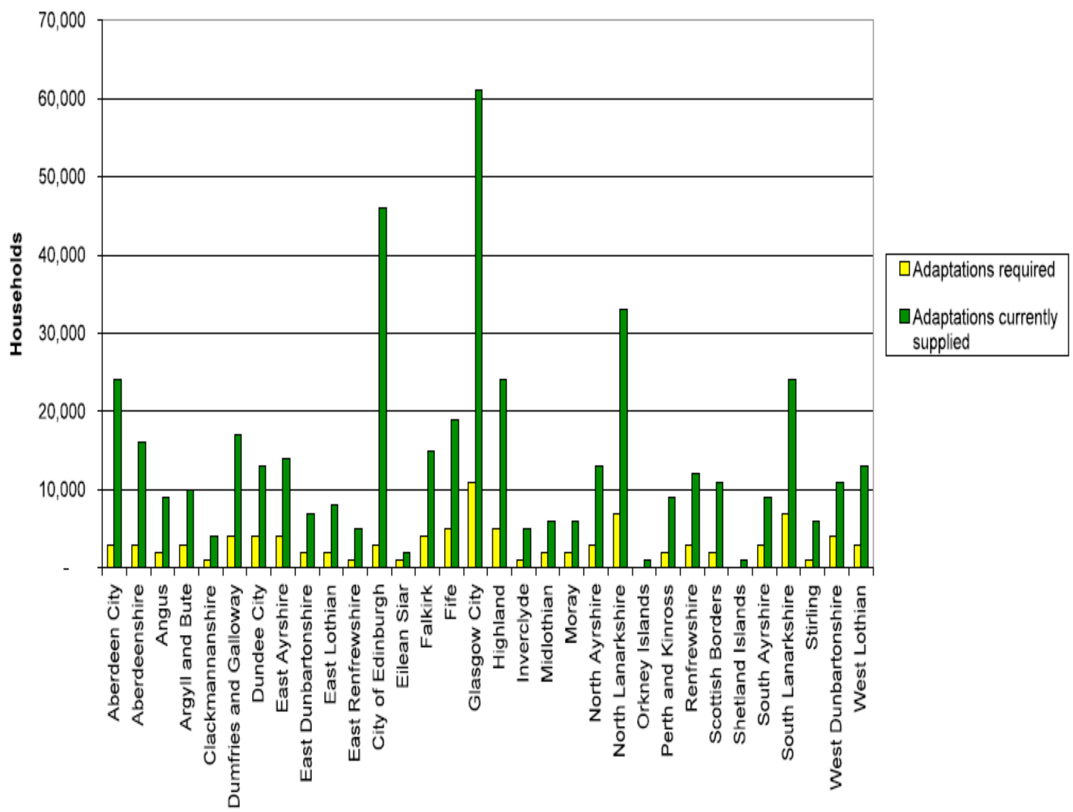


Figure 3.6 Adaptation required and supplied by local authorities (Source: Scottish Government, 2008)

Although the government has injected extra funding on an annual basis into housing adaptations, there was substantial unmet need that varied from council to council. In view of the ageing population and today's budget cutting policy, the future demand will continue to exceed far beyond available budgetary resources. As a result, there is a growing waiting list for housing adaptations. Previous research has found that some older clients waited for years to receive their required adaptations and enjoyed little time of life to benefit from the change works (e.g. Appleton and Leather, 1997; Hall and Social Work Services Inspectorate, 2001; Jones, 2005). Therefore, it is crucial to bring down the waiting time and make the best use of limited resources. Heywood (2005) suggested that speeding up the process for delivering adaptations is the most effective and efficient way to reduce the potential demand and help more people live independently. To improve the speed, it is first and foremost necessary to understand the service pathway for housing adaptations.

3.4 The Adaptation Process

There is a noticeable correlation between the age of people and long-term illness or disability. Life limiting illnesses create environmental barriers for older people to live independently; they may have to move to residential settings or even institutional care. However, most older people have a strong desire to remain independent in their own homes. To facilitate this, it is necessary to have an accessible and suitable living environment that supports physical activity and social participation. Housing adaptation is recognised as an effective intervention to enhance home accessibility and suitability for independent living. However, because of the complicated web of legislation and policy, it is quite common to find that the adaptation process is confusing and frustrating. Getting the right adaptation requires to meet six key stages, including referral, allocation, assessment, funding, installation and after-visit (Figure 3.7). The following sub-sections will explain these stages in more detail.

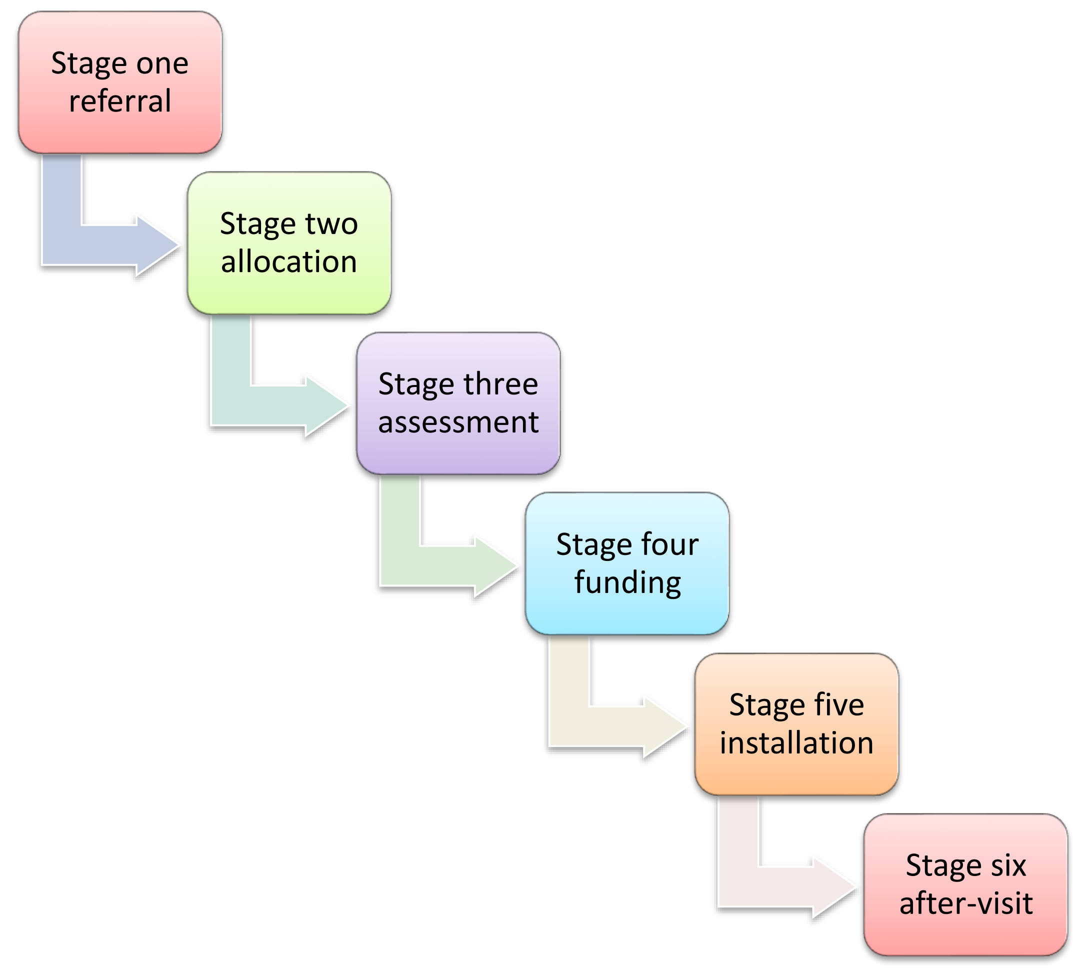


Figure 3.7 The process of undertaking housing adaptations

3.4.1 Referral to Allocation

When a client's need is assessed swiftly, followed by rapid grant authorisation and installation work, an adaptation would be delivered within one month (Heywood, 1994; Keeble, 1979). However, this is rarely found to be the case and many applications are subject to sequential procedural steps, resulting in an elapse of a lengthy period before the completion of an adaptation (e.g. Audit Scotland, 2004; Jones, 2005; Zhou, Oyegoke and Sun, 2018). Lengthy waiting times can cause additional stress on clients and an unnecessary waste of limited public resources (e.g. Hall and Social Work Services Inspectorate, 2001; Heywood and Turner, 2007; Morgan, Boniface and Reagon, 2016). To prevent these long waiting times and improve service quality, it is necessary to understand the adaptation process from initial enquiry to work completion.

The first step for applying for an adaptation is to be made known to the welfare authority (e.g. social services in England and Wales, social work in Scotland) through the process of “referral”. There are several ways to draw the attention of the social services department, such as a personal visit, a phone call, a posted letter, or an email (Aberdeen City Council, 2012; North Lanarkshire Council, 2016; North West Leicestershire District Council, 2008; Reading Borough Council, 2011). Frequently, the first point of contact with a welfare authority is made through the third part, such as general practitioner (GP), social worker, housing officer or other agencies. Because of many different routes for getting a referral, methods for responding to these referrals vary significantly between the different access points. As a result, some applicants may be redirected to another department; some applications may be held back or even fail to reach the correct destination. Sometimes clients can fill out an application form to refer themselves for assessment. Self-referral was found to be an efficient tool to initiate the referral process and to receive quick access service (AWG, 2012; Hall and Social Work Services Inspectorate, 2001; Tucker et al., 2011). At the first point of contact, staff normally provide clients some basic information about what happens next, how long they have to wait, who is responsible for various stages of the process and who they can contact for further information and status report.

On receipt of these requests or referrals, an initial screening process normally takes place to prioritise cases and allocate them to specific fieldworkers, mainly OTs, for further assessment (Bradford, 1998; Brighton and Hove City council, 2015; Rochford District Council, 2011). This screening mechanism can be used to free up OTs for more complex cases and to prioritise limited resources for urgent needs (Audit Commission, 1998; Awang, 2004). There are considerable doubts over the feasibility of this method. First, the initial screening should involve completion of a simple assessment against agreed criteria, otherwise older people may be unable to access to assessment (Bradford, 1998; Richards, 1996). Secondly, often social workers in the social services department conduct the initial screening and allocate the cases to different fieldworkers. This may lead to inexpert assessment and inappropriate allocation, when the social worker lacks the necessary knowledge and skills to make the decision on whether an OT or an OT assistant should make the assessment (Burgess and Morrison, 2016; Keeble, 1979). After prioritisation and allocation, the case is then passed to the assessment officer who makes contact with the client. Normally, the high priority clients receive a quicker contact and visit than those in the medium or low priority.

3.4.2 Assessment to Grant Application

According to the LGH Act (section 114) and the HGCR Act (section 24), for approval of a housing grant like DFG, the housing authority should be satisfied that an adaptation is necessary and appropriate for the needs of a disabled applicant and it is reasonable and practicable to adapt the property. In deciding whether the adaptation work is necessary and appropriate, the housing department should consult the social services department (discussed in Chapter 2). Therefore, immediately after the allocation of each referral, the OT makes the first home visit and assesses the client's needs to determine the necessity and appropriateness of an adaptation work. However, due to the impossibility of OTs catching up with the high volume of demand for assessments, there is always a shadow or waiting list between allocation and assessment (Alzheimer's Society, 2013; Hall and Social Work Services Inspectorate, 2001; Keeble, 1979). This was identified as the leading cause of delays in the delivery of adaptations (Boniface et al., 2013; Heywood, 1994). One study specified that all applicants, except the most urgent ones, had to wait an average of six months for their assessments (Keeble, 1979). A review of housing adaptations found that although the waiting time for an OT assessment varied significantly from 5 to 105 weeks, 27 weeks waiting time was found to be the average time taken (Jones, 2005). This was also confirmed in another research, which reported that waiting times for OT assessments were between 2 and 115 weeks and the average time was 23.5 weeks (Clayton and Silke, 2010). To reduce waiting times and waiting lists, some local authorities have employed OT assistants or other trusted assessors to carry out assessments for smaller adaptations. Some local authorities even used self-assessment to provide minor adaptations.

In essence, the assessment process takes place in two stages: the first stage is the basic assessment of the person's needs; the second stage is a judgement whether the needs call for the provision of an adaptation (Scottish Government, 2009b). To make this judgement, there is usually an application of locally determined eligibility criteria in the second stage. The eligibility threshold assists local authorities to deploy limited resources for those most in need and to distribute adaptation funds in a fair manner. In setting such thresholds, local authorities often consider a range of risk factors relating to health condition, living environment, community participation and care arrangement (DH, 2013; Scottish Government, 2009b). Each factor has been defined differently to prioritise risks into the following bands: critical, substantial, moderate and low. Local authorities decide which bands of risk, for example "critical" and "substantial", require the provision of adaptation

services as a high priority. When clients are assessed as being in the “critical” or “substantial” risk bands, OTs will generally make the recommendations and specify the types of adaptation required. The case is then passed to the housing department for grant approval; the grant officer will send the client a grant application form. Often the associated agency, such as HIA and C&R, is informed so that help can be provided to the client to complete the grant application and the installation work.

When an assessment is carried out and an application for a mandatory grant like DFG is made, there has to be a test of resources that follows a specific format, known as “means test”. This means test is applied by the housing authority based on nationally defined amounts at the beginning or middle of grant applications, depending on local authorities' practices (Reading Borough Council, 2011; Sheffield City Council, 2016). Disabled children or young people under the age of 19, for whom child benefit is payable, do not need to go through the financial means test. This test is a calculation of the applicants' and their partners' income and savings against a set threshold[29], which works out the value of grant they are entitled to. A range of financial information is required for the test, such as bank statements, pension books and proof of benefits. After means testing, grant applicants may receive a full grant or may be liable to make a contribution towards the cost of the adaptation work. If the clients cannot afford a contribution, local authorities have discretionary powers to provide a top-up to meet the cost. The maximum grant permitted in England has increased to £30,000 from £25,000. It is higher in Wales at £36,000. In Scotland, there is no upper limit to the cost of adaptation works, but local authorities need to check that the proposed cost is reasonable. If the client is a tenant, it is necessary to obtain the landlord's consent before carrying out any adaptation work to the property. When all supporting documents have been received, the housing authority needs to reach a decision on the grant application within six months.

3.4.3 Grant Approval to Installation

Where an assessment is completed, the type of adaptation recommended to meet the client's needs must be translated into a specification for the building work. Since OTs are

[29] In England and Wales, the means test refers to assess how much the household need to live on, compare this with the actual income, calculate how big a loan they could afford to pay off, and compare the size of the loan with the cost of the work. See more in https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/6335/1850571.pdf. In Scotland, everyone can get 80% of the costs of work covered by mandatory grant and some people will get 100% when they receive income support, income-based jobseeker's allowance, pension credit and income related employment and support allowance. See further at: http://www.gov.scot/Resource/0039/00397805.pdf.

not trained as technical officers, the detailed specification is usually developed by joint visits of an OT and architect (Heywood, 1994; Medway Council, 2016). The OT describes what is required; the architect turns it into a schedule of works. Sometimes the grant officer takes part in these visits to make sure the adaptation work is reasonable, practicable and value for money. The schedule of works includes a range of documents that cover requirements related to all aspects of the adaptation, such as design, structure, materials and standards to be met. Indeed, it is a checklist, which will be used on site as a plan for the building work. As the average elderly person is not familiar with technical specifications and design drawings, clients and their families often need help to understand what adaptation work is going to be done. For some types of building work, such as an extension, it is necessary to contact the local authority's Planning Service for planning permission before starting any work. When there are structural alternations to the property, such as the installation of a stairlift, the applicants have to adhere to Building Regulations and obtain building control approval.

Once all the requirements are specified and the schedule of work is finalised, it is necessary to estimate the cost of the adaptation and to invite contractors to submit tender prices against the agreed specification. As finding and securing a trusted contractor is often difficult for applicants, local authorities may consider establishing an approved list of contractors for adaptation works. The local authority will set criteria, such as references for previous work, financial standing, insurance documentation and criminal records, to ascertain the contractor's competence of carrying out general adaptation works. Contractors who meet the published criteria are able to apply for inclusion on the list. Local authorities may share this list with potential clients in a number of ways, such as publishing on their website and including in an information package. In order to ensure fairness to the eligible contractors, the contractors are usually made available to clients on a rotational basis. The invited contractors will submit their tender quotations based on the detailed specifications in a sealed envelope before a set deadline. A contractor will be selected by the client to undertake the building work. As a guiding principle, the grant is normally based on the lowest quotes received. The client has to start installation works for the adaptation within twelve months after the approval of a grant[30]. However, local authorities have the discretion to extend this time limit where they are satisfied with any

[30] Section 37 Payment of grants: conditions as to carrying out of the works. (1) It is a condition of payment of every grant that the eligible works are carried out within twelve months from— (a) the date of approval of the application concerned, or (b) where section 36 applies (delayed payment of mandatory grant), the date specified in the notification of the authority's decision, or, in either case, such further period as the local housing authority may allow.

unforeseen circumstance that delays the client from carrying out the work[31]. After completion of the adaptation, the contractor will invoice the client and the local authority. The client must sign the contractor's invoice and the grant will then be paid by the council. When there are works that are not covered by the grant, the client should pay for the excess directly to the contractor. Current legislation allows local authorities to delay their payments for adaptation works under certain conditions for up to twelve months after the date when the grant application is approved[32].

3.4.4 Follow-Up Visit

The provision of an adaptation should not cease on completion of its installation, which is just the beginning for the client (Heywood, 1994; Petersson et al., 2012). Previous studies have reported a lack of necessary arrangements on aftercare, resulting in the client struggling with the use of their adaptation and the government failing to get the best value from their investment (Fänge and Iwarsson, 2005; Gitlin, 1998; Heywood, 2001; Klein et al., 1999). To prevent this, it is essential to make sure that clients can operate the adaptation properly and that all the assessed needs have been met (Appleton and Leather, 1997; Gitlin, Miller and Boyce, 1999; Ekstam et al., 2014). In general, when the building work is finished, there is a follow-up visit to check whether the adaptation is fully installed to meet the identified need and whether the client is satisfied with the completed adaptation. Such visit is usually conducted by an OT, or a technical officer, or a grant officer, or a combination of them.

In addition, on completion of an adaptation, it is the local authority's normal practice to collect information for performance management and service improvement. Many local authorities have recorded and collected additional information, including the number of adaptations, the amount of grants and delivery times for key stages of the process, to demonstrate the broader value of the service. In some local areas, a questionnaire survey is sent to clients to gather their feedback on different aspects of the service, such as service quality, process effectiveness and customer satisfaction. It is principally done by agencies

---

[31] Section 37 (2) The authority may, in particular, allow further time where they are satisfied that the eligible works cannot be, or could not have been, carried out without carrying out other works which could not have been reasonably foreseen at the time the application was made.

[32] Section 36 Delayed payment of mandatory grant (1) the local housing authority may approve an application for a grant on terms that payment of the grant, or part of it, will not be made before a date specified in the notification of their decision on the application. (2) That date shall not be more than twelve months, or such other period as may be specified by order of the Secretary of State, after the date of the application. See the Housing Grants, Construction and Regeneration Act 1996, http://www.legislation.gov.uk/ukpga/1996/53/section/37.

like HIA and C&R when they are involved in the delivery of adaptations. Sometimes clients provide their feedback during the follow-up visit. After the performance measurement stage, the adaptation is said to have been delivered to the client and the case will be closed.

The above discussion offers an insightful analysis of the journey that leads to a successful adaptation. On the whole, the adaptation process falls apart into six main stages, from initial request to case allocation, from case allocation to OT assessment, from OT assessment to OT recommendation, from OT recommendation to grant approval, from grant approval to installation, from installation to follow-up visit. These different stages involve different organisations, which require clients to interact with a range of professionals during the provision of their adaptations. The feature of multi-agencies involvement is shared internationally, although different countries organise adaptation services differently (Ekstam et al, 2014; Johansson et al., 2010; Pynoos et al., 1998). A Swedish study showed that disabled people need to engage with a number of professionals such as doctors, OTs and craftsmen in their navigation through the adaptation system (Johansson, Borell and Lilja, 2009). As this study aims to investigate the effectiveness of existing adaptation practice. It is fundamental to understand every key stage in the provision chain. The following data collection and result discussion is based on the six stages of provision.

3.5 Value, Problems and Guidance

3.5.1 Benefits towards Individual

Over past decades, there has been much well-developed literature that has explored the effects of housing adaptations on ageing in place from different perspectives. Adapting the house to help older people remain in their own homes can be beneficial to individuals, families and governments. There has been a growing appreciation of the significant contribution which home adaptations have made to the improvement of personal independence, health, and quality of life. This was demonstrated by Watson and Crowther (2005) in their study into the effectiveness of major adaptations in Nottingham: 92% of respondents reported their independence had been improved to a certain degree and 65% said a lot; there was general consensus on the reduction of pain and depression in both

disabled people and their carers; 89% of clients believed that housing adaptations had positive effect on their quality of life.

The increase in older people's independence is a consistent outcome associated with housing adaptations. In the survey towards members of the design advisory network, Connell et al. (1993) found that home adaptations have the potential to lessen dependence on other carers in performing household tasks and daily activities. Empirical research from Iwarsson, Isacsson and Lanke (1998) also confirmed that housing accessibility problems affected activities as part of daily living and home adaptations can promote greater independence in later life by removing physical barriers. Stark (2003) examined the effectiveness of home adaptation intervention and recognised that modifications to the home can improve the ability of disabled people to engage in everyday activities. These results were further reflected in Niva and Skär's study of people's activity patterns, which highlighted that adaptation can make home environment accessible and increase older people's outside activities (2006). Results from the ENABLE-AGE UK project showed that housing adaptation was a key determinative factor for ageing in place and an older person, who received adaptations, was more likely to live longer in their own home than those who did not (Hwang et al., 2011).

Beyond performance and independence, increased safety or feeling safe is reported as another major reason for the provision of adaptations (Fonad et al., 2006; Keall et al., 2015; Stark, 2003). A qualitative study highlighted that home modifications can enhance older people's experience of home by restoring home as a place of safety, security, control and comfort (Tanner, Tilse and De Jonge; 2008). Similar results were found in a Swedish study by Pettersson, Löfqvist and Malmgren Fänge (2012), where feeling at home was considered as a prerequisite for safety in everyday life and home adaptations facilitated this feeling. A randomised trial of falls prevention showed that home interventions prevented fall accidences at home (Cumming et al., 1999). Another similar study offered evidence that necessary adaptations contributed to a significant reduction of falls in frail older people (Nikolaus and Bach, 2003). This was further demonstrated in Pynoos, Steinman and Nguyen's research, which highlighted that home adaptations reduced the risk of environment falls (2010).

There is repeated evidence that housing adaptations help improve both physical fitness and mental health (Pettersson, et al., 2009; Stark et al., 2017). In investigating the use and impact of level access showers twelve months after their installations, Adam and Grisbrooke (1998) found that shower adaptations were beneficial to relieve the client's

pain and improve their mood. Similar results were obtained in Plain's study, which reported that fitted showers met the needs of people with physical impairments (2003). According to Frisk et al.'s study of housing adaptations for people with asthma (2002), after removing environmental hazards, the amount of airborne dust was reduced that led to an improvement of lung function and the respiratory system. In addition, Awang (2004) found that after receiving housing adaptations disabled people were less likely to visit GP and to use prescribed medicines. Tabarrah et al (2000) investigated the link between the health condition of older people and the likelihood of undertaking home modification, which proved that housing adaptations helped overcome functional disability or difficulties experienced resulting from chronic health conditions. In the assessment of a home modification program, Schreuer (2016) recognised that people were more willing to use home adaptations when they acknowledged a decline in their functional capability. Heywood and her research team performed a large-scale study about the health outcomes of housing adaptations in England and Wales. The findings suggested that well-designed adaptations enabled disabled people to enhance not only their physical wellness by preventing fall accidents but also their wellbeing by reducing anxiety or depression (Heywood, 2004).

Quality of life is also used as an outcome measure of housing adaptation services (Chiatti and Iwarsson, 2014). One third of those who responded to the survey in Bamford's research reported that adaptations slowed down deterioration in their quality of life (2000). A similar study to adaptation clients also found that both minor and major adaptations had a positive impact on quality of life (Heywood, 2001). Another home environmental skill-building program demonstrated that home environmental intervention had enhanced quality of life in dementia (Gitlin et al., 2003). Stein et al. (2006) identified quality of life as a key positive outcome from home adaptation interventions. Francis et al.'s research on preventive care and support further highlighted that quality of life was significantly better by providing reablement services including housing adaptations (2011).

3.5.2 Benefits towards Family and Government

There is an increasing consensus that housing adaptations facilitate older people to maintain independence and reduce their need for family support. In a range of studies, such as Gitlin et al. (2001), Gitlin et al. (2003) and Gitlin et al. (2006), Gitlin and her colleagues have examined the impact of environmental adaptations on both people with

Alzheimer's disease or related disorders and their family caregivers. The results showed that environmental interventions had various positive effects on caregivers, including decreased upset and enhanced self-efficacy. A research into the benefits of level access showers demonstrated that their installations had reduced the need for support from family and lessened the strain on family relationship (Adams and Grisbrooke, 1998). Through the survey on housing adjustments, Reschovsky and Newman (1990) found that housing adaptations helped family members to save both time and money as they were not only the main providers of care for frail older people but also the major source of payment for the care. Heywood (2005) further suggested that housing adaptations enabled disabled people and their families to have enough secure space and to enjoy a normal family life.

In addition, there is a growing body of evidence that the home is central to flourish family relationships (e.g. Dupuis and Thorns, 1998; Gurney, 1990; Haak et al., 2007; Mallett, 2004; Sixsmith, 1986). Interviewers from the research project into the effectiveness of major adaptations pointed out that the unsuitable home environment put their family relationship under stress and adaptations helped restore the relationship by improving interaction between disabled people and their family (Heywood, 2005). In Brewis's study of adaptations for people with disabilities, older caregivers complained that because of the decline in their own health, supporting their partner became a considerable burden that caused the relationship breakdown (Brewis, 1997).

Because of these practical benefits to individuals and their family, housing adaptations help achieve many policy objectives and value for money. Through conducting a robust systematic review of the literature, Heywood and Turner (2007) demonstrated that housing adaptations have brought significant savings to the NHS service, home care costs and social services budgets. A range of studies, such as Keall et al. (2015), Plautz et al. (1996), Pynoos, Rogers et al. (2004), Steinman and Nguyen (2010) and Tideiksaar (1986), have revealed that home adaptations played an important role in preventing falls. Falls are the most common cause of fractures of the hip, limb, rib and other in the elderly; these fractures often lead to acute hospital stays and extra medical costs (e.g. Hatamabadi et al., 2016; Hosseini, 2014; Cumming et al., 2007; Parrott, 2000). According to an estimation of accident/emergency attendances and admissions to hospital as a result of falls among people aged 60 years or over, a total cost of £579 million was incurred by the NHS in the UK (Scuffham, Chaplin and Legood, 2003). In addition to a preventative role, housing adaptations help to promote mental health and wellbeing for older people that has

considerable cost implications (e.g. Adams, 2016; Chiatti and Iwarsson, 2014; Unwin et al., 2009). Based on the report on the rapid response adaptations programme, a cost of £350 per adaptation can reduce the average stay in hospital from 14 days to 6.2 days, contributing to a savings of £41 million for the NHS (Care and Repair Cymru, 2011).

Furthermore, housing adaptations have reduced the need for domiciliary care and achieved savings for social services budgets (Kim et al., 2014). Lansley, McCreadie and Tinker (2004) carried out a detailed audit of 82 properties to measure the cost of their adaptations. The findings showed that appropriate adaptations have substituted for formal care services and the investment in adaptations was actually recouped through subsequently lower care costs. According to the CERTAIN study on the cost, effectiveness and utility of housing adaptations and assistive technology, the provision of adaptations had resulted in significant improvement in quality of life and cost benefits to the government (Andrich, Ferrario and Moi, 1998). More specifically, some OTs revealed that through installing a level-access shower and seat at a cost of £4,659, the client was able to take a bath independently, which removed a care package of 4 care visits at a cost of £26.64 a week and produced a saving of £1,385 each year after 3.4 years (Heywood and Turner, 2007). Besides, housing adaptations enable vulnerable people to live more independently and avoid residential care, leaving local councils to save much of the cost. Based on Heywood's investigation to major adaptations, on average the cost of residential care was £500 per week and the cost of an adaptation £6,000; savings in residential care will begin after 12 weeks of installation of the adaptation (2001). This means that a £6,000 adaptation is compensable to residential care at a typical cost of £16,120 to £33,800 per year (Heywood, 2005).

3.5.3 Problems and Causes

There are certain benefits when accessing help with home adaptations is simple and straightforward. Unfortunately, this seldom happens; clients often run into various issues in carrying out their adaptation. In order to streamline the adaptation process, national governments commissioned relevant organisations to examine the existing adaptation systems. The earliest report from London Health Partnership, "Review of the Provision of Equipment and Adaptations for Older People", revealed five main problems with the existing delivery system for housing adaptations (Appleton and Leather, 1997). Firstly, older people who had a limited knowledge about the range of services available and their

need for adaptations kept a low profile. Secondly, there were wide variations in eligible criteria for adaptation services across local authority areas; budgets were operated bureaucratically and outcomes appeared random or unfair. Thirdly, the role of OTs in the provision of adaptations have not been shaped clearly; applicants often had to wait for long periods for OT assessments. Fourthly, there were no arrangements in place for the recycling or reuse of existing adapted stock that led to a waste of public investment. Fifthly, social services, housing departments and other agencies did not work in partnership for the delivery of adaptations and therefore, limited resources were not better targeted on urgent needs.

In 2004, the Audit Scotland explored the organisation of housing adaptation services across Scotland and produced a baseline report of “Adapting to the Future – Management of Community Equipment and Adaptations”. This report provided insights into some deficiencies of adaptation practices: (i) fragmented responsibility for service provision; (ii) difficult in obtaining key information, such as what types of adaptations are available, how to get adaptation services, what is eligibility criteria and who needs to pay; (iii) lengthy delays in the delivery and inadequate budgets; (iv) lack of a monitoring system to manage service performance, including costs, activities and quality of services; (v) no formal policies for recycling adapted properties.

In England, when the main DFG programme has been much criticised for its bureaucratic nature and complex process, the Office of the Deputy Prime Minister set up a group jointly with the Department of Health and the Department for Education and Skill to undertake a national review and to make recommendations for change. The findings showed that the DFG system did much good but also left some serious problems. The first problem was the means test, which limited the number of people eligible for adaptation services and excluded others who were in great need. Because of serious shortages of resources including funding and staff (mainly OTs), delays were frequently seen in the delivery of housing adaptations. Furthermore, the upper grant limit of the DFG was generally insufficient to provide an extension that might be the only solution for some severely disabled people. In addition, information about the DFG system was normally unavailable to service users; eligible criteria were often inappropriately used to prioritise the needs.

Likewise in Wales, the Minister for Social Justice and Regeneration commissioned a national review of the adaptation system and published the report, “Review of Housing Adaptations including Disabled Facilities Grants” (Jones 2005). This report established a

clear picture of problems with the legislative framework, funding arrangements and the DFG application process. The findings showed that legislation covering the provision of housing adaptations was adequate but too complicated. Information on the DFG system and adaptation services was not published widely in many local authorities. Also, there were different funding routes into adaptations in different housing tenures among local authorities, leading to different level of services between areas and tenures. Despite the increase in annual budgets, funding always ran out before the end of a financial year; there were certain concerns towards a growing demand. The average waiting time for the delivery of DFGs, including OT assessment, was very long; small-scale repair work had to follow the same route as more complex adaptations. Following an annual spending of up to £35 million on DFGs by local authorities, the Welsh Government commissioned another review of independent living adaptations to identify the main issues and to optimise the current system (Bibbings et al., 2015). This review identified a fragmented delivery system, with different organisations responsible for different stages of the process. There were a variety of funding routes for different housing tenures, with different service providers using different eligibility criteria. Information on how the adaptation system works remained unclear or inaccessible to service users; there were still significant delays in adaptation provision. Although relevant guidance was clearly given by Welsh government, performance indicator information was collected differently across local authority areas.

All these problems reported in the reviews can be classified into three aspects: poor service planning, inefficient adaptation process and inadequate performance monitoring. The purpose of housing adaptations is to provide an accessible and suitable home base for people with disabilities or special needs in order to help them live independently in their home for longer. To achieve this, local authorities are required to identify the underlying need for housing adaptations and to develop strategic plans for delivering them to meet the need (Audit Commission, 1998; Watson and Britain, 1996). However, many local authorities did not gain a comprehensive understanding of the potential need and the current provision. Lacking such information, local authorities are unlikely to make the necessary resources available for service provision. Instead of working together to coordinate resources for strategic planning, partner organisations often shifted burdens and responsibilities to each other. Without a partnership approach to service planning, it is difficult to ensure that housing adaptations are provided in the most efficient and effective ways.

In addition, the adaptation process was characterised by lengthy delays, with the average time from initial contact to work completion taking up over a year. There were a couple of causes, including the shortage of resources (e.g. funding, staff), the involvement of different organisations, and the inappropriate application of eligibility criteria. These causes indicate that there are many ways to improve the effectiveness of adaptation services even within the context of scarce resources (Audit Commission, 1998). However, few local authorities have collected basic information, such as timescales, cost and quality, to monitor and manage service performance. Without performance monitoring, local authorities were unlikely to understand deficiencies of their adaptation practice and to make relevant improvements. To address the issues identified, all Reviews proposed recommendations for potential improvement. However, there were certain concerns about whether local authorities have followed these recommendations to provide effective housing adaptation services. Given the main aim of assessing the effectiveness of local housing adaptation practices, this study will re-examine these key review concerns.

3.5.4 Guidance on the Provision of Adaptations

In order to help local authorities modernise their adaptation system and to promote a consistent approach for service provision, national guidance was introduced across the UK. In 2013, the Home Adaptations Consortium (HAC) published an updated version of its guidance, called *Delivering Housing Adaptations for Disabled People: A Detailed Guide to Related Legislation, Guidance and Good Practice*, in order to improve the effectiveness of housing adaptation service provision and to make the best use of scarce resources. It provides clear information on the legislative framework that set out the duties and responsibilities of local authorities to carry out adaptations as well as detailed advice on how to organise and deliver adaptation efficiently and effectively. At the planning stage, it is crucial to identify the likely need for adaptations and allocate the necessary resources to meet the need. All organisations involved in the adaptation process need to work in partnership for a high quality and seamless service. Agencies, such as HIA and C&R, have played an important role in supporting older people to achieve independent living; these agency services can streamline the adaptation process and improve value for money. At the process stage, a standard form or a shared system enables local authorities to collect basic information for all initial requests and deal with them quickly without redirection. An initial screening of referrals is an effective means of prioritising cases into different categories for further assessments. The deployment of private OTs or OT

assistants can free up OTs to focus on more complex needs and speed up the assessment process. A clear description of local eligibility criteria is necessary to ensure a consistent provision of housing adaptations; a key caseworker can help the client to supervise the service process and keep them informed on progress. It is good practice to establish an approved list of contractors for the installation of adaptation works and to involve clients in the specification of the building work. At the completion stage, gathering certain information and feedback on the provision of housing adaptations is useful for performance management and improvement.

In 2009, Scottish Government issued *Guidance on the Provision of Equipment and Adaptations* to assist local authorities and the NHS partners in providing excellent adaptation services. This guidance highlights the central role of service users in the delivery of housing adaptations and addresses three key action areas: information, assessment and partnership. It is essential to provide clear and comprehensive information on adaptations, including the policy and legislation framework, current funding streams and the application process. Advertising service information in different ways, such as websites and leaflets, will provide useful resources for clients to access to and make use of housing adaptation services. Housing adaptations need to be incorporated into mainstream community care services for a person-centred service; an outcome-focused approach to assessment will be useful to ensure that clients are involved in the decision-making process for care needs. Links should be established between housing, health, social services and other agencies to develop policies and procedures for delivering housing adaptations. After recognising the importance of housing adaptations for an ageing population, the Scottish Government set up an adaptation working group to examine the existing adaptation system and to make fundamental changes. The report of "Adapting for Change" (AWG, 2012) adopted the 2009 Guidance's core values and principles of placing service users at the centre of adaptation provision to achieve a prevention focus. It also highlighted the necessity for a fair and consistent needs assessment and services provision. Assessment and provision need to be fair, equitable and consistent with a focus on prevention and enablement. A number of basic guidelines are recommended: (i) strategic responsibility for delivery of adaptations should rest with the housing department; (ii) there should be a single point of contract for information and advice on housing adaptations and other options; (iii) eligibility criteria should be reviewed regularly to facilitate both a preventative approach and forward planning for future possible needs; (iv) the design of adaptation should consider the needs and choices of service users and their carers; (v) housing, health, social care and other agencies should

work in partnership to develop the strategy and the delivery of housing adaptations; (vi) performance information needs to be recorded for reviewing and improving housing adaptations service provision.

In Wales, instead of publishing a specific guidance, NAW (2004; 2009; 2013) launched a series of inquiries into housing adaptations and laid down detailed guidelines for service provision. The latest investigation aims to find out why long waiting times for adaptations still existed in some areas, whether there has been some progress in implementing the recommendations of the 2009 inquiry report, and also what further changes should be made to improve the adaptation system (NAW, 2013). The report highlighted that, despite certain improvements in the delivery of housing adaptations over the past few decades, the pace of change has not been sufficient and consistent across Wales. A number of issues were identified, such as different funding programmes, the means test and long waiting lists. There are 23 recommendations put forward to cover areas in relation to the role of Welsh Government, the adaptation process, the funding resources and performance management. In terms of the leadership role, the Welsh Government should set out standards for the delivery of housing adaptations and help local authorities to meet these standards and to review their service provision on annual basis. To simplify the adaptation process, it would be useful to have a single point for accessing the service, an agency approach for delivering DFGs and a fast track process for minor adaptations. There is a need for joint working between housing, health and social services to make the best use of DFGs and for housing adaptation services. The performance indicators framework will have a positive impact on service delivery and outcomes; local authorities should make accurate and transparent performance monitoring arrangements, including the time taken from one stage to the next, customer satisfaction and health outcomes.

3.6 Home Improvement Agencies

3.6.1 Nature, Origins and Development

Home improvement agencies (HIAs), often referred to as “Staying Put” and “Care and Repair” (C&R), emerged in the late 1970s. As voluntary non-profit making organisations they provide information and advice to older and disabled people with a view to helping them to repair, improve or adapt their homes for independent living (Mackintosh, Leather and McCafferty, 1993). HIAs play a key role in delivering housing adaptation services as

well as government-led strategic policies. On the one hand, they assist older clients with grant application and take from the burden of organising the adaptation work (Clark, Dyer and Horwood, 1998). On the other hand, they offer a cost-effective service to commissioners by saving their time to deal with more cases (Bradford 1998). The role of HIAs became more significant in supporting older people to make adaptations when the LGH Act 1989 gave local authorities the power to provide financial assistance for agency services. In the 1990s, some HIAs had developed to provide assistance with "move on" as an alternative option to "staying put". There are now approximately 250 HIAs in England and 26 in Wales, covering 323 and 26 local authority areas respectively. They are mainly funded by both national government and local authorities with the aim to help older and disabled people to remain independent in their own homes.

HIAs offer support mainly to owner occupiers and private tenants, although some are involved in helping older people in all housing tenures. Most HIAs are, typically small with on average four to five staff: a manager who manages budgets and supervises projects, one or two case workers who visit clients to discuss their needs and organise the works, a technical officer who diagnoses housing defects and arranges remedied building works, and an administrator who carries out administrative and secretarial tasks. They offer a range of services, including information and advice, disabled adaptations, handyperson services and energy efficiency measures. Normally, HIAs do not have direct resources to make a financial contribution towards the cost of repair work, but in some local authorities they take overall responsibility for administering specific grants like DFGs (Heywood, 1994). Often HIAs charge a service fee for arranging grant application and building work, which is claimed as part of the client's grant. When the client is not eligible for the grant and also cannot afford the adaptation work, the HIA will look for other sources of funding to pay for the work. As HIAs are dedicated to providing assistance and improving the quality of life, older people trust these organisations and turn to them in the event that something goes wrong with their adaptation work.

In Scotland, the C&R projects was first established in two pilot areas by Shelter Scotland and Age Concern Scotland in 1985, with the objective of helping older homeowners and private tenants to improve their living conditions and remain independent in their own homes. They subsequently rolled out to another eight local areas in 1987 (Care and Repair Scotland, 2011). There are currently 37 of these projects across all local authority areas. Historically, C&R received their main funding from Communities Scotland and local authorities. Due to some fundamental changes to the grant system, C&R has been funded

by the Private Sector Housing Grant from the Scottish Executive since 2008. There are different methods in which C&R is governed, with some being independent organisations, some becoming part of larger organisations and some being within the local authority. Also, the level of staffing in C&R varies considerably from one area to another, depending on organisational maturity (Scott et al., 2009). For example, there are up to ten employees in a C&R agency, including one manager, one technical officer, one administrative officer, one service supervisor, one service worker and two administrative assistants.

The range of services provided by C&R vary across Scotland, depending on the local authority's priorities, funding arrangements and circumstances (Care and Repair Scotland, 2011). In general, C&R services administer four core activities: (i) information and advice on repairs, improvements and adaptations; (ii) major repairs and adaptations; (iii) small repairs services; (iv) handyperson services. Some C&R projects have developed to offer a broader range of services, including home safety, trusted trader and energy savings. The Housing (Scotland) Act 2006 (Scheme of Assistance) Regulations 2008 set out the duty of local authorities to help homeowners and private tenants repair and maintain their homes by providing information, advice and practical support (e.g. grants, loans). Obviously, C&R services are well placed to help local authorities meet these statutory obligations and make best use of public resources; local authorities should collaborate with C&R to carry out housing adaptations for older and disabled people. However, the roles and responsibilities of C&R services have been set out clearly in many local areas. There is still considerable scope for C&R to play a larger part in assisting local authorities to deliver housing adaptations.

3.6.2 The Role of HIAs in Adaptations Delivery

Since national governments introduced special grants like DFGs to help disabled and older people with housing adaptations, HIAs and C&R have become a major service provider (HAC, 2013). According to Ramsay (2010), the proportion of DFGs carried out by HIAs has increased from 35% in 2006/2007 to nearly 50% in 2007/2008 and 2008/2009 in England. In 2013/2014, HIAs completed a large number of tasks, including more than 290,000 enquiries, 160,000 handyperson jobs and half of all DFGs adaptations (Philippa and Ramsay, 2016). In Wales, C&R delivered numerous adaptations and repairs with the total expenditure of £11 million in 2010/2011 (Davison, 2015). Between 2014

and 2015, C&R in Scotland delivered 2,700 major adaptations, including 1,655 level access showers and 300 stair lifts, at a cost over £11 million (Care and Repair Scotland, 2015).

HIA services have grown considerably over the last 30 years, and they play different roles in the shaping and delivery of housing adaptation services: (i) acting as the single point of contact for clients throughout the adaptation process; (ii) working together with housing departments, social services and other organisations to coordinate services; (iii) offering advice on necessary repairs, building alterations, technical specifications and welfare rights; (iv) helping clients to make applications for adaptation grants; (v) providing detailed specifications for the building work, including associated plans, necessary drawings and related costs; (vi) assisting with the installation of adaptations, such as appointing reliable contractors, supervising the work on site and organising temporary accommodation when required; (vii) inspecting the quality of the completed adaptation and its suitability to the client's needs; (viii) giving suggestions on re-housing when it is more appropriate. HIAs can help local authorities to improve the speed and quality of the adaptation process and to maximise the benefits from limited service budgets (McClatchey, Means and Morbey, 2001; Ramsay, 2010). As HIA officers have skills and expertise about the specific needs and requirements of older people, OTs in many local areas have worked closely with them to reduce waiting times for assessments and to speed up the delivery of adaptations (Heywood, 1994; Scott et al., 2009). Some agencies even have appointed their own OTs to improve their ability to assist with adaptations for older adults. A good practice from Borders C&R showed that an in-house OT can ensure design changes to the home that meet the client's needs and have a long-term use (AWG, 2012). This is of particular importance to the provision of housing adaptations in some local authorities, where OTs are overwhelmed by the increasing demand.

3.6.3 Future Challenges for HIAs

Although HIAs can facilitate housing adaptations to enable older people ageing in their own homes, some local authorities did not recognise it and make full use of them (Means, Morbey and McClatchey, 2002). As the rising demands of an ageing society, it is very important for local authorities to identify core HIA services and collaborative with them in shaping and delivering housing adaptation services (Donald, 2009). However, not all

HIAs have evolved to offer a wide range of activities associated with home adaptations (HAC, 2013; Mackintosh, Leather and McCafferty, 1993). In fact, people in different local authority areas have varying levels of access to HIA services, depending on the size and maturity of HIAs, their partnerships with other service providers, and commitment from their local authorities (Care and Repair Scotland, 2015).

Even if some HIAs have become the main vehicle to deliver housing adaptations, they are much less likely to engage in strategic discussion with local government departments about service planning and development (Scott et al., 2009). Indeed, HIAs are reactive in nature to local authorities' decisions, rather than proactively operating as strategic partners. As a result, they are less likely to make substantial contributions to the improvement of the adaptation system and the modernisation of the DFG programme. This is partially due to the historical view that HIA is just a mechanism for processing adaptation grants (Ramsay, 2010). However, it has been demonstrated that successful HIAs can find ways to assess strengths and weaknesses of the adaptation process, target their activities to match local priorities and meet the needs of older people (Adams and Ellison, 2009; Philippa and Ramsay, 2016; Scott et al., 2009). In other words, when HIAs get involved in strategic planning for adaptation services, they can stand the best chance of developing innovative ways to improve process efficiency and avoid unnecessary costs.

Another challenge for HIAs remains their limited capability. HIAs are small organisations, serving in some but not all local areas and for certain groups. Their core client groups are older and disabled people in private sector housing, while some HIAs provide services to other vulnerable groups and social housing tenants. As there is no standard practice for the operation of HIAs, HIA services vary across local authority areas, with some providing a full range of housing services including renovation, repair and adaptation and some only delivering handyperson services. Even if a HIA operates within the local authority, there is no guarantee that its services are universally available to all potential clients. HIAs have also been challenged to respond to an increasing demand for housing adaptations as a result of demographic change (Care and Repair, 2011). In the face of this challenge, some agencies chose not to advertise their services and create more demand that they could not meet. Therefore, many potential clients were unaware of HIA services. Sometimes HIAs are criticised by clients for not providing services in a timely and cost-effective manner (Heywood, Oldman and Means, 2002; Ramsay, 2010). Under such circumstances, local authorities may reduce the use of HIA services or even remove their collaboration with the agency.

Therefore, it is essential for HIAs to review their performance on a periodic basis and to ensure they are fit for purpose. In addition, budget pressures within local government have exerted a negative impact on HIA services. As a consequence, a small number of HIA services have been lost; some agencies are experiencing substantial difficulties with organisational sustainability and future development (Philippa and Ramsay, 2016). This can undermine the HIA's ability to carry out all service activities and to facilitate successful delivery of housing adaptations. Therefore, certain actions are needed to make sure that HIAs are effectively funded and can continue to provide practical and preventative housing support to an ageing population.

3.7 Summary

This chapter has presented an overview of pervious research on ageing in place and housing adaptations.

- Theories in environmental gerontology have contributed to understanding personal-environment transactions that underpin housing adaptation as an effective intervention for improving personal capabilities of controlling the home environment.
- Although housing adaptation can remove environmental barriers to support independent living at home, the applicant has to navigate through a number of procedural steps (e.g. referral, allocation, assessment, funding and installation) and a network of service organisations towards a successful adaptation.
- As evidenced, housing adaptation can be beneficial to individuals, families and governments. However, the current system for delivery of housing adaptation is complex and confusing, and accessing the adaptation systems often present many problems, such as inadequate information, lengthy delays and insufficient resources.
- To address these issues, national guidance is published to assist local authorities in modernising their adaptation systems and achieving a consistent approach to service provision.
- HIA services are also introduced to help deliver housing adaptations and create cost-effective services. However, the current adaptation implementation is still fragmented and inefficient; different local authorities adopted different procedures and practices.

After recognising the importance of housing adaptations in facilitating ageing in place, the UK government has injected extra funding into this area on an annual basis. However, such increases have never matched the level of demand; there were still substantial unmet needs that varied across local areas. There is an urgent need for reviewing the current status of housing adaptations and assessing the effectiveness of the existing practice in different regions of the UK. To achieve this, it is first and foremost to show the methodology through which the study is carried out in the next chapter.

CHAPTER 4: RESEARCH METHODOLOGY

4.1 Introduction

This chapter examines the elements of the research process which follows the Saunders, Lewis and Thornhill's research onion framework. It first introduces research philosophies, which explains the researcher's position concerning what the knowledge is and how to learn it. Then, the chapter provides a context for the research process and a basis for its logic, along with the theoretical perspective lying behind the methodology in question being presented. After that, the discussion moves to the research strategy that governs the choice of methods and links them to the desired outcomes. Finally, the chapter turns to an explanation of data collection techniques and analysis procedures used by this study, followed by a consideration of research criteria and ethical issues. This study adopts an epistemology that underpins the critical realist philosophical stance. Data are collected by using a questionnaire survey, interviews and a focus group meeting under a mix-method evaluation research design.

4.2 Research Process

After having identified the research objectives and questions, it comes to working out a research process capable of fulfilling these objectives and answering these questions. This process is directly related to two questions: first, what methodologies and methods should be used? Second, how to justify this choice of methodologies and methods? (Crotty, 1998). The answer to the second question lies with the assumptions concerning what constitutes acceptable knowledge from the researcher's point of view. To understand these assumptions, there is a need to understand the researcher's theoretical perspective. This theoretical perspective further informs the use of methodologies that guide the researcher in choosing techniques or procedures to collect and analyse data linked to the research questions. Therefore, to design an appropriate research, there should be a framework to bring together all the elements of the study, including philosophical ideas that inform the development of knowledge, strategies that links methods to outcomes, and detailed techniques and procedures used for data collection and subsequent analysis (Creswell, 2003).

There have been a range of conceptual methodological frameworks to support decisions for the process of designing research. Crotty (1998) established a four-step model for conducting social research, including epistemology, theoretical stances, methodologies and methods (Figure 4.1). Specifically, the researcher firstly needs to identify and explain the epistemological stance that provides a philosophical attempt to understand the development of knowledge. The research philosophy represents the researcher's assumptions about the way of looking at the world and making sense of it. These assumptions underpin the research design and methodology, which further shapes the choice and use of methods for collecting and analysing data. Overall, Crotty's framework shows that the four elements interrelate to form the process of developing a research study.

Epistemology
- the theory of knowledge embeded in the theoretical perspective and thereby in the methodology.
- e.g. objectivism, constructionism, subjectivism, and their variants.

Theoretical perspective
- the philosophical stance informing the methodology and thus providing a context for the process and grouding its logic and criteria.
- e.g. positivism, interpretivism, critical inquiry, postmodernism.

Methodology
- the strategy, plan of action, process or design lying behind the choice and use of particular methods and linking the choice and use of methods to the desired outcomes.
- e.g. survey research, ethnography, grounded theory, action research, discourse analysis.

Methods
- the techniques or procedures used to gather and analyse data related to some research question or hypothesis.
- e.g. sampling, questionnaire, observation, interview, focus group, case study.

Figure 4.1 Crotty's four-step model for justifying the research process (Sources: Crotty, 1998)

Based on Crotty's ideas, Creswell (2003) conceptualised a new model to guide the process of research. He focused on three approaches to research and suggested that three elements in identifying the approach should be considered (Figure 4.2). The first element

is the philosophical assumptions about what constitutes knowledge claims. This is followed by strategies of inquiry that provide general directions for the research process. Finally, detailed methods and procedures for data collection and analysis are decided. Philosophical assumptions must be linked with broad research strategies and be implemented with specific research methods. Thus, Creswell's framework requires the combination of three elements of knowledge claims, strategies and methods for deciding either a quantitative, qualitative or mixed methods research approach.

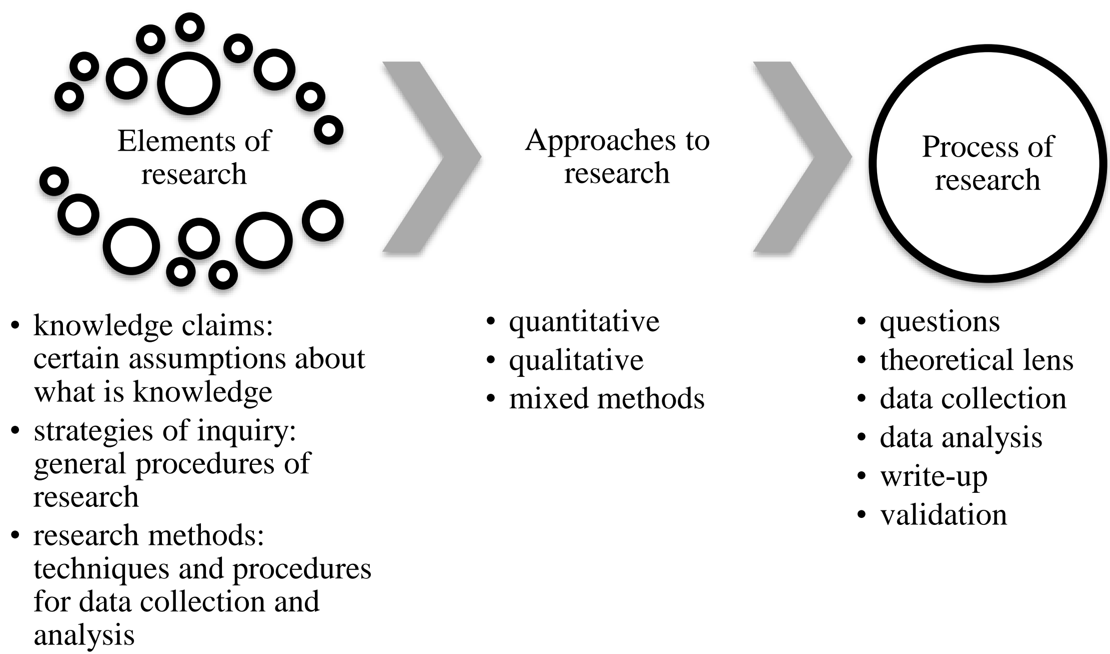


Figure 4.2 Creswell's model for conducting the research (Sources: Creswell, 2003)

Moving beyond these two frameworks, Saunders, Lewis and Thornhill (2012) proposed a more detailed framework called the research onion to explain the design of research (Figure 4.3). They described the research process as peeling the onion from the outer layer to the inner layer. There are six outer layers of the research onion, starting from research philosophies to techniques and procedures. In coming to the central point of the onion about how to collect the data, the researcher needs to explain why the choice of specific data collection techniques is made in order to justify that the research design is coherent with the research objectives and questions. Therefore, not like in kitchen where the first layer of the onion is peeled and then thrown away, in research the root and middle layers of the onion are crucial to the development of the research design. Indeed, they are the building blocks of the research.

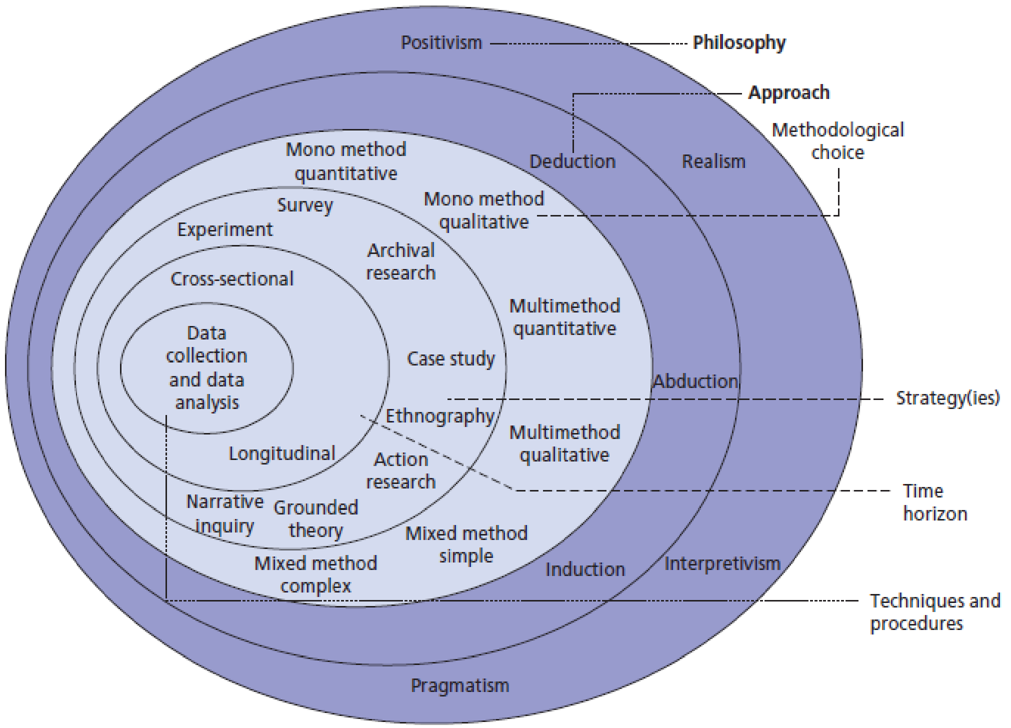


Figure 4.3 Saunders, Lewis and Thornhill's research onion model (Source: Saunders, Lewis and Thornhill, 2012)

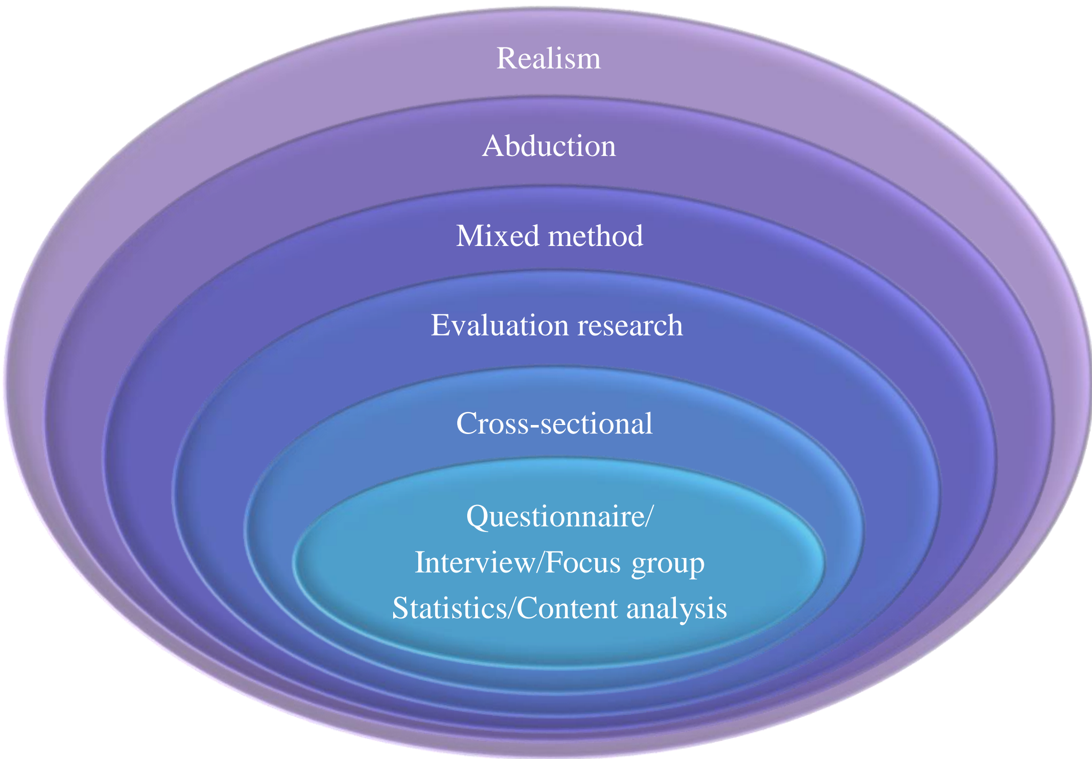


Figure 4.4 This study's research onion

The research onion model introduces eight different types of research strategies and can be used to formulate an effective research methodology in a variety of contexts (Bryman, 2012). For example, Kuvaas (2008) conducted an exploratory study by using structured questionnaires to investigate the impact of the employee-organisation relationship on the linkage between employee perception of developmental human resource practices and employee outcomes. Bendoly and Swink (2007) used an experimental strategy, consisting of interviews and experiments, to examine effective project management. Brooks (2011) took an action research strategy involving case study, survey and focus groups to find out how to integrate housing into the whole care system for older people. In order to achieve the aim of developing an occupational therapy design and construction process for home modifications, Russell (2016) used the research onion in her study to explain, decide and justify the different stages of the research process, including the methods like survey and case study. These examples guided this study to adopt the research onion framework for setting forth the research process and making the decision in every stage (Figure 4.4). The following discussion starts to explain the important layers of this research onion.

4.2.1 Research Philosophy – Critical Realism

The research philosophy deals with the nature and development of knowledge, which reflects beliefs and assumptions about the way in which the researcher views the world (Creswell, 2003). These assumptions serve as basis for the choice of research strategy and methods. In this sense, the relevant philosophical views have a particular impact on what the researchers do and how they understand what they do (Johnson and Clark, 2006). For example, a researcher focusing on opinions is likely to have a different view on the way in which the research is carried out from the researcher who focuses on facts. There will be substantial variation between their methodological choices and strategies. There are two dominant philosophical assumptions underpinning different approaches to research, ontology and epistemology (Crotty, 1998). Ontology refers to the study of being and addresses what is the nature of existence or the structure of reality (Blaikie, 2007). Macquarrie (1973) pointed out, ‘if there were no human beings, there might still be galaxies, trees, rocks, and so on – and doubtless there were, in those long stretches of time before the evaluation of Homo sapiens or any other human species that may have existed on earth’ (p.57). Epistemology involves knowledge and embodies an understanding of how we know what we know (Weed, 1996). As explained by Maynard (1994), ‘epistemology is concerned with providing a philosophical grounding for deciding what

kinds of knowledge are possible and how we can ensure that they are both adequate and legitimate' (p.10). Differences between these two philosophical positions will influence the way of thinking and designing the research process (Saunders, Lewis and Thornhill, 2012). Hence, it is necessary to identify, explain and justify the philosophical stance the research adopted.

There are mainly four schools of thought that underpin different theoretical perspectives: positivism, realism, interpretivism and pragmatism. The positivism perspective encapsulates the spirit of natural science. As a branch of epistemology, this philosophy advocates, 'knowledge is not arrived at speculatively (as in the metaphysics of philosophical schools) but is grounded firmly and exclusively in something that is posited' (Crotty, 1998, p.20). From the positivist viewpoint, the social world is fundamentally similar to the natural world and is governed by universal laws that explain social life (Simpson, 1982). Positivists believe the existence of objects independently from any consciousness, and advocate the application of the nature science methods to the study of social science. Observation and measurement are considered as the core of the scientific methods, the only phenomena confirmed through them can be warranted as knowledge (Trochim and Donnelly, 2006). The assumption is that only factual knowledge obtained from the senses is trustworthy. From the positivism position, research often adopts a deductive approach of using existing theory to develop hypotheses and then testing these hypotheses to confirm or refute, attributing to the development of a new theory which will then be tested by further research. Another important element of positivism philosophy is value free, that is, "objective". This means that the researcher is external to the process of data collection and there is no provision for human interests in the study. However, it is less likely to exclude the researcher's own value in the study of social reality. For example, in a face to face interview, the researcher needs to use his/her own values to frame the questions and to interpret the responses. In order to facilitate replication, the positivist researcher prefers to use a structured methodology (Gill and Johnson, 2010). Furthermore, positivism paradigm depends on quantifiable observations that lead to statistical analysis.

Realism is another epistemological position that assumes a scientific approach to the development of knowledge (Bryman, 2012). The essence of realism is that objects exist independent of the human mind. There are two major forms of realism: direct and critical. Direct realism simply asserts that 'what we experience through our senses portrays the world accurately' (Saunders, Lewis and Thornhill, 2012, p.116). In other words, reality

can be understood by using appropriate methods, there is a perfect correspondence between the reality and the term adopted to describe it. This version, however, is argued by critical realism, which claimed that ‘what we experience are sensations, the images of the things in the real world, not the things directly’ (Saunders, Lewis and Thornhill, 2012, p.118). Critical realists hold that there are structures and mechanisms generating observable phenomena and events, they are not apparently observable and need to be identified through the social sciences’ practical and theoretical work (Bhaskar, 2010). This implies that the knowledge of reality is a result of social conditioning and cannot be independent from social actors involved in the process of knowledge derivation. It is crucial for critical realists to identify the context that promote or prevent the operation of generative mechanisms. These generative mechanisms help produce observed regularities in the social world, which offer opportunities to change the status quo. Thus, unlike direct realism, critical realism takes two steps to experience the world: first, the existence of things produces sensations in observers; and secondly, there is a mental process of the sensations meeting human senses. As reasoning in critical realism involves an inference about generative causal mechanisms as well as an observation of regularities in the social orders, it is often neither inductive nor deductive, but abductive (Blaikie, 2007).

Interpretivism emerged in contradistinction to positivism to place an emphasis on the understanding of human and social reality. It assumes that the social world is fundamentally different from the national world. The research strategy is required to respect the differences between the subjects of social sciences and the objects of nature sciences and to capture the subjective meaning of social actions. From the viewpoint of interpretivist, individuals engage with the world where they live or work and make interpretation of objects based on their own experiences and backgrounds. Specifically, the meanings of objects are not simply imprinted in individuals but are forged through historical and cultural norms that operate in individuals’ lives (Creswell, 2003). Thus, they are subjective and varied, leading the researcher to understand the special context of the participants. Indeed, the interpretivism study ‘looks for culturally derived and historically situated interpretations of the social life world’ (Crotty, 1998, p.67). Adopting an interpretative stance can mean the researcher tends to use the qualitative methods to inductively develop a theory of meaning.

Pragmatism derives from the knowledge claim that ‘efficacy in practical application – the issue of “which works out most effectively” – somehow provides a standard for the determination of truth in the case of statements, rightness in the case of actions, and value

in the case of appraisals' (Rescher, 1995, p.710). Clearly, it places emphasis on practical consequences and what works at the time. By implication, the research problem is the central point; all methods and procedures can be used liberally to gain knowledge for the problem (Rossman and Wilson, 1985). For pragmatists, there are a number of ways to understand the world and carry out research, so no single point view can even reflect the whole picture of realities. Therefore, within pragmatism, it is possible that researchers adopt different worldviews, different assumptions and different data collection and analysis techniques in order to obtain the best understanding of a research question (Kelemen and Rumens, 2008). The philosophy of pragmatism opens the door for mixed-methods studies.

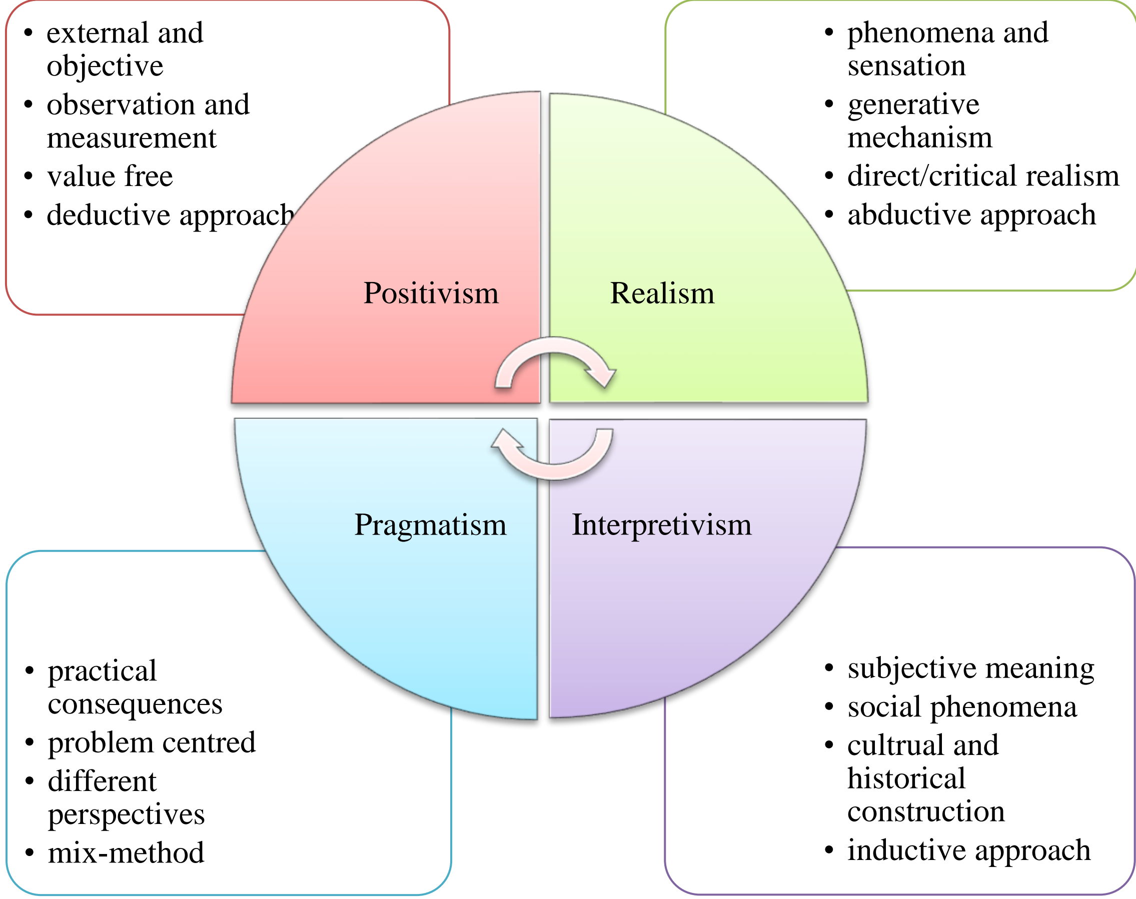


Figure 4.5 Elements of four key philosophical positions (Sources: Bryman, 2012)

Essentially, positivism, realism, interpretivism and pragmatism represent four typical philosophical positions, each philosophy has its central ideas on the development of knowledge and its favourite research approaches (Figure 4.5). This study is conducted with an epistemological view that underpins a critical realism philosophy. It holds that

the social world can only be understood and changed when the structures and mechanisms that generate those events are identified. Housing adaptations are common home-based interventions that exist in the social world. They are organised by local authorities and thus, service delivery frameworks are in operation. These frameworks are conceptualised as generative mechanisms that are not directly observable and can be interfered by the local context. The hypothesis is that certain conditions have promoted or impeded the operation of the casual mechanism in relation to housing adaptations. This research aims to examine the effectiveness of housing adaptation practices as the result of generative mechanisms and the contexts of these mechanisms.

4.2.2 Research Approach – Abduction

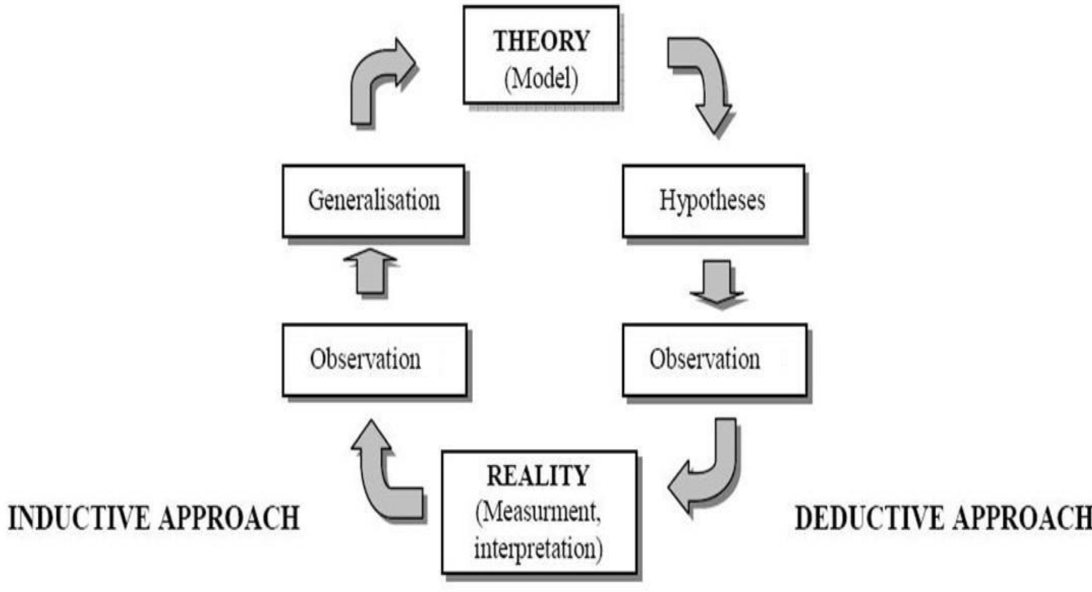


Figure 4.6 The deductive and inductive research approach (Source: Saunders et al., 2012)

The role of theory in research is principal as it guides the following methodological choice, research strategy and techniques for data collection and analysis (Bryman, 2012). There are two distinct theories that are often used to drive the process of research: deductive and inductive. Deductive reasoning is a top-down process from theory to reality through hypotheses and observation, while within inductive reasoning, the process is bottom-up from reality to theory through observation and generalisation (Figure 4.6). According to Blaikie (2009), there are six steps in a deductive research approach: (i) put forward the existing theory in a particular domain; (ii) deduce a hypothesis or a set of hypotheses

based on the existing theory in the particular domain; (iii) translate concepts embedded within the hypotheses into researchable variables; (iv) test the hypotheses by collecting and analysing data; (iv) if the findings are consistent with the hypotheses, the theory is confirmed; (vi) if the findings are inconsistent, the theory is rejected and needs to revise. This research approach is usually adopted by the natural sciences and associated with quantitative methodology. Compared with deduction, the inductive research approach takes an opposite direction. It starts with research questions and objectives, followed by observations of phenomena. These observations are then analysed to identify patterns that formulate a theory. Followers of induction are more likely to focus on a small sample of subjects, work with qualitative data, and apply various methods to establish different views of phenomena (Easterby-Smith, Golden-Biddle and Locke).

Instead of moving directly from theory to data or from data to theory, another research approach of abduction combining deduction and induction weave back and forth between data and theory (Suddaby, 2006). Abductive reasoning begins with a surprising fact or puzzle; it then considers plausible theories of explaining why this fact or puzzle has occurred (Figure 4.7). These theories are finally tested to decide what the most likely theory is that can help explain the fact or puzzle (Van Maanen, Sørensen and Mitchell, 2007). Abductive theory is frequently used in the mixed- and multi-method studies. It helps the researcher obtain sufficient data to explore the phenomenon and infer the best explanation.

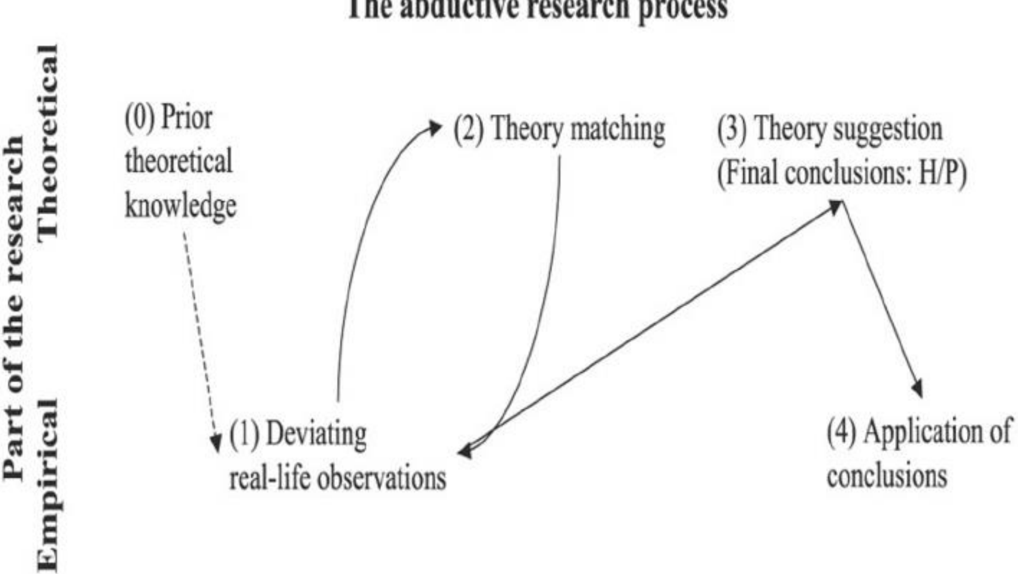


Figure 4.7 The abductive approach (Source: Kovács and Spens, 2005)

In this study, the abductive approach is adopted to guide the research process. Based on a systematic review of the literature, it was found that, although housing adaptation was characterised as a very foundation for successful independent living and has been given greater political priority in the UK, its practice varied significantly across the country. Such inconsistency raises a hypothesis that many local authorities are likely to have an ineffective provision of housing adaptations. This hypothesis is then used to develop a set of approaches that could account for the ineffectiveness; a questionnaire survey is designed to collect data for testing these theories. The survey results lead to the modification of these theories, which is further explored by interviews and a focus group with stakeholders including service providers and service users. There is a constant movement backwards and forwards between data and theories, so that early analysis can suggest the need to seek for new data.

4.2.3 Methodological Choices – Mixed-method

Table 4.1 Characteristics of quantitative, qualitative and mixed methods (Source: Creswell, 2003)

	Quantitative	**Qualitative**	**Mixed-method**
Philosophical assumptions	Positivism	Interpretivism	Critical realism (Realism)/ Pragmatism
Research approach	Deductive approach	Inductive approach	Deductive/inductive/ abductive approach
Predominated strategies	Experiments/ survey	Ground theory/case study/phenomenology/ ethnography/narrative	Sequential/ concurrent
Preferred methods	Closed-ended questions/ numeric data	Open-ended questions/text data	Both quantitative and qualitative data

The methodological choice is a basic and important layer of the research onion, because it contributes to the overall research design that guides the research journey from the

research question to data analysis and ensures coherence across the journey (Ridenour and Newman, 2008). This layer provides options of quantitative, qualitative, mixed-method research. Each option is likely to call for a different research design including the philosophy, the strategy and the method (Table 4.1).

Overall, quantitative is predominantly used to examine relationships between variables that are measured numerically and analysed by statistical techniques, while qualitative tends to be concerned with meanings that are collected using open-ended questions to develop a conceptual framework. Mixed-method combines quantitative and qualitative techniques and procedures in a single study. This combination can be either one following the other (sequential) or at the same time (concurrent) (Creswell, 2003; Greene, Caracelli and Graham, 1989). In the sequential mixed-method research, the data are collected in different phases; either quantitative or qualitative data can come first dependent on the initial intent of the researcher. When the quantitative data are collected first, the qualitative results are used to assist in explaining and interpreting the quantitative findings (explanatory). In contrast, when the qualitative data are collected first, the quantitative data are used to assist in exploring the qualitative findings (exploratory). In the concurrent research, data are collected concurrently; both quantitative and qualitative methods are implemented simultaneously. The rationale for this mixed-method research is that neither quantitative nor qualitative in themselves are sufficient to obtain a deep understanding of the research question but their combination can complement mutually to allow a more comprehensive analysis (Ivankova, Creswell and Stick, 2006; Schwingel et al., 2016).

There are many theoretical and empirical literature on mix-method evaluation inquiry (Greene, Caracelli and Graham, 1989; Johnson, Onwuegbuzie and Turner, 2007; Kroll and Neri, 2009). A wide range of references, such as Dellinger and Leech (2007), Mark and Shotland (1987), Morse (2003), Teddlie and Tashakkori (2009), have established the theoretical and conceptual framework for mixed-method research design. Application of mixed methods can be also found in many evaluation studies. Backer (2008) used mixed methods to evaluate the effectiveness of intermediate care service for improving individual's independence and quality of life and for reducing reliance on future care services. Benning et al. (2011) collected quantitative and qualitative data to examine the first phase of the health foundation's safer patient initiative and to identify additional effect of the initiative and any changes in participating and non-participating NHS hospital. Kelly (2013) combined postal survey with multiple case studies to investigate relocation experiences of older people moving to supported housing and nature of support.

Table 4.2 The flowchart of conducting this sequential mixed-method research

Phases	Procedures	Products
Quantitative data collection	• Questionnaire survey (n=112)	• Numerical data
Quatitative data analysis	• SPSS software • Univariate analysis (e.g. frequency, explore) • Multivariate analysis (e.g. regression, correlation)	• Frequency tables • Descriptive statistics • Crosstabs tables • Relationship tables
Interface between quantitative and qualitative stages	• Selecting participants for interviews from local authorities surveyed • Formulating interview questions	• Interview protocol • Focus group design
Qualitative data collection	• Face to face interviews (n=5) • Email interviews (n=4) • Focus group (n=1)	• Interview transcripts • Field notes
Qualitative data analysis	• NVivo software • Content analysis	• Coding • Themes and categories
Integration of quantitative and qualitative results	• Summarise and interpret both quantitative and qualitative findings	• Discussion • Future implication

Based on these evidence, this study employs a mixed-methods sequential explanatory strategy in which the quantitative and qualitative phases come in two consecutive periods (Table 4.2). In the first quantitative phase, a questionnaire survey focuses on how local authorities plan, organise and monitor their adaptation services. In the second qualitative phase, eleven interviews and one focus group with stakeholders, including social worker,

OTs, housing officers, staff from other agencies and older service users, explore different perspectives on the statistical results in more depth. Both phases are connected when selecting local authorities from those who responded to the survey and when formulating the interview questions from the quantitative results for the qualitative data collection. Their findings are finally integrated during the discussion and interpretation of the outcomes of housing adaptations. All in all, the quantitative results inform qualitative data collection and analysis; the qualitative analysis offers more in-depth explanations for issues identified during the quantitative phase.

In the mixed-method research, there is a need to decide which approach, quantitative or qualitative, or both, is given more emphasis in the data collection and analysis process (Creswell and Clark, 2011; Morgan, 1998). The decision depends primarily on the research questions, the study design and the author's interests (Morse, 1991; Pettersson, Löfqvist and Malmgren Fänge, 2012). Based on this research aim to investigate the effectiveness of local adaptation practice, priority is assigned to the quantitative approach which reveals the factors that affect service planning, process and management in different local authorities. The lesser qualitative component is targeted at capturing experiences and views of stakeholders on the issues identified by the statistical analysis.

4.2.4 Research Strategies – Evaluation

On peeling away the choice layer of the research onion, the near layer is research strategies. The research strategy represents a structure that guides the execution of research methods and the analysis of subsequent data (Oyegoke, 2011). It is the key for the generalisation of evidence that enables the researcher to answer the set research questions and to meet the research objectives (Bryman, 2012). Therefore, the choice of the research strategy depends on the research questions and objectives. Different research traditions have led to a number of research strategies, such as experiment, survey, case study and action research (Saunders, Lewis and Thornhill, 2012). Each strategy is often associated with particular techniques for data collection and analysis. For example, a survey research strategy normally uses questionnaires or structured interviews to collect quantitative data that can be analysed through descriptive and inferential statistics.

This study adopts an evaluation approach to investigate the effectiveness of national and local governments' policies in relation to delivering the housing adaptation to enable older people ageing in their own homes. The evaluation research, advocated by Pawson

and Tilley (1997), draws on the philosophical position of “critical realism”, which claims an epistemological consideration – ‘there is a reality out of there that is independent of our observations or thoughts about it’ (Porter and Ryan, 1996, p.415). According to Suchman (1967), evaluation is a process, which always starts with some explicit or implicit value that formulates a set of goals. It therefore follows that there has to be some type of measurements to determine the attainment of the goals. After that, the goal attaining activity is put into operation, followed by an assessment to decide whether the operating activity has achieved the pre-set goals and is worthwhile. The judgement finally brings the research back to value formation. Clearly, through this process, evaluation confirms the impact or adequacy of a program or policy as well as offer explanations of successful or unsuccessful interventions. As McEvoy and Richards (2003) described, ‘it tries to get inside the black box of a programme and to understand what it is about a program which makes it work (mechanisms), for whom, in what circumstances (contexts)’ (p.46).

There are different types of evaluation research, the most fundamental distinction in evaluation types is that between formative and summative evaluation (Chen, 1996). Formative evaluations are conducted during the development of a program or its ongoing operation, and aim at improving the program’s quality by assessing its implementation process and interim results (Stufflebean and Shinkfield, 2007). In contrast, summative evaluation typically occurs following completion of a program and is to determine its overall outcome or impact or performance (Stead, Hastings and Eadie, 2002). A formative evaluation is carried out in this study, which cover the three distinct stages of pre-implementation, implementation and post-implementation in Figure 4.8, according to Stetler et al. (2006).

In brief, this study starts with a systematic review of policy documents, research reports and journal papers. This review informs that although local objectives to the adaptation service are more or less the same, there is considerable variation amongst local authorities in appraisal of needs and resources, budget setting and management, and delivery process and outcome. To gain a better understanding of the current housing adaptation practice in different areas nationwide, a postal questionnaire survey was carried out. The survey covers questions on service planning, joint work, delivery process and performance monitoring. Following the questionnaire survey, interviews and a focus group discussion were carried out. The interviews are designed to understand the process of adaptations from the stakeholders’ perspective, including housing officers, social workers, OTs, staff

from other organisations and the elderly clients themselves. The interview questions are open-ended, focusing on the budget system, current partnership and service management. The data is analysed sequentially in accordance with the specific procedures in the sequential mixed-method research design (Creswell, 2003). Quantitative data was analysed first by using statistical techniques, followed by content analysis of the qualitative data. The analysis helps understand barriers to and facilitators of implementation success and make recommendations for further refinements to the housing adaptation strategy.

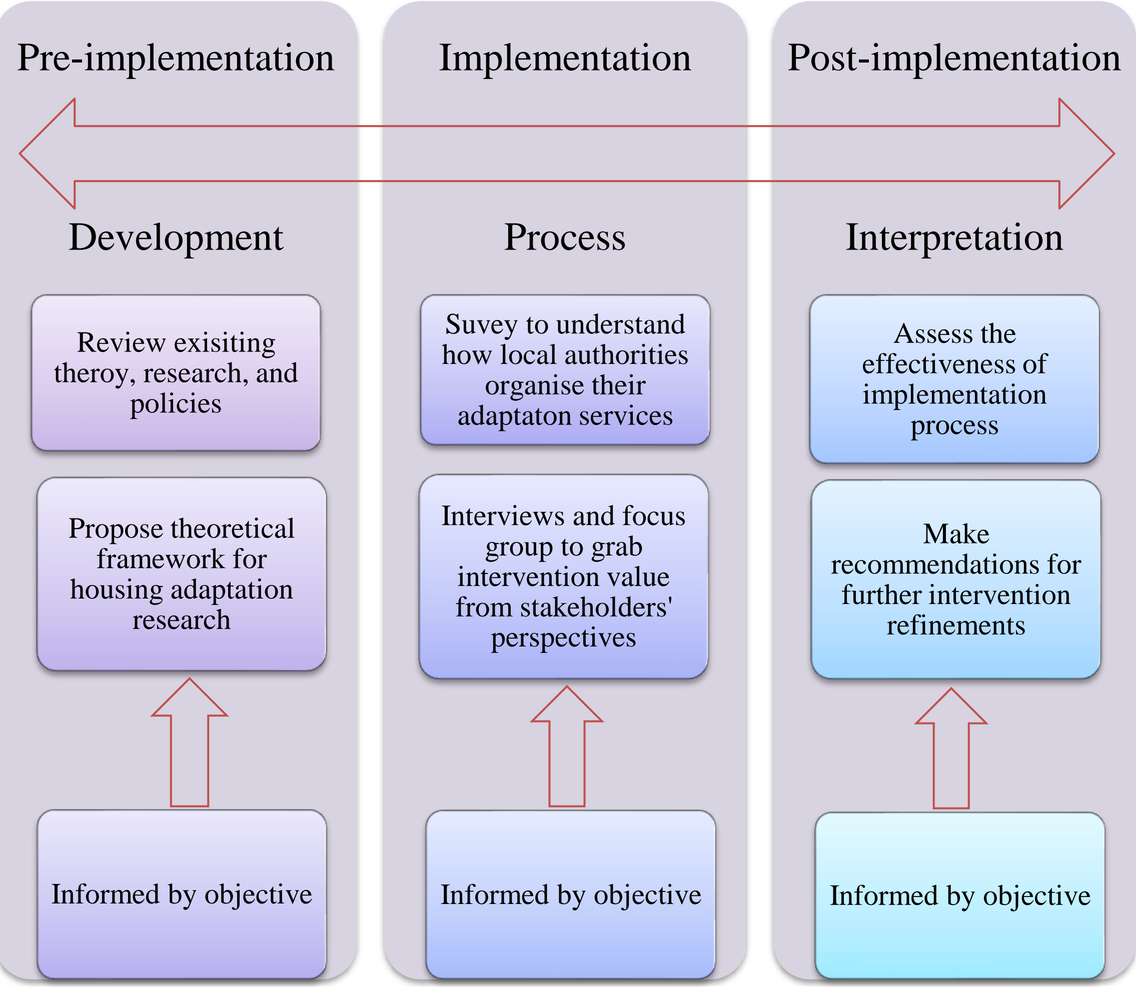


Figure 4.8 Formative evaluation structure in this study (Source: Stetler et al., 2006)

4.2.5 Time Horizon – Cross-sectional

Before reaching the core of the research onion, there is an important problem to be asked in designing the research: is the research carried out at a particular time or over a long

period? (Saunders, Lewis and Thornhill, 2012). This largely depends on the nature of the research question, or rather, the information needed to be collected. The cross-sectional study collects data on a special phenomenon or phenomena at one single point in a short time, while the longitudinal study collects data from the same sample on more than one occasion over a period of time. In cross-sectional research, the survey strategy is frequently employed to describe the incidence of a phenomenon or the relationship between variables. In the survey design, data on the variables of interest are normally collected by questionnaires or structured interviews more or less simultaneously. This allows the researcher to compare many different variables at the same time. Although often associated with the survey, cross-sectional studies may use the qualitative or mixed-method research strategy. In a longitudinal study, the researcher conducts several observations of the same variables over a long period that may last some years (Machin and Campbell, 2007). The longitudinal design is often employed to detect change and development in the characteristics of the target subjects. It enables some insight into the time order of variables and is more likely to make causal inferences (Bryman, 2012).

This study seeks to explore a phenomenon or project at a certain time – the provision of housing adaptations in each local authority between 2014 and 2015, thus making the research cross-sectional in nature. Within this context, data are collected through three techniques: a questionnaire survey, semi-structured interviews and a focus group. The questionnaire survey is carried out, targeting all local authorities across England, Scotland and Wales. It includes questions examining local budget setting and management for adaptation provision, the joint work between the partner organisations, the process from referral to installation, and the monitoring of service performance. Semi-structured interviews are conducted with professionals and the questions focus on service planning, organisation and management. Meanwhile, elderly clients are interviewed to identify their expectations, concerns and experiences of obtaining an adaptation. A focus group was organised in one local council to gain a deeper understanding of key issues with financial and administrative arrangements on housing adaptations. On the basis of the data collected, it is found that there are some common deficiencies with the current adaptation practice and also considerable variations exist in both the level of funding and the number of adaptation completion in different regions.

4.3 Phase 1 of Data Collection – Questionnaire Survey

Table 4.3 The survey process in this study (Source: Bryman, 2012)

Steps	Bryman (2012)	This study
Survey	Considering whether a social survey is appropriate	A survey strategy
Sampling	Consider what kind of population will be appropriate (e.g. probability sampling, non-probability sampling)	Purposive sampling
	Consider what kind of sample design will be employed (e.g. questionnaire, structured interviews)	Questionnaire
	Decide on sample size	All local authorities in Great Britain except the county councils in England
	Decide on mode of administration (e.g. face to face, telephone, postal)	Postal, Web and email
Questionnaire design	Develop and review questions	36 questions in 6 sections
Pilot	Pilot, review and finalise questionnaire/schedule	Pilot with 20 local councils
Processing	Administer questionnaire/schedule to sample	Post the questionnaire to all 378 local authorities
	Follow-up non-respondents at least once	Phone non-responded local authorities and send email to remind
	Transform completed questionnaires/schedules into computer readable data	SPSS

After peeling all outer layers of the research onion, it arrives at the core of choosing particular techniques for data collection and analysis. As the overarching goal of this study is to evaluate the effectiveness of current adaptation practice in different parts of

the UK, a survey strategy was selected in the first phase to understand how local authorities plan, organise and monitor their adaptation services. It chooses to focus on homeowners and private tenants instead of local authority or housing association tenants. The reason for this choice is twofold. Homeowner occupiers and private tenants account for the majority of households in the UK. Most of them have little knowledge about where to start and what assistances are available when they need adaptations. The rationale for using a survey strategy is that it can be an effective way to generate knowledge that needs to clarify a situation as well as a suitable way to suggest possible reasons for particular relationships between variables (Robson, 2002). According to Bryman (2012), conducting a social survey is usually associated with some basic steps, which are followed in this study (Table 4.3). This section provides a detailed description of the questionnaire survey, including its sampling, design and processing.

4.3.1 Sampling

When a social survey is considered appropriate, there is a need to decide what kind of population is suited to the investigation of the research questions. Here, "population" is not used in its normal sense but represents a sample that is selected for investigation. The selection of the sample should represent the whole population in a way that is meaningful and can be justified (Becher, 1998). It can be based on a probability or a non-probability approach. Probability sampling means that the group of subjects are selected at random and that there is the probability for all types of the population to be included, while within non-probability samples some types of the population are more likely to be chosen than others (Saunders, Lewis and Thornhill, 2012). In this study, due to the nature of research aims and questions, only a limited number of the population can serve as primary data sources. Therefore, purposive sampling, one of the non-probability sampling techniques, was employed as it provided an opportunity to focus on a particular group and explore them in greater depth (Etikan, Musa and Alkassim, 2016). Table 4.4 presents the survey's sample selection criteria and the rationale for these criteria. Local authorities, as they are responsible for carrying out housing adaptations, were identified as potential participants. However, not all local authorities fund housing adaptations directly. Under two-tier administrations in England, although the adaptation process falls within two different levels of authorities, the county councils were not involved in the organisation of housing adaptations and only provided OT assessments. Therefore, the county councils in England were excluded from the survey sampling frame. Local authorities in Northern Ireland

were also excluded, as they have a unique Health and Social Services under a unified structure that leads to organisational differences towards housing adaptations from other nations in the UK (Boniface et al., 2013).

Table 4.4 Sample selection criteria for the survey in this study

Sample selection criteria	Rationale for criteria
Local authorities	This study aims to investigate the effectiveness of current local adaptation practice.
Provided housing adaptation services	Participants need to have a working knowledge of how housing adaptation is organised and funded in order to comment on the provision of housing adaptations.
Based in Great Britain	Northern Ireland has a unified Health and Social Services for the delivery of housing adaptations, which is different from other nations in the UK. In order to avoid the risk of misunderstandings with the questions in the survey, only housing adaptation practice in England, Scotland and Wales is included.

Having decided what kind of population is appropriate to answer the research questions, it is then necessary to decide how best to design the research instrument and administer it. The research instrument can be interview, questionnaire, observation or other data collection techniques. The survey strategy is often associated with the questionnaire, which can be undertaken by using structured interviews or self-completion. Compared with a structured interview, a self-completion questionnaire allows for the collection and comparison of standardised data from a group of respondents in a more economical way (Saunders, Lewis and Thornhill, 2012). In order to capture the current adaptation practice of most local authorities across the whole country, over a reasonable time and cost, this study uses a self-completion questionnaire to conduct the survey. There are different ways of administering the research instrument, such as face to face, telephone, postal and internet. To make it more convenient for respondents to complete, this survey questionnaire was sent out by the post and also put on the website through an online survey tool of LimeSurvey. Further, follow-up emails together with questionnaires were sent out to those who fail to respond initially.

4.3.2 Questionnaire Structure

Once the decision relating to sampling and the research instrument was made, the design of questionnaire commenced. The questions in the questionnaire need to be defined precisely as they decide whether the data available can answer the research questions. In general, the questionnaire can include open and closed questions to generate quantitative and qualitative data (Dillman, Smyth and Christian, 2014). Open questions are often referred to as open-ended questions that allow respondents to express thoughts and provide answers in their own way (Fink, 2012). Alternatively, closed questions often refer to as closed-ended questions that provide a list of answers from which respondents can choose (Denscombe, 2008). The latter type of questions, as they have been predetermined, can be responded to quickly and these responses are easy to compare. In order to collect data on the delivery process of housing adaptations and on the service provider's concerns and suggestions towards the key stages of the process, the questionnaire in this study includes a combination of closed and open questions.

Previous research work, mainly five reviews on the provision of housing adaptations across the UK, have identified a range of existing issues with local adaptation practices (discussed in Section 3.5.3). To address these issues and modernise the adaptation system, national guidance, such as *Delivering Housing Adaptations for Disabled People: A Detailed Guide to Related Legislation, Guidance and Good Practice* in England, *Guidance on the Provision of Equipment and Adaptations* in Scotland and a series of *Inquiries to Housing Adaptations* in Wales, was introduced (discussed in Section 3.5.4). Based on these issues and guidelines, a six-page questionnaire survey (Appendix A) was designed to investigate how local authorities plan, organise and monitor their adaptation services. It contains 36 questions in 6 sections, covering planning, partnership, referral, assessment, installation and monitoring. Table 4.5 shows a description of all questions and their purposes. The majority of questions in the questionnaire are closed, with the exception of one open question at the end of each section that allows service providers to record their concerns and make suggestions about the key aspects of adaptation provision. The closed questions consist of four types of question, list, category, rating and quantity. List questions are designed so that the service provider can select one or more options from a list of responses (Dillman, 2009). In order to ensure a complete list, some questions add an option of "other" to record unlisted responses. This type of question is useful to identify a local authority's process that falls outside the range of responses provided. Category questions allow the respondent to choose only one category (Fink, 2012), which

Table 4.5 The description of questions in the questionnaire

Sections	Questions	Types	Purposes
Planning	Q1.1 to Q1.6	Closed	To identify funding resources, budget setting and management
	Q1.7	Closed	To measure the outcomes of housing adaptations (number and amount)
	Q1.8	Open	To examine issues with budget setting and management, and changes for improvement
Partnership	Q2.1-2.2	Closed	To identify partner organisations and their cooperation for the delivery of housing adaptations
	Q2.3	Closed	To evaluate the effectiveness of current joint work
	Q2.4	Open	To examine service providers' concerns with partnership and suggestions for improvement
Referral	Q3.1-3.4	Closed	To understand the approach to all initial inquiries or referrals and awareness of adaptation services
	Q3.5-3.6	Closed & open	To examine the initial screening mechanism for allocation of cases
	Q3.7	Open	To establish which routes can help to deal with referrals quickly and effectively

Assessment	Q4.1-4.3	Closed	To identify local assessment arrangements
	Q4.4-4.6	Closed	To examine eligibility criteria for accessing to adaptation services
	Q4.7	Closed	To evaluate the effectiveness of assessment arrangements
	Q4.8	Open	To establish what changes can be made to minimise waiting times and ensure timely assessments
Installation	Q5.1-5.2	Closed	To examine the availability of contractors and the applicant's understanding of the specification
	Q5.3	Closed	To understand the procedure for the review of unspent grants
	Q5.4	Open	To establish what improvements can speed up the installation process
Monitoring	Q6.1-6.2	Closed	To identify performance indicators and any delays
	Q6.3	Closed	To assess the average waiting time for each key stages of the adaptation process
	Q6.4	Closed	To evaluate the effectiveness of the whole process
	Q6.5	Open	To examine all concerns with the current adaptation system and changes for further improvement

helps the collection of data on different local practices in delivering housing adaptations. Rating questions are used to collect the service provider's opinions on the effectiveness of joint work, assessment arrangements and the whole process. Also, the respondent's opinions on the awareness of adaptation services among the public and of delays in the adaptation process are captured by rating questions. The numeric input questions help the researcher to collect the number of housing adaptations, the amount of allocated funding, and the timeline taken for each key stage from receipt of referral to completion of adaptation work.

4.3.3 Validity and Reliability

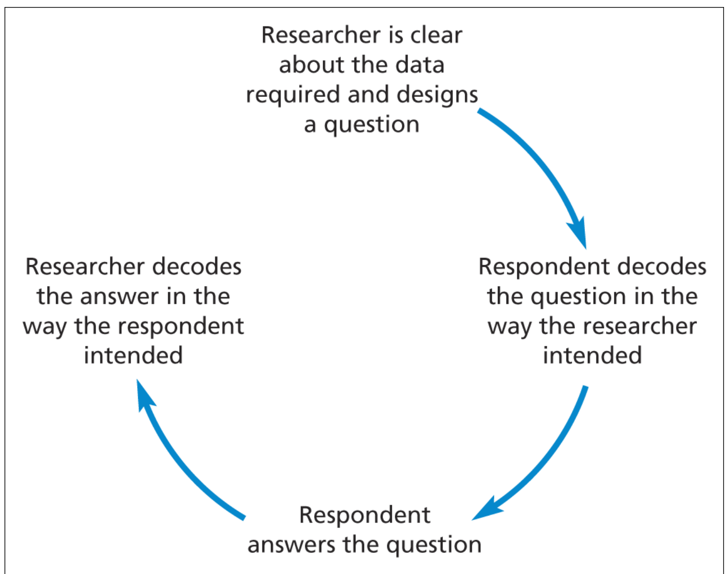


Figure 4.9 Stages occur to prove the validity and reliability of a question (Source: Foddy, 1994)

A valid questionnaire enables the collection of accurate data that actually measure the concepts needed to answer the research questions and to meet the research objectives (Saunders, Lewis and Thornhill, 2012). In other words, the validity and reliability of findings from the data depends on the design of questions in the questionnaire. To ensure that a question is valid and reliable, Foddy (1994) suggests following a four-step process in Figure 4.9. First, the researcher designs a question, which is understood by the respondent in the way intended by the researcher. The respondent then provides an answer, which is understood by the researcher in the way intended by the respondent. To prove

this process, there should be certain measurements to evaluate internal validity and reliability.

Internal validity is fundamentally concerned with the ability of the questionnaire to measure what is claimed to be measured (Bryman, 2012; Gray, 2013). There are a variety of techniques to establish validity (Berument et al., 1999). This study uses two typical validations – content validity and construct validity. Content validity refers to the extent to which the questions or measures provide adequate coverage of an interest area (Rattray and Jones, 2007). It requires the researcher to carefully define the content of the concept in question and to develop indicators to cover all aspects of content (Punch, 2013). Judgement of whether the coverage is adequate can be made by a number of ways, such as literature review, expert assessment, and discussion with others (Saunders, Lewis and Thornhill, 2012). In this survey, each question and their answers are determined as a result of a thorough literature review on housing adaptations, including legislation and policy documents, provision guidance, journal papers and research reports. They are also decided through prior discussion with supervisors and colleagues. In the end, a group of individuals, including three experts working in this research area and two professionals involved in the adaptation process, have helped to assess whether each measurement question in the questionnaire is essential or useful.

Construct validity refers to the extent to which the measurement procedure actually measures the presence of a given construct (e.g. depression, proficiency, commitment) they claim to be measuring (Healy and Perry, 2000). It is normally associated with quantitative research and requires the researcher to demonstrate how well the measurement procedure (e.g. the questionnaire) has measured the construct. Just because a researcher claims that the measurement questions have measured the construct does not mean that these measures have yielded valid data (Lavrakas, 2008). In survey research, a range of statistical analyses can be conducted to judge the construct validity of variables that are used to gather data on the construct. A simple analysis is to investigate whether answers given by different participants or groups are within reasonable expectations. In this study, when developing the questionnaire measure of how local authorities organise housing adaptations, the researcher systematically reviewed the literature, research reports, provision guidance and local authorities' policies on housing adaptations. Based on the review results, it was reasonable to anticipate that there were different arrangements (e.g. budget sources, initial screening, eligibility criteria) for the provision of housing adaptations between local authorities; these differences are actually observed

in the survey data. In addition, correlation analysis can be performed to determine whether the variables of interest correlate with other variables they should related to. Positive correlation is found between some variables in this study. For instance, local councils who allocated greater funding tend to deliver more adaptations; a clear guidance for cooperation has a significant effect on the establishment of effective joint work and performance management.

Reliability refers to the robustness of measures and in particular, whether they can produce consistent or repeatable findings at different times and under different conditions (Carmines and Zeller, 1979). Establishing reliability is necessarily important to ensure research quality (Bryman, 2012). There are a range of threats to reliability, such as participant error, participant bias, researcher error and research bias (Saunders, Lewis and Thornhill, 2012). To avoid these threats, the measure needs to be methodologically rigorous in the way it is designed and carried out (Fink, 2012). In this study, the questionnaire was piloted with twenty local authorities to ensure that respondents had no problems following the instructions and answering all questions. After the pilot, three respondents are contacted by emails to seek additional comments about the content and structure of the questionnaire (e.g. are there any unclear questions, ambiguous or uneasy to answer). Meanwhile, the pilot test data was analysed to make necessary amendments and to ensure that results do answer the investigative questions. In addition, reminder phone calls were made to non-respondents four weeks after the initial questionnaire mailing, followed by email reminders, in order to maximise the response rate. All these procedures helped establish the reliability of the questionnaire in this study. There are three prominent approaches to examine whether a measure is reliable – test retest, internal consistency, alternative form (Mitchell, 1996). These approaches, however, were not appropriate to be used in this study, as they are relevant only to certain measures. Take test retest for example, it requires two tests with the same groups at different times and determines the reliability of the measure by assessing the consistency of results obtained from the two tests. Concerning this study, using test retest requires the questionnaire to be delivered and completed twice by local authorities. This seemed impractical, because local officers responsible for the provision of adaptations are often overwhelmed by caseloads and less likely to answer the same questionnaire twice.

4.3.4 Pilot Survey

Prior to sending out the questionnaire for data collection, it should be pilot tested (Forsyth and Kviz, 2006). The purpose of the pilot test is to make sure that all questions can be understood and answered by respondents. Preliminary analysis of the pilot test data often results in some minor amendments to the questionnaire (Saunders, Lewis and Thornhill, 2012). In this regard, the pilot test helps ensure the validity and reliability of the data generated from the questionnaire (discussed above). It is, therefore, the key to a successful research project, as advised by Gillham (2008), 'however pressed for time you are, do you best to give the questionnaire a trial run' (p.151). In this study, the questionnaire was piloted with twenty local councils to ensure that all the questions were straightforward and covered different stages of the adaptation process.

On 26th of May 2015, the questionnaire, along with a cover letter and postage prepaid envelope, was sent out to local authorities, with a deadline of two weeks after receiving the letter. In addition, the questionnaire was activated online through LimeSurvey on 29th of May 2015. Three weeks later, 6 valid responses were received, with 4 completed questionnaires returned by stamped envelopes and 2 from the eSurvey. Results from the pilot led to further modifications of some questions. A major change was in relation to the way information was sought about the description of eligibility factors. Instead of asking the respondent to provide a brief definition of risks towards health, living environment, community participation, care arrangement and other, the question gave a list of responses that could be chosen to describe each of the risk factors. Another change was to delete the question of 'do you consult the applicant on the appropriateness of the building work', as it overlapped with the question of 'do you help the applicant to understand the specification of the adaptation work'. In a question about the rough proportion of self-referrals, the category of "none" was added to find out whether there were any requests made directly by applicants.

4.3.5 Processing

Once the questionnaire is designed, piloted and amended, it can be sent to the selected sample for data collection (Gray, 2013). In this study, there are in total 414 local authorities across Great Britain. Of those, as discussed above, 36 county councils were excluded. Therefore, the finalised questionnaire was posted out to the remaining 378 local

councils, along with a cover letter (Appendix B) and postage prepaid envelope, in England (324), Scotland (32) and Wales (22), on 25th of June 2015. It was sent to the housing departments of these local authorities with a response deadline of 2 weeks. In order to check and follow up non-respondents, a unique identification number was placed on both the top of the questionnaire and the prepaid envelopes, which identified the individual recipients. This number was believed to have little if any impact on the response rate (Edwards et al., 2002). Also, this questionnaire was activated for online data collection on 29th of June 2015.

After four weeks, only 44 local authorities had replied to the survey, with 32 responding via the enclosed paper questionnaire and 12 via the online version. Reminder phone calls were then made to non-respondents, followed by email reminders enclosing an attachment of the questionnaire. The termination date for all responses was 30th September 2015. In the end, a total of 112 local authorities responded to the survey, with 61 completed questionnaires returned by stamped envelopes, 28 responses received from online, and another 23 sent back by emails. The response rate was 29.6%, which is comparable to other studies, such as Connell, Page and Bentley (2009) and Davies et al. (2012). More importantly, the results of this study are broadly line with findings from other survey studies of reviewing housing adaptations in the UK, such as Bibbings et al. (2015), Jones (2005) and Heywood et al. (2005), which were commissioned by central governments towards their local authorities. A post-survey analysis showed that those, who did not reply, shared the characteristics of operating tenure-based funding systems and of separating the process into different stages that involved different organisations.

4.4 Phase 2 of Data Collection – Interviews and Focus Group Meeting

Following the questionnaire survey, semi-structured interviews (Berg and Lune, 2011) and a focus group (Gill et al., 2008) were carried out in the second phase of this study. In the sequential explanatory mixed-method research, the rationale for conducting qualitative interviews is that they offer the opportunity to explain and interpret findings from the questionnaire (Teddlie and Tashakkori, 2009). The qualitative data collection can be especially useful when surprising results arise from a quantitative study (Morse, 1991). Here, eleven semi-structured interviews were carried out to understand the provision of adaptations from the perspectives of different stakeholders, including service providers and service users. The focus group meeting was organised in one local council

to gain a deep understanding of key issues with financial and administrative arrangements on housing adaptations.

4.4.1 Semi-Structured Interviews

Table 4.6 The description of professionals in interviews

<table>
<tr><th>Type of interview</th><th>Position</th><th>Workplace</th><th>Objectives</th></tr>
<tr><td rowspan="5">Face-to-face (n=5)</td><td>Social worker</td><td>Social work department</td><td rowspan="9">• To understand the specific arrangements among local authorities for delivering adaptations and any concerns with these arrangements;
• To evaluate the level of involvement of the housing department in the adaptation process, especially the stages after receiving the OT's recommendation;
• To evaluate the level of involvement of the social services department in the adaptation process, especially the stages from referral to assessment;
• To examine the role of the associated organisation in the delivery of housing adaptations and issues for not being satisfied with the partnership working and the whole process;
• To understand why there can be blockages in the adaptation system and how they link to the policy framework.</td></tr>
<tr><td>Housing officer</td><td>Housing department</td></tr>
<tr><td>Director</td><td>HIA</td></tr>
<tr><td>Technical officer</td><td>C&R</td></tr>
<tr><td>Manager</td><td>C&R</td></tr>
<tr><td rowspan="4">Email (n=4)</td><td>Policy officer</td><td>College of OTs</td></tr>
<tr><td>Housing officer</td><td>Housing department</td></tr>
<tr><td>Occupational therapist</td><td>Social services department</td></tr>
<tr><td>Service manager</td><td>Housing department</td></tr>
</table>

When using the qualitative strategy in a research design, the type of sampling is essential for the selection of individual or organisations that will best help the researcher to understand the research questions. In this study, after the initial survey research, a sample

of the survey respondents were approached for semi-structured interviews. This sample was selected purposively – that is, with specific participants in the researcher's mind. The criteria for selecting participants included: those currently working in local authorities or associated organisations, having experience and being responsible for different stages of the adaptation system. The rationale for this purposive selection is that, since the fieldwork was principally to be concerned with understanding issues with the current adaptation practice among local authorities, it would be necessary and useful to focus upon professionals who have been involved in the provision of housing adaptations. In the end, nine professional participants were invited for semi-structured interview; five of them were interviewed on a face-to-face basis and anther four by emails (Table 4.6).

Before the interview, the researcher had developed some knowledge about how housing adaptation is generally organised in the participant's local authority through a review of the authority's publications. The participant was provided with the background information about the research and the interview. The face-to-face interviews were conducted in the professionals' offices; each interview lasted between 60 and 150 minutes. The email interviews consisted of a range of emails and each email contained a small number of questions. These interviews took four weeks, as there was a time delay between the questions being sent out and the answers being emailed back. This, according to Morgan and Symon (2004), was advantageous because it provided the interviewer and the interviewee the opportunity to carefully consider their questions and responses. The interview questions took on different formats, including open questions (e.g., what makes the adaptation system effective or ineffective), closed questions (e.g. are there any delays at the funding stage, is it easy for the applicant to find the reliable contractor), and probing questions (e.g. what concerns do you have towards the current partnership, what do you think of the initial screening mechanism). They focused on four aspects – service planning, joint work, delivery process and performance management (see Appendix C). Due to different responsibilities, the interview schedule was structured loosely, allowing participants to provide a developmental answer and to lead the discussion.

To examine the effectiveness of housing adaptation provision, it is essential to get an in depth understanding of service users' experiences and views on their adaptation process. Two client participants were identified during the interviews with staff from the adaptation service provider – C&R. They provided a service user perspective for the existing delivery system, based on their personal experience. The selected interviewees were elderly adults (aged 65 or over) with disabilities, lived in a private sector property

and had received a housing adaptation grant within the previous two years (Table 4.7). Interviews with them were conducted in their homes for around 60 minutes and included different types of questions, such as what changes could be made to improve the operation for a better service? (open), how long have you waited for assessment? (closed), and why did you apply to adapt your house? (probing). These questions aimed to capture the clients' expectations, concerns and experiences of having an adaptation carried out (see Appendix D). In order to investigate how long it took for a client to receive an adaptation, the time taken for key stages of the process from first request to work completion was collected from both participants. These interviews gave a valuable insight into the difficulties of accessing adaptation service information provided by local authorities. All individual interviews were digitally recorded on a Dictaphone, with the permission of participants, and transcribed verbatim afterwards. In addition, field notes were made to record observations and thoughts during and immediately after each interview.

Table 4.7 The description of older clients in interviews

Participants	Mrs A	Mr B
Age	79	75
Gender	Female	Male
Activity limitation	With upper and lower limb weakness limiting mobility, transfers and personal care activities	A wheelchair user
Housing tenure	Owner-occupier of an upper flat	Owner-occupier of a detached house
Type of adaptation	Level access shower tray	Shower & External ramp
Value of adaptation (£)	£3,624.32	£3,698.00

4.4.2 Focus Group Meeting

Focus group is a technique of interviewing, which involves more than one interviewee and focused on a particular theme or topic by encouraging participants to discuss and

share their perceptions in an open environment (Krueger and Casey, 2014). The rationale for conducting focus group is that a number of people who are known to have a certain experience could be interviewed together to explore different views on that experience (Bryman, 2012). In this regard, focus groups are very helpful in establishing more realistic accounts of the various perspectives and the core issues in relation to a particular topic. In this study, a focus group was organised in one local council to gain a deeper understanding of key issues with financial and administrative arrangements for housing adaptations. This particular council was chosen because it has social work, the housing department and C&R working in partnership to carry out adaptations, and it was accessible to the researcher.

Table 4.8 The description of focus group meeting

<table>
<tr><th>Participants</th><th>Job title</th><th>Years of work</th><th>Responsibilities</th><th>Focus of discussion</th></tr>
<tr><td>Mrs C</td><td>Senior OT</td><td>12</td><td>Home visit, need assessment</td><td rowspan="6">• The initial survey findings
• Current policy, guidance and practice on housing adaptations
• Barriers, challenges and success factors
• Suggestions and future priorities</td></tr>
<tr><td>Miss D</td><td>Grant officer</td><td>10</td><td>Grant approval</td></tr>
<tr><td>Miss E</td><td>Housing surveyor</td><td>8</td><td>Specification preparation, site supervision</td></tr>
<tr><td>Mrs F</td><td>Manager of C&R</td><td>4</td><td>Installation process, finance management</td></tr>
<tr><td>Mr G</td><td>Deputy manager of C&R</td><td>9</td><td>Clerk work, construction inspectorate</td></tr>
<tr><td>Miss H</td><td>Administer assistant</td><td>7</td><td>Request and information records</td></tr>
</table>

In the focus group research, a further issue is to decide who can be an appropriate participate. According to Krueger and Casey (2014), participants can be selected when they have been involved in a particular situation and shared common characteristics related to the discussed topic. Here, participants of the focus group included one OT, one

housing surveyor, one grant officer, one technical officer, one C&R manager and one administrative assistant (Table 4.8). The selection criteria were based on long term working partnership in a team and having attended regular meetings for the delivery of adaptations within the authority for more than two years. At the start of the discussion, the researcher gave a description about the study's aim and the interview's objectives; participants were allowed to seek further clarification about any concerns with the research. A small number of questions were used to guide the group session, focusing on four areas: (i) the findings of the questionnaire survey; (ii) the current policy, guidance and practice on housing adaptations; (iii) barriers, challenges and success factors; (iv) suggestions and future priorities (Appendix E). The focus group discussion was also recorded digitally and subsequently transcribed verbatim. This practical approach was believed to work best for the focus group interviewing, as it enabled the researcher to keep track of what participants say, who says it and how they say it (Bryman, 2012).

4.4.3 Data Quality Issues

Like quantitative research, the qualitative research can be worthless if it fails to demonstrate the appropriateness of its methods, the credibility of its findings and the integrity of its conclusion (Long and Johnson, 2000). Such demonstration, however, remains a great challenge because of the lack of the standards by which qualitative research should be assessed (Noble and Smith, 2015). There have been ongoing debates regarding whether the validity and reliability of quantitative research is appropriate to evaluate qualitative research (Guba and Lincoln, 1994; Thomas and Magilvy, 2011). Broadly, consensus has been reached that these criteria can be applicable, with different definitions given by qualitative researchers from different perspectives (Golafshani, 2003; Morse et al., 2002). Validity is concerned with whether there is a good match between the researcher's observation and the theoretical concept (LeCompte and Goetz, 1982). In qualitative interviews, validity depends on the degree to which the researcher has gained access to the participant's knowledge and experience (Roberts, Priest and Traynor 2006). A high level of validity can be established when the interviews have been conducted carefully through a series of strategies, such as clarifying the questions, explaining the themes, probing the meanings and exploring the responses (Kuzmanić, 2009).

The term of reliability is a concept used for testing whether similar information or results can be revealed by alternative researchers (Silverman, 2006). The main concern about

reliability in qualitative interviews is bias, which may be caused by the interviewer or the interviewee (Patton, 2005). For example, the interviewers may ask questions based on their own prejudices, beliefs or values; the interviewees may choose to discuss some aspects of the topic or to show a partial picture of the situation. To overcome these forms of bias, the interview needs to be prepared and conducted carefully. In the preparation phase, according to Saunders, Lewis and Thornhill (2012), three key measures can be taken to promote validity and reliability: (i) developing knowledge about the participants and their organisations; (ii) providing participants with information about the research and the interview; (iii) arranging an appropriate and convenient interview location for the participant. In the interview phase, the scope for bias can be reduced by giving open comments, using different types of questions, listening to the interviewee, summarising the interviewee's answers and recording the interview data (Chenail, 2011).

In this study, semi-structured interviews were utilised to understand problems with current adaptations provision from the perspectives of service providers and service users. In order to maximise its validity and reliability of the interview data, the researcher adopted the measures suggested above. Prior to the interview, the researcher reviewed the local authority's policies and website information on housing adaptations, investigated the role of the professional in the service provision, and understood the specific situation of the older client. This knowledge helped the researcher to create a focus in the interview and to obtain greater detail from the interviewees. Meanwhile, all interviewees received an explanation about the purpose of the research, the research progress to date and the targeted data to be obtained from the interview. For the convenience of the participant, as well as avoid the interview being disturbed, the interviews with professionals took place in their offices. The interviews with older clients were conducted at their own homes, which enabled the interviewees to feel comfortable and for the researcher to view the actual adaptation work. During the interview, introduction about the research's objectives, the interview's themes, the participant's rights, confidentiality and anonymity was made clear before the substantive discussion began. Also, all interviewees were offered opportunities to ask any questions about the research, or the interview, in order to reduce any uncertainties and to put them at their ease. These open comments were helpful in reducing the interviewee's bias and increased the credibility of the qualitative research. Each participant was given different types of questions, such as open, closed and probing, which allowed them to describe in detail a situation or an event and to offer a wide range of responses or explanations. This had a positive effect on the trustworthiness of the interview data. A reasonable time was provided for the interviewee to develop his/her

answers and also for the researcher to understand their answers. At the end of each answer, the researcher summarised her understanding back to the interviewee, so that the interviewee had the opportunity to feedback whether the summary was correct and to add points if it was not adequate. Such feedback helped the researcher to avoid an incomplete interpretation of the discussion and to have confidence in reliability of the findings. In addition, the means of recording the interviews, making field notes and immediately transcribing recordings to contextual data, which was found to be powerful tools in controlling bias and establishing validity, were applied to this research.

4.5 Data Analysis

4.5.1 Quantitative Data Analysis

The data were analysed in accordance with the specific procedures in the mixed methods sequential explanatory design. Survey data was first analysed by using the SPSS. Once the quantitative data were collected, numerical codes were allocated to each variable in a question. A missing data code was used to indicate why certain data were missing. After coding, the data were checked for any possible errors and then corrected. An exploratory data analysis approach (Behrens, 1997) was employed to look at individual variables and their components, such as specific values, highest and lowest values, proportions and contributions, in the initial analysis stage. It used tables and diagrams to help the researcher explore the data and choose other techniques for further analysis.

Descriptive statistics were applied to identify organisational features of housing adaptations. Frequency tables displayed local authorities' responses to separate variables in each question and summarised similarities in service planning, delivery process and performance monitoring. These tables are described in great detail in Chapter 5. Bivariate and multivariate analysis was employed to examine relationships between variables and to determine whether any association is significant. Spearman's correlation test was used to identify key factors that impacted the effectiveness of key tasks of the adaptation process. These analysis results are presented in Chapter 6 to 8.

4.5.2 *Qualitative Data Analysis*

Table 4.9 Themes and subthemes

Theme 1 Budget setting and management
Subthemes • Different funding streams • The way of setting the budget • The level of funding • Budget management
Theme 2 Partnership work
Subthemes • The role of HIA/C&R • Links between partner organisations • Features of cooperation • Better information sharing
Theme 3 Referral to allocation
Subthemes • Routes to making referrals • Awareness of the adaptation service • Initial screening mechanism • Reactive rather than proactive
Theme 4 Assessment to grant application
Subthemes • The structure of assessment • Local eligibility criteria • Bottlenecks in the assessment systems • Procedures for financial authorisation
Theme 5 Grant approval to installation
Subthemes • Specification of the adaptation work • Planning and building control • Quotations from contractors • Review of approved grants

Theme 6 The monitoring system
Subthemes • The importance of aftercare • Performance indicators • Key elements of effectiveness
Theme 7 Delivery outcomes
Subthemes • Different levels of adaptation provision • Relationship between the number of adaptations and the amount of spending
Themes 8 Timelines
Subthemes • Complexity of practice • Comparison of waiting times • Individual cases • Main causes of delays

Data from interviews and the focus group were then analysed using NVivo 10. Also, this qualitative data analysis software helped the researcher to interpret and analyse qualitative data from open questions in the questionnaire, which asked for opinions and suggestions concerning budget setting and management (Q1.8), the joint work (Q2.4), the referral system (Q3.7), the assessment arrangement (Q4.8), the installation process (Q5.4), the whole service (Q6.5). Thematic analysis (e.g. Boyatzis, 1998; Ivankova, Creswell and Stick, 2006; Jones et al., 2010) was used as a foundational method to identify, analyse and report patterns within these qualitative data. It was chosen because of its flexibility in applying across a range of theoretical and epistemological approaches (Braun and Clarke, 2006). The strategy of Framework, 'a matrix-based method for ordering and synthesising data' (Ritchie, Hahn and Moore, 2003, p.291), was adopted to seek core themes and subthemes.

In the early stage of this analysis, the researcher read through the qualitative responses and the transcripts line by line, noting down the main themes in the framework. From this initial analysis, another thorough reading of the responses and transcripts was conducted to identify a number of subthemes under each emerged theme. For example, a social

worker commented that the local authority regularly over spent its budget on housing adaptations. The researcher wrote this down as 'Service planning – budget management – overspending'. Table 4.9 illustrates the theme and subthemes revealed from all qualitative data. Chapter 6 to 8 offers further discussion of these themes.

4.6 Ethical Considerations

When designing and conducting a research project, it is crucial to consider ethical issues that may impact upon the integrity of the research (Bell, 2014). Here, ethics refer to the norms of behaviour that guide the researcher's conduct to protect the rights of their research subjects and to promote ethical practice (Rogelberg, 2008). On the other hand, ethics evaluates research actions in terms of acceptable or unacceptable based on its norms or rules (Keith-Spiegel, Koocher and Tabachnick, 2006). Many different professional associations and government agencies have produced codes of ethics or ethical guidelines, which contain a set of principles and standards that are required to abide by for the research (Resnik, Elliott and Miller, 2015). Conversely such codes or guidelines also provide an ethical basis for the researcher to anticipate issues, assess risks, avoid harm and pursue truth (Saunders, Lewis and Thornhill, 2012). This study complied with the university's ethical guidelines and was approved by the Heriot-Watt University Research and Ethics Committee.

Ethical issues may arise at any stage of the research and have been recognised in codes of ethics or ethical guidelines. These issues, according to Diener and Crandall (1978), can generally be divided into four categories – harm to participants, lack of informed consent, invasion of privacy or deception. When conducting social research, harm may occur to participants through risks to their physical, mental or emotional health. It may take a variety of forms, including stress, anxiety, fear, pain or disturbance, and can be caused by a range of actions, such as applying pressure on participants to gain access, inducing subjects to perform against their will, and failing to maintain confidentiality and anonymity (Bryman, 2012). To avoid harm or at least minimise it, it is necessary to evaluate risks that may occur at any stage of the research. Informed consent is another general ethical principle, which requires the researcher to provide the prospective participant sufficient information, opportunities to ask questions and time needed to make a decision about whether or not to take part in the study (Mandal and Parija, 2014). Such requirement is particularly significant to limit the scope of participation and ensure the

researcher adheres to the extent of the consent given. However, there was frequently a lack of consent in social research (Flory and Emanuel, 2004). This may raise a further ethical concern in relation to the invasion of privacy. In the research context, the right to privacy is a key principle to ensure that participants have control of others access to any aspects of themselves (McCabe, 2004).

To respect the participant's privacy, it is necessary to make assurances of confidentiality and anonymity in the research process. Confidentiality means that identifiable information concerning research participants will not be disclosed to others without permission (Kaiser, 2009). Anonymity refers to concealing the identities of participants when presenting findings from the research (Wiles et al., 2008). Promising confidentiality and anonymity is of particular importance to gain access to participants. Equally important is the need to maintain such promises throughout the research process. Otherwise, harm may result from unauthorised attribution or identification and the reliability of data is likely to be impaired. Deception occurs as a consequence of researchers misleading participants' understanding about the true nature of the research by providing fake or incomplete information (Sekaran and Bougie, 2016). It can violate the integrity of informed consent, jeopardise the objective of the research, as well as place research subjects at great risk (Kimmel, 1988). To avoid deception, researchers must explain to participants about the real purpose of the research and allow them to assess any concerns or risks (Haggerty, 2004).

This study was conducted in line with the ethical principles of not causing harm, obtaining informed consent, respecting privacy and avoiding deception. During the design stage, the researcher evaluated potential ethical issues and discussed how to control these issues in the research proposal. The research proposal was then submitted to the School Ethics Committee for ethical review and approval. During the first phase of the data collection stage, the questionnaire was sent out to local authorities with a cover letter, which informed the nature of the research (e.g. its purpose, listed organisations asked to participate), the implications of taking part (e.g. the time required to complete the questionnaire, the target date for giving responses), the rights of participants (e.g. voluntary participation, privacy and anonymity), the use of the data collected (e.g. assurance about confidentiality and anonymity, the implication of the findings), and the raising of any questions (e.g. the person to contact, the phone number, the email address). All the above information helped to ensure the openness of the research, the avoidance of

deception, the privacy of participants and the maintenance of the objectivity, which were believed by Zikmund (2000) as the main ethical issues associated with a survey strategy.

At the second phase, before interviewing each professional, an information sheet summarising the research project, including possible benefits and protection of privacy, was provided to them. After explaining the research and emphasising the right to take part, decline or withdraw, the researcher asked professionals whether they wished to participate and whether the interviews could be recorded digitally for the purpose of obtaining informed consent. As client participants were identified during the interviews with staff from C&R, the staff first explained the nature of the research to the clients and asked them whether or not they wanted to take part. When gaining initial consent from clients, the staff helped to arrange a convenient time for when the researcher could phone the client to provide a more comprehensive explanation about the study's purpose and progress, the time and commitment required of them, the right to privacy, and the likely use of their responses, in order to make sure they were still willing to participate in the research. At the start of the actual interviews, clients were informed again their right to withdraw and to decline to respond to any questions and received an explanation as to why the interview was to be digitally recorded.

Likewise, prior to commencing the focus group discussion, each participant was given an introduction to what the research was about and for what it was intended achieve. The consent was obtained when all participants had a clear understanding of the research objectives, the focus group's purposes and themes, and the time required for the discussion. The confidentiality and anonymity of participants, as well as their local authority, was guaranteed in order to encourage an in-depth discussion. During the analysis stage, the objectivity of this study was maintained to make sure that the data collected was not misrepresented and the analysis was accurate. Personal information, such as names and identities, were kept on a password protected file on a computer; pseudonyms were used when presenting individual level data. A code number was allocated to each local authority for their completed questionnaire. When reporting the research findings, great care was taken to avoid that those who have participated in data collection, including local authorities, organisations and individuals, were not able to be identified.

4.7 Summary

This chapter introduced the research onion as a way of depicting the steps underpinning the choice of data collection techniques and analysis procedures in this study. It explained the five outer layers of the onion, ranging from research philosophy, research approach, methodological choice, research strategy, time horizon to unique techniques and procedures for data collection and analysis.

- This study adopted the philosophical position of critical realism as a basis for the choice of research strategy and methods. An abduction research approach was used to identify and explain factors that impacted the effectiveness of housing adaptation practice. This approach guided a mix-method research design that combined quantitative and qualitative data collection techniques and procedures to achieve an evaluation.
- During the first phase, a questionnaire survey was carried out, involving all 378 local authorities in England, Scotland and Wales. It generated an overview of characteristics of local adaptation practice. The validity and reliability of the data from the questionnaire was proved through a range of measures.
- The second phase involved semi-structured interviews with 5 individual professionals and 2 client representatives, and a focus group meeting with 6 key stakeholders. These interviews provided multiple perspectives into the provision of housing adaptations. In order to maximise the validity and reliability of the qualitative data, the quality issues, such as bias and errors, were carefully considered and avoided throughout the research process.
- The appropriateness and acceptability of the researcher's conduct was assessed in terms of the major ethical issues, including harm to participants, lack of informed consent, invasion of privacy and deception. It was revealed that this study has dealt with these ethical issues at all stages from the research design to the final report.

After having collected quantitative and qualitative data, it is important to analyse and discuss these data to answer the research questions. As this study gave higher priority to the quantitative approach, the next chapter will first explain the finding from the survey research.

CHAPTER 5: QUESTIONNAIRE SURVEY RESULTS

5.1 Introduction

The methods for conducting this survey was explained in Chapter 4. This chapter presents the survey results, with some common and distinguishing characteristics drawn between local adaptation practices. The results described below will be reconsidered in the succeeding chapters 6, 7 and 8 when analysing and discussing the quantitative findings alongside the qualitative themes. This chapter will firstly show the current financial systems, including budget setting and management, for adaptation services as well as the partnership arrangements for service delivery. Then, the discussion will outline the characteristics of the key stages of the adaptation process from initial enquiry to work completion. Finally, this chapter examines the way in which service performance is monitored across local authorities.

5.2 Service Planning

Service planning is the starting point for designing and managing housing adaptation services. It involves identifying the likely need for adaptations, securing the necessary resources and plans for providing services to meet the needs (HAC, 2013; Scott, 2009). As responsibility for delivering housing adaptations rests upon a range of organisations, it is important to ensure that all the key stakeholders are included and consulted when developing the policy framework for the provision of adaptation services.

5.2.1 Budget Setting and Management

Table 5.1 shows results of variables in relation to service planning including funding streams, budget setting and budget management. The multiple budget sources for adaptations in different housing tenures still prevail and 71 out of 112 local authorities currently operate the tenure-based funding system. This system is more commonly used in Scotland and Wales, with 93.8% and 100.0% of their local authorities respectively. Of those who maintain the tenure-driven arrangements, 94.6% do not have plans to pool the different funding streams into a single pot for all types of tenure.

Table 5.1 Descriptive statistics of variables related to budget setting and management

Funding streams	Frequency (n)	(%)
Different funding sources		
Yes	71	63.4
No	41	36.6
Plan for a single pot		
Yes	6	5.4
No	106	94.6
Budget setting		
Ways to set budget targets (multiple responses)		
Carry out surveys	16	14.4
Review the previous year's spending	87	78.4
Consult with relevant organisations	19	17.1
Other (e.g. available resources, waiting lists)	34	30.6
Responses to above ways		
Only one way	76	68.5
Combination of two ways	27	24.3
Combination of three ways	6	5.4
Four of them	2	1.8
Change on this year's budget compared with the last year		
Increase	38	35.8
Decrease	15	14.2
Stay at the same	53	50.0
Budget management		
Budget allocation adequately met the demand last year		
Yes	79	71.2
No	32	28.8
Monitor actual expenditure against budget		
On a monthly basis	91	81.3
On a quarterly basis	15	13.4
On a half-yearly basis	1	0.9
On a first come first served basis	1	0.9
Other (e.g. each approval, weekly, yearly)	4	3.6

There are different ways of setting the annual budget, including carrying out surveys of need, reviewing the previous year's spending, consulting with associated organisations, and other (e.g. available resources, waiting lists, demand assessments). 68.5% of local authorities selected a single way to decide and set their budgets, while the remaining 31.5% used a combination of two, three or four ways. The most popular approach was to review the previous year's spending, with 78.4% of local authorities relying on it. Only 14.4% carried out surveys of need. In some local councils, there was no budget setting as the resources available for housing adaptations depend entirely on annual funding allocations from the central government. In the year of 2014/2015, only 35.8% of local authorities were able to increase their budgets for housing adaptations; the rest kept at the same level of funding or even trimmed their budgets. Despite this, 71.2% of respondents claimed that their budget allocation was sufficient to meet demand. Most local authorities, 91 out of 112, monitored spending against their budget on a monthly basis. The rest produced weekly, half-yearly, or yearly budget monitoring reports.

5.2.2 Partnership Work

Characteristics of joint work between partner organisations involved in the delivery of adaptations are presented in Table 5.2. On average, there are three partner agencies working together for service delivery in a local authority. Only 11 out of 112 local authorities have invested in one primary organisation responsible for the whole process. In most local authorities, the housing department, the social services department and external associated agencies, such as HIAs and C&R, worked as collaborating, but independent, partners in carrying out housing adaptations. Only 15 local councils have established an integration authority as a single body responsible for adaptation services. Some local authorities also worked with other organisations, such as NHS, environmental health and social enterprise. Because of the various organisations involved, 87 local councils have laid down guidelines to specify service entitlement and service process between partners. 91.7% of respondents considered their current partnership as "fairly effective" or "very effective".

Table 5.2 Descriptive statistics of variables related to joint work

Joint work	Frequency (n)	(%)
Partners for the delivery of adaptation (multiple responses)		
Housing department	93	83.0
The integration authority	15	13.4
Social services	83	74.1
Associated organisations (e.g. HIA, C&R)	75	67.0
Other (e.g. NHS, adult care, building control)	26	23.2
Responses to above organisations		
Only one organisation	11	9.8
Combination of two organisations	40	35.7
Combination of three organisations	45	40.2
Combination of four organisations	14	12.5
Five of them	2	1.8
Written guidance between partners		
Yes	87	79.1
No	23	20.9
Effectiveness of joint work		
Very ineffective	5	4.6
Fairly ineffective	4	3.7
Fairly effective	57	52.8
Very effective	42	38.9

5.3 Delivery Process

The delivery process decides policy implementation for housing adaptations, which consists of several stages (Audit Scotland, 2004; Hall and Social Work Services Inspectorate, 2001; Keeble, 1979). It usually starts with a referral to the welfare authority. On receipt of the request, a case is allocated to specific fieldworkers for assessment. The assessment decides whether the individual's need matches eligibility criteria and whether there is a requirement for any adaptations. The case is then passed to the grant officers for funding approval. When plans and specifications for the adaptation work are approved, contractors are invited to submit quotations for its installation. After completion, the

contractor will then invoice the local authority. In the following discussion the key stages of the adaptation process will be explored in more detail.

5.3.1 Referral to Allocation

Table 5.3 Descriptive statistics of variables related to the referral process

Referral	Frequency (n)	(%)
Self-referrals		
None	46	46.5
1% - 25%	29	29.3
26% - 50%	5	5.0
51% - 75%	10	10.1
Over 75%	9	9.1
Awareness		
Poor	19	18.1
Fair	38	36.2
Good	43	40.9
Excellent	5	4.8
A shared IT system		
Yes	66	61.1
No	42	38.9
The key case worker		
Yes	103	97.2
No	3	2.8
Initial screening mechanisms		
Yes	79	77.5
No	23	22.5
Set target waiting time for assessment		
Yes	23	24.0
No	73	76.0

Table 5.3 presents the statistic results associated with the referral stage of the adaptation process. An adaptation request can be triggered through either referral by health

professionals or self-referral by an applicant. However, 46.5% of local authorities did not receive any referrals made directly by applicants; another 29.3% received no more than 25% self-referrals. This indicates a relatively poor awareness about adaptation services among owner occupiers and private tenants. 54.3% of respondents considered the service awareness as "poor" or "fairly poor". The survey found inefficiencies with the management of the adaptation referral process. 38.9% of local authorities did not have a standard inquiry form or a shared IT system between all partners to collect basic information needed for assessment. There was a general recognition of the importance and value of helping clients throughout their application process. 103 out of 106 local councils have allocated a key caseworker who could be approached for any information at any stages of the process.

Table 5.4 Target waiting time for assessment and completion rate

Priority (P)	**Target waiting time for assessment (days)**		
	Minimum	Average	Maximum
P1	1	7	28
P2	10	30	84
P3	42	79	182
	Completed cases within the target timescales (%)		
	Minimum	Average	Maximum
P1	85%	94%	100%
P2	2%	64%	100%
P3	5%	62%	95%

After receiving initial enquiries, 77.5% of local authorities used a screening mechanism to identify the urgent needs and prioritise referrals for assessments. Despite this, only 23 local councils have set an explicit target waiting time for the assessment of different priority categories. When a priority framework is used, referrals often fall into three bands of high, medium or low priority (HAC, 2013; Scottish Government, 2009a). Table 5.4 described the target waiting time for the assessment of each priority category and the percentage of cases completed within the target timescale. There was a wide variation in

the setting of waiting times across local authorities. For high priority applicants, the quickest authority took 1 day to assess them, while the slowest needed 28 days. To process medium and low priority cases, the minimum waiting times were 10 and 42 days, whilst the maximum reached 84 and 182 days respectively. It was also found that local authorities managed to carry out quicker assessment visits for high priority cases than for medium or low priority ones. On average, the target waiting time for high priority cases was 7 days, compared with 28 days for medium priority and 71 days for low priority.

Although local authorities set the shortest waiting time for the assessment of high priority cases, there were very high rates of achievement. On average 94.0% of high priority applicants were assessed by OTs within the target timescale; a maximum of 100.0% was not exceptional in some authorities. The average completion rate of assessment for medium and low priority cases decreased to 64% and 62% respectively. Moreover, there were enormous variations in assessment completion rates for medium (2.0% to 100.0%) and low (5.0% to 95.0%) cases across the country.

5.3.2 Assessment to Funding

Table 5.5 Descriptive statistics of variables related to the assessment process

Assessment	Frequency (n)	(%)
Other assessment arrangements (multiple responses)		
None	42	40.0
Self-assessment for minor adaptations	21	20.0
OT assistants	51	48.6
Other (e.g. social work, technical officer, HIA)	19	18.1
Determinants for OT assessment (multiple responses)		
Needs of the applicant	50	79.4
Complexity of the case	37	58.7
Cost of the adaptation	7	11.1
Other (e.g. necessary and appropriate, client state)	9	14.3
Responses to the above determinants		
Only one determinant	33	52.4
Mix of two determinants	21	33.3
Mix of three determinants	8	12.7

Four of them	1	1.6
Apply national eligibility criteria		
Yes	40	46.0
No	47	54.0
Factors for high priority cases (multiple responses)		
Health condition	52	89.7
Living environment	43	74.1
Community participation	31	53.4
Care arrangement	41	70.7
Other (e.g. discharge from hospital, age, respect)	15	25.9
Responses to the above factors		
Only one factor	10	17.3
Combination of two factors	6	10.3
Combination of three factors	13	22.4
Combination of four factors	24	41.4
Five of them	5	8.6
Principle for deciding priority for funding		
Any of the factors is high priority	7	10.5
All or majority of the factors are high priority	2	3.0
A balanced judgement of priority of factors	34	50.7
Other (e.g. priority score, rank, points)	24	35.8
Keep inform of assessment progress		
Yes	81	89.0
No	10	11.0
Effectiveness of assessments		
Very ineffective	3	3.9
Fairly ineffective	4	5.1
Fairly effective	40	51.3
Very effective	31	39.7

The results of variables in relation to the assessment stage of the adaptation process are shown in Table 5.5. Before considering the eligibility for an adaptation grant, an assessment must be carried out to establish the extent of needs (Heaton and Bamford, 2001; Scottish Government, 2009b). Good assessment arrangements are fundamental to

the provision of effective adaptation services (Russell, 2016; Söderback, 2015). OTs have been traditionally employed to carry out adaptation assessments, but their professional practice was not founded on a regulatory and guidance framework (Boniface and Morgan, 2017; Heywood, 1994). There have been inconsistencies in the use of OTs, 40.0% of local authorities always required them to do assessments, while the rest only involved them in complicated cases and appointed ancillaries, such as OT assistants and social workers, to deal with the simple requests. Meanwhile, 21 local councils have adopted self-assessment models for lower level adaptations. Given the use of multiple assessment arrangements, many local authorities have set down criteria for deciding whether an OT assessment is required for each case. However, the criteria varied from one council to another. 80.0% of local authorities used one criterion in determining whether an OT assessment is required in the case, such as needs of the applicant, complexity of the case, cost of the adaptation, or other (e.g. necessary and appropriate, client state or delays in obtaining an assessment). Others depended on combination of these determinants. Overall, 79.4% of local authorities included the criterion of the applicant's needs; 58.7% relied on the case's complexity and 25.4% considered other factors, such as the cost of the adaptation and delays in obtaining assessments.

The assessment process typically involves two stages: first, an assessment of the applicant's need is undertaken and then, a judgement whether the need is eligible for an adaptation under the local eligibility criteria is drawn (Boniface et al., 2013; Marquardt et al., 2011). Eligibility thresholds enable local authorities to deploy limited resources for those most in need and to distribute adaptation funds in a fair manner (Lett, Sackley, and Littlechild, 2006). National standard eligibility criteria were published to promote consistent and equitable provision of housing adaptations across all local areas, which included health condition, living environment, community participation and care arrangement (DH, 2013; Scottish Government, 2009b). However, 46.0% of local authorities have not applied national criteria to determine eligibility for the provision of housing adaptations.

As a result, there have been considerable variations in local eligibility criteria. Health condition was the most important factor; 89.7% of local authorities have set different degrees of health eligibility criteria, such as unable to manage nutrition, unable to maintain personal hygiene, unable to get dressed independently and unable to manage toilet needs. In addition, some councils have placed particular emphasis on terminal illness. Next came factors related to the living environment (74.1%) and care

arrangements (70.7%). For living environment, local authorities considered whether the client was capable of carrying out domestic routines, controlling vital aspects of living environment, and/or maintaining a habitable home environment. As for care arrangements, local authorities took account of an absence of a carer, carer's relationship to the client and the carer's ability. 53.4% of local authorities also assessed the impact of community participation, such as the ability to participate in work or education, to undertake family or social roles, or to use public services and facilities. A further 25.9% took account of other factors, such as discharge from hospital, personal ability, age, respect and dependence, to determine high priority for eligibility. In all, 17.3% of local authorities used a single factor like health condition or living environment in setting a priority, while other authorities considered a mix of two, three, four or five factors.

As a range of factors were described in the local eligibility framework, there was inevitably a judgement of applying these eligible factors in each case (AWG, 2012; HAC, 2013). 50.7% of local authorities determined the priority of an application for funding based on a balance judgement of all the eligibility factors. In contrast, another 10.5% operated more loose criteria, making decisions on the eligibility when any of the risk factors was rated as high priority. Due to complexity in assessment arrangements and eligibility criteria, it is easy for applicants to get lost in the assessment process (Johansson, Borell and Lilja, 2009; Jones, 2005). To prevent this and improve customer satisfaction, 89.0% of local councils regularly kept the applicant informed on progress with their assessment, including future services, approaching problems and waiting lists. This allows clients to have control over their adaptation process and to be placed at the centre of service provision. Overall, 91.0% of respondents felt that their assessment system worked well, either "fairly effective" or "very effective".

5.3.3 Installation

Table 5.6 shows a descriptive analysis of factors that impact upon the completion of installation work. Once a grant has been authorised, the process of installation can go ahead. Firstly, the client's needs must be translated into a specification of the adaptation work. The adaptation specification needs to be discussed and agreed between the professionals and client, as it will be used on site as a checklist and is linked to the desired outcome (HAC, 2013; Morgan, Boniface and Reagon, 2016). This consultation practice is adopted widely; 106 local councils provided help for applicants to understand the

specification (e.g. language, drawings) of their adaptation. When the detailed specification is finalised, the client will then seek quotations but frequently faces difficulties in finding skilled contractors (Bibbings et al., 2015; Sakellariou, 2015).

Table 5.6 Descriptive statistics of variables related to the installation process

Installation	Frequency (n)	(%)
A list of contractors		
Yes	78	70.9
No	32	29.1
Ways to advertise the list (multiple responses)		
On request	46	59.0
On website	9	11.5
In information package	29	37.2
Other (e.g. agency service, in-house surveyor)	21	26.9
Responses to the above ways		
Only one way	56	71.8
Combination of two ways	17	21.8
Combination of three ways	5	6.4
Four of them	0	0.0
Help to understand the specification of adaptation		
Yes	106	96.4
No	4	3.6
A procedure to review approved grant (multiple responses)		
Yes, inform to spend within the financial year	14	13.1
Yes, inform a deadline to spend	46	43.0
No, all depend on the applicant	38	35.5
Other (e.g. allow flexibility, overseen by agencies)	33	30.8

National guidance suggests that local authorities appoint a panel of contractors to help clients identify suitable contractors (HAC, 2013; Scottish Government, 2009a; NAW, 2013). However, 29.0% of local authorities did not have a list of approved contractors. 78 local councils did maintain a list of contractors, but they did not advertise this list widely. 71.8% councils used a simple way to provide the information while others

adopted a mix of different ways. More specifically, 59.0% councils provided approved contractors following a client's request; 37.2% councils included the information in the service package and 11.5% published such information on their websites. In some councils, agencies like HIAs and C&R established a panel of contractors to help clients obtain quotations, or staff such as OTs and housing officers specified the contractor on behalf of the client.

The timing of the installation work is decided by the clients, however there is a risk of the process being put on hold due to indecision by the clients (HAC, 2013; Keeble, 1979). To prevent this, legislation requires the adaptation work to be carried out within 12 months following approval of the grant, with the local authority having discretion to extend the time limit on the basis of unforeseen circumstances. As a result, there were inconsistent practices in reviewing approved grants which had not been utilised by clients within specific timescales. 35.5% of local authorities allow approved grants to be carried forward to the following financial year if spending is not achieved within the financial year. On the other hand, 56.1% councils set a deadline of either a period of time or the current financial year within which the grant must be spent, otherwise it would be withdrawn. Some councils allowed the extension of spending deadlines when there were reasonable reasons to do so.

5.4 Performance Monitoring

Performance monitoring has important links to the appropriateness of the adaptation, the improvement of service quality and the level of satisfaction experienced (Thordardottir et al., 2016). To demonstrate value for money, service providers normally visit the client on completion of an adaptation to evaluate the effectiveness of the adaptation work, including whether the work is completed within a reasonable time and to the required standard, whether the assessed need has been met, and whether the client is satisfied with the outcome.

5.4.1 The monitoring system

The results related to features of performance monitoring are presented in Table 5.7. The provision of an adaptation should not stop at installation; there is one further step that measures the adaptation's performance to ensure service quality and value for money

(Bibbings et al., 2015; Keeble, 1979). 90.0% of local authorities collected information to monitor the performance of adaptation services.

Table 5.7 Descriptive statistics of variables related to performance management

Performance monitoring	**Frequency (n)**	**(%)**
Information collection for performance monitoring		
Yes	99	90.0
No	11	10.0
Performance indicators (multiple responses)		
Positive outcomes	83	85.6
Customer satisfaction	75	77.3
Impact of adaptations	39	40.2
Delivery times	75	77.3
Other (e.g. C&R returns, contractor activities)	6	6.2
Responses to above indictors		
Only one indicator	16	16.5
Mix of two indicators	19	19.6
Mix of three indicators	28	28.9
Mix of four indicators	30	30.9
Five of them	4	4.1
Delays in the adaptation process		
Very rarely	20	18.3
Occasionally	62	56.9
Very often	27	24.8
Overall effectiveness of the adaptation process		
Very ineffective	3	2.8
Fairly ineffective	6	5.6
Fairly effective	64	59.8
Very effective	34	31.8

However, performance indicators and information collection methods were not consistent across all local authorities, with 16.5% councils using a single indictor and others adopting a set of indictors. 83 local councils reported positive overall outcomes with

regard to the effectiveness of adaptation services, as evidenced by the completed number of successful adaptations and total spending. 75 local authorities surveyed clients to measure the satisfaction with the adaptation process and/or kept a record of the days taken to complete keys stages of an adaptation. Some councils also measured the impact of adaptations, such as reduced stress and improved health as performance indicators.

Waiting times have been endorsed as a benchmark against which the quality of adaptation services could be assessed (Bibbings et al., 2015; Hall and Social Work Services Inspectorate, 2001; Jones, 2005). National strategies have placed a particular emphasis on tackling delays associated with the adaptation process (DCLG, 2008; Scottish Government, 2011; Welsh Government, 2013). However, 81.7% local councils still reported certain delays during the adaptation delivery process, with 24.8% frequently finding a long waiting list for housing adaptations. Only 18.3% of respondents claimed that delays occurred very rarely. On the whole, there was a high level of satisfaction with the effectiveness of the adaptation provision, with 91.6% of local authorities considering it as either "fairly effective" or "very effective".

5.4.2 Delivery Outcomes

Table 5.8 Number of approved adaptations and amount of allocated funding 2014/2015 (Source: Zhou, Oyegoke and Sun, 2017)

	Countries	**Minimum**	**Maximum**	**Mean**	**SD**
Number	England	29	976	129	138
	Scotland	20	1545	269	404
	Wales	100	500	279	172
Cost	England	£130,000	£4,013,000	£723,650	£597,316
	Scotland	£125,494	£1,852,131	£687,544	£479,303
	Wales	£850,000	£4,500,000	£2,212,500	£1,669,518

Table 5.8 shows average numbers of approved adaptations and amount of allocated funding at the local authority level in the three nations. The UK average number of

adaptations completed in 2014/15 was 154 per local authority, with a wide range of 20 to 1,545. This average number was higher in Wales and Scotland, at 279 and 269 respectively. In comparison, the average number of adaptations was only 129 in England. There were substantial variations in the number of adaptations across local authorities in Wales, where the smallest number was 100 and the biggest 500. Such variations became more significant in England and Scotland, ranging from 20 to 1,545 and from 29 to 976.

There were noticeable differences between the levels of government spending for adaptations in different nations in the UK. The minimum spending was £125,494 per local authority while the maximum reached £4,500,000, with an average spending of £777,081. Welsh government gave more attention to adaptation services and provided a higher level of funding at £2,212,500 per local authority, almost three times of the total average spending. In contrast, there was a lower average spending of £723,650 per local authority in England and £687,544 in Scotland. There were also considerable variations in the amount of allocated funding between local authorities across the country. The greatest variations were in England, with a minimum spending of £130,000 and a maximum of £4,013,000. Similarly, the annual spending among local authorities in Wales varied significantly from £850,000 to £4,500,000. By comparison, Scotland had the smallest difference in the amount of £125,494 to £1,852,131.

5.4.3 Timelines

Table 5.9 reveals waiting timelines across key stages of the adaptation process. Waiting time has been identified as a benchmark of the effectiveness of adaptation services (Hall and Social Work Services Inspectorate, 2001; Jones, 2005). Chapter 3 has explained that the application process for housing adaptations consists of several steps, including referral, allocation, assessment, funding and installation. The question in the survey questionnaire listed the five stages for local authorities to gather the waiting times for completion of each stage. It also allowed local authorities to describe their own stages if they are different from the listed stages provided in the questionnaire. Besides, due to different departments and agencies being responsible for different stages, some partners, particularly in local authorities under the two-tier system, could only provide their own delivery times. Therefore, there were mainly three categories of timelines between stages of the adaptation process (Table 5.9). Because of shared characteristics, the following description focuses on waiting times in the first category.

Table 5.9 Timelines between stages of the adaptation process

		Minimum	Average	Maximum	Median
Stages of provision		(day)			
Category I					
1	Referral to allocation	1	49	189	28
2	Allocation to OT assessment	1	22	103	8.5
3	OT assessment to OT recommendation	3	46	168	17
4	OT recommendation to grant approval	3	84	217	77
5	Grant approval to installation	20	73	250	68
6	Total time	65	221	472	190
Category II					
1-3	Referral to OT recommendation	28	114	385	85
4	OT recommendation to grant approval	42	104	380	63
5	Grant approval to installation	45	80	226	71
6	Total time	129	286	849	210
Category III					
4	OT recommendation to grant approval	7	109	385	91
5	Grant approval to installation	7	114	356	111

There were significant variations in the waiting time not only within each stage of provision but also between stages across local authorities. When the initial request for an adaptation was received, the quickest local authorities took just 1 day while the slowest needed 189 days to allocate the case to a specific fieldworker like OT, with an average time of 49 days. Following the allocation, the OT required 1 to 103 days to make the first assessment visit; the average time was 22 days. Once the assessment started, it could be expected to complete within a minimum of 3 days and an average of 46 days, but a

maximum of 168 days was not exceptional. When the OT assessed the client's need and specified the required adaptation, the case passed to the grant officer for funding approval. The time taken to obtain this approval varied markedly across local authorities from 3 days to 217 days, with an average of 84 days. Once the grant has been authorised, the installation work could go ahead. It could take 20 to 250 days to finish, with an average time of 73 days. To complete the whole process, the quickest local authority took up to 65 days, while the slowest needed 472 days. The average time for delivering an adaptation was 221 days. All in all, some local authorities had shorter waiting times for adaptations than others. The average waiting time for each stage was still relatively high; delays were frequently found in the provision, in particular, at the stages from OT recommendation to grant approval and from grant approval to installation.

5.5 Reflections on the Survey Results

Evidence has consistently suggested that because ageing is linked to chronic illness and functional decline, household hazards are more likely to cause injuries, isolation and depression among older people (Public Health England, 2017; Renaut et al. 2015). Adapting and improving mainstream homes is of the essence for successful ageing in place (Fänge and Iwarsson, 2005; Heywood, Oldman and Means, 2002). The UK government has introduced mandatory grants for housing adaptations, with an injection of extra funding into this area on an annual basis. However, there were still unmet needs that varied from council to council. This was caused by not just insufficient grants but also ineffective processes (Bibbings et al., 2015; Ramsay, 2010). A set of policy targets have been published along with national housing strategies to remove obstacles for seamless services and better outcomes. These policy aims represent a framework within which local authorities have an opportunity to produce their own policies and action plans. Therefore, the extent to which the improvement of housing adaptations could be achieved depends on how local authorities design the services and deliver them (AWG, 2012). In this sense, it is crucially important to review local adaptation practices and to assess whether they have achieved strategic objectives.

There is no one right way to get adaptations done as every local authority area is different (Heywood, 1994). However, there are certainly some ways which are more efficient and successful than others. In this study, a question survey was designed to identify how adaptation services are planned, organised and monitored at the local level. It will capture

the practice of carrying out adaptations in each local authority, which provides a contextual background for organising qualitative studies. As the population ages in the UK, there is undoubtedly a constant growth in demand for housing adaptations (DCLG, 2009; Scottish Government, 2010). However, most local authorities did not increase their budgets for adaptations from year to year. As a result, there was a substantial unmet need or an overspending.

This was caused principally by two factors. Firstly, most local authorities set adaptation budgets by reviewing the previous year's expenditure, instead of being based on a survey of needs. This common approach, on its own, is limited as a means of effective budget planning (Watson and Britain, 1996). It restricts an accurate assessment of the actual spending and the real need, as sometimes spending does not occur in the same year that application is approved and the gap between payment and approval can be as much as 12 months. Therefore, unsurprisingly, many local authorities claimed that their budget allocation was sufficient to meet the demand. More worryingly, some local authorities did not adopt any formal budget setting methods; resources for housing adaptations depended entirely on the annual funding allocation from the central government. The obvious starting point for developing strategic planning for adaptation services is a proper assessment of needs (Barrett, 2005). Carrying out a survey is considered as the best way to identify the potential need and secure the necessary resources, but only a few local councils have conducted it. However, there might be the difficulty to get enough responses for the survey (Ewart and Harty, 2015; Heywood, 1997). To address it, some local authorities used a combination of survey and other ways like Census and household projections.

Secondly, available resources for housing adaptations remained limited; they mainly relied on funding contribution from central governments. Only a few local authorities have set aside a pot of local capital funds in addition to central government funding, such as DFGs. Some local authorities reported a shortage of funding and complained about the difficulty of keeping expenditure within budget limits. When there was not enough funding to meet the demand, local authorities tended not to advertise the availability of adaptation grants widely. As a result, there were people in need who were unware of adaptation services available to them.

According to the LGH Act (section 114) and the HGCR Act (section 24), to award a housing grant like DFG for an adaptation, the housing department must consult the social services department whether the adaptation work is necessary and appropriate. Therefore,

the social services department is responsible for assessing the need and making a recommendation concerning necessity and appropriateness, whilst the housing department makes the final decision for grant approval. Unsurprisingly, the survey found that these two departments were the key partners for the delivery of adaptations. Other organisations such as HIAs and C&R have played an important role in carrying out adaptations. The integrated authority, as a solution to fragmented responsibilities, has not received much attention. Overall, there were different departments and organisations working together to deliver adaptations in different local authorities. Their cooperation is the key for efficient and effective service delivery. As Heywood pointed out, 'if one department is not working well, the work of other departments is undermined and yet there may be no way to raise and resolve the issue' (1994, p.59). To develop effective joint work, many local authorities have laid down guidelines to specify service entitlement and service process between partner organisations. Although most survey respondents considered their current partnership arrangement as effective, there were still complains about conflicts and disconnections between partners, especially when the adaptation process was organised under the two-tier system.

Dissatisfaction with the current process of housing adaptations centred on its complexity, prolixity and variety. The adaptation process consists of six key stages of referral, allocation, assessment, funding, installation and after-visit, with different organisations assuming responsibility for different stages (Hall and Social Work Services Inspectorate, 2001). At the stages of referral and allocation, initial requests for housing adaptations were mainly made through a third party; there were no, or only a few, applications lodged by individuals themselves in most local authorities. Public awareness of adaptation services remained quite low in many local authorities. Despite the existence of different routes for making a referral, some local authorities did not operate a standard approach towards all initial enquires. As a result, some cases may take longer to reach OTs or even be put aside when incomplete information on applicants was collected. Due to the complexity of the adaptation process, it was not always easy for clients to find out which stage they were in and who they could approach for assistance (HAC, 2013). To help the client, most local authorities allocated a key caseworker who could be contacted for any information at any stage of the process. The initial screening mechanism has been widely deployed by local authorities to prioritise all referrals into different categories and to decide who (e.g. an OT, a social worker) should make further assessments on them. This helped local authorities to provide effective responses to urgent needs. However, because

of a lack of scheduled waiting time for assessment of different priority cases, non-urgent applicants probably have to wait for even longer in most local authorities.

At the stages of assessment and funding, lengthy waiting time was recognised as a chief blockage because OTs were always overwhelmed by the volume of requests. In order to back up the OT's services and speed up the assessment process, most local authorities employed OT assistants or other assessors to deal with the less complicated cases. In some local authorities, self-assessment was used as a substitute for, or a part of, the professional assessment. These ancillary assessments had positively impacted upon the effectiveness of local assessment arrangements. However, there were certain concerns that OT assistants might lack the skills or experience required to identify the hidden needs and make the expert diagnosis (Audit Scotland, 2004; Bibbings et al., 2015). Local authorities have established different criteria to determine whether an OT would be called in to provide an assessment. This indicates that the threshold for the OT assessment can be easily shifted by local policies. There is a danger that cases which need the professional input of OTs are allocated to OT assistants. Although a national eligibility framework was issued by governments, criteria for accessing housing adaptations varied markedly across the country. Risks related to health, living environment and care arrangements have been widely accepted as eligibility criteria, but they were defined differently in different local authorities. Clearly, some local councils set relatively rigid criteria for funding housing adaptations, while others had a loose set. This means that what was eligible for an adaptation grant in one place might be not eligible elsewhere and that there was potential inequality or a "postcode lottery" in the provision of adaptations. To guide clients through the complicated assessment system, many local authorities have regularly informed them about their progress within the process.

At the installation stage, local authorities tended to keep a list of approved contractors, so that clients could get the requisite number of quotations for the building work in a timely and effective manner. However, this list was not broadly advertised by local councils. As a result, clients may have to spend more time in obtaining tenders from contractors. The final specification of an adaptation, including technical language and drawings, was normally confirmed to the client in most local authorities. This is essential to help clients understand what is going to be done to their houses and for the installation process to go ahead quickly. However, it was found that delays were caused by the client, who held the control over when the installing work started and when the approved grant was spent. According to the HGCR Act, the adaptation work should be carried out within twelve

months after the approval of grants, but local authorities can extend the period when there were reasonable causes. Therefore, there were two opposite ways at the local level to deal with approved grants which have not been spent within the given time, withdraw or carry forward. This reflected the inconsistent practices of carrying out adaptations among local authorities, which resulted in inequality of access to and outcomes from the service provision.

On completion of an adaptation, it was the local authority's normal practice to visit the client and collect information for performance monitoring. However, the information was collected differently across local areas and service providers. This made it difficult to draw a comparison of local adaptation services and to demonstrate value for money, which would further affect strategic planning for future delivery of housing adaptations. The average number of adaptations, carried out each year by most local authorities, was still relatively small, compared with the potential demand from an ageing population. The level of government spending was also low, which curtails growth of the service to meet increasing demand. There is no sign of major changes in this regard. The waiting time varied significantly within each key stage of the adaptations as well as between stages across local authorities. Clients normally had to wait for long periods before their adaptations were delivered; the main blockages in the provision were the stages of funding and installation.

5.6 Summary

This chapter has presented the quantitative results of the questionnaire survey with local authority practice across the country. Descriptive statistics were used to describe basic features of the adaptation provision and to examine common issues with each key stage of the process.

- Currently, there are differences in the types of financial assistance for adaptations in different housing tenures; most local authorities have no plans to establish a pooled budget for all tenures.
- It was difficult for many local authorities to develop strategical planning for adaptation services, as significant challenges remained to identify the likely need and allocate the necessary resources. This led to substantial unmet need or overspending.

- The adaptation process was fragmented, involving different service groups in different local authorities. There were disconnections between these groups, which often caused inefficiencies and ineffectiveness.
- There were many inconsistencies and inequities in the adaptation process across local authorities, including initial referral, assessment arrangements and installation work.
- Delays were often found in the delivery of adaptations; the priority system leads to faster visits and assessments for urgent needs but probably longer waiting for non-urgent applicants.
- Performance management was widely adopted, with the use of different monitoring methods and a variety of performance indicators.
- The current number of adaptations was relatively small compared with potential demands in most local areas, so was funding for adaptations.
- The average time needed to deliver an adaptation was considerably long; delays were found in each stage of the adaptation process, especially at the stages of funding and installation.

The survey results reveal how local authorities plan, organise and monitor their adaptation services. The next three chapters will integrate quantitative and qualitative findings to have a deeper understanding of issues with the three phases of service planning, delivery process and performance monitoring and to make relevant suggestions.

CHAPTER 6: ANALYSIS AND RECOMMENDATIONS ON SERVICE PLANNING

6.1 Introduction

The effectiveness of housing adaptation practice is based on how local authorities develop, deliver and monitor service provision. In other words, the key features of an effective adaptation service relate to three essential aspects of planning, process and performance. Therefore, the description of survey results in Chapter 5 are divided into three parts, service planning, delivery process and performance monitoring. Accordingly, there are three analysis and recommendation chapters of 6, 7 and 8, focusing on these key points of the adaptation provision. This is the first of three chapters that combine quantitative with qualitative results to analyse and discuss the current practice for carrying out housing adaptations. It aims to assess the initial phase of the preparation of adaptation services, focusing on how local authorities develop plans for delivering the services. It will first introduce the funding systems, then move on to explore the ways of setting and managing the adaptation budgets of local authorities. After that, it will describe the role of different departments and organisations in the provision of housing adaptations and evaluate the effectiveness of their partnership working. The next chapter (Chapter 7) investigates the second phase of the journey to a successful adaptation, discussing how local authorities organise each key stage of the adaptation process from referral to installation. Chapter 8 examines the final phase of monitoring the service performance, looking at how local authorities measure the effectiveness of housing adaptations.

6.2 Budget Setting and Management

6.2.1 Different Funding Streams

Budget planning is the starting point for adaptation provision. It mainly involves two elements: first identifying the potential need for adaptations and then allocating necessary resources to meet the need (HAC, 2013; Scott, 2009). Because of imprecise legislation and various grant schemes that affect the funding of housing adaptations in different tenures (see Table 2.5 in Chapter 2), AWG (2012) and Heywood et al. (2005) recommended a single funding pot that covers all adaptation financing sources for all

types of housing tenure. However, the survey showed that this proposal had not been widely adopted and multiple budget sources for different housing tenures still prevailed in 63.4% of local councils. During the interview, a social worker described the current status:

> *'We do not have pooled budget but have line budgets. We get house revenue for council properties, a block grant for the private sector and the equipment budget.'*

> *'The only budget we do not have is the housing association budget, the housing association budget sits within the individual housing association.'*

A number of reasons had been suggested for keeping the multiple funding streams arrangement, such as reducing budgets for private sector housing and avoiding running out budget mid-year. A recent report on adaptation services in Wales further highlighted that closing down funding streams and moving into a unified system would result in higher costs but not better outcomes (Bibbings et al., 2015). Likewise, this survey did not find significant correlations between a single funding pot, delivery outcomes and service effectiveness. Therefore, it is essential to balance the value of a tenure neutral system with the difficulties of aligning multiple adaptation funds.

Nevertheless, central government seeks greater integration between health and social care and to put all relevant resources together in a single pooled budget (Ham and Walsh, 2013; Mandelstam, 2016; Wilson, 2013). As a result, the adaptation grants will be absorbed by this single pot. For example, Better Care Fund was announced in England to pool resources across housing, health and social care boundaries and DFG becomes an element of the Better Care Fund. The Public Bodies (Scotland) Act sets out integrated strategic planning for housing, health and social care and the adaptation service is delegated to the integration authority. In Wales, DFG is incorporated into the Intermediate Care Fund, which was established to improve coordination between health, social services and other partners.

These policy initiatives have ignited an intense debate about the future funding for adaptations. Some professionals welcomed this movement and believed that the integrated fund could provide more home adaptations. An interviewed housing officer said:

'Because of financial cuts in public services, placing adaptation services within a broader policy context would help older people to remain independent in their own homes.'

Another social worker also mentioned:

'As demand for adaptations considerably outstrips supply, there is an opportunity to secure more funding from the integrated budget.'

However, there were certain concerns about the uncertainty of future government funding for adaptations through Better Care Funds, as noted by a housing officer:

'Main concern is future funding through better care fund – uncertainty over how it will be managed when DFG is a rolling programme.'

Such uncertainty has become more apparent in two-tier local authorities, where there is a noticeable change in the way that national government funding for housing adaptations is paid to local authorities. Instead of national government making the DFG payment directly to each district council, Better Care Funds will be paid to the county council. A housing officer explained:

'Budget resources transferred from DFGs to better care funds (BCFs) has created uncertainty around future allocation risks that the district council has the duty to deliver housing adaptations but the county council allocates the budget through BCFs.'

This can lead to a great challenge for service planning, added by another housing officer:

'Budget allocation now comes from the county council via the better care fund; it is not known what this budget will be for next year, which makes planning difficult. It would be useful if this were set in advance.'

To address this challenge, it is important to ensure that adaptation budget is set in advance. A grant officer pointed out:

'Earlier notification of allocation of budget from the better care fund would be useful. If the fund is reduced, the council can have time to put in a contingency or slow down the programme of works to ensure that an overspend does not occur.'

In addition, a guaranteed minimum budgetary amount would be helpful to remove the uncertainty, as highlighted by a housing officer:

‘There should be guarantee that the DFG funds earmarked by central government are passed to each administering local authority.’

Furthermore, some district councils still insisted that the DFG funding from national government should be paid to them rather than top tier local authorities:

‘Would like to see funding going directly to statutory DFG provider, e.g. the housing authority in the district council not the county council.’ (a housing officer)

Yet, another housing officer recommended that there be a transfer of the district council’s powers and duties to provide adaptations to the county council:

‘I feel that the time has come for the responsibility for the provision of adaptations to be given to the county council. In the past when the district council had many other funding streams, it made sense for us to provide it. However, in our authority, we only have DFGs.’

Given these concerns and suggestions, there should be requirements set out in either new legislation or policy to ensure that a minimum amount of grants can continue to be made from the integrated funds for the provision of housing adaptations. In the two-tier areas, the county council should establish a new working relationship with the district council to allocate and manage the DFG funding.

6.2.2 The Way of Setting the Budget

Local authorities have the duty to identify the likely need for adaptations and to allocate adequate resources for delivering them (Adams and Ellison, 2009; Heywood, 1994). However, because of an ageing population, local authorities found it hard to make predictions about budgets for housing adaptations, as noted by a grant officer:

‘Budget is extremely difficult to predict; so is the number of adaptations required as demographic changes taking place.’

This survey revealed that sources of information for budgeting may derive from the previous year’s spending figure, a survey of housing need, Census data on age and disability, the record of unmet demand, and other forms of consultation. An interviewed social worker explained:

'For forward planning, what we do is trend analysis. We look at the number of completed adaptations, look at the bound budget, add a certain percentage of cost for extra requests for adaptations and then project what is required for the next year.'

These different sources used for budgeting are likely to reflect varying levels of demand, leading to different budget figures for each authority. The majority of local authorities (78.4%) set adaptation budgets based on previous year's spending, as highlighted by a grant officer:

'To set the budget, we rely on the last year's spending and rely on historical capitals that the resources we can deal with.'

During an interview, a housing officer criticised this budget setting approach for failing to account for accurate spending:

'Levels of expenditure in any one year will not match levels of approval because of the time lag between approval and payment on completion of works. This can be as much as 12 months' differences.'

Carrying out surveys was considered as the best way for identifying the potential need (Heywood, 1994; HAC, 2013), but only a few councils (14.4%) conducted such surveys. This might be caused by the difficulty of getting enough people in need of adaptations to respond to the survey, as pointed out by a housing officer:

'It is quite difficult to carry out the survey of needs for home adaptations, isn't it?'

More worryingly, 15.3% of local authorities did not adopt any formal budget setting methods; resources for housing adaptations depended entirely on the annual funding allocation from the central government, as reported by a housing officer:

'The budget based upon advice from central government of what our DFG allocation will be. We are unable to provide additional funding.'

Under such a situation, the waiting list would grow and become unmanageable. To prevent this, there needs to be clear responsibility for developing a strategy and plans for adaptation services at the local level. In this regard, local authorities should build up a full picture of the potential need to determine the overall funding required. Furthermore, assessing the level of needs should not be merely based on the previous year's spending; local authorities should use a good quality survey, along with alternative sources of

information such as Census and the number of applications, to identify the scale of need for home adaptations.

6.2.3 The Level of Funding

Under the current legislation (discussed in Chapter 3), the allocation of resources for housing adaptations is decided by local authorities; funding is normally provided by a mix of contributions from both national and local governments. The survey found that 50% of local authorities maintained the same budget in the coming year after reviewing the previous year's spending; 14.2% of them even reduced their budget. This contradicts the expected increase in demand for adaptation as ageing population increase, as highlighted by a housing officer:

> *'Because of demographic changes next year, there would be about 60% extra requests every year for adaptations.'*

Table 6.1 Relationship between budget change and total amount (Source: Zhou, Oyegoke and Sun, 2017)

	All (n=102)	**Budget increased** (n=36)	**Budget decreased** (n=14)	**Stay the same** (n=50)
Total allocated funding (£)				
Less than 250k	8.8%	8.3%	0.0%	12.0%
250k—500k	33.3%	25.0%	50.0%	32.0%
500k—750k	25.5%	30.6%	14.3%	26.0%
750K—1000K	12.8%	13.9%	21.4%	10.0%
Over 1000K	19.6%	22.2%	14.3%	20.0%
Median number	566,960	652,688	566,763	541,820

Also, national housing surveys revealed that the volume of demand for adaptations remained far beyond the current supply (Adams and Ellison, 2009; Scottish Government, 2010). Table 6.1 illustrated the current adaptation budget allocations and budget change. Most local authorities allocated an annual funding of between £250,000 and £750,000,

and only 19.6% authorities spent over £1,000,000. Those, with a budget increase, spent more on adaptations, having a mean budget of £652,688; 36.1% of them allocated more than £750,000. In comparison, the mean budgets were £566,736 and £541,820 for "budget decreased" and "stay the same" groups, with 50.0% and 44.0% local authorities spending less than £500,000 respectively.

According to the survey, most local authorities claimed that their budget allocation was sufficient to meet demand. However, the earlier Table 5.8 in Chapter 5 showed that the number of average adaptations carried out by each local authority is relatively small (154). Table 6.2 showed that most local authorities completed a number of adaptations between 50 and 150 and only 15.7% local authorities delivered over 200. Those, who claimed to have sufficient funding, actually carried out fewer adaptations with a median number of 100; 21.3% authorities provided less than 50. In contrast, the median number was 123.5 for those claiming insufficient funding; there were 26.9% of those authorities that completed more than 200.

Table 6.2 Relationship between supply and demand (Source: Zhou, Oyegoke and Sun, 2017)

	All (n=102)	**Demand met** (n=75)	**Demand not met** (n=26)
Number of adaptations (n)			
Less than 50	17.6%	21.3%	7.7%
50-100	30.4%	29.4%	34.6%
101-150	23.6%	25.3%	15.4%
151-200	12.7%	12.0%	15.4%
Over 200	15.7%	12.0%	26.9%
Median number	105.5	100.0	123.5

Therefore, unsurprisingly, the local authorities who increased their adaptation budgets tended to report that there was unmet demand in their local area. One inference from this could be that the depressed demand for adaptations appeared to be met in some local authorities only because such a service was not widely known. This was confirmed in interviews with a technical officer and an elderly client:

'Adaptations are demand led and due to limited resources; the availability of grants is not widely published or promoted. This could potentially mean there are people in need who are unaware of this service to help them.'
'I didn't know the grant until I went to the Care & Repair and many of my friends never heard of it.'

Previous research has suggested that political pressure might deter local authorities to advertise adaptation services widely (Appleton and Leather, 1997; Mackintosh and Leather, 2016). As the population is ageing, the dissemination of grants information would push up the demand for adaptations, which in turn would pressurise councils to increase available resources (Heywood, 1994; Scott et al., 2009). However, advertising and promoting the service will provide probably the best opportunity to identify the real need (Heywood, 1994), which is crucial for securing appropriate resources and establishing effective support. Therefore, local authorities should encourage all partner organisations to advertise the availability of adaptation grants and to raise public awareness of the service.

In fact, shortage of finance was reported by some local authorities. A social worker and a housing officer commented:

'The equipment and adaptation regularly over spend the budget quite a lot; we spent budget more than we have. We have budget difficulty; we have debates for many years.'

'We don't have enough funding to cover all adaptations requested so we always spent all we get.'

When there was not enough funding to meet demand, delays often occurred and the waiting lists increased:

'Lack of funding had led to DFG cases being held back at the end of the financial year. This can lead to up to 8-12 weeks delay before grant being approved.' (a grant officer)

'Demand for adaptations exceeds financial resources, which means a waiting list for DFGs.' (a housing officer)

To address financial and demand pressures, extra sources of funding should be tapped at both national and local levels. More specifically, central governments should make additional contributions to the integrated funds (e.g. BCF) and ensure an increased share of resources going to housing adaptations, as suggested by a housing officer:

> *'The allocated central government funding is not sufficient to meet demand. We would like to receive additional funding from national government to assist with housing adaptations.'*

In addition to central government grants such as DFGs, local authority contributions played a significant role in managing demand for adaptation services. A grant officer and a housing officer described:

> *'Fortunately, we don't have a waiting list in previous years. A slight overspend on the DFG budget is usually funded by a transfer from some other unspent housing capital.'*

> *'In the last few years, we were quite lucky that we had additional resources to overspend the budget to meet the demand. I am not sure that is going to happen this year.'*

However, the survey revealed that only some local authorities have set aside a pot of local capital funds to supplement central government allocations. More worryingly, there was considerable variation in the extra amounts set aside, with some councils contributing far more than others:

> *'Insufficient funding from DCLG (£724,959), but topped up with council capital to make up shortfall (Total £1,135,000).' (a housing officer)*

> *'Although central government funding has increased slightly, local authority funding has ceased.' (a housing officer)*

Therefore, new policies are needed to make sure that local authorities contribute or continue to contribute certain capital funds to housing adaptations in order to ensure effective service delivery and to meet rising demand from an ageing population. A grant officer put forward:

> *'Hope to see a guarantee that the LA top up the central allocation with capital funding from local resources to meet increasing needs.'*

However, it should be noted that there are substantial difficulties for any local authority to secure a tremendous growth in resources for adaptations, no matter how great the demand they demonstrate (Adams and Ellison, 2009). Therefore, when a large increase in funding is impossible, local authorities have to balance available resources against waiting lists for housing adaptations.

In order to make sure that adaptation services genuinely meet the needs, several review reports, such as AWG (2012) and Mackintosh and Leather (2016), suggested that clients should be involved more in the design and delivery of adaptation services. Such involvement is essential to achieve the desired outcome, as it enables the client to have complete control over all aspects of the service (Granbom, Taei and Ekstam, 2017). However, this sometimes presents a substantial challenge to local budgets. A housing officer and a C&R manager said:

> *'There are concerns about meeting the expectations of clients whereby what they expect can be completely unreasonable from a budgetary point of view.'*

> *'Lots of clients are "wants basis" not "needs basis". That is a problem that leads to an overspending. You want it, but may not necessary need it.'*

Therefore, a clear guidance is necessary to ensure that service providers can work closely with clients to develop aspirational but value for money solutions.

6.2.4 Budget Management

In the face of resource constraints, effective budget monitoring is essential to ensure sustainable service delivery (Heywood and Turner, 2007). This was confirmed by a social worker and a housing officer:

> *'Budget management has to be effective when budgets are so tight.'*

> *'Budget management needs to be carefully carried out in order to sustain an effective adaptations service.'*

To prevent the budget allocation being exhausted by the middle of the year, 81.3% of local authorities monitored spending against budget on a monthly basis. This approach

was reported to offer effective supervision over the budget, as evidenced by a grant officer and a housing officer:

> *'Our monthly budget monitory system works well, I have a spreadsheet on grant commitments which helps.'*

> *'Our budget monitoring is managed and analysed monthly, looking at commitments and spending. We never over allocate. We presently have no concerns.'*

These positive results suggest that it is important for local authorities to measure spending against budgets monthly and to ensure sustainable management of adaptation grants.

Despite the standard monthly budget monitoring, there were frequent references to the difficulty of keeping expenditure within budget limits, as pointed out by a grant officer and a housing officer:

> *'Budget management in general is difficult due to demand outstripping budgets year on year.'*

> *'Balancing DFG budgets in any year is always difficult because they are effectively demand led.'*

As a result, waiting lists inevitably went up, as commended by a housing officer:

> *'We manage and review the budget on a monthly basis. However, because of the high volume of applications, this has led to long waiting times.'*

This again means that there needs to be a substantial rise in resources. To facilitate this, national and local governments should work together to have a clearer resource planning for housing adaptations and to make additional funds for the increasing demand.

6.3 Partnership Work

6.3.1 The Role of HIA/C&R

According to the current legislation (e.g. LGH Act, HGCR Act), social services departments are responsible for providing needs assessment and housing departments for

grants approval. Unsurprisingly, the survey found that the two departments were the key partners for the delivery of adaptations. Other associated organisations, such as HIAs and C&R, also played an important role in carrying out adaptations. Many local authorities worked with them to improve process efficiency and service quality, as noted by an OT and a housing officer:

> *'We already have an effective working partnership and discuss any issues regularly in a more formal process at our care and repair advisory group meetings.'*

> *'The HIA provides a much quicker service for older people's level access showers.'*

Without these agencies' help, the service team was often found to be overwhelmed by caseloads. A housing officer complained:

> *'The HIA was recently disbanded due to the county council's cuts in expenditure. No replacement service was created and our district council officers were called upon to provide extra support and hence increased workload.'*

This was also confirmed by a C&R officer:

> *'We arrange the paper work, get the form to be filled, acquire the quotes and etc., which takes a huge volume of work off OTs' shoulders and frees them to do assessments basically.'*

Those, who have not entered into partnership with HIA and C&R, expected their arrival to achieve better performance, as recognised by a housing officer:

> *'It would be beneficial to have one dedicated agency in our location as this would minimise delays, misunderstandings of policies and procedures and create best practice.'*

In fact, most agencies have become significant providers of adaptation services; they provided information, advice and help with funding and other works including producing specifications, securing quotes and supervising installations. A manager and a technique officer from C&R said:

> *'We are independent and flexible to provide services through the whole process from referral to completion. For example, the grant application needs the title deed, the approval of building insurance, the approval of all the client's incomes,*

and the letter from the mortgage provider if the client still has mortgage; older people have no idea how to prepare them. We can go to the client's house with a big pile of paperwork and help them to go through what it is looking for.'

'We will write to contractors about the adaptation work, they will visit the client and send quotes for the client to pick.'

More importantly, these agencies provided quality care support for the elderly and placed them at the centre of adaptation services, as highlighted by a C&R officer:

'We can spend time with clients and help them through the whole process. This is really care, not just repair. Care is a very important part, because getting adaptations done can be very stressful for older people. This is why most C&R are quite successful.'

Consequently, clients are more likely to trust and accept an independent organisation that helps them through the whole process compared to local government. The C&R continued to put forward:

'Because we are not the council, clients trust us more. We don't work for the social work or housing department, we are independent and act on behalf of the client. Clients think we are not the council, that is good.'

In addition, older people were satisfied with the agency service, which helped achieve their high expectations of what is to be delivered. Two interviewed older clients commented:

'At the beginning I had some worries about the shower and the toilet seat, which come out around thousands of pounds and need certain building work. Care and Repair got everything done for me. Brilliant!'

'I am very happy with the C&R people. They sorted out lots of things for me and gave me suggestions that who I should contact when I need help.'

Despite these advances, HIA and C&R were less likely to plan and develop adaptation service as strategic partners. A C&R officer complained:

'Even we have been involved in the adaptation process, we don't know the referral and assessment process. They are all controlled by the local authority.'

This was partly because central government did not tell local authorities how to create an adaptation process but allowed them to set up their own systems, as reported by an agency director:

> *'Most C&R are working on behalf of clients rather than really playing a strategic part in the provision of adaptations, because local councils decide what they want to do.'*

Such arrangement limits the agency's potential to improve the efficiency of adaptation systems and to achieve a greater flexibility of using the available resources. A HIA officer said:

> *'As the exact procedures and resources for adaptations are decided by the council, we are not able to use innovative ideas to improve the process or save the budget. We can just do what we have been told.'*

To ensure a consistent approach towards agency services and the best solution for older people, the central government needs to recognise the role of HIA or C&R in carrying out adaptations and addressing the needs of demographic change, as reported by a C&R director:

> *'The health and housing administrations know about our agency services, but they don't seem to realise what happens at the local level and don't seem to understand the role of the agency.'*

Meanwhile, local authorities should encourage the relevant departments (e.g. housing, social services) to work with associated agencies (e.g. HIA, C&R) as strategic partners, in order to deliver adaptation services in a faster and more effective way.

6.3.2 Links between Partner Organisations

It was quite common to find that three or more organisations working together to deliver an adaptation job. Strong links between these organisations are the key for effective service delivery, as recommended by previous studies (Boniface and Morgan, 2017; Donald, 2009; Heywood, 1994). An interviewed OT explained:

> *'We do a lot of work with statutory partners and also forge links with associated organisations to deliver a package of work rather than asking the client to engage*

each agency individually, which is a great cost saving and delivers a much better service.'

The survey showed that most of local authorities have laid down guidelines to specify service entitlement and service process between partner organisations. There is a positive correlation between the number of partners and the use of guidance (Table 6.3). All local authorities, which had four or more organisations involved in the adaptation process, had published guidance on partnership working. In contrast, those which had not produced cooperation guidance found that the adaptation process was normally dominated by one or two partners. A social worker commented:

'We have health community, housing, ourselves, and C&R, as a group of four partners. We use guidance to specify the responsibilities. It works fine.'

Table 6.3 Crosstabs among cooperation guidance, the number of organisations and partnership effectiveness

	Number of organisations involved in the provision of adaptations					
Cooperation guidance	One	Two	Three	Four	Five/more	Total
Yes	3	27	41	14	2	87
	3.5%	31.0%	47.1%	16.1%	2.3%	100%
No	7	12	4	0	0	23
	30.4%	52.2%	17.4%	0.0%	0.0%	100%

	Effectiveness of partnership				
	Very ineffective	Fairly ineffective	Fairly effective	Very effective	Total
Yes	5	1	41	38	85
	5.9%	1.2%	48.2%	44.7%	100%
No	0	3	16	3	22
	0.0%	13.6%	72.8%	13.6%	100%

Table 6.3 also showed that a clear guidance for cooperation had a positive impact on effective joint work. Of 85 councils who had published guidance on joint work for delivering adaptations, 44.7% of them described their partnership as “very effective”, while in the remaining 22 councils, who did not have written procedures, only 13.6% gave the same answer. A housing officer highlighted:

> *‘Clear guidance is an essential means of building effective partnership across the council and independent sectors to facilitate service delivery.’*

Once good working relationship has been established between all partners, the guidance would become less significant, as noted by a C&R manager:

> *‘It is not necessary to have these guidelines now, because we have worked together to provide this service for more than 10 years. We have timescales from the council and respond to them. That is all really, enough.’*

This highlights the importance of all partner organisations coming together and developing detailed procedures for carrying out adaptations. It would be useful for local authorities to have these procedures written down as guidance so that professionals have a clear understanding of each other’s roles and responsibilities.

6.3.3 Features of Cooperation

There have been many improvements in partnership working and 90.7% of the respondents to the survey considered their current partnership arrangement as “fairly effective” or “very effective”. Two service provider representatives, a social worker and a Care and Repair manager, commented:

> *‘Our process has been pretty fluent, I can’t think anything we can do. We work together to get fast all the time, in terms of equipment and adaptation services.’*

> *‘Our partnership works really well and several steps have already been taken to reduce waiting time, e.g. the introduction of contractor framework.’*

Likewise, partnership across different geographical areas has been strengthened, as pointed out by a housing officer in the district council:

'Our cooperation in some areas is better now. For example, we have removed level access showers from our old agency agreement with the county council resulting in processing times reducing by 2/3rd.'

These improvements indicate that local authorities have placed more emphasis on joint working to ensure an efficient and seamless service. However, there were still complaints about disconnections between partners, as complained by a HIA officer:

'We know until the cases come to us from OTs through the post. Apart from that, we don't have details or would not be told what we will receive or other procedures. So we don't know who is on the waiting list and how long the list has, we just do what tell us.'

Such complaints became more frequent when the adaptation process spread over more than one local authority. One housing officer and one grant officer reported:

'OT in the county council has to shut their cases down once it is passed to the district council. If the case has any question or changes, we have to request to reopen the case again in the county council. It takes time as it could be a different OT to deal with the case.'

'The enquiry and assessment processes are managed by the county's occupational therapy staff, the local authority has no involvement in this other than signposting.'

To address these complaints, some housing officers suggested closer working relations with OTs or to have in-house OTs in the district councils:

'We are looking to work closely with OTs to manage expectations of what can and can't be delivered.'

'The process takes for too long. It would be easier if OTs were in-house, resulting in more efficient processing, i.e. speed in doing drawings and putting on to tender, quicker start dates by contractors.'

Another housing officer specifically asked for a location-based service to end the fragmented responsibilities across multiple local authorities:

'Having one dedicated team based in one location would be beneficial to reduce waiting times and streamline the process.'

Therefore, local authorities should encourage OTs to liaise with other professionals (e.g. social workers, housing officers) and bring them together to ensure the joint planning and provision of housing adaptations. It is important to have contacts at all levels within the partner organisations. Equally importantly, central government in England should recognise the complexity and ineffectiveness of the typical service model for adaptation delivery in two tiers of local government, and bring together the county and district services into one authority to develop a consolidated service in these areas.

6.3.4 Better Information Sharing

Because of fragmented responsibilities, solutions for better information sharing between the partners were recognised as important for effective partnership (AWG, 2012; Picking and Pain, 2003). This was also commented by a housing officer:

> *'OT staffing and the rate of referrals has a big impact on demand for service, and the district council has no control over this. Would like to see better information sharing on the likely needs and a more even flow of work, rather than the current peaks and troughs.'*

A grant officer further explained that more detailed information from other departments or organisations could facilitate effective budget management:

> *'Better info sharing of potential applicants on OT waiting lists, so that we can do preliminary financial assessments before the OT reports are prepared.'*

There was also evidence that clear agreements for information sharing helped to develop effective communication and cooperation between partners. A social worker shared:

> *'Across our partners referral information is recorded and shared effectively; and there is effective communication across disciplines within the partner organisations.'*

To allow all partners to access information, a standard uniform information system should be established, as highlighted by an OT and a housing officer:

> *'Shared IT procurement of adaptation systems between OT and housing officers would help speed up the process.'*

'Better alignment of IT system enables all partners to transfer information and to monitor cases effectively.'

However, most of local authorities have incompatible systems that cannot be accessed by all partner organisations, as criticised by a C&R officer:

'No, we don't have a shared system and we suppose we should have more information. We don't have any access to the council system, we have our own system. So it just wasn't practical.'

The lack of the shared system made it difficult for service providers to track the progress of cases and to provide updates to clients. The C&R officer continued:

'Because there isn't a single shared system, we don't know how long the process takes and which stage the case is at. We can only advise to the council if we have any problems on our own.'

Therefore, it is essential for local authorities to introduce a unified IT system linking referral, allocation, assessment, funding, installation and management information. This will enable all partners to process cases very quickly and to minimise the impact of split service pathways.

Alternatively, some local authority officers suggested that an integrated authority, as a single service provider responsible for all aspects of housing adaptations, be created. A housing officer said:

'We are looking to have an integrated adaptation team to take on all responsibilities and to speed up service delivery.'

This suggestion has been proposed by previous research (e.g. Adams and Ellison 2009, Bibbings et al., 2015; Mackintosh, 2012) as a solution to the fragmented nature of service delivery. However, the survey revealed that it has not received much attention and only 15 local councils have established an integrated organisation to provide adaptation services. This pattern of service delivery is obviously simplistic, but there are substantial risks standing in the way of integration, including difficulties of aligning multiple adaptation funds and challenges in establishing a unified system (Heywood, 1994; Mackintosh and Leather, 2016). In addition, there may be many different approaches to create the integrated team. A housing officer said:

'We have an integrated service which includes DFG, Care and Repair, in house OTs, and handyperson services.'

While another housing officer pointed out:

'An integrated team is being explored. The team would comprise of home improvement agency, housing professionals and OTs.'

These risks and varieties indicate that local authorities should balance the value of providing a single consolidated adaptation service with the difficulties of setting up an integrated authority.

6.4 Summary

This chapter has presented how partnership organisations worked together to develop a local strategy for delivering adaptation services. A number of problems emerged during service planning for housing adaptations:

- Integration of adaptation grants like DFGs into a local single pooled budget like BCF has caused uncertainty about the future funding for housing adaptations, leading to a great challenge for local authorities, especially those in two-tier areas, to create both strategic and action plans for adaptation services.
- Many local authorities set their housing adaptation budgets mainly based on previous year's spending instead of proper reviews of demand, resulting in insufficient budget allocation and substantial unmet demand.
- Poor service awareness among potential clients has created substantial hidden demand and low levels of funding; local authorities who claimed to have sufficient funding actually carried out fewer adaptations than those claiming insufficient funding.
- Annual budget allocation for adaptations has decreased or remained the same in most authorities; there was a funding shortfall and a difficulty of keeping expenditure within budget limits.
- The process of housing adaptation is currently administered by different groups in different local authorities; some local authorities suffered from ineffective service due to poor cooperation between partnering organisations.

- Some local authorities have not introduced an agency service, such as HIA and C&R, to support clients throughout the adaptation process; agencies were less likely to develop and improve the adaptation system as strategic partners.

To solve these problems and strengthen strategic planning for adaptation services, the following actions are recommended:

- Further legislation or policy is needed to guarantee that a minimum amount of funds is made available from the integrated budget for providing housing adaptations. Under the two-tier system, county and district councils need to establish new working relationships for allocation and management of adaptation grants.
- Local authorities should advertise the availability of adaptation grants widely to raise public awareness, and use a quality survey and other information sources to identify the real need and then allocate the necessary resources.
- Central government should enhance the integrated fund to ensure an increase share of resources for housing adaptations, whilst local government should set aside a pot of local capital funds to meet the rising need for adaptations.
- Local authorities should monitor adaptation budgets monthly and ensure sustainable management of adaptation grants.
- Practical guidance and a unified IT system would help improve joint working and information sharing between partner organisations, particularly across different local authorities.
- There should be new legislation and policy to highlight the important role of agency services such as HIA and C&R in the delivery of housing adaptations; local authorities should introduce and involve these agencies as a strategic partner to plan and deliver adaptation services.

CHAPTER 7: ANALYSIS AND RECOMMENDATIONS ON DELIVERY PROCESS

7.1 Introduction

This chapter is concerned with the process of adaptations from referral to completion. It aims to identify common issues with the pathways of service provision and to make suggestions for further improvements. The chapter will first illustrate how local authorities respond to initial requests for adaptation services. It then moves to discuss local assessment arrangements including eligibility criteria and grant approval. Finally, the discussion will focus on the process of carrying out the necessary building works.

7.2 Referral to Allocation

In the UK, local authorities have a statutory duty to provide grants for housing adaptation that is assessed necessary to improve the accessibility of the property and help people, who have disabilities, remaining in their own homes (Sakellariou, 2015). As already discussed in Chapter 3, the application process for housing adaptation consists of several steps. It starts when a need becomes known to the welfare authority, through a process known as "referral". On receipt of a referral, a case is allocated to specific fieldworkers, mainly OTs, for assessment. OTs decide whether an assessed need matches the funding eligibility criteria; they also specify the types of adaptations required. The case is then passed to grant officers for funding approval. If the client is a tenant, it is necessary to obtain landlord permission before any adaptation can be carried out. Once plans and specifications for the adaptation work are confirmed, contractors are invited to submit quotations for the installation of the adaptation work. A contractor will be selected by the client to carry out the work; the contractor will then invoice the local authority after the completion of the adaptation work.

7.2.1 Routes to Making Referrals

Where an adaptation is required, an initial enquiry is usually made to the social services department in the local authority. There are various ways of approaching local authorities

to make requests, for example, a personal visit to an area office, a telephone call to a special telephone line, a posted letter to the manager of social services, or an email to a shared mailbox address (HAC, 2013; Keeble, 1979; Pettersson et al., 2012). A social worker said:

> *'There are lots of different ways to get referrals, somebody can phone up or send us letters, or somebody go to our one stop shop to make an enquiry.'*

Often referrals take the form of requests for adaptation services from healthcare professionals, such as GPs and social workers, as noted by a housing officer and an older client:

> *'People are often unclear who they need to approach when they require an adaptation, so the route to referral can vary – they approach their Housing provider, they visit their GP, they are referred by a health professional whilst in hospital, they are referred by hospital occupational therapist, they contact their local authority, they contact their social worker, or they ask a relative or carer.'*

> *'If I have a problem, I will first contact my doctor, they can get referrals through consultants. My doctor will speak to consultants in hospitals and they will then put me in touch with specialists in the council.'*

As referrals can come from many different sources, it is important for all access points to operate a standard approach towards initial enquiries. This can be achieved by using a standard inquiry form or a shared system that allows basic information to be collected without re-directing the applicant who applied for the adaptation service (HAC, 2013). However, the survey showed that some local authorities still did not adopt any of these standard approaches, which could adversely affect both service users and service providers. For service users, initial requests for adaptations may take longer to reach OTs or even be put aside in the event of information on applicants being collected incompletely. A social worker highlighted:

> *'We often get poor information. A worst case scenario is, a GP sees an older person and would say, Ms X is really struggling and needs an OT assessment. But we don't know how urgent the case is and we don't know in which way the person is struggling with, so she is put in the waiting list.'*

For service providers, it is virtually impossible to provide effective and consistent responses to all requests without a standard form or a shared system (Audit Scotland, 2004; Heywood, 1994). In other words, standard arrangements enable service providers to obtain necessary information to deal promptly with referrals. A social services officer commented:

> *'Any enquiries made directly to our council are usually referred to social services on the same day when a standard form provided by social services.'*

Another solution to multiple referral routes is to create a single point of access, as suggested by a housing officer:

> *'Referrals come straight to the HIA who have an in-house OT for assessment. Some referrals come to the social care team. It would be better if we have a single point of contact.'*

Therefore, there needs to be a standard approach or a single access point within the local authority to ensure that all enquiries or referrals can be processed equally and effectively. Joint training about how to collect information and to deal with requests is also needed so that staff at all enquiry points can provide an appropriate response.

Notably, there was some concern over the diversity in terms of the definition of the actual starting point for referral. Most of respondents described the referral point as being the first enquiry to the welfare authority, as noted by a housing officer:

> *'Initial referrals and assessments are undertaken by the occupational therapy service at a county level.'*

However, a few housing officers in district councils regarded referrals as receiving recommendations from OTs:

> *'In our area, referrals for grant funded adaptations are made by an occupational therapist.'*

This different view of what constitutes a referral indicates that the whole process has been split into two separated processes, the assessment process and the funding process. Within such context, it is not possible to monitor timescales from first enquiry to work completion. Therefore, central government needs to clearly define that the starting point of a referral is the first enquiry in order to ensure consistent interpretation and measurement of the adaptation process across the country.

The self-referral service allows applicants to quickly initiate the adaptation process, which has the added benefit of helping local authorities to reduce the associated administration costs (Hall and Social Work Services Inspectorate, 2001; HAC, 2013). This was also confirmed by a social worker:

'Most people waiting for adaptations are first asked to self-referral through an online system. This saves our staff lots of time and helps people to enter the service quickly.'

However, the survey revealed that there were very a few referrals made by applicants themselves in most local authority areas, as reported by a social services officer:

'We receive a small number of direct enquires by applicants; other enquiries are referred by GPs or staff from other departments.'

Table 7.1 shows that there is a significant link between self-referrals and delivery outcomes. Councils, who have received a greater number of self-referrals, tended to deliver a larger number of adaptations, compared with those who have not. 55.6% of local authorities, who received over 75% self-referrals, completed more than 150 adaptations. By contrast, of those, who did not see any self-referrals, 65.2% delivered a small number of less than 100.

Table 7.1 Relationship between self-referral services and delivery outcomes

	Self-referrals				
Number of adaptations	None (n=43)	1%-25% (n=26)	26%-50% (n=5)	51%-75% (n=9)	Over 75% (n=9)
Less than 50	23.3%	15.4%	0.0%	33.3%	0.0%
50-100	41.9%	30.8%	0.0%	44.5%	11.1%
101-150	20.9%	19.2%	0.0%	11.1%	33.3%
151-200	9.3%	3.8%	40.0%	11.1%	33.3%
Over 200	4.6%	30.8%	60.0%	0.0%	22.3%

These figures demonstrate that allowing clients to self-refer for housing adaptations can help local authorities to speed up the referral process and get maximum benefits from

their adaptation budgets. In addition, self-referrals are necessary for people to report their needs, as pointed out by an agency director:

> *'Anyone should be able to refer themselves and not just be referred by others. For example, GPs are very busy and very stressed; they get 5-10 minutes to speak to each patient. So when the person comes with a cough, they will ask whether the medicine helps, if not, they will give a new medicine. The problem is that GPs don't ask about the home conditions of the patient. There is also problem with hospitals; when people are better and leave the hospital, very often the hospital doesn't ask about their houses they will go back to.'*

Therefore, there should be formal channels that enable applicants to directly refer themselves for accessing local adaptation services.

7.2.2 Awareness of the Adaptation Service

The low level of self-referrals is evidence that public awareness of the adaptation service remains quite low in most of local authority areas. This again showed that many local authorities did not advertise the adaptation service widely because of political pressure to meet the increasing demand (discussed in Chapter 6). A housing officer and a social worker said:

> *'If we advertise the service, we have to deal with the increased work. People have to wait longer, because there are not extra expenses.'*

> *'Political pressure on meeting any increase in demand deters some local authorities to advertise adaptation services widely.'*

In addition to the lack of advertisement, poor information was considered to be another cause of the low awareness amongst potential clients, as commented by an older client:

> *'I didn't know how to get the help with adaptation until I contacted care and repair. The service information on the council's website was too simple.'*

To ensure the message about adaptation services reaches all potential clients, previous research (e.g. Audit Scotland, 2004; Barrett, 2005; Jones, 2005) has recommended a range of measures, such as leaflets, meetings, agencies, internet, and other technologies.

These measures have been adopted by some local councils, which helped increase their service awareness. This was confirmed in interviews with an OT and a C&R officer:

> *'The usual ways for advertising the adaptation service are via a website and leaflets in community places such as doctors' surgeries. Our agents are also tasked with raising the profile of the service and do a lot locally to promote it.'*

> *'In order to let more people know about our service, we gave away 800 leaflets and raised the profile of the service through talks, meetings and visits.'*

Therefore, it is important that local authorities take active measures to advertise the availability of the grants and to ensure people most in need are aware of the adaptation service. Equally importantly, all necessary information on the service should be made accessible and understandable to the general public. According to national guidance, such as *Home Adaptation for Disabled People in England* (HAC, 2013) and *Guidance on the Provision of Equipment and Adaptations in Scotland* (Scottish Government, 2009a), good publicity should include a description of the service and its process, the involvement of organisations, the local priority system and eligibility criteria, and the likely timescales to completion. For absolute clarity regarding the adaptation service and its process, local authorities should follow the guidance to publish all required information and to provide universal access to them.

Due to the complexity of the adaptation process, it is not always easy for clients to find out which stage they are in and who they can approach for help (Audit Scotland, 2004; Johansson, Borell and Lilja, 2009). To help the client, most local authorities allocated a key caseworker at the initial stage who could be contacted for any information throughout the whole process. A housing officer pointed out:

> *'We often inform the client of a key caseworker, who can help them to track the progress of their case and see the adaptation through to completion.'*

Some local councils have used agencies such as HIA and C&R to fulfil this role, as commented by a housing officer:

> *'We provided the names of three agents including HIA who could be contacted by the client to assist with the process of obtaining an adaptation.'*

The C&R officer believed that they could be in a good position to be the key contact person and to assist clients through the complicated process:

> *'If clients don't know where to go, it would be good to have a key person like us they can phone up. Everyone in our care and repair can direct them to the right place……. Older people would probably prefer to have care and repair as their key contract.'*

Older clients agreed with this and highlighted the importance of the agency in providing them support or advice at different stages of the process:

> *'I didn't know who I could contact at the beginning. After the OT told me that my case was passed to care and repair, I always phoned up them when I had problems. Also they will get in touch with me, for example, to inform me when the contractor will come out. They are very good.'*

Apparently, it is good practice for the client to have a key caseworker as a single contact point (Burgess and Morrison, 2016; Ramsay, 2010). When clients know whom they can contact and have early warning of the approaching problems, they are less likely to feel stressful or bewildered during the adaptation process. However, not all local authorities have provided their clients with details of a contact person when responding to the client's enquiries. As complained by a social services officer:

> *'Unfortunately, clients are not informed about their key caseworkers or the progress of their referrals. So some receive an OT report months later, while others receive specialist equipment.'*

Therefore, there is a need for local authorities to allocate each client a key contact person at the referral stage who has an oversight of the application process and can be approached by the client at any time. Where a HIA or C&R has been involved in the process, these agencies should be able to act as the key contact point for clients.

7.2.3 Initial Screening Mechanism

On receipt of an enquiry, an initial screening process will normally take place to prioritise the cases and allocate them to specific fieldworkers, mainly OTs, for assessment (Bibbings et al., 2015). The survey showed that most local authorities have deployed the initial screening system to classify all referrals into different priorities and to decide who (e.g. an OT, a social worker) should carry out further assessments of these referrals. An interviewed social worker said:

'Our staff and seniors on a regular basis screen the initial enquiries and then decide what priority they fit into.'

This screening mechanism enables local authorities to track urgent needs and to provide effective responses to all enquiries (Awang, 2002; HAC, 2013). The social worker continued to comment:

'After screening, each referral has its own priority, which will then decide which type of assessment the client needs and how fast they must be seen.'

An OT further added during the interview that the initial screening allowed them to focus on the more complex requests:

'A priority scoring system gives us the opportunity to deal with the most complicated situations and to visit high priority cases more quickly.'

The survey found that there was a positive correlation between the use of the initial screening mechanism and the number of completed adaptations (Table 7.2). Local authorities, who used the screening system to prioritise initial enquiries, tended to deliver a larger number of adaptations than those who did not. In fact, no councils who did not have an initial screening process were able to complete more than 150 adaptations.

Table 7.2 Relationships between the use of initial screening and the number of adaptations

	The use of initial screening mechanism	
The number of completed adaptations	Yes (n=73)	No (n=20)
Less than 50	15.1%	30.0%
51 – 100	28.8%	45.0%
101 – 150	17.8%	25.0%
151 – 200	16.4%	0.0%
Over 200	21.9%	0.0%

Clearly, routine screening can make a significant contribution towards improving the service effectiveness. It is vital for local authorities to establish an initial screening mechanism when there is a large volume of referrals that can overwhelm staff at service provider organisations. However, there should be careful consideration given to who is to be responsible for the screening process. It is usually the social worker to outline all referrals and allocate them to specific fieldworkers. There is a danger that social workers may lack the necessary skills screen the cases thereby making an inexpert diagnosis in the first instance (discussed in Chapter 3). To avoid or minimise this danger, local authorities should ensure that the initial screening is conducted by an OT or a senior staff, as highlighted by a housing officer and a social worker:

> *'We have dedicated OTs for adaptations in the private sector. They will oversee all requests in conjunction with the OT team manager and ensure that full and accurate information is obtained at the screening stage of referrals to ensure decisions on priority are fair and accurate.'*

> *'Seniors would say that it is a complicated case involving a disability or a long condition and needs an OT to do the piece of work. It is down to the senior for deciding that the person is going to need OTs or community care staff.'*

When the screening system is put into operation, it is essential for local authorities to set a waiting time for the assessment of different priority categories, in order to ensure all referrals can be processed within the targeted timescale. An OT claimed:

> *'Once the screening is done and the priority is established, we have to follow our timescales to visit and assess the client.'*

There is a positive link between the set of target waiting times and the number of completed adaptations (Table 7.3). 66.7% of local councils, who have established the target timescales for assessment, delivered more than 150 adaptations. In contrast, of those who did not specify a waiting time, only 19.7% completed the same number of adaptations. However, the earlier Table 7.3 in Chapter 5 revealed that just a small number of local authorities have set explicit target timescales for the assessment of different priority cases. As a result, non-urgent applicants in these authorities probably have to wait for even longer. To prevent this, it is necessary for local authorities to set realistic waiting time targets so that each priority case can be assessed within a reasonable timeframe.

Table 7.3 Relationship between the set of target timescales and the number of adaptations

	Is target waiting time set?	
The number of completed adaptations	Yes (n=21)	No (n=66)
Less than 50	0.0%	24.2%
51 – 100	19.0%	34.9%
101 – 150	14.3%	21.2%
151 – 200	28.6%	7.6%
Over 200	38.1%	12.1%

7.2.4 Reactive rather than Proactive

When a priority framework is used, referrals often fall into three bands of high, medium or low priority (HAC, 2013; Scottish Government, 2009b). A housing officer described:

> *'We have a robust system of prioritisation – each case is given a rating from A to D which identifies its importance/urgency.'*

The survey found that local authorities managed to carry out quicker assessment visits for high priority cases than for medium or low priority ones. Moreover, most of the high priority cases were assessed by OTs within the target timescale, while the completion rate for assessment for the medium and low priority cases were relatively low (Table 5.4 in Chapter 5). A social worker confirmed:

> *'We have different time targets for different priorities. So if the case is priority 1, the client will be seen between 24 to 48 hours; if it is priority 2, within 72 hours; if it is priority 3, must be seen in 28 days; if it is 4, then it is 12 weeks.'*

In other words, people most in need of adaptations received more attention and resources compared with others, as pointed out by a grant officer:

> *'We always provide sufficient capital funding to meet the highest priority demand, but no guarantees for other groups.'*

However, for non-urgent applicants, this means longer waiting times for assessment. A C&R officer and a housing officer commented:

> *'The high priority cases will be dealt with first; those with low points could wait for years to get their adaptations.'*

> *'There are lengthy waiting lists to be assessed by occupational therapists especially if the adaptation isn't seen as critical by the local authority.'*

Apparently, the majority of adaptation services were carried out at points of crisis; they focused more on the most urgent needs rather than prevention. This indicates that the current approach to undertake adaptations is reactive rather than proactive. A C&R officer and a housing officer complained:

> *'Based on the client's needs each case is prioritised and given a number of points 6, 7 up to 13. Most clients are 11 or 12 points. So for those with 8, 9 or 10 points, there is really no chance for them.'*

> *'Insufficient focus on outcomes and early intervention/prevention – adaptation tends to be provided too late.'*

This is most likely due to the limitation of financial resources, as highlighted by a grant officer and a social worker:

> *'The available budget is only sufficient to resource critical and substantial cases living in private sector housing.'*

> *'As other local authorities do not provide low priority adaptations and we are in the position of over spending, we will say that we are not doing adaptations for people in priority 3 any more from next year.'*

However, an earlier intervention can help low priority clients to avoid a later crisis and result in appreciable cost savings in future provisions (AWG, 2012). For example, an older people with less urgent needs may be able to remain independent at home rather than move to hospital or nursing home, if an adaptation had been delivered earlier. A social worker claimed:

> *'We provide adaptations to people in priority 3 or 4 (low level category priority). The reason we do that is prevention. We provide these people with adaptations,*

so that they can manage to get downstairs, hopefully, without falls. For a long time, this will save lots of money and improve quality of life for these people, meaning they are more likely to keep active, not get worse, and not have accidents.'

Therefore, there needs to be central government policies to encourage the adoption of a new preventative approach towards adaptation provision and to ensure long-term planning of future needs amongst local authorities. To implement these policies, it is necessary to have a substantial rise in resources, as suggested by a housing officer:

'Given the preventative agenda, increased budget resources would be welcome to enable lower priority major adaptations to be grant assisted.'

7.3 Assessment to Grant Application

7.3.1 The Structure of Assessment

According to the LGH Act (section 114) and the HGCR Act (section 24), before considering the eligibility for an adaptation grant, an assessment must be carried out to establish the extent of the client's needs and the necessity and appropriateness of the adaptation work (discussed in Chapter 2). Good assessment arrangements are fundamental to the provision of effective adaptation services, as pointed out by a social worker:

'We have different levels of assessments, for example, a single shared assessment for simple needs and a community care assessment for more complex needs, which enable the client to get the service fast and get the help quick.'

OTs have been traditionally employed to give adaptation assessments, but their professional practice was not founded on a theoretical framework (Heywood, 1994; Russell, 2016). The survey showed that there have been inconsistencies in the use of OTs. Some local councils always required them to do all assessments, while others only involved them for complicated cases and appointed ancillaries (e.g. OT assistants and social workers) to deal with the more simple requests. An interviewed OT described this picture:

'OT assessment in our council is different from other councils; they often use the OT to do all equipment and adaptation assessments, while we just need to focus on more complex work.'

Some local authorities have established a web-based mechanism for self-assessment to free up OT resources, as commented by a housing officer:

'We use self-assessment models for low level adaptations to allow greater capacity for OT staff to deal with cases in a reduced time frame.'

Self-assessment is a process in which applicants assess their own needs with or without limited professional involvement and determine their own eligibility for assistance (Tucker et al., 2011). It can serve as a substitute for, or a part of, professional assessment, as explained by a social worker:

'We have had online self-assessment for a number of years. Clients can organise their assessments by themselves. We don't need to connect the client to an OT for assessment. It is set up for prevention at the early stage and for referring people who need major adaptations and need to see OTs for assessments.'

Table 7.4 Crosstabs between only OT assessment and effectiveness of assessment arrangements

	Effectiveness of current assessment arrangements			
Only OT assessment	Very ineffective (n=3)	Fairly ineffective (n=4)	Fairly effective (n=40)	Very effective (n=31)
Yes	100.0%	75.0%	35.0%	25.8%
No	0.0%	25.0%	65.0%	74.2%

These ancillary assessments have positively impacted the effectiveness of local assessment arrangements, as reported by previous studies, such as Adams and Ellison (2009), Hall and Social Work Service Inspectorate (2001), and Jones (2005). The survey found that local authorities, who placed complete reliance on OT assessments, actually

had a less effective assessment process than those using multiple forms of assessments (Table 7.4). In other words, there was a substantial correlation between the use of multiple assessment arrangements and the effectiveness of local assessment systems. A housing officer and a social worker also confirmed:

> *'The use of OT assistants for less complex case is effective to alleviate delays in getting assessments.'*

> *'We train staff from housing, social work and NHS who can carry out assessments for simple requests, while professional assessments are undertaken by OTs for people who have more complex needs. This is effective in controlling the waiting lists.'*

Those, who have not deployed OT assistants or other assessors, expected their arrival to improve assessment capacity and streamline the assessment process, as recognised by a housing officer:

> *'Additional assessment capacity – greater use of skills in the integrated team – competency framework to encourage generic working greater emphasis on the use of assistant practitioners and care and repair officers to undertake less complex assessments, leaving OTs to assess more complex cases.'*

As the dilemma posed by a growing waiting list on the one hand and a shortage of OTs on the other is common at the local level, there should be a place for OT assistants/other assessors or self-assessment to back up the professional services of OTs by making simple assessments and delivering small adaptations. This was pointed out by Keeble (1979), a satisfactory compromise between the use of OTs and the introduction of OT assistants/trusted assessors might offer the best solution to the long waiting list for assessment. A housing officer also suggested:

> *'Recommend training other colleagues to assess for minor equipment and adaptations to reduce demand for low level work and free up capacity to allow faster assessment for high priority work.'*

However, there are certain concerns that OT assistants may lack the skills and experiences required to pick up hidden needs and to make a correct diagnosis (Audit Scotland, 2004; Bibblings et al., 2015). Therefore, additional trainings are necessary to ensure that

appointed ancillaries have the right knowledge and are competent to carry out assessments for minor works, as highlighted by a housing officer:

> *'Staff need to be appropriately trained so that they are able to identify hazards in the home and deal with simple adaptation services.'*

Given the use of multilevel assessments, local authorities have established criteria to determine whether an OT would be called upon to provide the assessment. However, the criteria varied significantly across the country, with some councils considering the applicant's needs and/or the case's complexity while others using some other criteria. This indicates that the threshold for the OT assessment can be easily adjusted by local policies. There is a danger that cases which need the professional input of OTs are allocated to OT assistants or social workers. Consequently, further guidance is needed to ensure that there are consistent and equal criteria for the allocation of OT resources and to ensure that the application of such local criteria is made by professionally qualified staff.

7.3.2 Local Eligibility Criteria

The eligibility threshold enables local authorities to deploy limited resources to those most in need and to distribute adaptation funds in a fair manner (Lett, Sackley and Littlechild, 2006). National standard eligibility criteria were published to promote consistent and equitable provision of housing adaptation across all local areas, which included health condition, living environment, community participation and care arrangement (DH, 2013; Scottish Government, 2009b). However, the survey found that many local authorities have not applied the national criteria to determine eligibility for the provision of housing adaptations. Instead, they adjusted local eligibility thresholds for a variety of reasons, for example, to not exceed their budgets, as explained by a social services officer:

> *'All local authorities have their own guidance and criteria. The budget is the big thing, the criteria depend on the budget.'*

Some local councils even tightened the eligibility criteria to limit the services they need offer, as criticised by an agency director:

'Yes, local councils didn't follow national eligibility criteria. X council is very fair and tries to help as many people as possible, but other councils have just used their new powers to save money, really, they turned off lots of grant applications.'

As the set of eligibility criteria depends on available resources and it in turn decides the actual expenditure, some local authorities were not willing to provide detailed information about each criterion. A housing officer put forward:

'Sorry I am unable to answer the eligibility questions as the OT assessment process is bespoke and local. The system works effectively though in that we only review and fund critical cases.'

Some housing officers even reported that they had no idea of their own council's eligibility criteria because assessments were carried out by OTs from the social services department:

'The occupational therapy team will have their own criteria for determining whether urgent or substantial. We don't know what these criteria comprise of.'

'A case has a high priority when the OT decide it is. It is not down to the housing authority to decide and we do not have detailed criteria.'

These comments indicate that the approach for assessment of the client's needs and identification of their eligibility remains confusing in some local areas. However, public understanding of eligible criteria is crucial to prevent local authorities from tightening their thresholds and further restrict their monopoly power in grant allocation (Heywood, 1994). The development of more transparent standards for eligibility will deliver measurable improvements in access to adaptation services at local levels (DH, 2013; Scottish Government, 2009b). Therefore, each local authority should follow the national eligibility framework to set their own eligibility criteria and ensure fairness and transparency in how decisions for the provision of adaptations are taken.

As the national eligibility framework was seen not to be adopted widely, there have been considerable variations in local eligibility criteria, as commented by a policy officer:

'Each local authority operates their own eligibility criteria and as there are XX authorities, huge variations exist in their criteria for the provision of adaptations.'

The survey showed that risks related to health, living environment and care arrangement have been widely accepted as eligibility criteria. A social worker and an OT also described:

> *'The risk assessments take into account the factors as follows: threat to life, potential for development of physical health problems, potential for breakdown of care arrangements, potential for breakdown of social networks, potential for breakdown of family life, inability to undertake personal care tasks and domestic routines.'*
>
> *'When assessing the referrals for priority ranking, we consider: hospital admission, the breakdown in health/home situation, the client's prognosis, safety or independence, and social contact.'*

These descriptions further revealed that the risk factors were defined differently in different local authorities. In principle, the local eligibility framework prioritises risks into different categories, such as four bands of critical, substantial, moderate and low (discussed in Chapter 3). Some levels of risk, such as "critical" and "substantial", will call for adaptation services as a high priority. A social worker and a housing officer said:

> *'In our council, there is a priority framework; we always meet the needs of people whose needs have fallen into categories 1 and 2. Priorities 1 and 2 supposes that people have critical needs and substantial needs.'*
>
> *'Cases are prioritised by OTs and put into the following categories: danger, deterioration and difficult, which determine whether they can be funded.'*

Table 7.5 shows statistic results in relation to varying definitions of risk factors for high priority cases, including health condition, living environment, community participation and care arrangement. In terms of health condition, it was common practice that local authorities considered two elements: whether the client is able to manage toilet needs (90.4%) and/or maintain personal hygiene (86.5%). Some authorities also checked whether the person can manage nutrition (40.4%) and/or get dressed independently (32.7%) and/or other information (e.g. terminal illness, age, threat to safety, discharge from hospital).

With reference to the living environment, local authorities focus first on whether the client has extensively or completely lost choice and control over vital aspects of living

environment (86.0%). Meanwhile in some councils, consideration is also given to whether domestic routines can be carried out (51.2%) and/or a habitable home environment can be maintained (37.2%). When deciding what information is collected to assess risks relating to participation in community life, 83.9% of local authorities take into account whether the client is isolated from the society individually (25.8%) or together with other elements (58.1%), including the ability of undertaking family or social roles, participating in work or education, or using public services and facilities.

Table 7.5 Statistical analysis of factors in relation to eligibility criteria

Factors	Frequency (n)	(%)
Health conditions (multiple responses)		
Unable to manage nutrition	21	40.4%
Unable to maintain personal hygiene	45	86.5%
Unable to get dressed independently	17	32.7%
Unable to manage toilet needs	47	90.4%
Other (e.g. medical needs, terminal illness)	8	15.4%
Responses to the above factors		
Only one factor	5	9.6%
Combination of two factors	24	46.2%
Combination of three factors	10	19.2%
Combination of four factors	10	19.2%
Five of them	3	5.8%
Living environment (multiple responses)		
Unable to carry out domestic routines	22	51.2%
Little or no control over aspects of living environment	37	86.0%
Unable to maintain a habitable home environment	16	37.2%
Other (e.g. access to bedroom, mobility)	2	4.7%
Responses to the above factors		
Only one factor	20	46.5%
Combination of two factors	12	27.9%
Combination of three factors	11	25.6%
Combination of four factors	0	0.0%
Community participation		

Unable to participate in work or education	15	48.4%
Unable to undertake family or social roles	17	54.8%
Unable to use public services and facilities	11	35.5%
Social isolation	26	83.9%
Other (e.g. breakdown of family life/social networks)	1	3.2%
Responses to the above factors		
Only one factor	15	38.7%
Combination of two factors	6	19.4%
Combination of three factors	6	19.4%
Combination of four factors	4	22.6%
Five of them	0	0.0%
Care arrangement (multiple responses)		
Absence of carer	27	67.5%
Care relationship breakdown or cannot be sustained	34	85.0%
Carer is unable to manage most aspects of caring	35	87.5%
Other (e.g. dependency, respect)	1	2.5%
Responses to the above factors		
Only one factor	7	17.5%
Combination of two factors	9	22.5%
Combination of three factors	24	60.0%
Combination of four factors	0	0.0%

In assessing risks associated with the client's caring, there was a broad consensus among local councils regarding to a breakdown of care arrangement: carer is unable to manage most aspects of their responsibilities (87.5%) and/or care relationship is unable to be sustained (85.0%). Some local authorities further focus on the person needing care and the absence of a carer (67.5%). To sum up, local authorities used a mix of different elements under each criterion to decide the eligibility for adaptations, but the composition of the mix varied, leading to a number of approaches and solutions prescribed at local levels.

As local eligibility criteria included a range of risk factors, there was inevitably a judgement of applying these eligible factors to decide priority for funding (HAC, 2013). The survey found that local authorities applied different principles to operate these factors in determining which of the person's needs were of a level that should be met by them.

There were two contrasting ways: some local authorities considered an application as a high priority case where an adaptation must be provided when any of risk factors within the eligibility framework is identified as high priority, while a few did so only when all or the majority of the factors were rated high priority. Many local councils made a balanced judgement of priorities of all factors. Clearly, local authorities set their threshold for funding housing adaptations at different levels, with some local councils setting relatively rigid criteria while others having a loose set. This means that what was eligible for an adaptation grant in one area might be not eligible elsewhere and there was potential inequality or "postcode lottery" in the provision of adaptations. A policy officer highlighted:

> *'There are no standardised assessments for adaptations in the country, so an adaptation can be processed differently depending on areas.'*

For equal access to adaptation services, there needs to be a consistent understanding on eligible needs across the country. To achieve this, it is important that central government introduce a national approach for carrying out adaptations with a minimum eligibility threshold applying to all local areas. Equally importantly, local government should set out their local eligibility criteria in accordance with the definitions and standards provided in national guidance, and review the consistency of their eligibility decisions.

7.3.3 Bottlenecks in the Assessment Systems

Due to complexity in assessment arrangements and eligibility criteria, it is easy for applicants to get lost in the assessment process (Audit Scotland, 2004; Pettersson, Löfqvist and Malmgren Fänge, 2012). To prevent this, the vast majority of local authorities provided clients with comprehensive information and kept them regularly informed on the progress of their assessment. An interviewed older client said:

> *'I don't need to get in touch with them, they will let me know what happen next and when the OT will visit.'*

This enables clients to be in control of their application process, moving towards a truly client-centred approach to adaptation provision, as highlighted by an agency director:

> *'As older people don't know about all the policies and things hidden behind the scenes, the only way to put them at the centre is to inform the progress made and get the work done quickly.'*

However, some local authorities still did not update the client on the progress of assessment. As a result, some clients got lost in the process, as described by a C&R officer:

> *'We got a client at this moment; she became lost and hasn't received any response after being visited by the social worker for the first time.'*

Therefore, better guidance is needed for all local authorities to ensure that clients have a full understanding of the assessment process and are kept informed of the progress and outcome.

The survey showed that local authorities had high levels of satisfaction with the effectiveness of their assessment system. An OT commented:

> *'Our system works well. We have OT assistants to do non-complicated cases and OTs to do more complicated cases. The process moves quickly.'*

However, there were still complaints of delays in the process of assessment:

> *'There are longer delays in waiting for OT assessments, and increased waiting times affect effectiveness.' (a housing officer)*

> *'We often experience delays and waiting lists for OT assessments, which can cause bottlenecks in the process.' (a housing office)*

This is mainly caused by the shortage of OT resources, as explained by a policy officer:

> *'There are huge variations in the number of occupational therapists per population in each area. The waiting lists for assessment vary considerably.'*

To prevent it, some local authorities do expect to have additional OTs, as put forward by a housing officer:

> *'The main issue with adaptations in our area is the time it takes for social services to provide an OT report. If we had more OTs, it would speed up the process considerably and we could then extend help to more people.'*

In addition, ineffective joint work between partner organisations was reported as a potential hazard to the successful assessment process. An OT pointed out:

> *'Sometimes we didn't get enough information from social workers. Delays generally occur during peaks in the number of referrals.'*

The survey also found that there was significant correlation between the effectiveness of partnership and the effectiveness of assessment. Figure 7.1 displays that "very effective" and "fairly effective" joint work clustered with "very effective" and "fairly effective" assessment arrangement, while "very ineffective" and "fairly ineffective" joint work was associated with "very ineffective" and "fairly ineffective" assessment arrangement. These associations between categories represented that local councils, who claimed to have an effective joint work between partners, tended to have a more effective assessment system than those who claiming to have an ineffective joint work. In other words, good cooperation between all partners is essential to ensure a seamless system of providing assessment. This suggests that local authorities should review the current partnership system and address its bottlenecks to achieve better collaboration and a more efficient process.

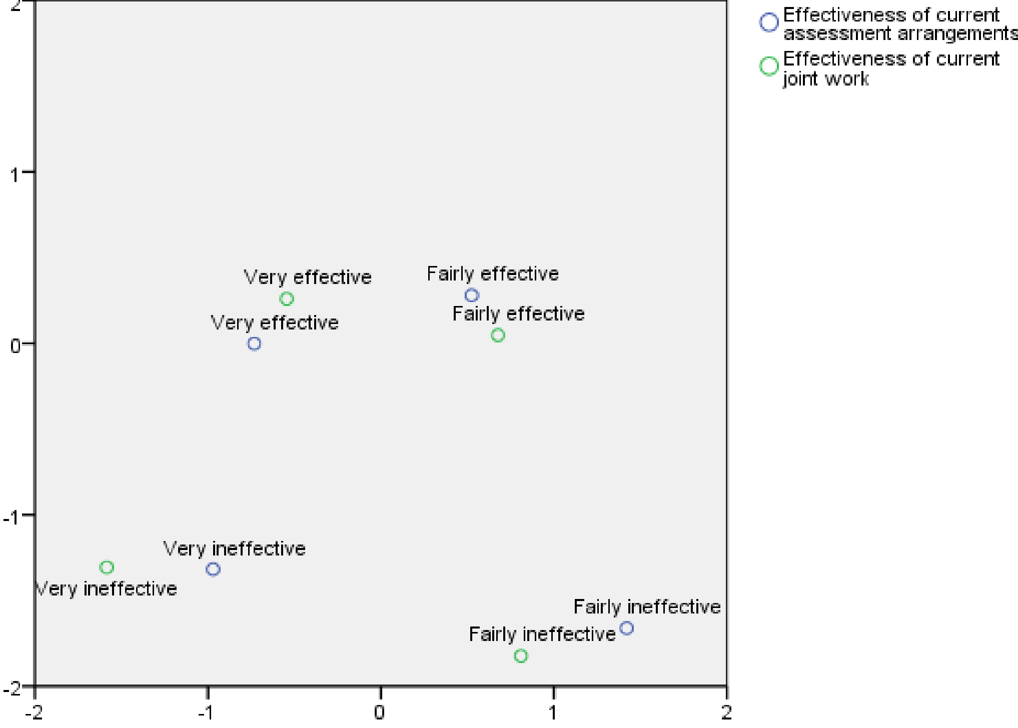


Figure 7.1 Correspondence analysis of partnership effectiveness and assessment effectiveness

Another concern of service providers was that the assessment focused on the client's current needs instead of anticipated changes. A C&R officer reported:

> *'Assessments are not sensible. If the client needs a shower, the OT will tell to try a bath chair first. So the client tries it for a few months and when the client can no longer use it, he does need an adaptation which will trigger the process again.'*

This is likely due to financial considerations and pressures, as confirmed by an OT:

> *'So we try providing equipment first. Only if the client can't manage that, we will then move on to adaptations because adaptations are a lot more expensive.'*

However, many older people have health conditions with a progressive deterioration; it would be less cost-effective to build several smaller adaptations that work for only a few months than a well-planned adaptation that lasts a number of years (DuBroc and Pickens, 2015). A C&R manager commented:

> *'I think all the clients who have been given bath aids will be irritated because their health has further deteriorated and they can't use them anymore. They will start to come through and the number of referrals will come up again.'*

Therefore, further guidance is needed to ensure that OTs take a proactive approach to the provision of adaptations and involve service users in the assessment process to build greater longevity into what is delivered.

7.3.4 Procedures for Financial Authorisation

When the recommendation as to whether the adaptation is necessary and appropriate is made by OTs from the social services department, the housing authority then decides as to whether the recommended adaptation is reasonable and practicable (Mandelstam, 2016). In other words, the final decision on the provision of adaptations depends completely on the housing authority. However, local housing departments often failed to recognise their legal responsibility:

> *'Priority is created at the earlier assessment stage, and funding is awarded in accordance with the date of submission.' (a housing officer)*

'All cases referred to us are funded and dealt with immediately. It is social services who applies a priority rating.' (a grant officer)

Such failure indicates that the role of the housing sector in delivery of adaptation services is relatively opaque and less important. When the housing authority does not fulfil its responsibility, it is actually the social services department who decides upon the provision and allocation of grants for adaptations. As the budget is managed and monitored by the housing department, there might be an exhaustion of housing adaptation grants at the early stage. To remain an effective partnership service, formal arrangements are needed to raise the profile of the housing authority and to ensure they have strategic responsibility and leadership for housing adaptations.

As mandatory adaptation grants like DFGs are contributory, there has to be a means test for all applications, except for those from children or young people. This test represents a national system, which calculates the applicants' entitlement to housing benefit based on income and savings of both themselves and their partner (HAC, 2013). To pass this means test, the applicant needs to provide a range of documents, such as bank statements, pension books and proof of other benefits (DCLG, 2011). Collating and preparing these documents can put great strain on older people and be time-consuming, as pointed out by a C&R officer:

'When we tell older clients that we need this, this, this documents, in most cases, they are scared and don't know what they are going to get. So the process would be a lot slower.'

Therefore, it is important for local authorities to help applicants to gather all the necessary documentation. Also, better guidance is needed to keep paperwork to a minimum so that the grant application can be processed quickly.

In addition, there were repeated criticisms of the existing means test being outdated and problematic:

'The means test has not been revised for a significant time and is now obsolete.' (a grant officer)

The means test is very out of date and could do with an overhaul.' (a housing officer)

This has resulted in the reduction in adaptation cases approved and completed, as commented by some housing officers:

> *'There appears to be a slight drop in successful applications primarily due to the impact of means testing. There has been no increase in the personal allowance.'*

> *'We have seen a huge fall in referrals for which we are advised is due to occupiers being means tested out of the system.'*

There is a certain danger that those, who did not get the essential adaptation, might have received other inappropriate or costly help instead. A housing officer raised this issue:

> *'The concern is what is happening to those unsuccessful applicants – Are they proceeding with cheaper, potentially inappropriate adaptations? Or continuing with more expensive care packages?'*

Therefore, there is a need for central government to review the current means test system and consider ways of updating the system to allow greater eligibility and flexibility, as suggested by a housing officer:

> *'There are less people eligible for DFGs due to council tax rebates not being a passporting benefit. There needs to be changes to means testing to make more people eligible.'*

As a result of means testing, some applicants may be required to make a contribution to all or part of the cost of adaptation works, as commented by a housing officer:

> *'Government prescribed means test has not been updated since around 2009. This means that more people are being assessed as having to make a financial contribution.'*

This can cause much hardship to applicants, as they have to find additional financial support when they cannot afford to make the contribution. A grant officer said:

> *'If there is the contribution the applicants cannot afford, they have to find ways of raising the funding through other sources.'*

In such circumstances, the adaptation process is put on hold, leading to considerable unnecessary delays. A housing officer highlighted:

'Delays can often occur when clients are required to find the necessary resources towards a funding contribution or share of the costs.'

Therefore, further legislation is needed so that local authorities are under a duty to make specific arrangements to help applicants with their contribution towards the cost of adaptation work after means testing.

Since 2005, the means test has no longer applied where an application for grant is made by families with a child or a young person. In other words, parents' income and savings are not taken into account in assessing the financial eligibility of children. Abolishing means testing for disabled children or young people can remove the disincentive for parents to work and enable children to benefit from adaptations without delay (Cavet, 2009; Heywood et al., 2005). However, this abolition has caused inequity and detriment to other vulnerable groups in need of adaptations. Often adaptations that disabled children require, to cope with their special needs, are relatively expensive, as argued by a housing officer:

'There is the problem with child DFGs as these are not means tested and are generally very expensive.'

To address it, some housing officers suggested to re-introduce means testing for children or, as an alternative, to lower the maximum grant for children's adaptations:

'Adaptations for children should be means tested on the basis of their parents' incomes.'

'I also personally feel that there should be a lower grant maximum amount for non-means tested children's applications as last year we spent 40% of the budget on 17% of the cases. Sometimes, families have access to large compensation pay outs which could be used to fund adaptations.'

These suggestions inform that the means test should be removed up to a certain threshold for all applicants across the country in order to achieve consistent and equal outcomes. Meanwhile, there needs to be a careful consideration of this level to avoid the build-up of longer waiting lists and greater pressure on public finances.

In addition to the means test, the amount that the applicant can receive is subject to the statutory maximum grant – up to £30,000 in England and £36,000 in Wales (discussed in Chapter 3). There is no upper limit in Scotland, but local authorities will establish the

reasonableness of the proposed cost. When the cost of the adaptation work is in excess of the mandatory maximum, the applicant has to pay for the extra or find additional funding. This was described by some grant officers as a barrier that can prevent clients from getting their adaptations within a reasonable time span:

> *'Delays have often been outside our control – e.g. delays in obtaining landlord permission, length of time to secure additional funding where the total cost exceeds the 30,000 pound maximum.'*
>
> *'So the time taken to find the top-up funding needs a couple of months. This will delay the process.'*

Often clients struggle to secure the extra money. Without any help, they might lose the opportunity to get adaptations, as explained by a C&R officer:

> *'If that is the case that the clients only get 80% of the cost, we have to try to raise the money through other ways. Because the clients have a low income, they probably would not have access.'*

Therefore, local authorities should have clear policies in place to fully support applicants to top up costs that exceed the maximum grant threshold. In fact, local social services departments have general duties under the CSDP Act to fund housing adaptations. Compared with housing grants, social services grants can be regarded as a backstop for assistance with adaptations (Mandelstam, 2016). This means that under some circumstances applicants, who are required to make a certain contribution to the cost of adaptation works, may be qualified for financial assistant under the social care legislation. However, there was little evidence that social services carried out its duty to provide top-up funding. There should be new legislation to clarify the role of social services in helping with any cost over the grant's upper limit. Other assistances, such as discretionary grants or loans, are also needed to supplement the statutory grant and to speed up the process of providing housing adaptations for these more expensive adaptations.

When a grant application is made by a tenant, there is a need to obtain the consent of the landlord. No any work can be carried out on the property until the local authority receives the written permission from the landlord (Clayton and Silke, 2010; Hurstfield, Parashar and Schofield, 2007). The process can be held up when seeking proof of landlord consent, as pointed out by a housing officer:

'Delays mainly result from obtaining landlord permission for private rented tenants and social tenants.'

Even worse, some landlords were unwilling to give their permission for home adaptations and as a result the tenant had to move out, as reported by a C&R and a housing officer:

'We have had some occasions, where the landlord would not allow the adaptation to go ahead, so the tenant had to find another place. That's a shame.'

'Sometimes the landlord would rather ask an elderly person to move than adapt a family home for him.'

To prevent this, as suggested by HAC (2013) and Heywood (1994), a good practice is to have an informal or formal discussion with the landlord as early as possible and provide an offer to restore the property to its original condition or sell the property to the council when the tenant moves elsewhere or dies. However, this practice has not been shared widely, as noted by a C&R manager:

'There should be the option and some money to put the home back when a tenant no longer requires the adaptation, but I have never heard of it. This doesn't happen in our council, and most of councils won't put money in this area.'

Therefore, further policies are needed to ensure that local authorities have specific ways of securing the landlord's permission and budget provision to restore the property if request.

The current legislation specifies that the housing authority has to notify applicants whether their grant applications are approved or refused within six months after receiving valid applications (discussed in Chapter 2). A housing officer confirmed this requirement:

'Mandatory grants have to be approved in 6 months after the date when the application is made.'

Some local authorities have reported that they usually gave a decision much faster than the statutory timescale (London Borough of Havering, 2012; Salford City Council, 2008). However, in some local areas, the approval decisions have been deferred to a later date because of resource problems and heavy caseloads, as highlighted by a housing officer:

'If there are any issues with the availability of funding and staff, we will delay our approvals for up to 6 months.'

This could inflict hardship and suffering on applicants, especially those whose needs are urgent, such as a discharge from hospital (HAC, 2013). Therefore, further measures including regulations and procedures are needed to ensure that local authorities issue a decision on an application as soon as reasonably practicable. There is also a need to specify the circumstances where decisions can be given no later than six months.

7.4 Grant Approval to Installation

7.4.1 Specification of the Adaptation Work

Where an assessment has been carried out, the client's needs must be translated into the specifications of an adaptation work. It is usually the result of cooperation between professionals, such as the OT, the architect and the grant officer (Morgan, Boniface and Reagon, 2016). A housing officer and a C&R manager said:

> *'Where we have a direct involvement, we arrange to meet the OT and the contractor on site to discuss the specification of the installation.'*

> *'The OT, the technical officer and the grant officer will visit the site together to decide the specifications of the adaptation.'*

The specification is finalised as a schedule of works, which covers all necessary elements of the building work and will be used on site as a checklist. As the schedule of works includes many technical drawings and language, it is important to help clients and their families interpret these specifications and to understand what works are going to be carried out in their homes (HAC,2013; Nord et al., 2009)). The survey showed that this has received widespread acceptance and the final specification of an adaptation was normally confirmed to the client in most local authorities. A social worker also pointed out:

> *'Yes, we have been doing that for a while. The disability information officer and the technical officer will go out and explain what happen with the process and what the client needs to do.'*

When the agencies such as HIA and C&R participated in partnership work to deliver adaptation services, they normally took on this responsibility:

'We will explain to the clients about the adaptation work, take them to the bath room to let them know this is going to happen, this is going to be done here, there, and etc., and ask them how does this sound.' (a C&R officer)

This is essential for the installation process to move forward quickly, as highlighted by a housing officer and an older client:

'When we describe the adaptation and show the picture, the client will say that is alright, that is fine. This encourages the client to move quickly.'

'They explained everything to me; they showed me a photograph of the shower they have done before. So I knew about the shower seat, the grab rail on the wall, the tiles, and was ready for the installation.'

Therefore, local authorities should involve the clients in specifying the adaptation work and ensure they have a real understanding of what will be done.

As suggested by Heywood et al. (2005) and HAC (2013), there is usually a high demand for some adaptations such as stair lifts and level access showers; standard specifications for their installation should be used wherever possible to save time and costs. Some local authorities have developed these standard specifications for certain types of adaptations, as pointed out by a housing officer and a grant officer:

'Council has adopted a "framework" (schedule of rates) for bathroom adapts and stair lift, which helps save time and administration.'

'Standardised specifications offer parity across the geographical area. These exercises for access equipment and bathroom adaptations (90% of total work) reduce the average cost of adaptation thus allowing more adaptations to be completed for the budget allocated.'

However, this practice has not been widely adopted. Further policies are needed to encourage local authorities to develop standard specifications and schedules of rates as the ways to save more time and secure faster services. As personal needs and property characteristics are varying, care should be taken to ensure that the use of standard specifications is tailored to the job.

7.4.2 Planning and Building Control

In some cases, such as an extension and a structural alteration, clients have to apply for planning permission or building control approval, otherwise the construction work on site cannot be started (Clayton and Silke, 2010). An OT described:

> *'In our council, only showers have a direct process, other major adaptations would require having planning permission or a building warrant.'*

These additional procedural requirements are more time-consuming and expensive, as commented by some housing officers:

> *'Not all referrals can be dealt with in the same way – a stair lift is much quicker to install than an adaptation requiring planning consent and Building Regulation approval.'*

Unsurprisingly, delays were often found at this stage, as complained by a housing officer and a C&R manager:

> *'Delays mainly resulted from obtaining landlord permission for private rented tenants and social tenants.'*

> *'These legal requirements need to follow, I can understand that. It is just annoying that they add a number of weeks to the process.'*

As a result, some elderly patients had to stay in hospitals instead of getting back to their own homes. A HIA officer put forward:

> *'The client is in hospital and he wants to go home, but couldn't, because there are lots to be done for his adaptation. We had even phone calls from the hospital to ask when the adaptation was going to be done. I am sorry we have to carry out these legal procedures, that is two or three months.'*

This delayed hospital discharges and could result in a huge waste of scarce public resources, as commented by a C&R officer:

> *'When a client stays in hospital, it costs around £4,000 a week. If the client needs a shower adaptation and we can get it done in two working weeks, the adaptation will cost roughly £3,500 and the hospital stay will cost £8,000. But if we follow*

the required process, it could be 6, 8, 10, 12 weeks. If we say 10 weeks, that is £40,000, minimum.'

In addition, as they are legal requirements and must be adhered to, they placed a particular restriction to what can be achieved. A housing officer reported:

'There is a reluctance to move away from the legal framework of the mandatory grant. The attendant bureaucracy adds delays. Attempts to develop "fast track" schemes fail due to fears that non-mandatory grant scheme will fail to get funding via CLG.'

Therefore, there is a need for central government to review the legal framework governing the provision of grants and empower local authorities to be more flexible in carrying out housing adaptations. For example, service providers are allowed to carry out adaptations first for urgent cases and then backtrack to complete in retrospect all the paperwork, as suggested by a C&R manager:

'The hospital will discharge the client when we get the adaptation done. If we can get the adaptation done and then follow up with the paperwork, the client can get out of hospital more quickly. Not for every single one, only for the high priority cases, the big ones.'

As older adults always feel confused about the complex legal arrangements, many local authorities have developed procedures to help them:

'Where a Building Warrant is required, the applicant would be expected to engage professional help to obtain the warrant and subsequent certificate of completion.' (a housing manager)

'The architect is responsible for helping clients to make applications and ensuring that all of the appropriate permissions are in place.' (an OT)

Some local authorities even operated a comprehensive agency service which undertook all the works in their entirety for clients, as explained by an agency officer and a housing officer:

'Once the cases come to us, we will gather all the paperwork required from clients, such as the landlord's letter, planning permission, build regulations approvals and going out to tender.'

'All adaptation customers in our council receive a full agency service that includes obtaining landlord consent, getting building regulation approvals and selecting trusted contractors.'

Such assistance can help reduce waiting times to get adaptations completed, as commented by a social worker:

'We have disability information officers, who will phone up the client to ask where you are, how you get on these legal procedures and how you find the thing. By doing this, we shorten the time of 3 months for the client getting the grant.'

It can also help clients minimise unnecessary burdens created by bureaucracy and paperwork, as highlighted by an older adult:

'C&R prepared everything for me, I don't need to worry about applying for approvals or getting quotes. If I find any difficulties, they will give me advice.'

This has shown once again that local authorities should work closely with other agencies like HIA and C&R to reduce the burden and bureaucracy that impacts the delivery of housing adaptations. There should be policies and professionals in place to guide the client throughout the administrative process.

7.4.3 Quotations from Contractors

Once all activities have been negotiated and reflected in the final schedule of works, the client will need to start seeking quotations from builders or contractors on a competitive basis (Bibbings et al., 2015; Davies et al., 2012). A social worker said:

'When the grant has been approved, then the client needs to go and find the suitable contractor to get the work done.'

However, clients were frequently found to have the difficulty in finding skilled and experienced contractors (e.g. AWG, 2012; Clayton and Silke, 2010; Sakellariou, 2015). To address this, the survey showed that many local authorities have established an approved list of contractors for the client to choose from. This list is often kept by the agencies like HIA and C&R when they are involved in delivering an adaptation grant. A C&R officer and a housing officer described:

'We have a list of trusted contractors and have built good relationships with them over ten years.'

'Our HIA has a list of contractors and we direct applicants to the HIA service.'

To be a member of the list, the contractor should meet a set of criteria, such as previous work done, financial standing and criminal records. The C&R officer carried on:

'They are trusted traders. If they come onto our list, they will have a couple of references from people who they have done the work for and have financial and criminal record checks.'

The use of the approved list of contractors helped the client get the requisite number of quotes in a timely and efficient manner, as reported by a housing officer and an older client:

'Contractors on the list are trusted contractors, which helps to obtain tenders and minimise problems.'

'C&R suggested the names of a few contractors on their list and got quotes from them. They provided me with the three least expensive ones because of my funding, then I picked.'

More importantly, these accredited contractors are able to complete the work to a high standard and deliver a positive customer service. An agency officer said:

'Over the years, contractors know our adaptations process and what we expect. They are used to the clients and understand how to act. For example, the older client needs the bathroom and tell the contractor, the contractor will go out for a cup of tea or have a smoke. So this is why they know how to do the job properly and to keep the client happy.'

As a result, there were few complaints about contractors; clients were satisfied with the building work. The agency officer continued commenting:

'That is one of the reasons we don't receive lots of complaints, just very rare. Every adaptation met our expectations and most of clients were happy with the contractor's work.'

This was also confirmed by an interviewed older client:

'They are very good. They will tell me when they are going to arrive. Say they will come tomorrow between 9am and 4pm, but what they will do is that they will phone me up before arrives to see whether I am at home. They did that every time.'

However, there were still some local councils who have not yet compiled this list, which slowed down the installation process:

'One of the main delays in the system is the lack of availability of builders to undertake the work.' (a housing officer)

'Delays mainly result from the limited availability of contractors and the timely delivery would be around contractors doing the works.' (a housing officer)

These councils expected to have more suitable contractors in place to minimise waiting times for installation, as put forward by a grant officer and a housing officer:

'To minimise waiting times for adaptation, we need more technical staff to assist clients with their enquiries and more suitable building contractors.'

'The DFG process is very prescriptive. It could be speeded up, if this was altered, or if we had the funding to recruit more staff, or if there were more contractors with relevant experience in this area.'

There are two main reasons for not introducing a panel of contractors. First, there might be a potential liability, as these contractors are recommended by local authorities. Clients might normally assume that local authorities would guarantee the quality of the adaptation work and be liable for any damages (Bibbings et al., 2015). This was pointed out by a social worker:

'The council does not provide a list of approved contractors for legal reasons, e.g. liability, being involved in contract.'

In addition, it may create the misunderstanding that local authorities promote certain contractors' business by instructing them for publicly funded work. Consequently, the survey revealed that the majority of local authorities, although they maintained a list of approved contractors, did not advertise it broadly and only provided it when the client requested. A social worker explained:

'We do have a list of contractors but are not allowed to make recommendations. We have to be very strict about how we suggest. When the client asks, we will recommend some contractors, but not the same companies all the time.'

Furthermore, in order to demonstrate fairness and equality in the operation of the approved list, many local authorities establish a rotation system that recommends contractors to clients. The social worker went on:

'When somebody says, I need to have a ramp and who I can find to build it. All we can do is to take the top three contractors from our list and say, that these three companies have built ramps for other people who also had grants and if you want to try them. Next time somebody asks, we have to pick the next three.'

These rotational arrangements help save time by not having to locate qualified contractors, but there is a need to ensure that the capacity of the list is sufficient to deliver the volume of work (HAC, 2013). When local authorities did not maintain a list or advertise it widely, clients may have to spend more time in obtaining tenders from contractors, as highlighted by a housing officer:

'The process takes longer when clients don't know who they can contact to get quotations for the work.'

Therefore, there is a need for local authorities to establish a list of approved contactors and give it wide publicity. Detailed guidelines are also needed to keep a regular review of the list and to publish the criteria for the inclusion of new builders onto the list. It is necessary that local authorities have certain policies in place to ensure consistency and equality of opportunity for all contractors on the list.

7.4.4 Review of Approved Grants

When all price quotes are received, the client needs to decide which contractor will carry on their adaptation work (HAC, 2013). A grant officer said:

'Quotations received are discussed with the applicant, who will then choose whom they wish to use.'

In some areas, local authorities helped clients to choose their contractors, as explained by some housing officers:

'All adaptation customers referred to us receive an agency service that includes the selection of approved contractors in the tendering process.'

'We allocate the most suitable contractor for the client.'

This has taken certain pressure off the client and smoothed the installation process, as highlighted by an older person:

'Care and repair got quotes from a couple of contractors and gave me the two lowest quotations to pick up…. The contractor was very good and completed the work quickly.'

However, some clients turned down such help and appointed their own contractor for carrying out the work, as pointed out by a housing officer:

'Although we advise to use contractors on our approved list, some clients would like to use their own contractor.'

However, it normally took more time for the client to secure their own competent builder and to organise the adaptation work, as reported by a housing officer:

'There can be a time delay between assessments and the work being carried out due to the selection and appointment of contractors to carry out work which owners are involved in.'

In addition, there might be unnecessary delays in the event that the client's chosen contractor lacks relevant skills and experience to undertake the adaptation work. A housing officer put forward:

'When applicants arrange their own works, we have, on occasion, concerns about the quality of the work of their contractors. They tend to take longer than us to organise from start to finish.'

Therefore, it is important that the local authority offers some advice about the choice of contractor when the client decides to organise the work themselves. Equally importantly, if the client's preferred contractor is not on the local authority's list, the contractor should go through a checking procedure. The criteria used by the local authority for admission to their approved list could be a basis for such a check.

Often the contractor is selected based on competitive prices, as the level of grant funding is generally dependent upon the lowest quotes received:

> *'Grant will be based on the lowest quotation, so the client usually chooses the least expensive tender.'*

However, because of competition, it might turn out that there is little price difference between the tenders. An agency director described:

> *'The client will get a few quotes to choose, but what you may find is that sometimes there isn't much difference between the prices. The contractors know, they couldn't charge too much, otherwise they won't get the work.'*

Sometimes clients would rather top up grant payments from their own pockets so that they can appoint contractors who they really like, as commented by a C&R officer:

> *'Sometimes if the clients like the contractor to come and see them, they will pick the contractor no matter what price. We have had that a few times. We asked why you picked the contractor that costs £400 extra. The client said that I like him and he came down to have a cup of tea…. The grant would not pay for that, but the client is willing to pay for the extra. They don't mind sometimes.'*

This indicates that customer care is fundamental to all adaptations. There needs to be more focus on significant support for clients when they have major building works carried out at home.

When the contractor has been formally appointed, the installing work can go ahead (Keeble, 1979; Zhou, Oyegoke and Sun, 2017). However, it was frequently found that clients put the installation process on hold by deciding not to start the building work immediately. A social worker pointed out:

> *'You will be surprised by a number of people who just take for ever to get the ramp or shower done. You would think that they will do it straight away, but they don't. Why? No idea.'*

Even worse, after holding the process for a long period of time, some clients might decide not to go ahead with their adaptation application, as highlighted by a C&R officer:

> *'The clients have the choice, they can turn around and say I don't want it, even the grant is approved and everything is ready.'*

According to the HGCR Act (discussed in Chapter 2), once the grants are approved, adaptation works should be carried out within twelve months from the date of grant approval, as explained by a housing officer and a grant officer:

> *'When somebody has been offered the grant, by law, they have up to one year to spend that and don't have to start the works straight away.'*

> *'The legislation specifies that at least 12 months must be allowed for works to be carried out.'*

However, the local housing authority can extend the period if there are unforeseen circumstances. In other words, the timing of the installation work is decided by the client within twelve months; the local authority has the discretion to allow more time. The survey found that there were two opposite ways at the local level to deal with the approved grants which have not been spent within the given time – withdraw or carry forward. Most local authorities set a deadline of either a period of time or the financial year within which the grant should be spent and otherwise it would be withdrawn without reasonable causes:

> *'We will inform the applicant to spend the grant within the financial year, otherwise the grant may be withdrawn. Depending on the circumstances we will carry the grant forward into the next financial year (a housing officer).'*

> *'DFGs are valid for 12 months following approval. Cases that exceed this period are reviewed on a case by case basis and will only be extended if there are reasonable causes.' (a housing officer)*

On the other hand, some local authorities allowed the grant to be carried forward to the following financial year if was not spent within the current financial year. It all depended on the applicant:

> *'Most grants are completed within the 12-month approval window and if not, we would extend the grant approval time limit by agreement with the client.' (a housing officer)*

> *'Applicants have an initial 12 months to use their grant award. If it is not spent within that period, the council will discuss options with the client to extend the time period and to assist them in taking the project forward.' (a housing officer)*

Indeed, although there was a time limit for carrying out the building work, local authorities have not always complied with it and used different ways to adjust or extend it. This reflects that local authorities have great flexibility to deal with unspent funds and to manage installation processes. However, if cases are extended for a significantly long time, their grants will be left in abeyance. To prevent this, better guidance is needed to specify unforeseen circumstances and provide detailed procedures for reviewing unspent grants. Local authorities should abide by the legal obligations to make reasonable judgements of extending the statutory deadline for undertaking the installation of adaptations.

In addition, there were various interpretations for the stipulation of carrying out the adaptation work within twelve months between local authorities. Some local authorities believed that the installation work should be started within the given time:

> *'Applicants have 12 months from the date of approval to start the works. They are reminded again 3 months before this period of time elapses.' (a housing officer)*

> *'The applicant legally has 12 months from date of approval to do the work. If the work has not started, we will cancel the grant. If the work is underway or if there are good reasons why the work is delayed, we will give an extension of time.' (a housing officer)*

While other local councils required adaptations to be completed within the specific timescale:

> *'They have 12 months to complete the works, we will advise the applicant and will extend if necessary.' (a housing officer)*

> *'There are concerns about works being completed within 12 months of approval.' (a housing officer)*

This divergence reflects inconsistent practices of carrying out adaptations among local authorities, which resulted in inequality of both access to and outcomes from the service provision. Therefore, further legislation is needed to provide a more detailed explanation about section 37 of the HGCR Act (e.g. the installation work should be started within twelve months) and to ensure a consistent and fair implementation of the legislation across all local authorities.

On the whole, the installation process includes a series of steps, such as planning permission and contractor quotations, which can easily cause delays. In order to keep these delays and risks to a minimum, many local authorities have appointed agencies such as HIA and C&R, to assist clients or to act for them. These agencies can offer a range of services from specification checks to construction supervision and help to complete the installation work swiftly and efficiently (Ramsay, 2010; Scott et al., 2009). A grant officer reported:

> *'No concerns, we have an optional, in-house home improvement agency service for DFG eligible works. They provide assistance in applying for a DFG and the installation of the works.'*

Undoubtedly, clients need the agency's support to go through the complicated process of getting the adaptation installed, as suggested by a housing officer:

> *'Almost without exception, clients want the Council's help, through the DFG agency, to get the grant to approval stage and to help monitor the works in progress.'*

In order to ensure that associated agencies are in a position to support the delivery of adaptations, including installation works, further legislation and policies are needed to highlight the important role of these agencies in service provision. Local authorities should encourage their administrative departments (e.g. housing authority, social services) to use an agency service for a more seamless process.

7.5 Summary

This chapter has disclosed the journey to a successful adaptation, its existing problems and possible solutions. The whole process appears to be somewhat hostile that takes the applicant through a series of steps, including referral, allocation, assessment, funding and installation. There were a range of major issues that affected each key stage of the adaptation process:

- There were different routes to making referrals for adaptation services such as through GPs or other agencies. Due to the lack of a standard procedure across all access points, some applications were ended before even starting.

- Many local authorities adopted a screening mechanism to prioritise initial requests into different categories; this mechanism helps local authorities to provide faster visits and assessments for urgent needs, but non-urgent applicants generally have to wait much longer.
- Practice on requiring OTs for assessments varied, with some local authorities allocating all referrals to OTs while others only involving them for complicated cases.
- Local authorities have established different criteria for deciding whether an OT is required for assessment. There is a perceived danger that cases which need the OT's special skills are allocated to OT assistants.
- Although a national eligibility framework was published, there were significant inconsistencies in criteria for funding adaptation services between local authorities. Clearly, some local authorities set relatively rigid eligibility criteria, while others had a loose set.
- Delays often occurred, when clients had to make a contribution to the cost of the adaptation work subject to a means test or an upper grant limit.
- There is usually a high demand for some adaptations, such as stair lifts and level access showers, but few local authorities have developed standard specifications for their installation.
- The additional administrative procedures for some major adaptations, such as planning permission and building approval, were time-consuming and expensive.
- Local authorities tended to keep a list of approved contractors, but the existence of the list was not make known widely. Therefore, clients took more time to secure their trusted contractors.
- Current law allows clients to carry out the building work within twelve months after grants are approved; clients were found to delay the installation process.

To address these issues and achieve a seamless service process, a range of recommendations can be made:

- There is a need for local authorities to develop a consistent process or a single access point so that all referrals can be processed equally and effectively. Joint training for the collection of information is also needed to ensure that staff can provide appropriate responses.

- Local authorities should take various measures, such as leaflets, meetings and internet, to publish all necessary service information. A key contact person is essential to help clients throughout the whole adaptation process.

- Local authorities should set a deadline for the assessment of different priority categories to ensure that all referrals can be processed within the timescales;

- Government policies are needed to establish a preventative approach for the early provision of minor adaptations and to ensure planning ahead.

- When there is a growing waiting list for assessment, trusted assessors and OT assistants should be used to deal with the simple requests. Additional training is necessary to ensure that appointed ancillaries have the right knowledge and competence to carry out assessments for minor works.

- Better guidance is needed to ensure consistent and equal criteria for the allocation of OT resources and to ensure that the judgement of applying such criteria is made by professionally qualified staff.

- There should be detailed guidelines to ensure that OTs take a proactive approach for the provision of adaptations and involve service users in the assessment process to build greater longevity into what is delivered.

- To ensure equality of service provision, there should be a national approach for delivering housing adaptations with a minimum eligibility threshold applying to all local areas.

- New legislation or policy is needed to ensure that local authorities have specific arrangements in place to assist clients with their monetary contribution towards the cost of adaptation works subject to means testing or the upper grant limit. The role of social services in helping with any grants exceeding the statutory maximum also needs to be clarified in further legislation.

- Central government should review the legal framework governing the provision of grants and allow local authorities more flexibility in the ways of carrying out housing adaptations. An agency service can help reduce waiting times in meeting these legal requirements.

- There should be further policies and regulations to make local authorities develop standard specifications and schedules of rates to save time in completing adaptations and secure faster services.
- Local authorities should establish a list of approved contactors and publicise the list. Detailed guidelines are needed to keep a regular review of the list and to publish the criteria for the inclusion of new builders.
- Further legislation and guidance is needed to give a clear explanation of when the installation work should be started and of the circumstances under which the timescale can be extended.

CHAPTER 8: ANALYSIS AND RECOMMENDATIONS ON PERFORMANCE MONITORING

8.1 Introduction

This chapter offers a critical analysis and discussion of how local authorities measure the performance of their adaptation services. It will first look at the importance of the follow-up visit in ensuring all is well, then move on to focus on the performance indicators currently used by local authorities. After that, the chapter will compare positive outcomes completed in each local authority and delivery times for key stages in the service provision. Finally, it will examine the cause of delays and the effectiveness of the adaptation process.

8.2 The Monitoring System

For the sake of completeness, the provision of an adaptation should not stop at its installation. There should be a follow-up visit at the end to ensure that the client is confident in using the adaptation received and that the new installation meets the agreed needs (Petersson et al., 2012; Weeks, Lamb and Pickens, 2010). The optimum moment for this follow-up visit would be as soon as the installation has been completed, as any errors, even the mixing up of two grab rails, might result in damage to the client and to the investment (Audit Scotland, 2004; HAC, 2013). When the visit is completed, the adaptation can be signed off and the housing officer will then close the case.

In order to monitor service performance and to ensure continuous improvement, it is the local authority's normal practice to seek feedback from the client after installation of an adaptation (Bibbings et al., 2015). Customer feedback provides valuable insight into different aspects of adaptation service, including service quality, process effectiveness and customer satisfaction. Additional information, such as the number of adaptations, the value of grants and waiting times for the main stages, would have been recorded and collected in local areas to benchmark the adaptation service and to demonstrate value for money.

8.2.1 The Importance of Aftercare

Early evidence has suggested that the whole investment in housing adaptations could be compromised by the absence of appropriate arrangements for aftercare (Awang, 2002; HAC, 2013; Scottish Executive, 2003). To prevent this, a follow-up visit after installation is usually conducted to ensure that the adaptation is fully completed and the assessed need has been met. A policy officer and a C&R officer said:

> *'On completion the normal practice is that the occupational therapist will visit to check whether the works meet the needs of the client and whether any additional equipment is in place. The OT may also, if required, provide advice at this point in regard to safe use of the adaptation (e.g. observe a client in wheelchair safely using a newly fitted ramp).'*

> *'The OT or OT assistant and the grant officer will go out to inspect the work when it is finished. They will tick the boxes to see whether the building work meets the client's needs, and also to see if the client is happy with it.'*

Older clients also highlighted the importance of the follow-up visit in helping them understand how to use the adaptation:

> *'When the shower was installed and the toilet was changed, the OT came to check on them and to give me some advice. I don't have problems to use them.'*

However, there is still evidence of some local authorities missing the after-visit to check the completed adaptations, as reported by a housing officer:

> *'We don't offer aftercare services. If clients have any problems with the works, they can contact us.'*

Without such a final check, the client might face particular challenges, as commented by a housing officer:

> *'The adaptation could cause difficulties to the clients if they don't know the control or misuse it.'*

Therefore, further policies and better guidelines are needed so that local authorities have formal aftercare arrangements in place to inspect the completed work and to ensure the appropriateness of the adaptation for its user.

In general, the follow-up visit is carried out by professionals who have been responsible for the key stages, mainly the OT, the technical officer or the grant officer (Clayton and Silke, 2010). An OT and a housing officer described:

> *'When the adaptation is completed, the OT will visit the client to ensure that they can use the adaptation and provide a seat in the case of level access showers.'*

> *'Once the installation is finished, our technical officer goes out and agrees that yes, the standard work is fine, everything is working and everything is OK. If not, we wouldn't make final payment and the contractor needs to put it right.'*

Here, there might be a risk that the most appropriate professional is unavailable to make this visit because of the prolonged adaptation process. A policy officer pointed out:

> *'If the time period is great, then the occupational therapist who authorised the work may no longer be in post. This can create a lack of continuity for the client.'*

To address this, a joint visit can be conducted by a combination of the involved professionals, as explained by a housing officer and a service manager:

> *'A final inspection of the completed works will be carried out before the grant is paid. Where our department has a direct involvement, we arrange to meet the OT on site to check the adaptation is completed and meets the client's needs.'*

> *'In regard to the check process, each adaptation is visited pre- and post-completion by a maintenance officer and a grant officer. Payment is not made until the work has been passed by them.'*

Therefore, where possible there should be a joint visit which involves at least the OT, the technical officer and the grant officer on completion of an adaptation.

8.2.2 Performance Indicators

Once an adaptation is completed, it is normal practice that the local authority collects certain information to measure the performance and ensure service quality (Audit Scotland, 2004; Bibbings et al., 2015). The survey showed that most local authorities operated an in-house performance monitoring system. The monitoring systems are useful

tools to support continuous improvement of service quality and to demonstrate value for money from housing adaptations, as highlighted by a housing officer commented:

'We record the number of adaptations completed and the number of days taken for the adaptation process to review and improve our service performance.'

However, a small number of local authorities did not adopt any performance indicators to monitor their adaptation services, as pointed out by a grant officer:

'We used to collect performance indicators to monitor the adaptation process but now stopped when the staff levels out.'

The situation was more common when there was no guidance that specified the service coverage and service process between partners. As Table 8.1 shows, over 94% of local councils who have agreed guidance on partnership working collected performance indicators to manage the adaptation process, compared with less than 74% of those who did not have a partnership agreement. This result again emphasised the importance of guidance in the provision of adaptations. Therefore, new policies and regulations are needed to ensure that local authorities develop a clear guidance for partnership working and to establish an effective procedure for collecting useful information to monitor performance. A housing officer suggested:

'Consideration of service standards for each area and more opportunity to reflect on performance may highlight areas to address and allow improvement in speed of delivery.'

Table 8.1 Crosstabs between service guidance and performance monitoring (Source: Zhou, Oyegoke and Sun, 2017)

	Collect information for performance monitoring	
Cooperation guidance	Yes	No
Yes	80	5
	94.1%	5.9%
No	17	6
	73.9%	26.1%

Although performance monitoring systems were in common use, the way in which performance information was gathered varied greatly across the country. Some local authorities adopted a single performance indicator, such as positive outcome, delivery times, customer satisfaction or impact of adaptations, while others used a set of these performance indicators. Furthermore, there was a wide variation in the composition of the above set among local authorities. Clearly, there was a lack of a nationally consistent approach to performance indicator collection at the local level. In this regard, it is difficult to make comparison of local adaptation services and to demonstrate value for money, which would further affect strategic planning for future delivery of housing adaptations. A standardised system would be helpful for creating consistency in information gathering and service monitoring across local authorities, as suggested by a housing officer:

> *'Councils monitor adaptation performance in many different ways and should work towards standardising processes according to best practice.'*

Therefore, central government should review local adaptation performance indicators and develop a national approach for information collection to drive up the overall performance of housing adaptation service delivery. Meanwhile, local authorities should follow national guidance and procedures to measure performance indicators. The same interviewee went on:

> *'Working countrywide to create consistency in service recording and monitoring mechanisms could improve effectiveness of services.'*

The survey revealed that positive outcomes, such as the number of adaptations and the value of grants, were important performance indicators in most local authorities. A social worker and an agency director said:

> *'We mainly gather the number of adaptations that we carried out and their costs over the year to monitor our performance as well as work out the forward planning.'*

> *'To measure performance, local authorities used to look at information about how much money was spent and how many works were completed.'*

As delays are the main blockage in the adaptation provision, many local authorities have recorded the number of days taken for each key stage of the process, with a view to bringing down average delivery times. A housing officer explained:

'We are reviewing our service performance and have added measures to reduce time limits.'

However, it was argued that focusing more on delivery time might compromise the service quality, as put forward by a housing officer:

'However, our adaptation service is a high-quality service for the resident and we don't wish to sacrifice quality for time.'

To address this, further guidance is needed to ensure that information on delivery times is gathered appropriately and used effectively.

Apparently, these performance indicators, including completed number of adaptations, total expenditure and delivery times, were straightforward measures of outcomes for housing adaptations, which could offer valuable information for future service planning and delivery. However, if only service outcomes were collected and the information was not sufficiently robust, the performance indicator regime would not be able to show a true picture of what has happened on the ground (e.g. Bibblings et al., 2015; Harrison and Heywood, 2000; Jones, 2005). To prevent this, there are relevant suggestions that a single performance indicator should be supplemented by some other indicators, such as customer satisfaction levels and health outcomes (Heywood et al., 2005; HAC, 2013). Such suggestions have been widely accepted. Many local authorities gathered feedback from clients through post-service surveys to measure customer satisfaction, as described by a social worker and a staff from C&R:

'Yes, we conduct a customer satisfactory survey to find out what clients think about the service received and how they rate it.'

'We conduct the customer satisfaction survey to gather feedback on our service; our customer satisfactory levels have been at the highest levels (96%, 99%) for many years.'

Sometimes this survey is provided to the client during the follow-up visit. Where agencies like HIA and C&R have involved in the delivery of adaptations, they normally took responsibility for carrying out the questionnaire survey. A C&R manager said:

'We do a customer survey to monitor our service and have 99% response rate. When the work is completed, we go and visit the client to inspect it. We also take the customer survey and complete it with the client.'

Those, who have not measured customer satisfaction, expected to adopt it as an element of their performance indicator system for service improvement, as recommended by a housing officer:

> *'To improve the adaptation process, there should be good customer satisfaction reported across all stages of the process despite wait.'*

Likewise, previous studies (e.g. Hwang et al., 2011; Stark et al., 2017; Watson and Crowther, 2005) have shown that housing adaptations helped improve later life by reducing stress, increasing self-esteem and enhancing wellbeing (discussed in Chapter 3). These health benefits can represent an effective use of public funds as well as be a positive indicator for future investment (Adams, 2016; Unwin et al., 2009). As put forward by Heywood and Turner (2007), 'to understand why investing in adaptations and equipment makes sound economic sense requires precision of thought and a rigorous attention to the details of the evidence' (p.15-16). To achieve it, some local authorities have included some survey questions relating to the impact of housing adaptation on the client's life, e.g. how much has the adaptation improved the client's independence, safety or quality of life, in the post-service survey. An agency director described:

> *'What we also want to find out through the survey is, if we have done this work for the client, how do we know the person has been helped by the work. After the work was done, did clients feel confident about the house, did they feel they could stay in house now, did they feel safe in the house. We try to get that sort of things.'*

Clearly, these client-focused performance indicators can add value to the single performance indicator regime and provide local authorities with a broader framework to benchmark their adaptation service (Bibblings et al., 2015). However, collecting information on customer satisfaction and positive impact is both difficult and time consuming. Consequently, service providers are unwilling to do it. The agency director went on:

> *'It is not easy to find the client's view. We have to send out the questionnaire and put these information into the computer. Our staff have had a lot of work, they don't like the statistics because it is just extra work for them.'*

In order to encourage a more consistent and effective performance measurement, better guidance is needed to set out the scope of performance indicators that measure not only service outcomes, such as completed number and delivery times, but also user outcomes

such as satisfaction levels and health benefits. The performance indicator information should not be too complex to collate.

8.2.3 Key Elements of Effectiveness

In spite of some complaints about administrative procedures and waiting lists, the survey found that most local authorities were satisfied with their current adaptation system and described the whole process as generally effective. Spearman's rho for non-parametric correlations was used to investigate the factors that correlated with an effective process (Table 8.2). The results revealed relationships among effectiveness of partnership, effectiveness of assessment arrangements, awareness of delays, and overall effectiveness of the process. Clearly, the adaptation process was more effective in local authorities who had achieved an effective partnership working than in those who had not (r_s=.217, $p<0.05$) This meant that establishing good cooperation at all stages of provision could be the key to effective service delivery, or rather, the timely provision of home adaptations requires effective partnership working. A housing officer commented:

> *'Although we believe our process is effective and our clients receive a quality service, all partners are always reviewing their processes with the aim of improving our service to the clients who require adaptations.'*

Table 8.2 Correlations among partnership effectiveness, assessment effectiveness, time delays and overall effectiveness

	Effectiveness of partnership	Effectiveness of assessment	Extent of delays	Overall effectiveness
Effectiveness of partnership		.317**	0.17	.271*
Effectiveness of assessment			-.364**	.489**
Extent of delays				-.260**
Overall effectiveness				

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

In addition, joint working between partners was significantly linked to the effectiveness of assessment (r_s=.317, $p<0.01$). Councils who had built good working relationship were more likely to have an effective assessment process that those who had not. When the team worked in a close partnership, the assessment process would be cost and time efficient. A housing officer explained:

> *'We have an established and robust partnership across the public and independent sector which works effectively to minimise the waiting time for assessments and to meet the needs of our communities.'*

However, if joint working did not succeed, it could become a major barrier to effective assessments and delays would occur for clients, as highlighted by an OT:

> *'The clients could be seen quicker when the social worker gathers all necessary information and passes them to us quickly.'*

In order to achieve better assessment outcomes and more effective processes, there needs to be good cooperation between all partner organisations (AWG, 2012; Heywood, 1994). This was also suggested by a housing officer:

> *'There is scope to improve communication across disciplines within the partner organisations. Referral information should be recorded and shared effectively to speed up OT assessment.'*

Therefore, multi-disciplinary joint working has positive outcomes for the client and the service as a whole. Local authorities should recognise the importance of close coordination between all organisations and establish a joint approach to provide a quicker and more responsive service to the client.

Significant correlation was also found between assessment effectiveness and overall effectiveness (r_s=.489, $p<0.01$), meaning that local authorities who had an effective assessment system in place tended to have a more effective process of adaptation than those who did not have. This, once again, highlighted the crucial stage of assessment in the provision of adaptation. A housing officer pointed out:

> *'The county council has the OT assessment; this is where there are long delays. Including all delays in the process equates to an ineffective process overall.'*

In fact, some local officers complained that their authorities were suffering poor services because of ineffective assessment systems:

'In our council, OTs do a lot more social work and not just adaptation assessments. There are often some delays in getting initial assessments carried out by.' (a grant officer)

'We have both in-house OTs and specialised assessors. Because the division of their duties isn't clear, there is duplication of assessments.' (a social worker)

These officers expected to improve the assessment system in a more seamless and joined-up service:

'We are continuing to look at streamlining processes and changing the wider system to accommodate faster assessment and management procedures.' (a housing officer)

'The delivery of major adaptations by the care and repair service is very quick. We are focusing on the improvement and streamlining of the assessment process prior to cases being forwarded to care and repair.' (a grant officer)

Indeed, it is important for local authorities to provide speedy and accurate assessments, in order to maximise the efficiency of the whole process.

There was a significant inverse relationship between the effectiveness of assessment arrangements and the awareness of delays (r_s=-.364, $p<0.01$). Local authorities who had developed effective assessment arrangements were less likely to notice delays in the adaptation process than those who had not (Jones, 2005). This was further confirmed by a grant officer and a housing officer:

'Concerned about the lack of occupational therapists to assess clients, resulting in delays to the delivery of adaptation works.'

'There are delays in obtaining an assessment, e.g. may use different assessors for one case.'

To overcome these delays, it is critically important to set up the timeline for assessment, as commented by a housing officer and an OT:

'The OT service should be made to carry out assessments within a given time period and should produce a performance indicator statement showing the time they take from receiving referral to assessment completion.'

> *'We have reduced our waiting times and set up a new bespoke system for processing adaptations. We work closely with our partners in care and repair and are keen to begin to track and target time frames from initial OT referral to completion of assessment.'*

Also, the recruitment of OTs can reduce waiting times for assessments, as recommended by a housing officer:

> *'The considerable workload of OTs makes getting the initial assessment a slow process. More resources for OT would alleviate this delay.'*

Unsurprisingly, delays in the process negatively impacted the effectiveness of the whole provision of adaptations (r_s=-.260, p<0.01). Local authorities, where there have been frequent delays, tended to have less effective service processes than those where there have not been. All in all, when more sophisticated partnership and assessment arrangements are in place, there are real benefits in terms of delay reduction and process improvement. This means that local authorities should establish a means of effective collective responsibility and assessment procedures.

8.3 Delivery Outcomes

8.3.1 Different Levels of Adaptation Provision

Table 5.8 in Chapter 5 indicated that there were significant variations amongst local authorities in both the number of approved adaptations and the amount of allocated funding. A grant officer described:

> *'There is a wide range of adaptations completed by local authorities. We just received annual reports from other councils about what they have done.'*

This might link to the administrative capacity of local authority; the grant officer went on:

> *'You get to remember, some local councils are large, but some others are quite small. So they could provide the number of adaptations differently.'*

The UK average number of adaptations completed in 2014/15 was 154 for all local councils. However, Table 8.3 showed that 71.6% of local authorities carried out fewer

than this average number. More specifically, 48.0% of local authorities completed no more than 100 adaptations and only 15.7% provided over 200. According to the EHCS 2007/08, there were over 6 million households that included at least one member having a serious medical condition or disability and of those, around a quarter (1.5 million) reported the need for a specially adapted accommodation (DCLG, 2009). Clearly, the number of adaptations that were delivered each year in most local authorities was relatively small in comparison with the potential demand of an ageing population. This was confirmed in interviews with a housing officer and an agency manager:

'More and more older people demand adaptations, which always outstrips supply in our council.'

'Compared with the number of completed adaptations, the demand is far higher, because the population is ageing.'

Table 8.3 Local authorities completed different levels of adaptations

	The number of adaptations				
Local authorities	1-100	101-200	Over 200	Less than 154	154 and more
(n)	49	37	16	73	29
(%)	48.0%	36.3%	15.7%	71.6%	28.4%

Likewise, there were remarkable differences between local authorities in the levels of spending for housing adaptations. A social worker pointed out:

'You can see, the spending for adaptations is variable across local authorities. I would think it depends on different authorities having different priority.'

Table 8.4 shows that although the average spending for adaptations per local authority was £777,081, 67.6% of local councils spent less than this average amount. In fact, 42.2% of local authorities paid less than £500,000 and only 19.6% contributed more than £1,000,000. On the whole, there has not been any noticeable growth in overall number and total spending. Take England (324 local councils) as an example, based on the

average number of 154 with an average spending of £777,081, there could be a total of 49,896 adaptations costing a total amount of £252 million in the year of 2014/2015. This represented few changes compared to delivery outcomes in 2007/2008, when 38,130 adaptations were completed with a total value over £250 million (discussed in Chapter 3). A grant officer explained:

> *'We had the same money in total since 2007, the funding has not gone up. In fact it has gone down. Technically, it has gone down, because the living expense has gone up.'*

Table 8.4 Local authorities paid out different total amount

	The amount of spending				
Local authorities	£1 - £500K	£501K - £1000K	Over 1000K	Less than £777081	£777081 and more
(n)	43	39	20	72	30
(%)	42.2%	38.2%	19.6%	70.6%	29.4%

In this regard, the total budget allocation has fallen and the domestic supply was far behind the increased demand, as complained by a housing officer:

> *'The number of adaptations required are increasing year on year. The demand exceeds financial resources.'*

To address this, there should be a substantial rise in resources so that adaptation services can reach more people per year in each local authority area. This requires central government to provide an injection of extra funding and local government to contribute more capital costs.

Figure 8.1 shows that there is a positive correlation between the total number of approved adaptations and the total grants paid out. The upward trend in the scatterplot indicates that local authorities with larger spending tend to complete higher proportions of housing adaptations. This was highlighted by an agency director:

> *'Obviously, the number of adaptations depend on the budget allocated. More money, more adaptations.'*

8.3.2 Relationship between the Number of Adaptations and the Amount of Spending

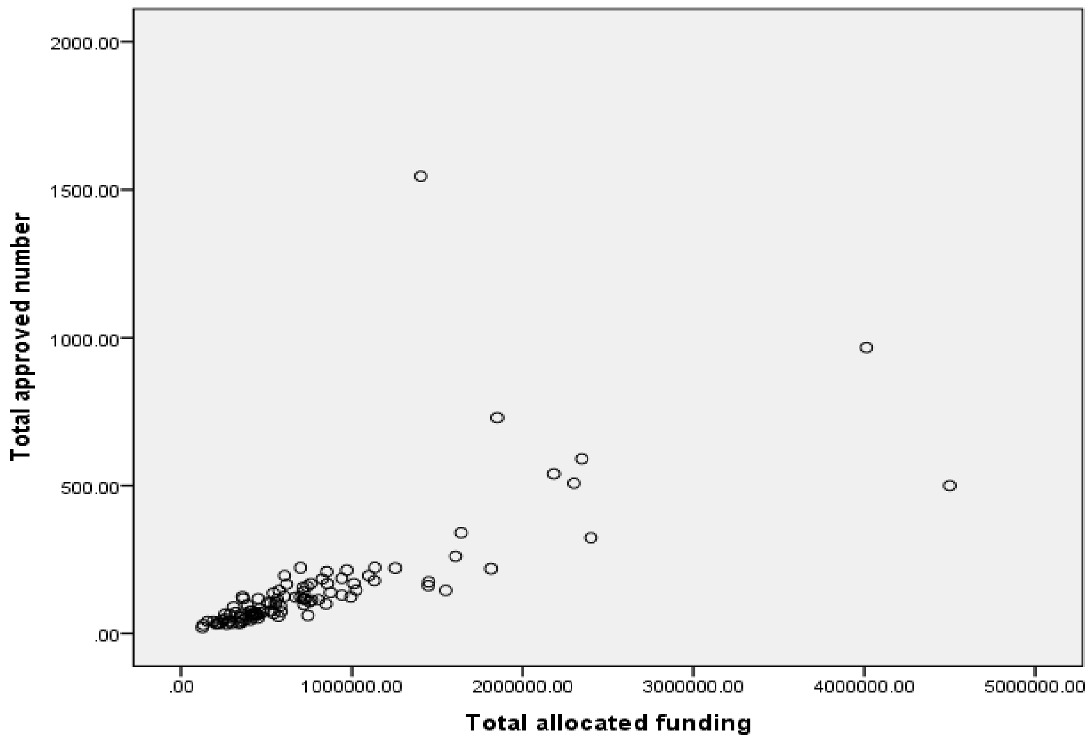


Figure 8.1 Correlation between total allocated funding and total approved number

	England	Scotland	Wales	Total
Average number of completed adaptations	129	269	279	154
Average amount paid out	£723,650	£687,544	£2,212,500	£777,081
Average value of an adaptation	£5,610	£2,556	£7,930	£5,046

Figure 8.2 Average number, average amount and average value in three countries

Given the average total number of 154 adaptations with the average total cost of £777,081, the average value of an adaptation is £5,046. However, there are noticeable differences between the different nations in the UK (Figure 8.2). In Wales, on average each local authority spent £2,212,500 to deliver a number of 279 adaptations, representing the highest average value of £7,902. In England, an average number of 129 adaptations was paid with a total cost of £723,650 in each local council, giving an average value of £5,610. In Scotland, the average value hit the lowest point at £2,546 when the average spending on 269 adaptations was just £687,544. By comparison, Welsh government contributed 61% of the total costs to complete 41% of the total number of adaptations; Scottish government spent 19% to deliver 40% (Figure 8.3). This infers that the Welsh local government paid more attention to complicated cases while the Scottish local government focused mainly on simple adaptations.

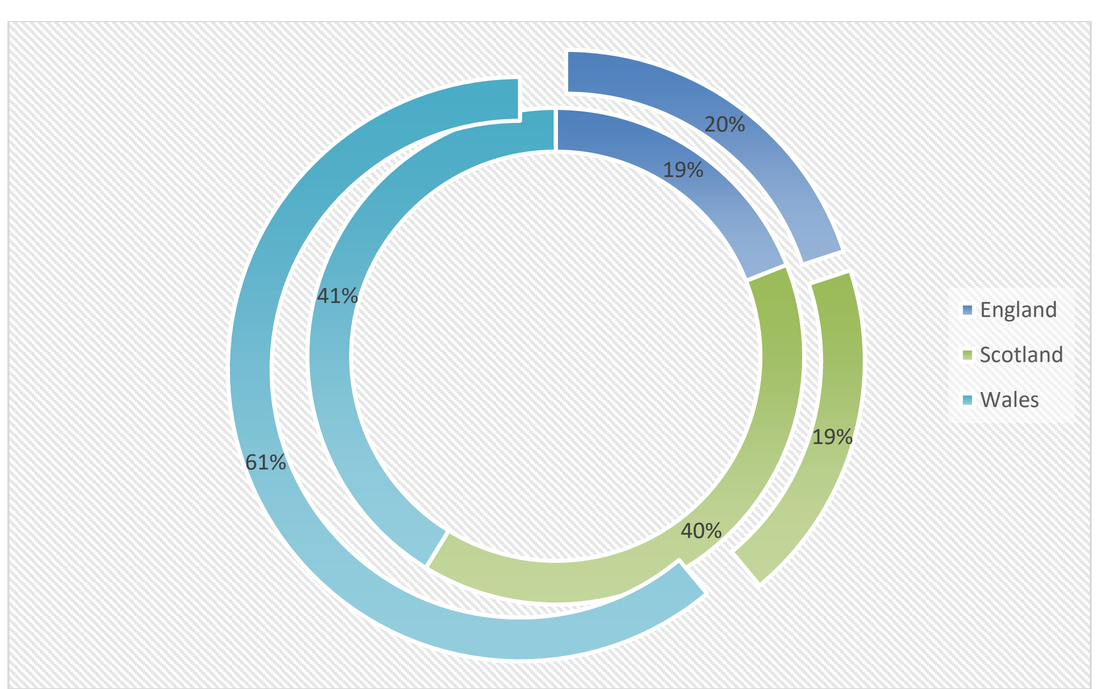


Figure 8.3 Overall numbers and costs of adaptations in three countries

Overall, Welsh local government gave more attention to adaptation services and made them a higher political priority than England and Scotland, and provided a higher level of funding. In Scotland, local authorities focused primarily on middle-and small-scale adaptations with a cost up to £3,000. In England, the adaptation service was complex, with budget allocation varying extensively across local authorities and the more expensive adaptations being relatively rare.

8.4 Timelines

8.4.1 Complexity of Practice

Although a range of actions have been undertaken in local authorities with the objective of shortening waiting times, there were still frequent references by service providers and services users to long waiting lists for housing adaptations (e.g. Awang. 2002; Boniface et al., 2013; Russell, 2016). A housing officer and an OT complained:

> *'We often have a long waiting list for adaptations and at present the waiting time is approximate 16 months.'*

Waiting times have been identified as a benchmark against which quality and equality of adaptation provision is assessed (Hall and Social Work Services Inspectorate, 2001). In order to ensure a smooth flow of the provision chain, a proposal to create timelines for each main stage of the process, from the initial referral to the work completion, has been put forward (Heywood et al., 2005; Jones, 2005). This proposal has set off a heated debate, which was also reflected in the survey. It was believed that a timescale set to complete and review the adaptation process was the most effective way of avoiding delays and waiting times:

> *'The introduction of the timescale is a good thing, which can reduce processing times for adaptations and provide a much quicker service.' (a social worker)*

However, there were certain worries that setting timescales might speed up the adaptation process but bring down the service quality:

> *'Waiting times have been improved and we don't want to sacrifice quality of our services for speed. The county council is slow and inefficient but provides excellent quality adaptations (e.g. lifetime adaptations for children).'*

Furthermore, some housing officers argued that it was unlikely to set the standard as timescales for different stages could vary hugely:

> *'There are current concerns around timescales for some types of adaptations (ramps, for example) and longer waiting times for processing recommendations following assessment.'*

'Timescales for stairlifts are short, but major adaptations can literally take years. My experience is that one size does not fit all.'

In practice, most local authorities have recorded the time between each stage of the adaptation process. Their records, however, varied substantially due to the process being broken down by different authorities into different stages. The timeline question in the survey asked the waiting time for clients to receive their adaptations via a list of key stages (explained in Chapter 3), from referral to allocation, allocation to OT assessment, OT assessment to OT recommendation, OT recommendation to grant approval, grant approval to installation, and the whole process from first request to work completion. Local authorities were allowed to describe their own stages if different from the above listed stages. As a result, information given by local authorities was mixed, with different compositions of stages of the process:

'1. Referral to OT recommendation is normally 3 months; 2. OT recommendation to grant approval is 60 days; 3. Grant approval to installation is 60 days; 4. The total time is 180 days (a housing officer).'

'1. Initial enquiring to OT visit is 92 days; 2. OT assessment to OT recommendation is 40 days; 3. OT recommendation to grant approval is 86 days; 4. Grant approval to installation is 97 days; 5. The total time is 315 days.' (a housing officer)

These variations demonstrated that there was no uniform mechanism to set out procedural steps in the provision of adaptations and methods of recording waiting time were different in different authorities, reflecting certain limitations in data collection. This made comparison difficult, in terms of quality and reliability. Also, it was almost impossible to obtain the overall picture of service performance and to produce a more efficient system across local authorities. Therefore, moving towards a truly consistent approach for data recording and monitoring is central to tackle lengthy waiting lists and improve the availability of adaptations, as suggested by a grant officer:

'A nationally prescribed methodology for measuring delivery timescales and reporting would ensure comparability across local authorities and help identify best practice.'

It was common practice that local authorities applied the eligibility framework to categorise the needs of applicants and urgent cases were dealt with immediately while

other cases were placed down the priority list (discussed in Chapter 3, 5, 7). Within this context, the average waiting timelines across the stages of provision were apparently much shorter for people at high or medium risk than for those at low risk, as explained by a housing officer:

> *'It depends on priority status: 1. Referral to allocation is 10-60 days, 2. Allocation to OT assessment 2-5 days, 3. OT assessment to work completion is 78-125 days, 4. The total time is 90-180 days.' (an officer)*

In addition, simple adaptations where the assessment and installation could be done quickly were usually provided straightaway, while more complex needs tended to require more work thus experienced longer waiting times. A housing officer and a grant officer described:

> *'1. Referral to allocation stage is 35 days (fast) and 70 days (average); 2. Allocation to OT assessment is 28 days (fast) and 50 days (average); 3. OT assessment to OT recommendation is 14 days (fast) and 28 days (average); 4. OT recommendation to grant approval is 50 days (fast) and 120 days (average); 5. Grant approval to installation is 50 days (fast) and 80 days (average); 6. The total time is 180 days (fast) and 350 days (average).'*

> *'There were huge variations for total time – simple cases can be 3-4 months, complex cases can be several years'*

All these practices suggested that waiting times for provision of adaptations are highly variable, between cases and adaptation types, and it is clearly impossible to collect them all. Even should a question be designed to reflect waiting times on average, there is still a danger that the average time masks the true situation:

> *'Despite the apparent lengthy waiting time, we can deliver adaptations of under £5000 (which most are) within much shorter waiting times - it is the more complex cases that raise the average figure.' (a housing officer)*

> *'The average timescales include a number extra ordinary cases that skew the figure - the real average is much lower for 98% customers.' (a housing officer)*

The key point here is that the data on waiting times might be insufficient to achieve a complete picture of the situation within a local authority and should be treated with care.

In spite of this, it should be noted that an analysis of timelines can give an indication of the waiting time levels for clients in each local council, display the patterns of waiting timelines for provision across local authorities, as well as help identifying the main sticking points in the process (e.g. in the stage from referral to allocation), that will lead to possible approaches to reducing overall waiting times.

Although almost all local authorities responded to the timelines question, some had provided partially completed answers, reflecting the difficulties in collecting data on delivery times. The area with the most omissions was details of stages from referral to assessment. Some reasons were provided, such as 'referral to OT recommendation stages is unavailable', 'referral to OT recommendation stages are held by social service', 'the referral stage to the assessment stage is not known as they belong to the county council'. These explanations once again exhibited the flaw in the current system that partner organisations within the authority or across different authorities do not have a shared database for adaptation provision (discussed in Chapter 6, 7). However, the links between the different stages of the provision chain is the key to a successful service delivery. If one partner is unable to access all of the necessary data from other partners within a local authority or from another authority, as was the case for some of the respondents here, it may be difficult to capture the nature of what was occurring in adaptation systems and to make improvements in service performance (Ramsay, 2010; Zhou, Oyegoke and Sun, 2018). In this sense, the joint working/partnership arrangements have a significant impact on the length of time that clients have to wait between stages of provision. Therefore, developing a shared system and a high standard of coordination between the partners is essential to produce an efficient process and to minimise the waiting time, as recognised by a housing officer:

> *'To address waiting times and improve the process, we should have robust inter-service working relationship and successful communication network in place across disciplines within housing department, social services and the independent sector.'*

8.4.2 Comparison of Waiting Times

All stages in the provision of adaptations are essential; each stage must be completed before the next can begin. When a blockage exists at one stage, the whole provision will break down and the client cannot receive their adaptation timely (Bradford, 1998; HAC,

2013; Keeble, 1979). For adaptations to be delivered successfully, it is necessary to identify the possible weak links in the provision chain, or rather, the stages where the waiting time has risen sharply and delays have occurred frequently (Hall and Social Work Services Inspectorate, 2001). In the survey, time spans were suggested to be provided on the five key stages (described in Table 5.9 in Chapter 5), including referral, allocation, assessment, funding and installation. As not all available records of waiting time for adaptations fit into the pattern for the five stages, some local authorities provided their own timelines in the blank table within the questionnaire. In addition, because of the inability of accessing all necessary data from different departments (especially in the county councils), some local authorities gave limited information.

Figure 8.4 compared the average number of days for each stage from referral to installation. Apparently, the majority of the waiting time occurred in the last two stages of funding authorisation and installation completion. They were the most prominent weak links in the process chain and took up over half of the total waiting days, 84 and 73 days respectively. On the contrary, there was the lowest level of waiting time for assessment allocation (22 days); the task of assessment had been undertaken within relatively short waiting time (46 days). This suggests that there has been a remarkable improvement in waiting times around assessment. In addition, the wait to be allocated for assessment from referral was high, at 49 days. This blockage at the initial stage is more likely to have a significant effect on the length of waiting for provision.

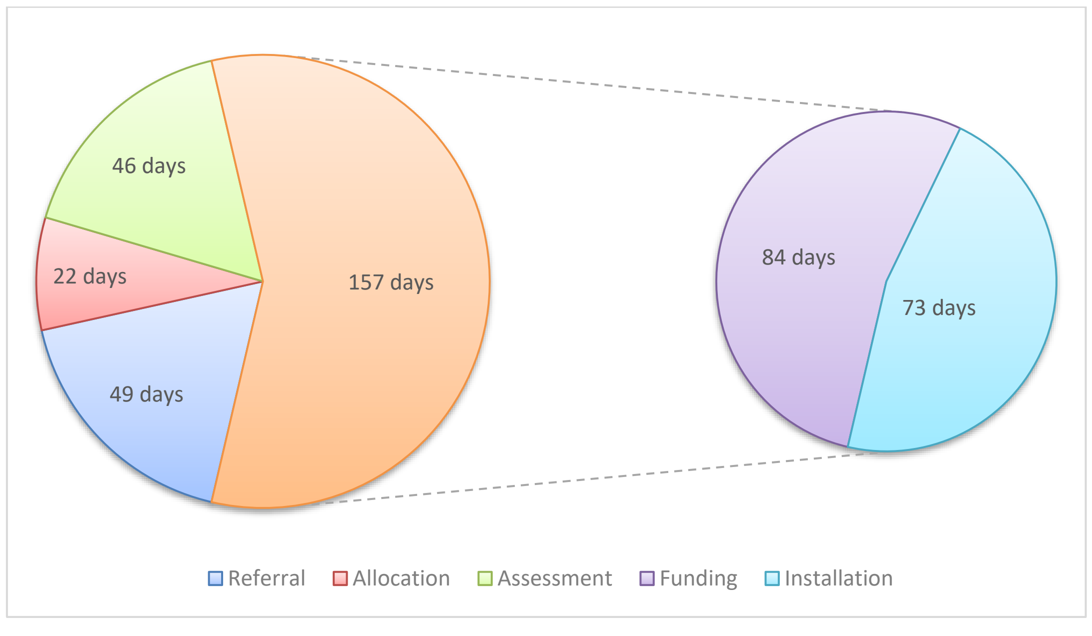


Figure 8.4 Average waiting time for each stage

Clearly, the waiting time for each key stage in the adaptation process was still unacceptably long; the funding stage and the installation stage have the longest wait. Because of the matters (e.g. the test of resources, landlord permission), local housing authorities may wait weeks or months for documentary evidence from employers, solicitors, surveyors or landlords before approving a grant. Often, delays occur at the stage of grant approval. There seems to be a feeling that the waiting times, reduced by social services departments at the assessment stage, are transferred to elsewhere in the process:

> *'Clients in the private sector do not have to wait longer for assessment by OT; however, they wait longer for installation as have to negotiate the grant system.' (a housing officer)*

Unsurprisingly, the funding approval stage and subsequent installation process were central to the inefficiency of the provision chain. This reflected that local authorities have solved many but not all issues related to waiting times in the provision and further efforts are required to improve the overall performance. The variability in waiting times for each stage meant that the overall provision timescale could be experienced very differently for each adaptation and individual client. In other words, two clients who live in the same authority area and apply for the same type of adaptation may have totally different timescale experiences. This is obviously not acceptable and an equal standard of provision should be available to all.

8.4.3 Individual Cases

The statistical data on timelines above has given a broad view of waiting times for the process of adaptations. It provides valuable information for service providers and policy makers to tackle the issue of waiting times. However, due to individual differences, clients often have difference experiences in waiting times for their adaptations (Clayton and Silke, 2010; Jones, 2005). Therefore, it is beneficial to examine waiting timelines across key stages of the process in a single case and to identify the internal variations in time taken to complete an adaptation. The following discussion describes the adaptation processes in two cases and the time period between the different stages of the process.

Client A was a woman aged 79, living alone in an upper flat of a block. There was no elevator and she had to manage twelve steps to the entrance door. She had an upper and

lower limb weakness that limited her mobility and she also had difficulties getting into her bathtub. She was owner-occupier and had applied for mandatory grants to replace the existing bathtub with a level access shower tray. Client A received her new shower at a cost of £3,624.32 on 21st of January 2015 and the whole process took around fifteen months (Figure 8.5). She was initially referred by C&R to the social work department on 13th of October 2013 and over seven weeks later, the case was allocated to the OT for assessment, which was completed on 30th of December 2013. This was correlated to the general trend that there was significant wait between referral and allocation but assessment of need was undertaken shortly afterwards. There was an agency C&R involved after the OT completed the assessment. It provided a range of assistance, including supporting the client to access grant funding and coordinating the installation process. Within two weeks after receiving the case, C&R visited the client on 12th March

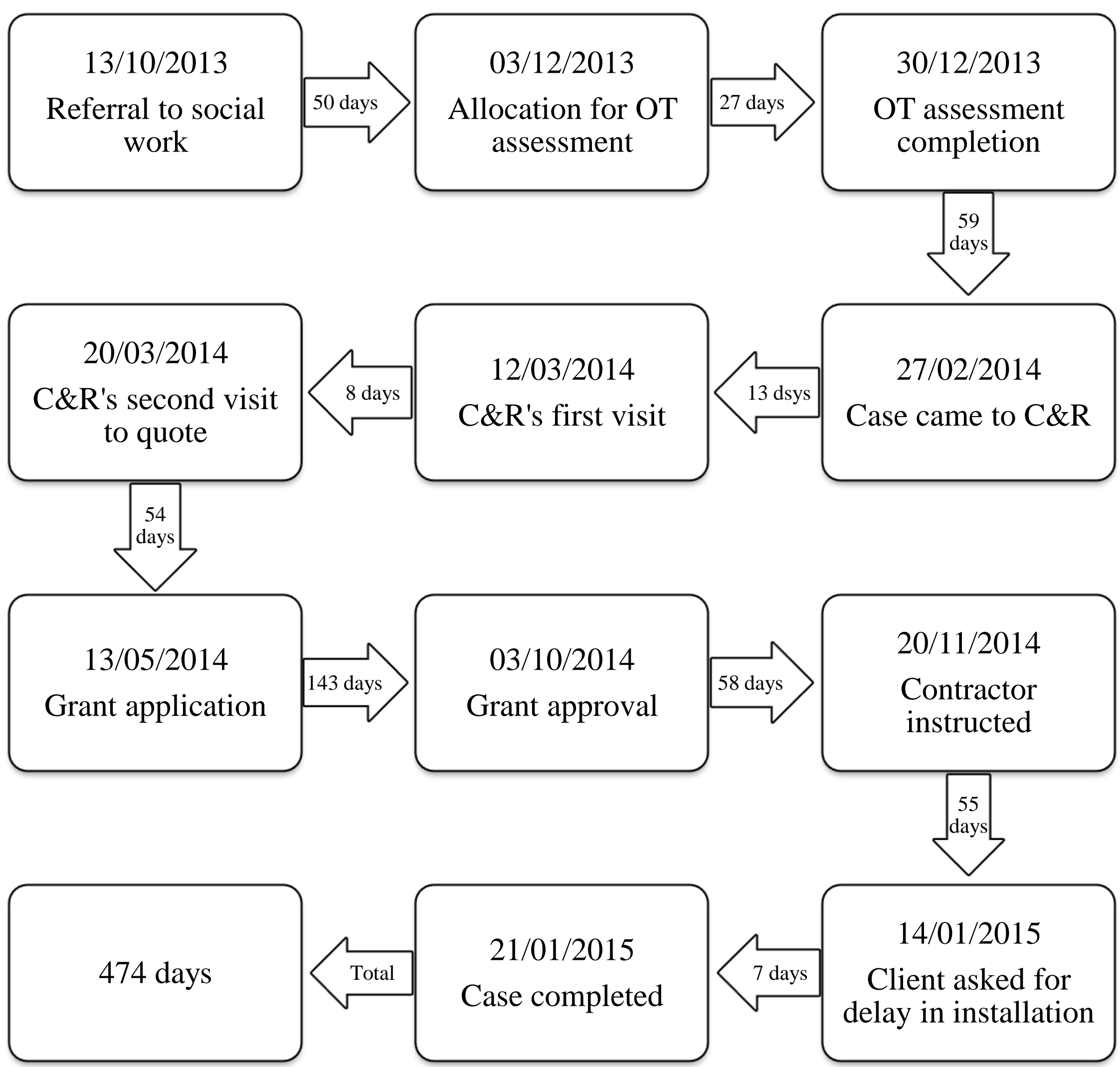


Figure 8.5 The timeline of the adaptation provided for Client A

2014 to look at the property's condition, offer technical and architectural advice about the adaptation, and check the client's entitlement to benefits. Eight days later, when a specification and appropriate technical drawings for the adaptation were produced, C&R invited contractors to visit the client with a view of providing quotes for the work. Once an estimate was received, C&R prepared all the relevant documents, including planning permission, building insurance, property deed, relevant certificates and benefits evidence, on behalf of the client for the grant application. This took up to nearly two months from 20th of March 2014 to 13th of May 2014. The longest wait was at the funding stage and it took nearly five months for the housing department to approve the grant application. Likewise, significant delays were evident at the installation stage in that the client had to wait for more than three months after grant approval before using the new shower tray.

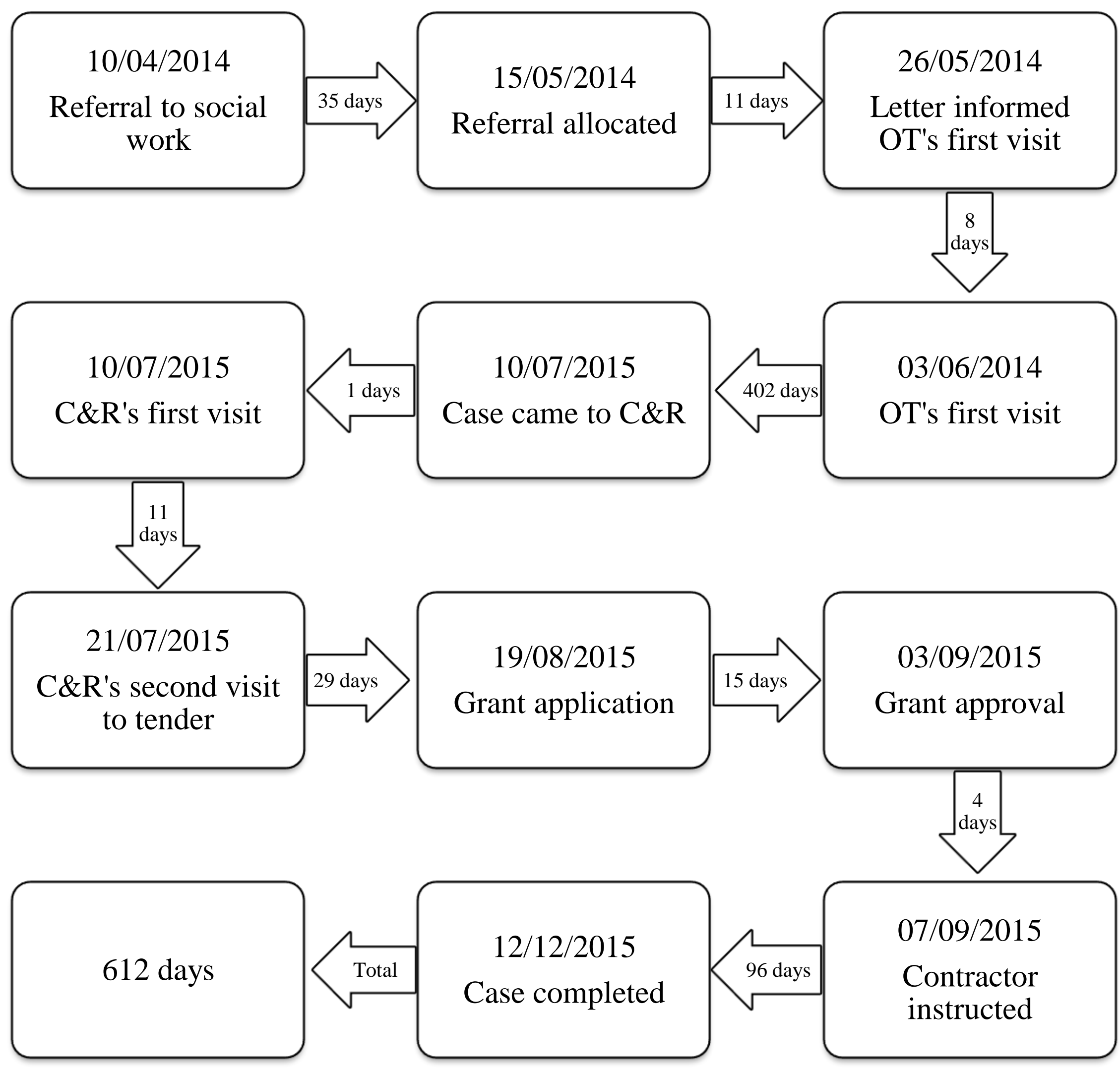


Figure 8.6 The timeline of the adaptation provided for Client B

Client B was a man of about 75 years of age, living in a detached house where he and his wife had lived for around twenty years. Since his wife pasted away three years earlier, client B had problems with his legs; his mobility deteriorated and went from using a walking stick to sitting in a wheelchair. To get into and out of his home, he used a lift that carried his wheelchair up and down stairs at the main entrance door. He had applied for grants for the installation of a ramp in order to exit on his own and participate in social activities. Furthermore, as he could no longer manage to get into the bathtub, he had applied for grants for remodelling the bathroom to facilitate a specialist shower unit. Client B was referral initially by his doctor to the social work department on 10th of April 2014 and five weeks later, he received a letter from the local authority that acknowledged receipt of his referral. On 26th of May 2014, he received another letter concerning a firm date for the OT's first visit. On 3rd of June 2014, the OT visited his house. Thereafter, the process seemed to have stalled until 10th of July 2015 when the case was passed to C&R. During this period, of more than one year, the client twice spent time in a hospital due to his deteriorating health condition. His first time in hospital was a stay for three weeks and the second occasion was for seven weeks. When the case did eventually arrive at C&R, on that very same day a C&R officer visited the client to explain the process, describe the building work and provide the information needed for the funding application. When plans and specifications for adaptations were ready, the technical officer invited contractors to the client's house for tenders. On 19th of August 2015 C&R assisted the client with submitting an application form together with all supporting documents for the grant. Funding was granted within two weeks and the contractor was then instructed. On 12th of December 2015 the case was completed and the whole process took around one year and eight months (Figure 8.6).

Clearly, waiting times for adaptations between the two older clients were considerably different, even though the two cases were within the same system and within approximately the same period (e.g. 2013 to 2015). The major blockage in the first case was occurred at the stage of funding, while in the second case the main delay was at the stage of assessment. Although C&R was involved to help clients preparing all the information, applying for grants and supervising the building work, there were still significant delays between funding and installation. Importantly, despite ten weeks of hospital stay, the second client had to wait more than one year for his assessment to be completed. This was an incredibly long wait, indicating that the effectiveness of OTs, although much improved, still needed to be strengthened for greater provision efficiency. It was normal practice that the social work department took at least one month to outline

the initial requests up for allocation, which contributed towards delaying the whole process. On the whole, the time taken to deliver an adaptation is too long; delays could be caused by different reasons.

8.4.4 Main Causes of Delays

The timelines described and analysed above revealed that many clients had to wait for long periods for their adaptations and that delays could occur at any stage of the provision chain. According to the survey, except for 18.3% of local authorities who have seen little delays in the provision, the rest believed that their clients frequently or sometimes experienced delays in the adaptation process. These delays may be connected to a range of factors (e.g. Boniface and Morgan, 2017; Heywood et al., 2005; Jones, 2005). For example, the combination of unanticipated high demand and limited available resources (e.g. finance and labour) could produce delays in providing adaptations. A social work commented:

> *'Due to staff shortages and a one-off increase in workload (council refurbishments of bathrooms in council housing properties requiring visits to assess if replacing like/unlike or major adaptations required), we have a considerable backlog of work.'*

These delays could impact the client's ability to live independently at home and increase the need for residential care, leading to a waste of public resources (Bibbicngs et al., 2015; Perry, 2015). For example, in one case, the installation of a stairlift took 18 months at a cost of £2,700, meanwhile, the applicant required 5 hours of additional home care every week costing £3,850 in total (Scottish Executive, 2003). According to Heywood et al. (2005), the Audit Commission has calculated that one year's delay in providing an adaptation to a client costs up to £4,000 for extra home care. Therefore, it is essential to bring in as many resources as possible to tackle delays in the provision, as suggested by a housing officer and a social worker:

> *'More money and more staff to deal with adaptations quicker so the client is not waiting as long as they currently are doing.'*

> *'Resources are always the key. When we had more staff, DFG was delivered within the 10 weeks using 4 full-time officers. Current circumstances in the local*

authority have resulted in a change; procurement is in place and times are around 20 weeks with just 1.7 officers.'

Some delays over getting adaptations done were considered inevitable in all local authorities. They were the symptom of bureaucratic procedures, such as the landlord's consent, planning permission and the client's monetary contribution (Bibbings et al., 2015; Ramsay, 2010). Any kind of adaptation in the private rented sector, no matter how minor, could not be carried out until receiving the landlord's permission, which was described by administrative staff as time consuming but necessary:

'We have to contact the landlords and get their approvals for the building work. Some landlords are very fast and good, the clients can get the letter within a week. But in some cases, it probably takes two or three weeks.' (a C&R officer)

In the case of structural changes to a property, planning permission must be obtained before arrangements for an adaptation could go ahead. Having to get planning permission, according to Keeble, 'was the main reason why no really major adaptation, no matter how urgent it might be, could ever be completed in less than nine months from the date of referral' (1976, p.231). Because it is a legal requirement, housing officers felt completely helpless about the time taken for receiving planning permission:

'I find that the legal requirement for planning consent is annoying as it extends the process by several weeks.'

The need for applicants to make extra financial contributions to cover the difference between the amount of grants they received from local authorities and the total cost of their adaptations has also delayed the process from funding to installation. Normally mandatory grants (e.g. DFGs) are issued subject to a means test and the maximum grant limit – that is, clients, who have certain earning/saving, or need adaptations costing above the upper limit, would be asked to pay for any works in excess of their grants (discussed Chapter 2, 3). When clients have any difficulty to make their contribution towards the whole and part of the cost, the process would break down and a waiting time occurs. A housing officer pointed out:

'There is more difficulty for clients to pay for the 20% - having to find charitable funding to assist at times, resulting in delays to the delivery of adaptation works.'

What's worse, a delay in raising the additional funding might engender a second delay caused by price inflation or might lead to early closure of the case. As noted by a local

authority in Perry's study, approximately 25% of the cases, with DFGs granted, did not complete due to lack of client contributions (2015).

The major source of the longest waiting time, between funding and installation, was said to be reaching the agreement of the schedule of work and getting contractors engaged and then finishing the job. Sometimes it was unacceptably slow to finalise specifications of adaptations and to invite approved contractors to tender, as complained by a grant officer:

> *'The process takes for too long. The process would be easier and more efficient if we can build up the speed in doing drawings, putting on to tender and starting the installation.'*

In some local areas, finding a reliable contractor was difficult and time-consuming. Local authorities should keep an approved list of contractors to ensure that there are suitable contractors to take on the installation work, as suggested by a housing officer:

> *'Maximise availability of contractors to undertake works, therefore minimising waiting time for work to start on site.'*

Delays were frequently seen after the contractor had started the adaptation work on site. They might be caused by any of the following: lack of materials, shortage of skilled laborers, or delay of interim payments (Keeble, 1979; Russel, 2016). Any delays could leave the client at the risk of injury or harm.

Another important factor affecting the adaptation process was reported to be the client's control. In essence, the decision about when to start the building work remained in the hands of clients. The process was often delayed for a couple of weeks, or even months, when clients took control of the progress, as highlighted by a housing officer:

> *'The council operates an application process which affords the applicant with as much control as possible over the destiny of their application. While this can at times present delays in the system it leaves maximum control with the client.'*

As explained above, there are a wide variety of reasons for delays in delivering adaptations across various local authorities. A common root cause stemmed from a lack of resources, as not enough money and staff were allocated to keep up with the increased demand. Additional resources are required to strengthen the capacity of local authorities to deliver adaptations. If an adaptation is required for a rented property or affects a building's structure, it is necessary to get landlord permission or planning permission.

Going through these inevitable legal procedures often results in an extended period of time that affects every local council. Importantly, when funding has been authorised, there might be delays while decisions, on how and when to install the item, need to be made. There were often delays when clients were involved in the selection and appointment of a contractor to carry out the work. It requires consideration regarding the amount of control clients should have over their adaptations.

8.5 Summary

Performance monitoring is the key for local authorities to understand the value of housing adaptations and to ensure the success of the services. This chapter has shown that, on completion of an adaptation, it was the local authority's normal practice to visit the client and collect information for performance monitoring. However, there were some concerns about local monitoring systems and service performance:

- Some local authorities did not carry out a follow-up visit to check whether the adaptation work was fully completed and whether the client is able to use it.
- The performance information was collected differently, with some authorities using a single performance indicator and others adopting a set of performance indicators. This led to the difficulty of making comparisons of local adaptation services and developing future plans for service delivery.
- There were a relatively small number of adaptations with low levels of spending compared with potential demands in most local areas. Both the number of completed adaptations and total spending varied significantly across the UK.
- Local authorities broke down the adaptation process into different stages and recorded different timescales. There was wide variability in waiting times not only within each stage but also between stages across local authorities.
- The average length of time taken to complete the whole process remained relatively long, with delays being found in each key stage. It appeared that the previously lengthy waiting lists for OT assessments had switched to the funding stage.
- There were a range of factors causing delays to the process, including limited resources (e.g. staff, funding), legal requirements (e.g. landlord permission, planning permission), paper work, and tendering. These delays have damaged the overall effectiveness of housing adaptation service provision.

In response to these concerns, it is especially important to have a set of positive actions as follow:

- Further policies and better guidelines are needed to ensure that local authorities have formal aftercare visits involving the OT, the technical officer and the grant officer to inspect the completion of the work and to assess the effectiveness of the adaptation.
- New legislation is needed to ensure that local authorities have the monitoring systems to manage service performance. Central government should review local adaptation performance indicators to establish a national approach for collecting service- and client-focused performance indicator information to secure greater efficiency in adaptation interventions.
- Extra sources of funding need to be tapped at both national and local levels, so that adaptation services can reach more people in need each year across all local authority areas.
- There should be a uniform mechanism to set out the main steps in the adaptation process along with methods for recording waiting time for each stage across all local authorities. This helps understanding the waiting time levels for clients and identifying the main blockage points in the process for a seamless service.
- New legislation is needed to ensure that local authorities set timelines for each key stage of the adaptation process to avoid unnecessary delays and reduce waiting times.
- Both partnership and assessment arrangements are major contributors to overall effectiveness of the adaptation process. Local authorities should recognise the importance of close coordination between all partner organisations to establish a joint approach providing a quicker and responsive service to the client.

CHAPTER 9: CONCLUSIONS AND FUTURE RESEARCH

9.1 Introduction

Population ageing has imposed increasing financial strains on the healthcare system in the UK. In face of such a challenge, "ageing in place" was introduced as a general national policy to support older people living independently in their own homes for as long as possible. Housing adaptation was characterised as a very foundation for successful independent living and has been given a greater political priority. However, there were considerable variations in adaptation policies and practices across the UK's local authority areas. This study is aimed at investigating the current status of housing adaptation in different regions in the UK and examining the effectiveness of the existing practice. This examination helps to identify the degree to which local authorities have sought to implement the ambitions of national policies and strategies for housing adaptations.

This chapter summarises the main conclusions of this study and considers future perspectives in the research of housing adaptation. It first brings together key findings from the central research questions raised in Chapter one. After this, it highlights the contributions of this study to both academic literature and adaptation practice, followed by an exploration of potential implications for policy and legislation in relation to housing adaptations. Thereafter, it discloses real life challenges and limitations experienced during the research process. Reflections on this study then leads to a final discussion on areas for further investigation.

9.2 Answers to the Research Questions

The results from reviewing policy, legislation and information on housing adaptations and the findings from quantitative (questionnaire survey) and qualitative (interviews and focus group) studies have provided the basis for addressing the research questions and achieving this study's research objectives. The following discussion provides more details about the answers to each question.

9.2.1 How does government policy and legislation shape and influence the provision of housing adaptations?

In response to the challenge of demographic change, national governments have launched their own healthy ageing strategies and housing strategies:

- The ageing strategies, such as *Strategy for Older People* 2013-2023 in Wales, *Building a Society for All Ages* 2009 in England, and *All Our Futures: Planning for a Scotland with an Ageing Population* 2007 in Scotland, have set out the overall commitment to making best use of housing and housing-related services in supporting people to live independently in their houses for as long as possible. The importance of housing's role in community care for healthy aging has received increased government attention. However, there has been little specific policy guidance on the provision of housing adaptations.
- The government's housing strategies recognised this need and highlighted the importance of housing adaptations within their policy actions. For example, in England, the DCLG issued the strategy of *Lifetime Homes Lifetime Neighbourhoods* 2008 to maximise the impact of the built environment in promoting aging in place. It recognised the contributions of housing adaptation to improved health and independence for older people, as well as to substantial health and welfare savings for the nation.
- However, the adaptation process was found to be time-consuming and frustrating. To speed up the process and meet rising demand, the strategy focuses on the modernisation of the DFG system, including increasing budgets, raising the maximum grant limit and improving the means testing system. It also highlighted the need to strengthen housing information services and to bring together different organisations, such as HIAs, for more effective provision of adaptations.
- Policies in Scotland and Wales followed similar objectives towards housing adaptations, with special emphasis on information accessibility, joint work, grant eligibility and delivery process.
- Given the central-local government relationship, these national level policy aims represent a framework within which local authorities have an opportunity to develop their own detailed policies and action plans. Therefore, the degree to which the improvement of housing adaptations could be achieved depends on how local authorities design the services and deliver them.

The legislative framework that sets out the powers and duties of local authorities to provide adaptations consists of different pieces of legislation:

- While, local social services departments have general duties under the CSDP Act to fund adaptations, the housing authorities usually assist with adaptations through housing grants (mainly DFGs in England and Wales, mandatory grants in Scotland) under housing legislation and have become the major provider of adaptation services.
- In addition to DFGs/mandatory grants, another two specific grants, housing revenue and housing association funding, are often used by local authorities and housing associations to fund adaptations in their own properties.
- Therefore, the funding avenues available depend on the types of tenure. For approval of a DFG/mandatory grant, the housing authority should satisfy that an adaptation is necessary and appropriate for the needs of a disabled applicant and that it is reasonable and practicable to adapt the property. In deciding whether the adaptation work is necessary and appropriate, the housing department should consult the social services department.
- The adaptation process normally involves at least two local departments within the unitary authority – the social services department for assessment and the housing department for grant approval. In a two-tier system, decision making usually involves two different levels of local authorities, where the county council provides OTs assessment and the district council awards grants.
- Since the introduction of Home Improvement Agencies (HIAs, called C&R in Scotland), many local authorities have worked in partnership with HIAs/C&R who offered help from discussing the client's needs to supervising the building work during the delivery of DFGs/mandatory grants.
- Because of the complicated web of legislation, it is quite common to find that the adaptation process is administered by multiple departments and organisations in many local authorities. As a result, clients, many are elderly people, have to deal with a variety of organisations and professionals when carrying out home adaptations.

9.2.2 How do local authorities plan, organise and monitor their adaptation services?

Service planning is the starting point for providing housing adaptations:

- It mainly involves budget setting, budget monitoring and partnership working. Currently, the multiple budget sources for adaptations in different housing tenures still prevail and many local authorities operate the tenure-based funding system.
- When setting their annual budgets, local authorities usually rely on the previous year's spending rather than the survey of the real need. In some local councils, there was no budget setting as the resources available for housing adaptations depended entirely on the annual funding allocation from the central government.
- Instead of increasing budgets for housing adaptations, most local authorities maintained the same budget or even trimmed their budget in the coming year. It was common practice for local authorities to monitor spending against budget on a monthly basis.
- Normally, the housing department, the social services department and external associated agencies, such as HIAs and C&R, worked as collaborating but independent partners in carrying out housing adaptations.
- Some local authorities also worked with other organisations, such as NHS and social enterprise. In a few local councils, an integrated authority was established as the single body responsible for adaptation services.
- Because of the various organisations involved, many local councils laid down guidelines to specify service entitlement and service process between partners.

Although housing adaptations can remove environment barriers to support independent living at home, the applicant has to navigate through a number of procedural steps and a network of services organisations towards a successful adaptation.

- An adaptation request can be triggered through referral by a healthcare professional or self-referral by an applicant. However, most local authorities did not receive any referrals made directly by applicants; there was relatively poor awareness of adaptation services among private occupiers/tenants.
- Although there are a range of referral routes, some local authorities did not have a standard inquiry form or a shared IT system covering all access points to collect basic information needed for assessment.

- After receiving initial enquiries, most local authorities used a screening mechanism to prioritise referrals for assessments. Despite this, only a few local councils have set explicit target waiting times for assessments of different priority categories.
- Where a priority framework is used, referrals often fall into three bands of high, medium or low priority. It was found that local authorities managed to carry out quicker assessment visits for the high priority cases than for the medium or low priority ones.
- Before considering eligibility, an assessment must be carried out to establish the extent of needs. Traditionally, the assessment was carried out by an OT. There are variations in the use of OTs; some local authorities always required them to do all assessments, while others only involved them for complicated cases and appointed ancillaries, such as OT assistants and social workers, to deal with the simple requests.
- National standard eligibility criteria were published to promote consistent and equitable provision of housing adaptations across all local areas. However, some local authorities have not applied the national criteria to determine eligibility for the provision of housing adaptations. As a result, there have been considerable variations in local eligibility criteria.
- Once a grant has been authorised, the process of installation can go ahead. Firstly, the client's needs must be translated into a specification for an adaptation scheme. This specification needs to be agreed between professionals and clients as it is linked to a desired outcome. In fact, most local councils helped clients to understand their adaptation specification.
- When the detailed specification is finalised, the client starts to seek quotations but frequently faces difficulties in finding appropriately skilled contractors. To assist clients, most local councils maintained a list of contractors.
- As the timing of the installation work is decided by the client, there is a risk of the process being put on hold due to indecision by the client.
- Some local authorities allow approved grants to be carried forward to the following year if not spent within the current financial year. However, most local councils set a deadline for spending either within a period of time or within the current financial year otherwise the grant would be withdrawn.

The provision of an adaptation should not stop at installation. There is one more step of measuring adaptations provision performance, in order to ensure service quality and value.

- Most local authorities collected information to monitor and report their adaptation services.
- However, performance information was gathered inconsistently, with some authorities using a single performance indicator and others adopting a set of performance indicators, including positive outcomes, customer satisfaction and impacts of adaptations.

9.2.3 What did not work well with local delivery systems for housing adaptations and what are reasons?

As aging is taking place in the UK, there has been a sustained growth in demand for housing adaptations. However, many local authorities tended to maintain or even reduce their annual budget for housing adaptations. As a result, there was substantial unmet need. This was caused principally by two factors.

- Firstly, the majority of local authorities set adaptation budgets based on the previous year's expenditure. Such a budget setting approach fails to assess both accurate spending and real needs, because sometimes spending does not occur in the same year that the application is approved and the gap between approval and payment can be as much as 12 months. Many local authorities do not carry out an assessment of the real need for adaptations. Instead they simply claimed that their budget allocation was sufficient to meet the demand. However, an in-depth assessment of needs is the starting point for all local authorities to secure the necessary resources and to develop strategic planning for adaptation services.
- Secondly, resources for housing adaptations were limited and only a few councils had set aside a pot of local capital funds in addition to central government grants, such as DFGs. Some local authorities reported funding shortages and complained about the difficulty of keeping actual expenditure within budget limits. When there was not enough funding to meet the demand, local authorities tended not to advertise the availability of adaptation grants widely. As a result, there were people in need who were unaware of adaptation services available to them. There are also issues with budget management, which prevented local authorities from

getting the best value out of existing adaptation investments. All these deficiencies make it difficult for local authorities to take a strategic overview of service provision. However, developing strategic planning is the key to ensure that adaptation services do meet all client needs.

The funding shortage problem is often exacerbated by conflicts between partner organisations involved in the process of adaptations.

- Under the current legislation, the social services department is responsible for assessment of needs and the housing department for the approval of grants. Unsurprisingly, the survey found that these two departments were the key partners for delivering housing adaptations. Other associated organisations, such as HIAs and C&R, also played an important role in the provision of adaptations. The integrated authority, as a solution to fragmented responsibilities, has not received much attention.
- Overall, there were different departments or organisations working together to carry out adaptations in different local authorities. Their cooperation is the key for the delivery of a seamless service. Many local authorities have published guidance on the responsibilities and duties of partner organisations in the provision of adaptations. This guidance was found to have a positive impact on effective joint work. Although most survey respondents considered their current partnership arrangement as effective, there were still complaints about conflicts and disconnections between partners, especially when the adaptation process was organised under the two-tier system.

Common complaints about the adaptation process associate with its complexity, prolixity and variety. The current process of adaptations often includes six key stages over several different organisations who take responsibility for different stages.

- During the referral and allocation stages, some local authorities did not operate a standard approach towards enquiries from different entry points. Initial requests for adaptations may take longer to reach OTs or even be put aside when information on applicants was collected incompletely. There were no or only very few referrals made by applicants themselves in most local authorities and unsurprisingly, public awareness of adaptation service remained quite low. Due to the complexity of the adaptation process, it is not always easy for clients to find out which stage they are in and who they can approach for assistance. To help the

client, most local authorities allocated a key caseworker who could be contacted throughout the whole process. The initial screening mechanism was widely deployed by local authorities to classify all referrals into different priorities and to decide who (e.g. an OT, a social worker) should make further assessments of them. This helped local authorities to provide faster visits and assessments for urgent needs. However, non-urgent applicants probably have to wait longer.

- During the assessment and funding stages, lengthy waiting times were common as OTs were always overwhelmed by the volume of requests. In order to back up the OT's services and speed up the assessment process, most local authorities employed OT assistants, or other assessors, to deal with less complicated cases. In some local authorities, self-assessment was used as a substitute for, or a part of, the professional assessment. These ancillary assessments have positively impacted the effectiveness of local assessment arrangements. However, there were certain concerns that OT assistants might lack the skills or experiences required to pick up hidden needs and to make an expert diagnosis. Local authorities have established different criteria to determine whether an OT would be called in to give assessment, meaning that the threshold for OT assessments can be easily shifted by local policies. There is a danger that cases which need professional input of OTs are allocated to OT assistants. Although national eligibility framework was issued by central government, criteria for accessing housing adaptations varied markedly across the country. Risks related to health, the living environment and care arrangements have been widely accepted as eligibility criteria, but they were defined differently in different local authorities. Clearly, some local councils set relatively rigid criteria for funding housing adaptations, while others had a loose set. This indicates that what was eligible for an adaptation grant in one place might be not eligible elsewhere and that there was potential inequality or "postcode lottery" in the provision of adaptations.
- During the installation stage, local authorities tended to keep a list of approved contractors, but the existence of this list was not broadly advertised. As a result, clients may have to spend more time in obtaining tenders from contractors. The final specification of an adaptation was normally confirmed with the client in most local authorities. This is essential for the client to understand what will be carried out on their property and for the installation process to go ahead quickly. However, it was found that delays were sometimes caused by the client, who has the final say on when adaptation work can start. According to the HGCR Act, the

adaptation work should be carried out within twelve months after the approval of grants, but local authorities have the discretion to extend this period when there were reasonable causes. The survey found two opposite ways of dealing with grants which are not spent within the given deadline, withdrawal or allowing the grant to be carried forward. This divergence reflected inconsistent practices among local authorities, which resulted in inequality of access to adaptation service provision.

Following completion of the adaptation work, it is the local authority's normal practice to visit the client and gather certain information for performance monitoring and management. However, there are a range of issues:

- Performance indicator information was collected differently across different local areas and by different service providers. This made it difficult to draw comparisons of local adaptation services and to demonstrate value for money.
- The average number of adaptations, carried out each year in most local authorities, was still relatively small, compared with the potential demand from an ageing population. The level of government spending was also low and there was no sign of major changes in this regard.
- Delays in the delivery of housing adaptations often led to increased demand for residential care and a waste of public resources. Central government sets out policies to address waiting lists for adaptations. However, the implementation of these policies appeared to be limited and delays were frequently found in many local councils.

9.2.4 What improvements can be made to guarantee the minimum standards and facilitate the best practice?

The deficiencies in current adaptation practice show that fundamental changes are needed to reshape the organisational and financial systems both locally and nationally. At the local level, departments and agencies must strive to improve strategic planning, develop effective joint working, streamline the adaptation process and promote performance monitoring.

- To develop an effective strategy for housing adaptation services, the starting point is to have a sound understanding of the needs that exist within the local authority

area and of the resources that are available across departments and agencies to meet these needs. The mapping of needs and supply helps the local authority to identify any shortfalls in the provision of adaptations, review eligibility criteria for funding, and ultimately make the best use of resources. This requires discussion and joint commissioning within all partner agencies.

- The joint work is a prerequisite to establish a shared vision and common objectives between partners in the design of housing adaptations. It is also important for the successful delivery of housing adaptations. There needs to be formal arrangements in place that bring together housing, social services and any others who have played a part in the adaptation process.
- Effective liaison can be secured by regular meetings, joint trainings and other agreed procedures, so that partners can develop regular communications and information sharing on service entitlement and delivery process. Such cooperation is the key to speeding up the process and delivering best value.
- Clear potential for improvements exists in the delivery arrangements for adaptations. The key step is to tackle delays that occurred at different stages during the adaptation process.
- At the referral and allocation stages, introducing an official referral form or a shared standardised IT system would be beneficial. It would help collect basic information without redirecting clients or putting requests on hold. It would also be helpful to use an initial screening system for prioritising referrals and to set target waiting times for assessments of different priority categories.
- At the assessment and funding stages, the use of ancillary assessments, such as self-assessments and OT assistant assessments, can offer a practical solution to long waiting lists for OT assessments. Streamlining the assessment process can be achieved through reviewing the eligibility criteria to match the available resources.
- At the installation stage, maintaining a panel of approved contractors within the local authority enables the client to make a speedy choice of the preferred contractor. Local authorities should recognise the role of agencies, like HIAs, in organising and managing the building work, and coordinate with them to save both time and costs in the installation.
- In order to demonstrate value for money and identify areas for improvement, there should be measurements put in place to evaluate the effectiveness and quality of

service performance. A consistent approach to performance indicators collection can secure equity and efficiency in adaptation interventions.

The efforts of local authorities are necessary but not sufficient to improve current adaptation systems and to deliver better outcomes, as many of the issues identified have their roots in the national policy and legislation framework. Revising this framework is the key to guaranteeing minimum standards for the provision of housing adaptations.

- Overall, central government needs to coordinate housing and community care policies, to ensure sufficiently funded systems in place, to define roles and responsibilities of all partners in the adaptation process, and to introduce a standardised system for performance monitoring.
- Chapter 2 discussed a range of ageing and housing policies in relation to housing adaptations. These policies should be better coordinated at the national level to highlight the importance and priority of housing adaptations in national policy areas, to provide a checklist of key action points for effective service planning and delivery, and to ensure this service is given appropriate priority in local strategies.
- After putting all relevant resources together for greater integration across health, housing and social care, it is important for central government to ensure that specific funding can continue to be made from the pooled budget for adaptations.
- Equally important is that central government should review the current regulatory framework and publish policy guidance to clarify the roles of partner organisations in the delivery of adaptations and to overcome fragmented responsibilities between them.
- Agreement on a set of national performance indicators is needed to promote more consistency and raise the overall standards of performance.

9.3 Contributions of this Study

9.3.1 Contribution to Knowledge

This study has made some substantial contributions to the theory, methodology and literature by filling the knowledge gaps. First, findings in this study provided useful insights into environmental gerontology that emphasises an interdisciplinary understanding of person-environment fit processes in ageing.

- There are different theoretical models that have contributed to understanding the physical, social and psychological aspects of person and environment. Adaptation to the home environment for older people is a place integration process that requires focusing on connections among macro aspects like the interaction between national policies and local practices, as well as among micro aspects like the relationship between service providers and service users.
- The integration of person and place can be understood in this study through the interaction between the client and service professionals during the process of housing adaptations.
- Older people's functional problems have to be translated into eligible needs for accessing housing adaptation services. This translation is performed through a process of negotiation of different practical steps to the delivery of home adaptation.

The study has demonstrated the value of a critical realism philosophy as a theoretical foundation for mixed-method research in the fields of public service and social policy.

- The study adopts an evaluation approach to investigate the effectiveness of national and local governments' policies in relation to delivering housing adaptations to enable older people ageing in their own homes. This approach helps identify the major blockage points in the process of housing adaptations and offer solutions to remove these blockages in the real world. Although mixed methods have been widely accepted for social sciences, there is little research in using them for evaluation research.
- A mixed-methods sequential explanatory strategy is employed. In the first quantitative phase, a questionnaire survey focuses on how local authorities plan, organise and monitor their adaptation services. This is followed by a second qualitative phase involving individual interviews and a focus group to explore different perspectives on the statistical results in more depth.
- Both phases are combined when selecting professionals and clients for interviews and formulating the interview questions for the qualitative data collection. The quantitative and qualitative results are then integrated to assess the effectiveness of housing adaptation practices.

This study has contributed to the literature concerning environmental intervention, which currently lacks a comprehensive review of local adaptation practices across the UK.

- As the policy framework for the delivery of housing adaptation is mainly operated by the Scottish Parliament and the Welsh Assembly, only a few reviews were commissioned by the devolved governments to examine the provision of housing adaptations within each nation. This study reviews the current status of housing adaptation in different nations in the UK and assesses the effectiveness of the existing practice.
- Moreover, no study had previously investigated key stages of the adaptation process and subsequently addressed particular issues with each stage. This research focuses on the whole process of adaptation from initial request to work completion. It identifies what impedes each key stage of the adaptation process and recommends ways to remove these barriers from policy and legislative perspectives.

9.3.2 Contribution to Practice

This study has contributed to practice by identifying what worked well and what did not with local adaptation systems. The survey results have identified some examples of good practice:

- Given the high demand for housing adaptations, it is important to ensure effective financial oversight of available resources and to prevent the budget from being exhausted early in the year. In fact, most local authorities monitored spending against budget on a monthly basis.
- More importantly, there has been a greater alliance between service providers and service users. A range of actions have been taken to put service users at the centre of the adaptation process, including allocating them a key case worker who has oversight of the application, keeping them informed of progress with the assessment, and providing an agency service like HIAs and C&R to support them throughout the process.
- There should be a shared view and agreement between professionals and clients about the specification of an adaptation work, as it will be used on site as a checklist and is linked to the desired outcome. This has received widespread acceptance and most local authorities have helped clients to understand the specification of their adaptation.

- Following the completion of adaptations, local authorities normally visit clients and collect information to monitor the achievement of adaptations and report service performance.

These good practices highlighted some significant improvements in local arrangements for housing adaptations. However, there are still some unresolved problems relating to current local adaptation practices:

- This study has revealed noticeable differences between the different nations in the UK. Overall, the Welsh government gave more attention to adaptation services and made them a much higher political priority than the England and Scotland governments, and provided a higher level of funding. In Scotland, local authorities focus primarily on middle- and small-scale adaptations with a cost up to £3,000. In England, the adaptation service is complex with the involvement of the two-tier government – the district and county councils.
- The way of setting an adaptation budget based on the previous year's spending is problematic; it does not reflect the changing needs. As the general population is ageing, demands for housing adaptation are logically set to increase. This leads to substantial unmet demand, or hidden demand, due to many elderly people simply not being aware of this adaptation service. Overspending occurred frequently, causing adaptation waiting lists.
- Currently, multiple organisations are involved in the adaptation delivery process. Poor cooperation between partnering organisations is a major barrier to timely and effective service delivery.
- There are many inconsistencies and inequities in the adaptation process between local authorities, including initial referral, assessment arrangements, eligibility criteria and grant approval.
- There are huge differences in waiting times for the delivery of housing adaptations across the UK. The average time taken from initial referral to work completion is quite long, with the longest waiting time being at the funding and the installation stages.
- Delays are often found in each stage of the adaptation process. They result from a variety of factors, including unavoidable legal procedures, the specification of adaptation work, the selection of a reliable contractor and the client's control over the installing work. Some priority systems lead to faster processing of urgent cases but longer waiting for non-urgent clients.

- Different monitoring methods and a variety of performance indicators are used in different local authorities. As a consequence, there are certain difficulties in making meaningful comparisons of local adaptation services and demonstrating value for money.

9.3.3 Potential Contribution to Policy

Housing adaptation, because of its potential to help older people ageing in their own homes, has been given political priority in the UK. National ageing strategies place a great emphasis on making use of housing services, including adaptations, in supporting people to live independently in their houses for as long as possible. Housing strategies set out a number of policy objectives to remove barriers in the design and delivery of housing adaptations for better service outcomes.

However, the survey results of this study have shown that the current implementation of adaptation policies is limited in most local areas.

- There are a relatively small number of adaptations, carried out each year in most local authorities, compared with potential needs from population ageing.
- The level of government spending is also low; there is no sign of major changes in this regard.
- This current funding allocation is not sufficient to meet the existing demand and that estimated future allocations are unlikely to keep pace with the anticipated increase in demand.
- Issues, such as poor service planning, fragmented responsibilities, bureaucratic procedures and inconsistent practice (concluded in Section 9.3.2), have caused inefficiencies and ineffectiveness of the adaptation services.

These issues present significant challenges to policymakers in the context of healthy ageing and community services. To address these challenges, specific actions need to be taken and are summarised as follows:

- There needs to be a higher priority for housing adaptations in both national and local policies to ensure greater investment in this area. National governments should coordinate policies across housing, health and social care to reinforce the high priority of housing adaptations and publish guidance for the implementation

of these policies. Following this guidance, local governments need to give expenditure for adaptations a greater priority and to take a more holistic approach to redesign the service.

- Revised national policies are needed to make sure that local authorities have a clear responsibility for developing strategic plans for adaptation services, including identifying the potential need and allocating the necessary resources.
- Practical guidance for partnership and a single unified system should be provided to improve information sharing and joint working between all partner organisations, especially across different local authorities.
- National policies should recognise the important role of an agency service like HIA and C&R in the delivery of housing adaptation. Local authorities should work closely with these agencies to help clients through the adaptation process as swiftly as possible.
- New policies should highlight the importance of using the initial screening mechanism, OT assistants and self-assessments to streamline the assessment process.
- National governments should require local authorities to set target waiting times for the assessment of less urgent needs and to adopt a proactive approach for long-term planning of adaptation provision.
- Specific policies and better guidelines are needed so that local authorities have formal aftercare arrangements in place to inspect the completion of the work and to ensure the appropriateness of the adaptation.
- There should be further policies to guide local authorities in developing standard specifications, schedules of rates and a list of approved contractors as the ways to save more time at the stages of funding and installation. It is necessary for local authorities to have policies in place to ensure consistency and equality of opportunity for all contractors on the list.

9.3.4 Potential Contribution to Legislation

Since the provision of housing adaptations is mainly determined by social care law and housing law, this study introduced the relevant legislation and identified existing issues within the current legislative framework:

- There is no single piece of legislation covering the provision of adaptations in all housing tenures. The current financial system is complex and confusing, with different funding routes for housing adaptations in different tenures.
- New legislation, such as the Care Act, sets up a single pooled budget for better integration of health, housing and social care services. The adaptation grants are going to be swallowed by this single pot. This, on the one hand, gives local authorities more flexibility in the use of funding and in the provision of services. On the other hand, there is greater uncertainty about future investment and planning for housing adaptations, especially in two-tier areas, where the single polled budget is managed by the county council but the legal responsibility for adaptation provision remains with the district council.
- No current legislation actually identifies one primary organisation responsible for adaptation services. This has resulted in fragmented responsibilities between partner organisations for the delivery of housing adaptations.
- Because of the mandatory nature of adaptation grants, there are a number of legal requirements needed (e.g. landlord consent, planning permission) to be met and paper work (e.g. title deed, income approval) to prepare. These bureaucratic procedures have caused unacceptable delays in the completion of essential home adaptations.
- Due to the lack of specific legislation, different local authorities are allowed to decide their own guidelines, procedures and eligibilities, leading to considerable variations in local adaptation practices.

These identified issues and deficiencies of the current adaptation practice highlighted in this study (concluded in Section 9.3.2) have a range of legislative implications:

- The national government should publish statutory guidance to ensure that a certain proportion of the pooled budget can continue to fund housing adaptations.
- It is necessary to create a single Act which introduce a standard system for the provision of housing adaptations. This new legislation aims to deal with all aspects of service provision, including roles and responsibilities of partners, procedures, eligibility criteria and performance indicators. It should also make the procedures for providing mandatory grants for adaptations, especially low-cost adaptations, more effective and less bureaucratic.

- The national minimum threshold of grant eligibility for adaptations needs to be clarified in legislation to promote more consistency of adaptation practice across different local authorities.
- Central government should review the legal framework governing the administrative process of grant approval and allow local authorities more flexibility in the ways of meeting legal requirements and carrying out housing adaptations.
- There should be legal arrangements to assist clients with their contribution towards the cost of adaptation work subject to means testing or the maximum grant amount. The role of social services in helping with any grants exceeding the upper limit also needs to be clarified in further legislation.
- New legislation is required to explain in detail when local authorities should issue a decision on the grant application, when the installation work should be started, and under what circumstances the timescale can be extended.
- There should be legislation to ensure that local authorities have a standard monitoring system for performance management. In terms of statutory performance indicators, positive outcomes (e.g. completed numbers, total costs) and delivery times should be monitored to benchmark service performance and to support strategical planning.

9.4 Limitation of this Study

While this study brought new understanding of the current delivery systems for housing adaptations in the UK, there are some limitations:

- Difficulties in evaluating the adaptation service were that the systems for delivering them varied from tenure to tenure and also from area to area, with different professionals and organisations being involved along with diverse funding streams being used. For example, in some places, the housing departments and housing associations carried out all adaptations for their tenants using their own budgets with little bureaucracy, while in other places, social tenants were required to pay for part of the adaptation work or apply for a special grant following cumbersome bureaucratic procedures. Also, OTs were sometimes

based within the social services departments, or the housing departments, or the health trusts.

- The role of agencies, such as HIA and C&R, in the delivery of adaptations differed from authority to authority. Some agencies have worked in partnership with local departments and even taken all responsibilities for the provision of adaptations, whilst others just provided advice or small repairs.
- The adaptation process was characterised by locality and complexity. Such complexity implied that within a limited period of time a completed research on the provision of adaptations in all housing tenures seemed unlikely.
- As the majority of applicants seeking housing adaptations were older owner occupiers and had little knowledge about the service, this study focused on the pathway of adaptations being carried out in the private sector and no attempt was made to investigate the state of provision in the social housing.
- The main areas of legislation that underpin the provision of housing adaptations are social care law and housing law. In principle, local social services authorities have general duties under social care legislation to fund home adaptations; housing authorities usually assist with adaptations through housing grants under housing legislation. It appeared that social services funding tended to support minor adaptations whilst housing grants were mainly awarded for major adaptations. Even so, it was important to note that because of the interplay between housing and social care legislation, adaptations under housing legislation should be taken into account in a wider context of welfare legislation.
- Technically major adaptations were the more significant works that cost in excess of a certain amount (e.g. £500, £1000) and accordingly, their delivery system was more complicated (e.g. involving social services making assessments and housing department providing grants). However, this study did not adopt the classification of minor and major adaptations but laid stress on just those adaptations that came under housing grants legislation and to investigate their delivery process. This is because that there was no consistent boundary between minor and major adaptations across the UK and in fact, the cut-off point varied considerably from local authority to local authority.
- Given this study's aim to evaluate the effectiveness of housing adaptation services across local authorities, it is important and inevitable to collect information on waiting time for each stage of the adaptation process. In general, there are 5 key stages of provision – referral to allocation, allocation to OT assessment, OT

assessment to OT recommendation, OT recommendation to grant approval, grant approval to installation. However, owing to no uniform service recording mechanism, the timelines for stages given by local authorities varied greatly. For instance, some authorities divided the process into 3 stages, from referral to OT assessment, from OT assessment to OT recommendation, OT recommendation to installation, and provided corresponding dates. In practice, there were 12 compositions for stages at the local level. This made it difficult to calculate and compare timescales for each stage in different compositions.

- Due to increased demand and limited resources, local councils used the screening mechanisms to prioritise applications into different categories (e.g. high, medium and low priorities). As a result, high priority cases received quicker responses including visits, assessments and installations than low priority needs. This means that the time taken for each stage in different priority cases was variable. There were also considerable variations on the time taken to complete different types of adaptations, with simple cases taking one to three months while more complicated cases taking several years. Hence, the timescale question for each stage of the adaptation process specifically sought the "average" waiting time. Even so, the data should be treated with cautions, as some more complex cases are likely to skew the average figure and the real average waiting time might be much lower. However, it must be recognised that the average timeline, possibly skewed, could reflect the majority of adaptations completed in the financial year and provide an overview of local service performance.
- In order to identify bottlenecks within each major stage of the process, a questionnaire was designed in an attempt to understand current local arrangements. However, because different organisations/staff were responsible for different stages, it was difficult to get all these partners to respond to relevant sections of the survey. This especially applied to the district councils where the assessment stage was lodged with the county councils. In consequence, some questionnaires were returned incomplete, with some required information missing. This deficiency admittedly had a negative effect on analysis of the results, but it did disclose the fact that some local authorities did not have shared systems to facilitate effective joint working for adaptation provision.
- Time did not permit detailed work to be carried out on the provision of adaptations for service users with special needs (e.g. learning disabilities, mental problems, sensory impairments).

9.5 Further Research

The broad nature of this study has suggested the following range of areas for further research:

- The main issues with the adaptation process and their causes identified in this research can be useful starting points for further investigation to improve adaptation systems and to achieve better outcomes. For example, given substantial variations in housing adaptation practice, there needs to be a study on standardising the adaptation process across local authorities so that performance can be easily measured and best practice be shared and adopted. The standard adaptation process can be developed by using a multi-method research design. This can involve a questionnaire survey with professionals who practice in the field of housing adaptations across the UK and some deep case studies with local authorities. The questionnaire survey that consists of open and closed questions helps to design the standard process for delivering adaptation services, while the case study can be used to test the proposed process in practice.
- The complexity of the adaptation process in a two-tier system of local government has been evident in this study. There were many complaints about disconnections between partners and delays in the provision. To overcome these bottlenecks, some officers from the district councils expected to have in-house OTs for assessments or to pass their responsibilities to the county councils so that all stages of the adaptation process can be undertaken by the same local authority. This suggests further investigation to determine whether the adaptation process operates within one local authority is more effective. A qualitative research strategy can be adopted to carry out an empirical investigation of the district councils who have or do not have in-house OTs for assessment of the applicant's need for housing adaptation.
- The government integration initiative across housing, health and social care creates more complex and potentially more difficult systems for housing adaptations. There is a significant change in the way that national government allocates funding to local authorities for housing adaptations. Instead of making a direct payment to each local housing authority for the cost of providing housing adaptations, the grants will be paid through a pooled budget to the local council. This, as pointed out by local officers, will lead to a great challenge for service

planning. Therefore, further research is needed to examine the effects of the integration fund on the provision of help with home adaptations, especially in the two-tier system where the county council manage the single funding pot. This research can employ a mixed-methods research approach, including a questionnaire survey towards local authorities to get a whole picture of the number of housing adaptations and the amount of allocated funding under the single budget pot, as well as some in-depth interviews and discussion groups with service providers to establish the impact of the integration initiative on housing adaptations investment and related challenges.

9.6 Summary

This study investigated the effectiveness of the current housing adaptation practice in local authorities across the UK. Housing adaptation, because of its capability to help elderly people stay in their own homes longer and enjoy a good quality of life, has been given great political priority in each nation.

- National ageing strategies highlight the role of housing and housing-related services in supporting ageing in place, while the housing strategies set out objectives towards the provision of housing adaptations. To achieve these objectives, local authorities have developed their own policies and action plans.
- The survey results of this study show that the current implementation of adaptation policies is limited in most local areas. There was a relatively small number of adaptations with low levels of spending, compared with the potential needs of an ageing population.
- On the operational side, the adaptation process was fragmented, involving different service groups in different local authorities. There were many inconsistencies and inequities in the process across local authorities, including initial referrals, assessment arrangements and eligibility criteria. Performance management varied significantly across the whole country, with the use of different monitoring methods and a variety of performance indicators. These issues have caused inefficiencies and ineffectiveness; delays were often found in the delivery of adaptations.
- Moving forward, local authorities need to have a clear vision on the overall need for adaptations and allocate sufficient resources. Practical guidelines are also

needed to improve joint working and performance monitoring. It is important to develop a national approach of carrying out adaptations with a minimum eligibility threshold that applies to all local areas, in order to ensure an equal access to adaptation services.

- The findings of this empirical study have a number of implications for legislation, policy and practice. They offer a useful insight into the effectiveness of legal and administrative systems for delivery of housing adaptations. They also provide an evidence base for national governments to reshape policy objectives for housing adaptations and for local authorities to restructure their adaptation services.
- These contributions indicate that many valuable studies can be further undertaken. It is important to investigate, for example, where new policies and laws can be introduced to improve the adaptation systems, how to standardise the adaptation process, including eligibility criteria, for consistency in service, whether the government integration initiative and its single pooled budget have positive effects on the provision of housing adaptations.

REFERENCES

Aberdeen City Council. (2012). Scheme of assistance. [Online]. Available at: http://www.aberdeencity.gov.uk/web/files/HousingAdvice/scheme_of_assistance.pdf [accessed 20 Novenmber 2016].

Abramsson, M. and Andersson, E. (2016). Changing preferences with ageing–housing choices and housing plans of older people. *Housing, Theory and Society*, *33*(2), 217-241.

Adams, S. (2016). *Off the radar: housing disrepair & health impact in later life.* Nottingham: Care & Repair England.

Adams, S. and Ellison, M. (2009). *Home adaptations for older people: the increase in need and future of state provision.* Nottingham: Care & Repair England.

Adams, J. and Grisbrooke, J. (1998). The use of level access showers 12 months after installation. *British Journal of Therapy and Rehabilitation*, *5*(10), 504-510.

Adaptation Working Group. (2012). *Adapting for change*. Edinburgh: Scottish Government.

Andrich, R., Ferrario, M. and Moi, M. (1998). A model of cost-outcome analysis for assistive technology. *Disability and Rehabilitation*, *20*(1), 1-24.

Aneshensel, C.S., Wight, R.G., Miller-Martinez, D., Botticello, A.L., Karlamangla, A.S. and Seeman, T.E. (2007). Urban neighborhoods and depressive symptoms among older adults. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, *62*(1), 52-59.

Appleton, N. and Leather, P. (1997). *Review of the provision of equipment & adaptations for older people*. London: King's Fund Publishing.

Audit Commission. (1998). Home alone: the role of housing in community care. London: the Audit Commission.

Audit Scotland. (2004). *Adapting to the future – management of community equipment and adaptations.* Edinburgh: Audit Scotland.

Audit Scotland. (2014). *Reshaping care for older people.* Edinburgh: Audit Scotland.

Australian Institute of Health and Welfare. (2013). *The desire to age in place among older Australians.* Canberra: the Australian Institute of Health and Welfare.

Awang, D. (2002). Older people and participation within disabled facilities grant processes. *British Journal of Occupational Therapy*, *65*(6), 261-268.

Awang, D. (2004). *Building in evidence: reviewing housing and occupational therapy.* London: College of Occupational Therapists.

Baba, Y. and Austin, D.M. (1989). Neighborhood environmental satisfaction, victimization, and social participation as determinants of perceived neighborhood safety. *Environment and Behavior*, *21*(6), 763-780.

Baltes, M.M., Maas, I., Wilms, H.U., Borchelt, M. and Little, T.D. (1999). Everyday competence in old and very old age: Theoretical considerations and empirical findings. In Baltes, P.B. and Mayer, K.U. (eds.). *The Berlin aging study: Aging from 70 to 100*. Cambridge: Cambridge University, 384-402.

Baltes, P.B. and Mayer, K.U. (2001). *The Berlin aging study: aging from 70 to 100*. Cambridge: Cambridge University Press.

Bamford, C. (2000) *Surveying outcomes of equipment and adaptations*. York: Social Policy Research Unit, University of York.

Banks, J., Blundell, R., Oldfield, Z. and Smith, J.P. (2012). Housing mobility and downsizing at older ages in Britain and the USA. *Economica*, *79*(313), 1-26.

Barling, J. and Griffiths, A. (2003). A history of occupational health psychology. *Handbook of Occupational Health Psychology*, 19-33.

Barrett, J. (2005). Support and information needs of older and disabled older people in the UK. *Applied Ergonomics*, *36*(2), 177-183.

Beard, H. P. J. R. and Bloom, D. E. (2015). Towards a comprehensive public health response to population ageing. *The Lancet*, *385*(9968), 658.

Behrens, J.T. (1997). Principles and procedures of exploratory data analysis. *Psychological Methods*, *2*(2), 131-160.

Bell, D. (2010). *The Impact of Devolution: Long-term care provision in the UK*. York: Joseph Rowntree Foundation.

Bell, J. (2014). *Doing your research project: a guide for first-time researchers*. UK: McGraw-Hill Education.

Bendoly, E. and Swink, M. (2007). Moderating effects of information access on project management behavior, performance and perceptions. *Journal of Operations Management*, *25*(3), 604-622.

Berg, B. L. and Lune, H. (2011). *Qualitative research methods for the social sciences*. 8th edn. Boston, MA: Pearson.

Berument, S.K., Rutter, M., Lord, C., Pickles, A. and Bailey, A. (1999). Autism screening questionnaire: diagnostic validity. *The British Journal of Psychiatry*, *175*(5), 444-451.

Bhaskar, R. (2010). *Reclaiming reality: A critical introduction to contemporary philosophy*. London: Taylor & Francis.

Bhidayasiri, R., Jitkritsadakul, O., Boonrod, N., Sringean, J., Calne, S.M., Hattori, N. and Hayashi, A. (2015). What is the evidence to support home environmental adaptation in Parkinson's disease? A call for multidisciplinary interventions. *Parkinsonism & Related Disorders*, *21*(10), 1127-1132.

Bibbings, J., Boniface, G., Campbell, J., Findlay, G., Reeves-McAll, E., Zhang, M. and Zhou, P. (2015). *A review of independent living adaptations*. Cardiff: Welsh Government.

Blaikie, N. (2007). *Approaches to social enquiry: advancing knowledge*. 2nd edn. Cambridge: Polity.

Blaikie, N. (2009). *Designing social research: the logic of anticipation*. 2nd edn. Cambridge: Polity Press.

Bochel, H. and Bochel, C. (2010). Local political leadership and the modernisation of local government. *Local Government Studies*, *36*(6), 723-737.

Bollnow, O.F. (2011). *Human space*. London: Hyphen Press.

Boniface, G., Mason, M., Macintyre, J., Synan, C. and Riley, J. (2013). The effectiveness of local authority social services' occupational therapy for older people in Great Britain: a critical literature review. *British Journal of Occupational Therapy*, *76*(12), 538-547.

Boniface, G. and Morgan, D. (2017). The central role of the occupational therapist in facilitating housing adaptations/home modifications for disabled children. *British Journal of Occupational Therapy*, *80*(6), 375-383.

Bradford, I. (1998). The adaptation process. In Bull, R. (eds.) *Housing options for disabled people.* London: Jessica Kingsley, 78-114.

Braun, V. and Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, *3*(2), 77-101.

Brewis, C. (1997). Targeting the resources of housing adaptations for people with disabilities. *The British Journal of Occupational Therapy*, *60*(3), 123-128.

Bridges, C. (2010). Home Modification: occupational as the basis for effective practice In Curtin, M., Molineux, M. & Supyk-Mellson, J. (eds.) *Occupational Therapy and physical dysfunction: Enabling Occupation.* 8th edn. London: Churchill Livingston.

Brighton and Hove City Council. (2015). Adapting your home – a guide for disabled people living in the private sector. [Online]. Available at: https://www.brighton-hove.gov.uk/sites/brighton-

hove.gov.uk/files/4640_Housing%20adaptations_webjan15.pdf [accessed 21 Novenmber 2016].

Brooks, E. (2011). Are country towns and villages sustainable environments for older people? *PhD Thesis*. Newcastle University, UK.

Brooks-Wilson, A. R. (2013). Genetics of healthy aging and longevity. *Human Genetics*, *132*(12), 1323-1338.

Brown, A., McCrone, D. and Paterson, L. (1996). *Politics and Society in Scotland*. London: Macmillan.

Bryman, A. (2012). *Social research methods*. 4th edn. Oxford: Oxford University Press.

Bull, R. and Watts, V. (1998). The legislative and policy context. In: Bull, R. (eds.) *Housing Options for Disabled People*. UK: Jessica Kingsley Publishers Ltd.

Burgess, G., and Morrison, N. (2016). Improving housing outcomes: the value of advice and support for vulnerable older people. *Journal of Housing and the Built Environment, 31* (2), 197-211.

Burton, E.J., Mitchell, L. and Stride, C.B. (2011). Good places for ageing in place: development of objective built environment measures for investigating links with older people's wellbeing. *BMC Public Health*, *11*(1), 839.

Care and Repair Cymru. (2011). Rapid Response Adaptations Programme Strategic and Operations Customer Satisfaction Survey Report, Cardiff: C&R Cymru.

Care and Repair Scotland. (2011). *Good practice guide. Glasgow*: C&R Scotland.

Care and Repair Scotland. (2015). Performance Management Framework Report. [Online]. Available at: https://careandrepairscotland-public.sharepoint.com [Accessed 3 December 2016].

Carley, M. (2006). Partnership and statutory local governance in a devolved Scotland. *International Journal of Public Sector Management*, *19*(3), 250-260.

Carmichael, P. (1992). Is Scotland different? local government policy under thatcher. *Local Government Policy Making*, *18*(4), 25-33.

Carmines, E.G. and Zeller, R.A. (1979). *Reliability and validity assessment* . California: Sage Publications, Inc.

Carp, F.M. and Carp, A. (1984). A complementary/congruence model of well-being or mental health for the community elderly. In Altman, I., Lawton, M. P. and Wohlwill, J. F. (eds.) *Elderly people and the environment*. Boston: Springer, 279-336.

Cavet, J. (2009). *Housing for disabled children and their families: an information resource*. York: Joseph Rowntree Foundation.

Centres for Disease Control and Prevention. (2010). *Healthy Places Terminology*. [Online]. Available at: https://www.cdc.gov/healthyplaces/terminology.htm [accessed 7 Novenmber 2016]

Chappell, N.L., Dlitt, B.H., Hollander, M.J., Miller, J.A. and McWilliam, C. (2004). Comparative costs of home care and residential care. *The Gerontologist*, *44*(3), 389-400.

Chen, H.T. (1996). A comprehensive typology for program evaluation. *Evaluation Practice*, *17*(2), 121-130.

Chenail, R.J. (2011). Interviewing the investigator: strategies for addressing instrumentation and researcher bias concerns in qualitative research. *The qualitative report*, *16*(1), 255-262.

Chiatti, C. and Iwarsson, S. (2014). Evaluation of housing adaptation interventions: integrating the economic perspective into occupational therapy practice. *Scandinavian Journal of Occupational Therapy*, *21*(5), 323-333.

Cho, H.Y., MacLachlan, M., Clarke, M. and Mannan, H. (2016). Accessible home environments for people with functional limitations: a systematic review. *International journal of environmental research and public health*, *13*(8), 826-842.

Clark, H., Dyer, S. and Horwood, J. (1998). *That bit of help: The high value of low level preventative services for older people*. Bristol: Policy Press.

Clayton, V. and Silke, D. (2010). *Evaluation of the housing adaptation grant schemes for older people and people with a disability*. Dublin: Housing Agency.

Connell, B. R., Sanford, J. A., Long, R. G., Archea, C. K. and Turner, C. S. (1993). Home modifications and performance of routine household activities by individuals with varying levels of mobility impairments. *Technology and Disability*, *2*(4), 9-18.

Connell, J., Page, S. J. and Bentley, T. (2009). Towards sustainable tourism planning in New Zealand: monitoring local government planning under the Resource Management Act. *Tourism Management*, *30*(6), 867-877.

COSLA, Scottish Government and NHS Scotland. (2011). Reshaping care for older people: a programme for change 2011-2021. [Online]. Available at: http://www.ssks.org.uk/media/177080/reshaping%20care%20for%20older%20people.pdf [accessed 2 Novenmber 2016].

Creswell, J.W. (2003). *Research design. Qualitative, Quantitative, And Mixed Methods Approaches*, 2nd edn. California: Sage Publications, Inc.

Creswell, J.W. and Clark, V.L.P. (2011). *Designing and conducting mixed methods research.* 2nd edn. Carlifornia: Sage Publications, Inc.

Crotty, M. (1998). *The foundations of social research: Meaning and perspective in the research process*. London: Sage Publications.

Croucher, K. (2008). *Housing choices and aspirations of older people: Research from the New Horizons Programme*. London: Department for Communities and Local Government.

Cumming, R.G., Ivers, R., Clemson, L., Cullen, J., Hayes, M.F., Tanzer, M. and Mitchell, P. (2007). Improving vision to prevent falls in frail older people: a randomised trial. *Journal of the American Geriatrics Society*, *55*(2), 175-181.

Cumming, R.G., Thomas, M., Szonyi, G., Salkeld, G., O'Neill, E., Westbury, C. and Frampton, G. (1999). Home visits by an occupational therapist for assessment and modification of environmental hazards: a randomised trial of falls prevention. *Journal of the American geriatrics society*, *47*(12), 1397-1402.

Cunningham, G.O. and Michael, Y.L. (2004). Concepts guiding the study of the impact of the built environment on physical activity for older adults: a review of the literature. *American Journal of Health Promotion*, *18*(6), 435-443.

Cutchin, M.P. (1999). Qualitative explorations in health geography: using pragmatism and related concepts as guides. *The Professional Geographer*, *51*(2), 265-274.

Cutchin, M.P. (2003). The process of mediated aging-in-place: a theoretically and empirically based model. *Social science & medicine*, *57*(6), 1077-1090.

Cutchin, M.P. (2004). Using Deweyan philosophy to rename and reframe adaptation-to-environment. *American Journal of Occupational Therapy*, *58*(3), 303-312.

Dahlin-Ivanoff, S., Haak, M., Fänge, A. and Iwarsson, S. (2007). The multiple meaning of home as experienced by very old Swedish people. *Scandinavian journal of occupational therapy*, *14*(1), 25-32.

Davey, J.A., de Joux, V., Nana, G. and Arcus, M. (2004). *Accommodation options for older people in Aotearoa/New Zealand*. Christchurch: Centre for Housing Research.

Davey, J. (2006). "Ageing in place": the views of older homeowners On maintenance, renovation and adaptation. *Social Policy Journal of New Zealand*, *27*, 128.

Davies, K., Bullock, M., Brandon, A., Wainman, K., Craig, L., Fletcher, P. and Duncan, A. (2012). *A study of the housing and support needs of older people in Herefordshire*. Northumberland: Peter Fletcher Associates Ltd.

Davison, S. (2015). *There's no place like your own home*. Cardiff: Care & Repair Cymru.

De Jonge, D.M., Jones, A., Phillips, R. and Chung, M. (2011). Understanding the essence of home: Older people's experience of home in Australia. *Occupational therapy international*, *18*(1), 39-47.

Dellinger, A. B. and Leech, N. L. (2007). Toward a unified validation framework in mixed methods research. *Journal of Mixed Methods Research*, *1*(4), 309-332.

Denscombe, M. (2008). Communities of practice. *Journal of Mixed Methods Research*, 2, 270-283

Department for Communities and Local Government. (2008). *Lifetime homes, lifetime neighbourhoods*. London: DCLG Publications.

Department for Communities and Local Government. (2009). *Survey of English Housing, 2007-2008.* London: DCLG Publications.

Department for Communities and Local Government. (2011). *Disabled facilities grant allocation methodology and means test*. London: DCLG Publications.

Department for Work and Pensions. (2005). *Opportunity age: meeting the challenge of ageing in the 21st century.* London: DWP Publications.

Department for Work and Pensions. (2009). *Building a society for all ages.* London: DWP Publications.

Department of Health. (1999). Long term care – the Government's response to the health committee's report on long term care. [Online]. Available at: http://www.gov.scot/Resource/0047/00475361.pdf [accessed 20 March 2017].

Department of Health. (2013). Improving quality of life for people with long term conditions. London: Department of Health. [Online]. Available at: https://www.gov.uk/government/publications/2010-to-2015-government-policy-long-term-health-conditions/2010-to-2015-government-policy-long-term-health-conditions [accessed 17 January 2017].

Diener, E. and Crandall, R. (1978). *Ethics in social and behavioral research*. Chicago: Chicago University Press.

Dillman, D.A. (2009). Some consequences of survey mode changes in longitudinal surveys. *Methodology of longitudinal surveys*, 127-140.

Dillman, D.A., Smyth, J.D. and Christian, L.M. (2014). *Internet, phone, mail, and mixed-mode surveys: the tailored design method*. 4th edn. New Jersey: John Wiley & Sons.

Docherty, I., Gulliver, S. and Drake, P. (2004). Exploring the potential benefits of city collaboration. *Regional Studies*, *38*(4), 445-456.

Donald, I. P. (2009). Housing and health care for older people. *Age and Ageing*, *38*(4), 364-367.

DuBroc, W. and Pickens, N.D. (2015). Becoming “at home” in home modifications: Professional reasoning across the expertise continuum. *Occupational Therapy in Health Care*, *29*(3), 316-329.

Dupuis, A. and Thorns, D.C. (1998). Home, home ownership and the search for ontological security. *The sociological review*, *46*(1), 24-47.

Dsouza, V. (1993). The concept of active aging. *Indian Journal of Social Work*, *54*(3), 333-344.

Easterby-Smith, M., Golden-Biddle, K. and Locke, K. (2008). Working with pluralism: determining quality in qualitative research. *Organizational Research Methods*, *11*(3), 419-429.

Edwards, I.R. and Shipp, A.I. (2007). The relationship between person-environment fit and outcomes: an integrative. *Perspectives on organizational fit*, *209*.

Edwards, P., Roberts, I., Clarke, M., DiGuiseppi, C., Pratap, S., Wentz, R. and Kwan, I. (2002). Increasing response rates to postal questionnaires: systematic review. *British Medical Journal*, *324*(7347), 1183.

Ekstam, L., Carlsson, G., Chiatti, C., Nilsson, M.H. and Fänge, A.M. (2014). A research-based strategy for managing housing adaptations: study protocol for a quasi-experimental trial. *BMC health services research*, *14*(1), 602-612.

Ekstam, L., Fänge, A.M. and Carlsson, G. (2016). Negotiating Control: From Recognizing a Need to Making a Decision to Apply for a Housing Adaptation. *Journal of Housing For the Elderly*, *30*(4), 345-359.

Etikan, I., Musa, S.A. and Alkassim, R.S. (2016). Comparison of convenience sampling and purposive sampling. *American Journal of Theoretical and Applied Statistics*, *5*(1), 1-4.

European Commission. (2002). Europe's response to world ageing promoting economic and social progress in an ageing world a contribution of the european commission to the 2nd world assembly on ageing. *COM (2002) 143 final.*

European Commission. (2007). *Healthy ageing – a challenge for Europe*. Sweden: the Swedish National Institute of Public Health.

European Commission. (2011). Proposal for a regulation of the European Parliament and of the Council on establishing a health for growth programme, the third multi-annual programme of EU action in the field of health for the period 2014-2020. *COM (2011) 709 Final.*

Ewart, I.J. and Harty, C. (2015). Provision of disability adaptations to the home: Analysis of household survey data. *Housing Studies*, *30*(6), 901-923.

Fänge, A. and Iwarsson, S. (2003). Accessibility and usability in housing: construct validity and implications for research and practice. *Disability and Rehabilitation*, *25*(23), 1316-1325.

Fänge, A. and Iwarsson, S. (2005). Changes in ADL dependence and aspects of usability following housing adaptation—a longitudinal perspective. *American Journal of Occupational Therapy*, *59*(3), 296-304.

Farber, N., Shinkle, D., Lynott, J., Fox-Grage, W. and Harrell, R. (2011). *Aging in place: A state survey of livability policies and practices.* Washington: AARP Public Policy Institute.

Feddersen, E. and Lüdtke, I. (2014). (eds.) *Lost in space: Architecture and dementia*. Switzerland: Birkhäuser.

Fernández-Ballesteros, R. (2008). *Active aging: the contribution of psychology*. Boston: Hogrefe Publishing.

Fernández-Ballesteros, R., Robine, J. M., Walker, A. and Kalache, A. (2013). Active aging: a global goal. *Gerontology and Geriatrics Research*. [Online]. Available at: https://www.hindawi.com/journals/cggr/2013/298012/ [accessed 3 Novenmber 2016].

Fine-Davis, M. and Davis, E.E. (1982). Predictors of satisfaction with environmental quality in eight European countries. *Social Indicators Research*, *11*(4), 341-362.

Fink, A. (2012). *How to conduct surveys: A step-by-step guide.* Califonia: Sage Publications, Inc.

Flory, J. and Emanuel, E. (2004). Interventions to improve research participants' understanding in informed consent for research: a systematic review. *Jama*, *292*(13), 1593-1601.

Foddy, W. (1994). *Constructing questions for interviews and questionnaires: theory and practice in social research*. Cambridge: Cambridge University Press.

Forsyth, K. and Kviz, F. (2006). Survey research design. In Kielhofner, G. (ed.). *Research in occupational therapy: methods of inquiry for enhancement of practic*e, 607-619. Philadelphia, PA: FA Davis.

Foundations. (2008). *A review of demand for disabled facilities grant (DFG) in the east midlands.* Midlands: Presented to Government Office East Midlands.

Frank, J.B. (2002). *The paradox of aging in place in assisted living*. Westport, CT: Bergin & Garvey.

Fries, J.F. (2002). Aging, natural death, and the compression of morbidity. *Bulletin of the World Health Organization*, *80*(3), 245-250.

Gallagher, J. (2012). *England and the Union: how and why to answer the West Lothian question.* London: IPPR.

Garrett, H. and Burris, S. (2015). *Homes and ageing in England*. Watford: the Building Research Establishment.

Gilderbloom, J.I. and Markham, J.P. (1996). Housing modification needs of the disabled elderly: what really matters?. *Environment and Behavior*, *28*(4), 512-535.

Gill, J. and Johnson, P. (2010). *Research methods for managers*. London: Sage Publications.

Gill, P., Stewart, K., Treasure, E., and Chadwick, B. (2008). Methods of data collection in qualitative research: interviews and focus groups. *British Dental Journal*, *204*(6), 291-295.

Gillham, B. (2008). *Developing a questionnaire*. London: Bloomsbury Academic.

Gitlin, L.N. (1998). Testing home modification interventions: issues of theory. *Annual Review of Gerontology and Geriatrics*, 18, 190.

Gitlin, L.N. (2003). Conducting research on home environments: lessons learned and new directions. *The Gerontologist*, *43*(5), 628-637.

Gitlin, L.N., Corcoran, M., Winter, L., Boyce, A. and Hauck, W.W. (2001). A randomized, controlled trial of a home environmental intervention: effect on efficacy and upset in caregivers and on daily function of persons with dementia. *The Gerontologist*, *41*(1), 4-14.

Gitlin, L.N., Miller, K.S. and Boyce, A. (1999). Bathroom modifications for frail elderly renters: outcomes of a community-based program. *Technology and Disability*, *10*(3), 141-149.

Gitlin, L.N., Winter, L., Corcoran, M., Dennis, M.P., Schinfeld, S. and Hauck, W.W. (2003). Effects of the home environmental skill-building program on the caregiver–care recipient dyad: 6-month outcomes from the Philadelphia REACH initiative. *The Gerontologist*, *43*(4), 532-546.

Gitlin, L.N., Winter, L., Dennis, M.P., Corcoran, M., Schinfeld, S. and Hauck, W.W. (2006). A randomized trial of a multicomponent home intervention to reduce functional difficulties in older adults. *Journal of the American Geriatrics Society*, *54*(5), 809-816.

Golafshani, N. (2003). Understanding reliability and validity in qualitative research. *The Qualitative Report*, *8*(4), 597-606.

Gory, M.L., Ward, R. and Sherman, S. (1985). The ecology of aging: neighborhood satisfaction in an older population. *The Sociological Quarterly*, *26*(3), 405-418.

Granbom, M., Taei, A. and Ekstam, L. (2017). Cohabitants' perspective on housing adaptations: a piece of the puzzle. *Scandinavian Journal of Caring Sciences*, *31*(4), 805-813.

Gray, D.E. (2013). *Doing research in the real world*. 3rd edn. London: Sage Publications.

Greene, J.C., Caracelli, V. J. and Graham, W. F. (1989). Toward a conceptual framework for mixed-method evaluation designs. *Educational Evaluation and Policy Analysis*, *11*(3), 255-274.

Guba, E.G. and Lincoln, Y.S. (1994). Competing paradigms in qualitative research. In Denzin, N.K. and Lincoln, Y.S. (eds.) *Handbook of qualitative research*, 105-107.

Gurney, C. (1990). *The meaning of home in the decade of owner occupation: towards an experiential perspective*. Bristol: School for Advanced Urban Studies, University of Bristol.

Haak, M., Fänge, A., Iwarsson, S. and Dahlin Ivanoff, S. (2007a). Home as a signification of independence and autonomy: experiences among very old Swedish people. *Scandinavian Journal of Occupational Therapy*, *14*(1), 16-24.

Haak, M., Ivanoff, S.D., Fänge, A., Sixsmith, J. and Iwarsson, S. (2007b). Home as the locus and origin for participation: Experiences among very old Swedish people. *OTJR: Occupation, Participation and Health*, *27*(3), 95-103.

Haggerty, K.D. (2004). Ethics creep: governing social science research in the name of ethics. *Qualitative Sociology*, *27*(4), 391-414.

Hall, E. and Scottish Executive. (2001). *Equipment and adaptation services in Scotland: A survey of waiting times for social work provision*. Edinburgh: Scottish Executive Central Research Unit.

Ham, C. and Walsh, N. (2013). *Making integrated care happen at scale and pace*. London: The King's Fund.

Hansen, E.B. and Gottschalk, G. (2006). What makes older people consider moving house and what makes them move?. *Housing, Theory and Society*, *23*(01), 34-54.

Harrison, L. and Heywood, F. (2000). *Health begins at home: planning at the health-housing interface for older people*. Bristol: the Policy Press.

Hassan, G. and Warhurst, C. (2002). (eds.) *Tomorrow's Scotland*. Dagenham: Lawrence & Wishart Limited.

Hatamabadi, H.R., Sum, S., Tabatabaey, A. and Sabbaghi, M. (2016). Emergency department management of falls in the elderly: A clinical audit and suggestions for improvement. *International emergency nursing*, *24*, 2-8.

Health and Social Care Information Centre. (2014). *Personal social services: expenditure and unit costs, England, 2013-14 final release.* [Online]. Available at: https://digital.nhs.uk/catalogue/PUB16111 [Accessed 28 October 2016].

Healy, M. and Perry, C. (2000). Comprehensive criteria to judge validity and reliability of qualitative research within the realism paradigm. *Qualitative Market Research*, 3(3), 118- 126.

Heaton, J. and Bamford, C. (2001). Assessing the outcomes of equipment and adaptations: issues and approaches. *British Journal of Occupational Therapy*, *64*(7), 346-356.

Heywood, F. (1994). *Adaptations – finding ways to say yes*. Bristol: SAUS.

Heywood, F. (1997). Poverty and disrepair: challenging the myth of ignorance in private sector housing. *Housing Studies*, *12*(1), 27-46.

Heywood, F. (2001). *Money well spent: the effectiveness and value of housing adaptations*. Bristol: Policy Press.

Heywood, F. (2004). The health outcomes of housing adaptations. *Disability & Society*, *19*(2), 129-143.

Heywood, F. (2005). Adaptation: altering the house to restore the home. *Housing Studies*, *20*(4), 531-547.

Heywood, F., Gangoli, G., Langan, J., Marsh, A., Moyers, S., Smith, R. Sutton, E., Hodges, M. and Hamilton, J. (2005). *Reviewing the disabled facilities grant programme.* London: Office of the Deputy Prime Minister.

Heywood, F., Oldman, J., and Means, R. (2002). *Housing and home in later life*. Buckingham: McGraw Hill Education.

Heywood, F. and Turner, L. (2007). *Better outcomes, lower costs. Implications for health and social care budgets of investment in housing adaptations, improvements and equipment: review of the evidence.* London: Department of Work and Pensions.

Home Adaptations Consortium. (2013). *Home adaptations for disabled people: a detailed guide to related legislation, guidance and good practice*. Nottingham: Care & Repair England.

Hood, J. and McGarvey, N. (2002). Managing the risks of public-private partnerships in Scottish local government. *Policy Studies*, *23*(1), 21-35.

Horner, B. and Boldy, D.P. (2008). The benefit and burden of "ageing-in-place" in an aged care community. *Australian Health Review*, *32*(2), 356-365.

Hosseini, H.M. (2014). Fall prevention strategies in two nursing homes: how can they be improved and properly managed? *International Journal of Teaching and Case Studies*, *5*(3-4), 252-264.

Howard-Wilsher, S., Irvine, L., Fan, H., Shakespeare, T., Suhrcke, M., Horton, S., Poland, F., Hooper, L. and Song, F. (2016). Systematic overview of economic evaluations of health-related rehabilitation. *Disability and Health Journal*, *9*(1), 11-25.

Hwang, E., Cummings, L., Sixsmith, A. and Sixsmith, J. (2011). Impacts of home modifications on ageing-in-place. *Journal of Housing for the Elderly*, *25*(3), 246-257.

Iecovich, E., (2014). Aging in place: from theory to practice. *Anthropological notebooks*. *20*(1), 21-33.

Ivankova, N.V., Creswell, J.W. and Stick, S.L. (2006). Using mixed-methods sequential explanatory design: from theory to practice. *Field Methods*, *18*(1), 3-20.

Iwarsson, S., Isacsson, Å. and Lanke, J. (1998). ADL dependence in the elderly population living in the community: the influence of functional limitations and physical environmental demand. *Occupational therapy international*, *5*(3), 173-193.

Iwarsson, S. and Ståhl, A. (2003). Accessibility, usability and universal design—positioning and definition of concepts describing person-environment relationships. *Disability and rehabilitation*, *25*(2), 57-66.

Iwarsson, S., Wahl, H.W. and Nygren, C., (2004). Challenges of cross-national housing research with older persons: lessons from the ENABLE-AGE project. *European Journal of Ageing*, *1*(1), 79-88.

Jackson, R.J. (2003). The impact of the built environment on health: an emerging field. *American Journal of Public Health*, *93*(9), 1382-1384.

Jagger, C. (2015). *Trends in life expectancy and healthy life expectancy*. London: Government Office for Science.

Jeffery, C. (2006). Devolution and local government. *Publius: the journal of federalism*, *36*(1), 57-73.

Jeffery, C. (2009). *Older people, public policy and the impact of devolution in Scotland*. Edinburgh: Age Scotland.

Jette, A.M. (2006). Toward a common language for function, disability, and health. *Physical therapy*, *86*(5), 726-734.

Jin, K. (2010). Modern biological theories of aging. *Aging and disease*, *1*(2), 72.

Johansson, K., Borell, L., and Lilja, M. (2009). Older persons' navigation through the service system towards home modification resources. *Scandinavian Journal of Occupational Therapy*, *16*(4), 227-237.

Johansson, K., Cutchin, M.P. and Lilja, M. (2013). Place integration: A conceptual tool to understand the home modification process. In Cutchin, M.P. and Dickie, V.A. (eds.) *Transactional perspectives on occupation*. Dordrecht: Springer, 1-10.

Johansson, K., Josephsson, S. and Lilja, M. (2009). Creating possibilities for action in the presence of environmental barriers in the process of 'ageing in place'. *Ageing & Society*, *29*(1), 49-70.

Johansson, K., Lilja, M., Park, M. and Josephsson, S. (2010). Balancing the good–a critical discourse analysis of home modification services. *Sociology of Health & Illness*, *32*(4), 563-582.

Johnson, P. and Clark, M. (2006). (eds.) *Business and management research methodologies*. London: Sage Publications.

Johnson, R. B., Onwuegbuzie, A. J. and Turner, L. A. (2007). Toward a definition of mixed methods research. *Journal of mixed methods research*, *1*(2), 112-133.

Jones, C. (2005). *Review of housing adaptations including disabled facilities grants – Wales*. Cardiff: Welsh Government.

Judge, D. (2005). *Political Institutions in the United Kingdom*. Oxford: Oxford University Press.

Kahana, E. (1982). A congruence model of person-environment interaction. In Lawton, M.P., Windley, P. G. and Byerts, T. (eds.) *Aging and the environment: Theoretical approaches*, 97-121.

Kaiser, K. (2009). Protecting respondent confidentiality in qualitative research. *Qualitative Health Research*, *19*(11), 1632-1641.

Kannus, P., Palvanen, M., Niemi, S. and Parkkari, J. (2007). Alarming rise in the number and incidence of fall-induced cervical spine injuries among older adults. *The Journals of Gerontology Series A: Biological Sciences and Medical Sciences*, *62*(2), 180-183.

Keall, M.D., Pierse, N., Howden-Chapman, P., Cunningham, C., Cunningham, M., Guria, J. and Baker, M.G. (2015). Home modifications to reduce injuries from falls in

the Home Injury Prevention Intervention (HIPI) study: a cluster-randomised controlled trial. *The Lancet*, *385*(9964), 231-238.

Keating, M. (2005). Policy convergence and divergence in Scotland under devolution. *Regional studies*, *39*(4), 453-463.

Keeble, U. (1979). *Aids and Adaptations*. London: Bedford Square Press.

Keeling, S. (1999). Ageing in (a New Zealand) place: ethnography, policy and practice. *Social Policy Journal of New Zealand*, 13, 95-95.

Keith-Spiegel, P., Koocher, G.P. and Tabachnick, B. (2006). What scientists want from their research ethics committee. *Journal of Empirical Research on Human Research Ethics*, *1*(1), 67-81.

Kelemen, M.L. and Rumens, N. (2008). *An introduction to critical management research*. London: Sage Publications.

Kempton, O. and Gawin, A. (2011). *Measuring the Social Return on Investment of Stage 3 Adaptations and Very Sheltered Housing in Scotland*. London: Envoy Partnership Ltd.

Kim, H., Ahn, Y.H., Steinhoff, A. and Lee, K.H. (2014). Home modification by older adults and their informal caregivers. *Archives of gerontology and geriatrics*, *59*(3), 648-656.

Kimmel, A. (1988). *Ethics and values in applied social research*. California: Sage Publications, Inc.

King, N. and Copeman, I. (2009). *Research into the housing and support needs of older people within Worcestershire.* Witney: the Housing & Support Partnership.

Klein, D. A., Steinberg, M., Galik, E., Steele, C., Sheppard, J. M. and Warren, A. (1999). Wandering behaviour in community-residing persons with dementia. *International Journal of Geriatric Psychiatry*, 14, 272–279.

Kovács, G. and Spens, K.M., (2005). Abductive reasoning in logistics research. *International Journal of Physical Distribution & Logistics Management*, *35*(2), 132-144.

Kroll, T. and Neri, M. (2009). Designs for mixed methods research. In Andrew, S. and Halcomb, E.J. (eds.) *Mixed Methods Research for Nursing and the Health Sciences*, UK: Blackwell Publishing Ltd, *31-48*.

Krueger, R.A. and Casey, M.A. (2014). *Focus groups: A practical guide for applied research*. London: Sage Publications.

Kuvaas, B. (2008). An exploration of how the employee–organization relationship affects the linkage between perception of developmental human resource practices and employee outcomes. *Journal of Management Studies*, *45*(1), 1-25.

Kuzmanić, M. (2009). Validity in qualitative research: interview and the appearance of truth through dialogue. *Horizons of Psychology*, *18*(2), 39-50.

Lansley, P., McCreadie, C. and Tinker, A. (2004). Can adapting the homes of older people and providing assistive technology pay its way?. *Age and Ageing*, *33*(6), 571-576.

Lavrakas, P.J. (2008). *Encyclopedia of survey research methods*. California: Sage Publications, Inc.

Law, M., Cooper, B., Strong, S., Stewart, D., Rigby, P. and Letts, L. (1996). The person-environment-occupation model: a transactive approach to occupational performance. *Canadian journal of occupational therapy*, *63*(1), 9-23.

Lawler, K. (2001). *Ageing in place: coordinating housing and healthcare provision for Americas growing elderly population. 2001*. Washington: Joint Centre for Housing Studies of Harvard University.

Lawton, M.P. (1976). The relative impact of congregate and traditional housing on elderly tenants. *The Gerontologist*, *16*(3), 237-242.

Lawton, M.P. (1982). Competence, environmental press, and the adaptation of older people. In Lawton, M.P., Windley, P.G. and Byerts, T.O. (eds.) *Aging and the environment: Theoretical approaches*. New York: Springer Publishing Company, 7, 33-59.

Lawton, M. P., Moss, M., Fulcomer, M. and Kleban, M. H. (1982). A research and service oriented multilevel assessment instrument. *Journal of gerontology*, *37*(1), 91-99.

Lawton, M.P. (1985). The elderly in context: perspectives from environmental psychology and gerontology. *Environment and behavior*, *17*(4), 501-519.

Lawton, M.P. (1986). *Environment and aging.* UK: Center for the Study of Aging.

Lawton, M.P. (1990). Aging and performance of home tasks. *Human factors*, *32*(5), 527-536.

Lawton, M. P. and Nahemow, L. (1973). Ecology and the aging process. In Eisdorfer, C. and Lawton, M. P. (eds.). *The psychology of adult development and aging*, Washington: American Psychological Association, 619-674

Leather, P. and Mackintosh, S. (1993). The long term impact of staying put. *Ageing & Society*, *13*(2), 193-211.

Leather, P. and Mackintosh, S. (1994). *The future of housing renewal policy*. Bristol: University of Bristol.

LeCompte, M.D. and Goetz, J.P. (1982). Problems of reliability and validity in ethnographic research. *Review of Educational Research*, *52*(1), 31-60.

Lett, K., Sackley, C. and Littlechild, R. (2006). The use of fair access to care services' eligibility criteria for equipment provision within local authorities in England. *The British Journal of Occupational Therapy*, *69*(9), 420-422.

Lewin, K. (1951). Field theory in social science: Selected theoretical papers. In Cartwright, D. (eds.) *Field theory in social science: selected theoretical papers*. Oxford: Harpers, 43-59.

London Borough of Havering. (2012) Disabled Facilities Grant – adapting your home. [Online]. Available at: https://www3.havering.gov.uk/Documents/Care-for-adults-and-children/DisabledFacilitiesGrantLeaflet2012.pdf [accessed 20 Feburary, 2017].

Long, T. and Johnson, M. (2000). Rigour, reliability and validity in qualitative research. *Clinical Effectiveness in Nursing*, *4*(1), 30-37.

Lopez, R. (2012). *The built environment and public health*. UK: John Wiley and Sons.

Lowndes, V. (1999). Rebuilding trust in central/local relations: policy or passion?. *Local Government Studies*, *25*(4), 116-136.

Mackintosh, S. (2012). *From home adaptations to accessible homes: putting perople at the heart of redesigning the adaptation service in bristol*. London: Housing LIN.

Mackintosh, S. and Leather, P. (2016). The disabled facilities grant: before and after the introduction of the better care fund. Derbyshire: Foundations.

Mackintosh, S., Leather, P. and McCafferty, P. (1993). *The role of housing agency services in helping disabled people*. London: HM Stationery Office.

MacQuarrie, J. (1973). *Existentialism*. London: Penguin Books.

Madanipour, A. (2003). *Public and private spaces of the city*. UK: Routledge.

Mallett, S. (2004). Understanding home: a critical review of the literature. *The sociological review*, *52*(1), 62-89.

Mandal, J. and Parija, S.C. (2014). Informed consent and research. *Tropical Parasitology*, *4*(2), 78-79.

Mandelstam, M. (1997). *Equipment for older or disabled people and the law*. London: Jessica Kingsley Publishers.

Mandelstam, M. (2003). *Using the law to develop and improve equipment and adaptation provision*. Edinburgh: Scottish Executive.

Mandelstam, M. (2016). *Home adaptations: the Care Act 2014 and related provision across the United Kingdom.* London: College of Occupational Therapists Ltd.

Marcheschi, E., Laike, T., Brunt, D., Hansson, L. and Johansson, M. (2015). Quality of life and place attachment among people with severe mental illness. *Journal of Environmental Psychology*, *41*, 145-154.

Marquardt, G., Johnston, D., Black, B. S., Morrison, A., Rosenblatt, A., Lyketsos, C. G. and Samus, Q. M. (2011). A descriptive study of home modifications for people with dementia and barriers to implementation. *Journal of Housing for the Elderly*, *25*(3), 258-273.

Mark, M. M. and Shotland, R. L. (1987). Alternative models for the use of multiple methods. In Mark, M.M. and Shotland, R.L. (eds.) *Multiple Methods in Program Evaluation: New Directions for Program Evaluation*, 35, 95-100. San Francisco: Jossey-Bass.

Matthews, T. and Stephens, C. (2017). Constructing housing decisions in later life: a discursive analysis of older adults' discussions about their housing decisions in New Zealand. *Housing, Theory and Society*, *34*(3), 343-358.

Maynard, M. (1994). Methods, practice and epistemology: The debate about feminism and research. In Maynard, M and June, P. (eds.) *Researching women's lives from a feminist perspective*, London: Taylor & Francis, 26.

McAteer, M. and Bennett, M. (2005). Devolution and local government: evidence from Scotland. *Local government studies*, *31*(3), 285-306.

McCabe, C. (2004). Nurse–patient communication: an exploration of patients' experiences. *Journal of Clinical Nursing*, *13*(1), 41-49.

McClatchey, T., Means, R. and Morbey, H. (2001). *Housing adaptations and improvements for people with dementia: developing the role of home improvement agencies.* Bristol: University of the West of England.

McConnell, A. (2006). Central-local government relations in Scotland. *International Review of Administrative Sciences*, *72*(1), 73-84.

McCormick, J., McDowell, E. and Harris, A. (2009). *Policies for Peace of Mind? Devolution and older age in the UK.* London: Institute for Public Policy Research.

McGarvey, N. (2002). Intergovernmental relations in Scotland post-devolution. *Local government studies*, *28*(3), 29-48.

McPherson, B.D. (1990). *Aging as a social process: an introduction to individual and population aging.* London: Methuen.

McHugh, K.E. (2003). Three faces of ageism: society, image and place. *Ageing & Society*, *23*(2), 165-185.

Means, R. (2007). Safe as houses? Ageing in place and vulnerable older people in the UK. *Social Policy & Administration*, *41*(1), 65-85.

Means, R., Morbey, H. and McClatchey, T. (2002). Social work and older people with dementia: meeting their housing needs. *Practice*, *14*(3), 5-14.

Medway Council. (2016). Housing services – disabled adaptations. [Online]. Available at: http://www.medway.gov.uk/PDF/Disabled%20adaptations%20-%20Non%20council%20properties.pdf [accessed 12 December, 2016].

Mestheneos, E. (2011). Ageing in place in the European Union. *Global Ageing*, *7*(2), 17-24.

Mihailidis, A., Boger, J., Czarnuch, S., Jiancaro, T. and Hoey, J. (2012). Ambient assisted living technology to support older adults with dementia with activities of daily living: key concepts and the state of the art. *Handbood of Ambient Assisted Living*, 11, 304-330.

Milligan, C. (2012). *There's no place like home: place and care in an ageing society*. Farnham: Ashgate Publishing, Ltd..

Mitchell, J. (2006). Evolution and devolution: citizenship, institutions, and public policy. *The Journal of Federalism*, *36*(1), 153-168.

Mitchell, J. (2011). *Devolution in the UK*. Oxford: Oxford University Press.

Mitchell, V. (1996). Assessing the reliability and validity of questionnaires: an empirical example. *Journal of Applied Management Studies*, *5*, 199-208.

Moffatt, S., Higgs, P., Rummery, K. and Jones, I.R. (2012). Choice, consumerism and devolution: growing old in the welfare state of Scotland, Wales and England. *Ageing & Society*, *32*(5), 725-746.

Morgan, D.L. (1998). Practical strategies for combining qualitative and quantitative methods: Applications to health research. *Qualitative health research*, *8*(3), 362-376.

Morgan, D.J., Boniface, G.E. and Reagon, C. (2016). The effects of adapting their home on the meaning of home for families with a disabled child. *Disability & Society*, *31*(4), 481-496.

Morgan, S.J. and Symon, G. (2004). Electronic interviews in organizational research. In Cassell, C. and Symon, G. (eds.) *Essential guide to qualitative methods in organizational research*. London: Sage Publications.

Morton, J. (1982). *Ferndale a caring repair service for elderly home owners*. London: Shelter and National Campaign for the Homeless.

Morse, J. M. (1991). Approaches to qualitative-quantitative methodological triangulation. *Nursing Research*, 40, 120-123.

Morse, J.M. (2003). Principles of mixed methods and multimethod research design. *Handbook of mixed methods in social and behavioral research*, *1*, 189-208.

Morse, J.M., Barrett, M., Mayan, M., Olson, K. and Spiers, J. (2002). Verification strategies for establishing reliability and validity in qualitative research. *International Journal of Qualitative Methods*, *1*(2), 13-22.

Nahemow, L. and Lawton, M.P. (1973). Toward an ecological theory of adaptation and aging. *Environmental design research*, *1*, 24-32.

National Assembly for Wales. (2004). Housing for older people. [Online]. Available at: http://www.assembly.wales/Laid%20Documents/Social%20Justice%20and%20Regeneration%20Committee%20-%20Housing%20for%20Older%20People%20-%20LD3087-02072004-18538/bus-GUIDE-N000000000000000000000000022398-English.pdf [accessed 25 Novenmber 2016].

National Assembly for Wales. (2009). Still Waiting: Home Maintenance and Adaptations Services for Older People in Wales. [Online]. Available at: http://www.assembly.wales/NAfW%20Documents/final_report__e.pdf%20-%2016072009/final_report__e-English.pdf [accessed 28 Novenmber 2016]

National Assembly for Wales. (2013). The Strategy for older peoples in Wales 2013-2023. [Online]. Available at: http://gov.wales/docs/dhss/publications/130521olderpeoplestrategyen.pdf [accessed 5 December 2016].

Noble, H. and Smith, J. (2015). Issues of validity and reliability in qualitative research. *Evidence-Based Nursing*, *18*(2), 34-35.

Nord, C., Eakin, P., Astley, P. and Atkinson, A. R. (2009). An exploration of communication between clients and professionals in the design of home adaptations. *British Journal of Occupational Therapy*, *72*(5), 197-204.

North Lanarkshire Council. (2016). Scheme of assistance – help for home owners. [Online]. Avaiable at: http://www.northlanarkshire.gov.uk/CHttpHandler.ashx?id=6924 [accessed 20 Novenmber 2016]

North West Leicestershire District Council. (2008). Aids and adaptations policy. [Online]. Available at:

https://www.nwleics.gov.uk/files/.../aids_and_adaptations_policy1/att3703.doc [accessed 20 Novenmber 2016].

NVivo qualitative data analysis software. (2012). NVivo qualitative data analysis software. QSR International Pty Ltd. Version 10, 2012.

Office for National Statistics. (2013a). General health (general lifestype survey overview – a report on the 2011 general lifestyle survey). [Online]. Available at: https://www.ons.gov.uk/peoplepopulationandcommunity/personalandhouseholdfinances/incomeandwealth/compendium/generallifestylesurvey/2013-03-07/chapter7generalhealthgenerallifestylesurveyoverviewareportonthe2011generallifestylesurvey [accessed 26 October 2016].

Office for National Statistics. (2013b). *General lifestyple survey: 2011*. [Online]. Available at: https://www.ons.gov.uk/peoplepopulationandcommunity/personalandhouseholdfinances/incomeandwealth/compendium/generallifestylesurvey/2013-03-07 [accessed 28 October 2016].

Office for National Statistics. (2015). Projected population by age group, United Kingdom, 2014-2039. [Online]. Available at: https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/articles/overviewoftheukpopulation/2015-11-05 [accessed 10 November].

Oswald, F., Schilling, O., Wahl, H.W. and Gäng, K. (2002). Trouble in paradise? Reasons to relocate and objective environmental changes among well-off older adults. *Journal of Environmental Psychology*, *22*(3), 273-288.

Oswald, F., Wahl, H.W., Schilling, O., Nygren, C., Fänge, A., Sixsmith, A., Sixsmith, J., Szeman, Z., Tomsone, S. and Iwarsson, S., (2007). Relationships between housing and healthy aging in very old age, *The Gerontologist*. *47*(1), 96-107.

Ota, S. (2015). *Housing an ageing population (England).* London: the House of Commons.

Oyegoke, A. (2011). The constructive research approach in project management research. *International Journal of Managing Projects in Business*, *4*(4), 573-595.

Paúl, C., Ribeiro, O. and Teixeira, L. (2012). Active ageing: an empirical approach to the WHO model. *Current gerontology and geriatrics research*, 1-10.

Parrott, S. (2000). *The Economic Cost of Hip Fracture in the UK*. York: University of York.

Paterson, L. (1994). *The autonomy of modern Scotland*. Edinburgh: Edinburgh University Press.

Patton, M.Q. (2005). *Qualitative research*. New Jersey: John Wiley & Sons, Ltd.

Pearce, G. and Mawson, J. (2009). Governance in the English regions: moving beyond muddling through?. *International journal of public sector management*, *22*(7), 623-642.

Perez, F.R., Fernandez, G.F.M., Rivera, E.P. and Abuin, J.M.R. (2001). Ageing in place: predictors of the residential satisfaction of elderly. *Social Indicators Research*, *54*(2), 173-208.

Perry, F.C. (2015). Adaptation works: How Disabled Facilities Grants are the overlooked solution to the accessible housing shortage and associated costs.

Pettersson, I., Kottorp, A., Bergström, J. and Lilja, M. (2009). Longitudinal changes in everyday life after home modifications for people aging with disabilities. *Scandinavian Journal of Occupational Therapy*, *16*(2), 78-87.

Pettersson, C., Löfqvist, C. and Malmgren Fänge, A. (2012). Clients' experiences of housing adaptations: a longitudinal mixed-methods study. *Disability and Rehabilitation*, *34*(20), 1706-1715.

Pettersson, C., Slaug, B., Granbom, M., Kylberg, M. and Iwarsson, S. (2017). Housing accessibility for senior citizens in Sweden: Estimation of the effects of targeted elimination of environmental barriers. *Scandinavian journal of occupational therapy*, 1-15.

Philippa, F. and Ramsay, M. (2016). *The collaborative home improvement agency.* Derbyshire: Foundations.

Picking, C. and Pain, H. (2003). Home adaptations: user perspectives on the role of professionals. *British Journal of Occupational Therapy*, *66*(1), 2-8.

Plautz, B., Beck, D.E., Selmar, C. and Radetsky, M. (1996). Modifying the environment: a community-based injury-reduction programfor elderly residents. American Journal of Preventive Medicine, *12*(1), 33–8.

Public Health England. (2017). *Falls and fracture consensus statement: supporting commissiong for prevention.* London: Public Health England.

Punch, K.F. (2013). *Introduction to social research: Quantitative and qualitative approaches*. London: Sage Publications.

Prohaska, T., Belansky, E., Belza, B., Buchner, D., Marshall, V., McTigue, K., Satariano, W. and Wilcox, S. (2006). Physical activity, public health, and aging: critical

issues and research priorities. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, *61*(5), 267-S273.

Pynoos, J., Nishita, C. and Perelma, L. (2003). Advancements in the home modification field: a tribute to M. Powell Lawton. *Journal of Housing for the Elderly*, *17*(1-2), 105-116.

Pynoos, J., Steinman, B.A. and Nguyen, A.Q. (2010). Environmental assessment and modification as fall-prevention strategies for older adults. *Clinics in geriatric medicine*, *26*(4), 633-644.

Pynoos, J., Tabbarah, M., Angelelli, J. and Demiere, M. (1998). Improving the delivery of home modifications, *Technology and Disability*, *8*(1-2), 3-14.

Ramsay, M. (2010). *Adapting for a lifetime: the key role of home improvement agencies in adaptations delivery*. Derbyshire: Foundations.

Rattan, S.I. (1995). Ageing – a biological perspective. *Molecular aspects of medicine*, *16*(5), 439-508.

Rattray, J. and Jones, M.C. (2007). Essential elements of questionnaire design and development. *Journal of clinical nursing*, *16*(2), 234-243.

Reading Borough Council. (2011). Housing adaptations policy. [Online]. Available at: http://www.reading.gov.uk/media/1505/Housing-Adaptations Policy/pdf/Housing-Adaptations-Policy-2011.pdf [accessed 20 Novenmber 2016].

Renaut, S., Ogg, J., Petite, S. and Chamahian, A. (2015). Home environments and adaptations in the context of ageing, *Ageing & Society*, *35*(6), 1278-1303.

Rescher, N. (1995). Is consensus required for a rational social order. In Wüstehube, A. *Pragmatische Rationalitätstheorien – Studies in Pragmatism, Idealism and Philosophy of Mind.* Würzburg, 9-28.

Reschovsky, J.D. and Newman, S.J. (1990). Adaptations for independent living by older frail households. *The Gerontologist*, *30*(4), 543-552.

Resnik, D.B., Elliott, K.C. and Miller, A.K. (2015). A framework for addressing ethical issues in citizen science. *Environmental Science & Policy*, *54*, 475-481.

Ridenour, C. S. and Newman, I. (2008). *Mixed Methods Research: Exploring the Interactive Continuum*. Carbondale, IL: Southern Illinois University Press.

Rioux, L. and Werner, C. (2011). Residential satisfaction among aging people living in place. *Journal of Environmental Psychology*, *31*(2), 158-169.

Ritchie, M.D., Hahn, L.W. and Moore, J.H. (2003). Power of multifactor dimensionality reduction for detecting gene-gene interactions in the presence of genotyping error,

missing data, phenocopy, and genetic heterogeneity. *Genetic Epidemiology*, *24*(2), 150-157.

Roberts, P., Priest, H. and Traynor, M. (2006). Reliability and validity in research. *Nursing Standard*, *20*(44), 41-45.

Rochford District Council. (2011). Review of the disabled facilities grants process. [Online]. Available at: https://www.rochford.gov.uk/sites/default/files/c%26d_reviewofgrants.pdf [accessed 21 Novenmber 2016].

Rogelberg, S.G. (2008). (eds.) *Handbook of research methods in industrial and organizational psychology*. New Jersey: John Wiley & Sons.

Rogers, M. E., Rogers, N. L., Takeshima, N. and Islam, M. M. (2004). Reducing the risk for falls in the homes of older adults. *Journal of Housing for the Elderly*, 18, 29–39.

Rose, R. (1982). Is the United Kingdom a state? Northern Ireland as a test case. In Madgwich, P. and Rose, R. (eds.) *The Territorial Dimension in United Kingdom Politics*. London: Palgrave Macmillan.

Rossman, G.B. and Wilson, B.L. (1985). Numbers and words: combining quantitative and qualitative methods in a single large-scale evaluation study. *Evaluation review*, *9*(5), 627-643.

Rowles, G. (1978). *Prisoners of space? exploring the geographical experience of older people*. Colorado: Westview.

Rowles, G.D. (1983). Place and personal identity in old age: observations from appalachia. *Journal of Environmental Psychology*, *3*(4), 299-313.

Rubinstein, R.L. (1986). The construction of a day by elderly widowers. *The International Journal of Aging and Human Development*, *23*(3), 161-173.

Rubinstein, R.L. and De Medeiros, K., (2014). “Successful aging” gerontological theory and neoliberalism: a qualitative critique. *The Gerontologist*, *55*(1), 34-42.

Russell, R. (2016). The development of a design and construction process protocol to support occupational therapists in delivering effective home modifications. *PhD thesis,* University of Salford, UK.

Rutherford, T. and Social and Genral Statistics. (2012). Population ageing: statistics. *House of Commons library.* Available at http://www.parliament.uk/topics/PopulationArchive [accessed:26 October 2016].

Salford City Council. (2008). Building independence: disabled facilities grant – adapting your home. [Online]. Available at:

https://www.salford.gov.uk/media/379497/specialist-housing-dfg.pdf [accessed 20 Feburary 2017].

Sanford, J. A. (2012). *Universal design as a rehabilitation strategy: design for the ages.* USA: Springer Publishing Company.

Sakellariou, D. (2015). Home modifications and ways of living well. *Medical Anthropology, 34(5)*, 456-469.

Saunders, M.N.K, Lewis, P. and Thornhill, A. (2012). *Research methods for business students*. 6th edn. New Jersey: Prentice Hall.

Satsangi, M. and Kearns, A. (1992). The use and interpretation of tenant satisfaction surveys in British social housing. *Environment and Planning C: Government and Policy*, *10*(3), 317-331.

Scheidt, R.J. and Windley, P.G. (2006). Environmental gerontology: progress in the post-Lawton era. In *Handbook of the Psychology of Aging,* 6th edn, 105-125.

Scheil-Adlung, X. and Bonan, J. (2012). *Can the European elderly afford the financial burden of health and long-term care: assessing impacts and policy implications*. Geneva: International Labour Office.

Schwingel, A., Gálvez, P., Linares, D. and Sebastião, E. (2016). Using a mixed-methods re-aim framework to evaluate community health programs for older Latinas. *Journal of Ageing and Health*, 4(29), 551-593.

Scott, J., MacMillan, K., McGregor, T. and Reid, S. (2009). *Review of Care and Repair Projects*. Edinburgh: Scottish Government Social Research.

Scottish Constitutional Convention. (1995). *Scotland's parliament: Scotland's right*. Edinburgh: Convention of Scottish Local Authorities.

Scotthis Executive. (2003). *Equipped for inclusion: report of the strategy forum: equipment and adaptations*. Edinburgh: Scottish Executive.

Scottish Govnerment. (2008). *Scottish house condition survey.* Edinburgh: Scottish Government.

Scottish Government. (2009a). *Guidance on the provision of equipment and adaptations.* Edinburgh: Scottish Government.

Scottish Government. (2009b). *National standard eligibility criteria and waiting time – guidance.* Edinburgh: Scottish Government.

Scottish Government. (2010). *The impact of population ageing on housing in Scotland*. Edinburgh: Communities Analytical Services.

Scottish Government. (2011). *Age, home and community: a strategy for housing for Scotland's older people: 2012-2021*. Edinburgh: Scottish Government.

Scottish Government. (2013). Scottish budget draft budget 2014-2015. [Online]. Available at: http://www.gov.scot/Publications/2013/09/9971/2 [accessed 1 Novenmber 2016].

Scottish Parliament. (2013). Demographic change and an ageing population. [Online]. Available at: http://www.parliament.scot/S4_FinanceCommittee/Reports/fiR13-02_rev.pdf [accessed 3 Novenmber 2016].

Scuffham, P., Chaplin, S. and Legood, R. (2003). Incidence and costs of unintentional falls in older people in the United Kingdom. *Journal of Epidemiology & Community Health*, *57*(9), 740-744.

Sekaran, U. and Bougie, R. (2016). *Research methods for business: A skill building approach*. New Jersey: John Wiley & Sons.

Shale, J., Balchin, K., Rahman, J., Reeve, R. and Rolin, M. (2015). *Households below average income.* London: DWP Publications.

Sherwin, S. and Winsby, M. (2011). A relational perspective on autonomy for older adults residing in nursing homes. *Health Expectations*, *14*(2), 182-190.

Silverman, D. (2006). Credible qualitative research. In Silverman, D. (eds.) *Interpreting qualitative data: methods for analyzing talk, text and interaction.* 3rd edn. London: Sage Publications, 289-295.

Simpson, J.R. (1982). Ethics and multinational corporations vis-a-vis developing nations. *Journal of Business Ethics*, *1*(3), 227-237.

Sixsmith, J. (1986). The meaning of home: An exploratory study of environmental experience. *Journal of Environmental Psychology*, *6*(4), 281-298.

Sixsmith, A. and Sixsmith, J. (1991). Transitions in home experience in later life. *Journal of Architectural and Planning Research*, 181-191.

Sixsmith, A. and Sixsmith, J., (2008). Ageing in place in the United Kingdom. *Ageing International*, *32*(3), 219-235.

Sixsmith, J., Sixsmith, A., Fänge, A.M., Naumann, D., Kucsera, C.S.A.B.A., Tomsone, S., Haak, M., Dahlin-Ivanoff, S. and Woolrych, R. (2014). Healthy ageing and home: the perspectives of very old people in five European countries. *Social Science & Medicine*, *106*, 1-9.

Slaug, B., Schilling, O., Iwarsson, S. and Carlsson, G. (2011). Defining profiles of functional limitations in groups of older persons: how and why?. *Journal of Aging and Health*, *23*(3), 578-604.

Smith, A.E. (2009). *Ageing in urban neighbourhoods: place attachment and social exclusion*. Bristol: Policy Press at the University of Bristol.

Söderback, I. (2015). Interventions: the occupational therapist manages for adaptations. In *International Handbook of Occupational Therapy Interventions*, 151-164. Swizerland: Springer.

Stark, S. (2003). Home modifications that enable occupational performance. In Letts, L. and Rigby, P. (eds.) *Using environments to enable occupational performance*. USA: Slack Incorporated, 220-225.

Stark, S., Keglovits, M., Arbesman, M. and Lieberman, D. (2017). Effect of home modification interventions on the participation of community-dwelling adults with health conditions: a systematic review. *American Journal of Occupational Therapy*, *71*(2), 1-11.

Statistical Package for the Social Sciences. (2013). SPSS 22.0 for Windows. Chicago, IL: SPSS.

Stevenson, L. and Huws, C. (2014). Researching Welsh law: what is unique in wales? *Hauser Global*. Available at: http://www.nyulawglobal.org/globalex/Wales1.html [accessed 12 December 2016].

Suddaby, R. (2006). From the editors: What grounded theory is not. *Academy of management journal*, *49*(4), 633-642.

Sutherland, S. R. (2008). *Independent review of free personal and nursing care in Scotland*. Edinburgh: Scottish Government.

Tabbarah, M., Silverstein, M. and Seeman, T. (2000). A health and demographic profile of noninstitutionalised older Americans residing in environments with home modifications. *Journal of aging and health*, *12*(2), 204-228.

Tanner, B., Tilse, C. and De Jonge, D. (2008). Restoring and sustaining home: the impact of home modifications on the meaning of home for older people. *Journal of Housing For the Elderly, 22(3)*, 195-215.

Teddlie, C. and Tashakkori, A. (2009). *Foundations of mixed methods research: integrating quantitative and qualitative approaches in the social and behavioral sciences*. California: Sage Publications, Inc.

Tideiksaar, R. (1986). Preventing falls: home hazard checklists to help older patients protect themselves. *Geriatrics*, 41: 26-28.

Tinker, A. (2002). The social implications of an ageing population. *Mechanisms of Ageing and Development*, *(7)123*, 729-735.

Thomas, A.D. (1986). *Housing and urban renewal: residential decay and revitalization in the private sector*. London: HaperCollins Publishers Ltd.

Thomas, E. and Magilvy, J.K. (2011). Qualitative rigor or research validity in qualitative research. *Journal for Specialists in Pediatric Nursing*, *16*(2), 151-155.

Thordardottir, B., Chiatti, C., Ekstam, L. and Fänge, A.M. (2016). Heterogeneity of characteristics among housing adaptation clients in sweden—relationship to participation and self-rated health. *International Journal of Environmental Research and Public Health, 13*(1), 91-103.

Thordardottir, B., Ekstam, L., Chiatti, C. and Fänge, A.M. (2016). Factors associated with participation frequency and satisfaction among people applying for a housing adaptation grant. *Scandinavian journal of occupational therapy*, *23*(5), 347-356.

Trench, A. (2007). *Devolution and power in the United Kingdom*. UK: Manchester University Press.

Trench, A. and Jeffery, C. (2007). *Older people and public policy: the impact of devolution.* London: Age Concern England.

Trochim, W. and Donnelly, J. (2006). *The research methods knowledge base*. 3rd edn. OH: Atomic Dog Publishing, Inc.

Tucker, S., Brand, C., O'Shea, S., Abendstern, M., Clarkson, P., Hughes, J., Wenborn, J. and Challis, D. (2011). An evaluation of the use of self-assessment for the provision of community equipment and adaptations in English local authorities. *British Journal of Occupational Therapy*, *74*(3), 119-128.

United Nations. (2015). *World population ageing*. [Online]. Available at: http://www.un.org/en/development/desa/population/publications/pdf/ageing/WPA2015_Report.pdf [accessed 27 October 2016].

United Nations. (2013). *World population ageing*. [Online]. Available at: http://www.un.org/en/development/desa/population/publications/pdf/ageing/WorldPopulationAgeing2013.pdf [accessed 27 October 2016].

Unwin, B.K., Andrews, C.M., Andrews, P.M. and Hanson, J.L. (2009). Therapeutic home adaptations for older adults with disabilities. *American family physician*, *80*(9), 963-968.

Van Hoof, J., Kort, H.S. and Van Waarde, H. (2009). Housing and care for older adults with dementia: a European perspective. *Journal of Housing and the Built Environment*, *24*(3), 369.

Van Maanen, J., Sørensen, J.B. and Mitchell, T.R. (2007). The interplay between theory and method. *Academy of management review*, *32*(4), 1145-1154.

Van Steenwinkel, I., Baumers, S. and Heylighen, A. (2012). Home in later life: a framework for the architecture of home environments. *Home Cultures*, *9*(2), 195-217.

Verbrugge, L.M. and Jette, A.M. (1994). The disablement process. *Social science & medicine*, *38*(1), 1-14.

Wahl, H.W. (2001). Environmental influences on aging. *Handbook of the psychology of aging*, *3*, 215.

Wahl, H.W., Iwarsson, S. and Oswald, F. (2012). Aging well and the environment: toward an integrative model and research agenda for the future. *The Gerontologist*, *52*(3), 306-316.

Wahl, H.W. and Oswald, F. (2010). Environmental perspectives on aging. *International handbook of social gerontology*, 8, 111-124.

Wahl, H.W. and Weisman, G.D. (2003). Environmental gerontology at the beginning of the new millennium: reflections on its historical, empirical, and theoretical development. *The Gerontologist*, *43*(5), 616-627.

Wane, K. (2016). *Housing adaptations (major).* Edinburgh: the Information Centre.

Watson, L. and Britain, A. (1996). *Homes for independent living: housing and community care strategies in Scotland*. Edinburgh: Chartered Institute of Housing in Scotland.

Watson, S. and Crowther, L. (2005). *Was it worth it? A study into the effectiveness of major adaptations.* Nottingham: Nottingham City Council.

Weed, D.L. (1996). Epistemology and ethics in epidemiology. In Coughlin, S.S., Beauchamp, T.L. (eds.) *Ethics and epidemiology.* New York: Oxford, 76-94.

Weeks, A. L., Lamb, B. A. and Pickens, N. D. (2010). Home modification assessments: Clinical utility and treatment context. *Physical & Occupational Therapy in Geriatrics*, *28*(4), 396-409.

Welsh Government. (2013). *The strategy for older people in Wales 2013-2013 – living longer, aging well*. Cardiff: Welsh Government Publications.

World Health Organisation. (2002). *Active ageing: a policy framework.* [Online]. Available at: http://apps.who.int/iris/bitstream/10665/67215/1/WHO_NMH_NPH_02.8.pdf [accessed 4 Novenmber 2016].

World Health Organisation. (2007). *Global age-friendly cities: a guide*. [Online]. Available at:

http://www.who.int/ageing/publications/Global_age_friendly_cities_Guide_English.pdf [accessed 6 Novenmber 2016]

World Health Organisation. (2011). *Global health and aging*. [Online]. Available at: http://www.who.int/ageing/publications/global_health.pdf [Accessed 28 October 2016].

World Health Organisation. (2015). *World report on ageing and health*. [online]. Available at: http://apps.who.int/iris/bitstream/10665/186463/1/9789240694811_eng.pdf [accessed 27 October 2016].

Wilcox, S., Perry, J., Stephens, M. and Williams, P. (2017). *UK housing review*. Coventry: Chartered Institute of Housing.

Wiles, J. (2005). Conceptualizing place in the care of older people: the contributions of geographical gerontology. *Journal of Clinical Nursing*, *14*(2), 100-108.

Wiles, R., Crow, G., Heath, S. and Charles, V. (2008). The management of confidentiality and anonymity in social research. *International Journal of Social Research Methodology*, *11*(5), 417-428.

Wilken, C.S., Walker, K., Sandberg, J.G. and Holcomb, C.A., (2002). A qualitative analysis of factors related to late life independence as related by the old-old and viewed through the concept of locus of control. *Journal of Aging Studies*, *16*(1), pp.73-86.

Willcocks, D., Peace, S. and Kellaher, L. (1987). *Private lives in public places*. London: Tavistock.

Wilson, D. (2003). Unravelling control freakery: redefining central-local government relations. *The British Journal of Politics & International Relations*, *5*(3), 317-346.

Wilson, W. (2013) *Disabled facilities grants (England).* Available at: https://www.researchbriefings.files.parliament.uk/documents/SN03011/SN03011.pdf [accessed 11 December 2016].

Zikmund, W.G. (2000). *Business research methods*, 6 edn. Florida: the Dryden Press.

Zhou, W., Oyegoke, A. S. and Sun, M. (2017). Service planning and delivery outcomes of home adaptations for ageing in the UK. *Journal of Housing and the Built Environment*, 1-19, https://doi.org/10.1007/s10901-017-9580-3.

Zhou, W, Oyegoke, A.S. and Sun, M. (2018). Housing adaptations for ageing in Great Britain: legislation, policy and practice. *COBRA Conference Proceedings*. https://www.rics.org/uk/knowledge/research/conference-papers.

APPENDIX

Appendix A: The Questionnaire Survey

Name of Local Authority:……………………………………………………………………………..

Section 1: Planning

1.1 **Are there different sources of budget funding for social and private sector adaptations in your authority?**
☐ Yes ☐ No

1.2 **Do you have plan to pool different funding streams into a single pot for all tenures if they are separate now?**
☐ Yes ☐ No

1.3 **How do you set budget targets for housing adaptations for the private sector?** ***(please tick all that apply)***
☐ Carry out surveys of need ☐ Review last year's spend figures
☐ Consult with organisations that provide adaptation services
☐ Other, please specify………………………………………………………………………………

1.4 **Have your budgets for private sector adaptations changed in 2014/2015 compared with the previous financial year?**
☐ Increased ☐ Decreased ☐ Stayed at the same

1.5 **Is the budget allocation sufficient to meet the demand last year?**
☐ Yes ☐ No

1.6 **Do you monitor actual expenditure against budget?**
☐ Yes, on a monthly basis ☐ Yes, on a quarterly basis
☐ Yes, on a half-yearly basis ☐ No, on a first come, first served basis
☐ Other, please specify………………………………………………………………………………

1.7 **In terms of private sector adaptations in 2014/2015, how many applications for funding were approved and how much was allocated in total?**
Total number of approvals…………………. Total amount of allocated funding (£)………………………

1.8 **Please write any (optional) comment on: how effective the budget management is? What concerns do you have related to adaptations funding in the private sector? What changes would you like to see?**
………
………
………
………
………

Section 2 Partnership

2.1 **In your local authority area, which Partners are working together for the delivery of adaptations in the private sector?** ***(please tick all that apply)***

- ☐ Housing Department
- ☐ The Integration Authority
- ☐ Social Work
- ☐ Associated Organisations (e.g. Care and Repair)
- ☐ Other, please specify……………………………………………………………………………………..

2.2 **Are there written policies or guidance that specify service entitlement, service coverage and service process between these Partners?**

☐ Yes ☐ No

2.3 **How would you rate the effectiveness of your current joint work?**

☐ Very ineffective ☐ Fairly ineffective ☐ Fairly effective ☐ Very effective

2.4 **Please write any (optional) comment on: what concerns do you have towards your partnership? What improvements could be made to the joint work to speed up the delivery of adaptations in the private sector?**

………
………
………
………
………
………

Section 3 Referral

3.1 **Do you use a standard inquiry form or a shared IT system that allows basic information to be collected without re-directing the applicant who applies for the adaptation service?**

☐ Yes ☐ No

3.2 **[Self-referrals] What is the rough proportion of referrals that was made directly by applicants?**

☐ None ☐ 1% - 25% ☐ 26% - 50% ☐ 51% - 75% ☐ Over 75%

3.3 **How would you rate the awareness of adaptation services amongst private owners/tenants?**

☐ Poor ☐ Fair ☐ Good ☐ Excellent

3.4 **Is every applicant informed of the key case worker who has oversight of their application?**

☐ Yes ☐ No

3.5 **Do you use initial screening mechanisms to prioritise referrals for assessment?**

☐ Yes ☐ No

3.6 **Have you set target waiting time for assessment of different priority categories?**
☐ Yes ☐ No

If yes, please describe the target waiting time for assessment of each priority category and estimate the percentage of cases completed within the target timescale in 2014/2015?

Priority (P)	P1	P2	P3	P4	P5
Target waiting time for assessment (days)					
Completed cases within the target timescale (%)					

3.7 **Please write any (optional) comment on: what is your experience on how effectively your authority deals with referrals? What could help staff to provide quick and consistent responses to all referrals?**
……
……
……
……
……
……

Section 4 Assessment

4.1 **Apart from Occupational Therapist (OT) assessment, what other assessment arrangements are in place in your authority?** ***(please tick all that apply)***
☐ None, please go to Question 4.3
☐ We use self-assessment for minor adaptations
☐ We employ OT assistants/trusted assessors to speed up assessment
☐ Other, please specify………………………………………………………………………………….

4.2 **What are your key determinants of whether an OT assessment is required for adaptations?** ***(please tick all that apply)***
☐ Needs of the applicant ☐ Complexity of the case
☐ Cost of the adaptation ☐ Other, please specify…………………………………………………………

4.3 **Do you regularly keep the applicant informed of progress with the assessment?**
☐ Yes ☐ No

4.4 **Do you apply any national eligibility criteria to prioritise applicants' access to adaptation services?**
☐ Yes ☐ No

4.5 **How would you describe each of the following factors for your high priority cases? *(please tick all that apply)***

* Health Condition

- ☐ Unable to manage nutrition
- ☐ Unable to maintain personal hygiene
- ☐ Unable to get dressed independently
- ☐ Unable to manage toilet needs
- ☐ Other, please specify……………………………………………………………………………

* Living Environment

- ☐ Unable to carry out domestic routines
- ☐ Little or no control over vital aspects of living environment
- ☐ Unable to maintain a habitable home environment
- ☐ Other, please specify……………………………………………………………………………

* Community Participation

- ☐ Unable to participate in work or education
- ☐ Unable to undertake family or social roles
- ☐ Unable to use public services and facilities
- ☐ Social isolation
- ☐ Other, please specify……………………………………………………………………………

* Care Arrangement

- ☐ Absence of carer
- ☐ Care relationship breakdown or support arrangement is unable to be sustained
- ☐ Carer is unable to manage most aspects of caring
- ☐ Other, please specify……………………………………………………………………………

* Other, please specify……………………………………………………………………………

4.6 **Which of the following statements best describe the principle you apply when deciding priority for funding?**

- ☐ An application will be considered as a priority case when any of the factors described in Question 4.5 is rated as high priority
- ☐ An application will be considered as a priority case when all or the majority of the factors described in Question 4.5 are rated as high priority
- ☐ Decision will be made based on a balanced judgement of priorities of factors in Question 4.5
- ☐ Other, please specify……………………………………………………………………………

4.7 **How would you rate the effectiveness of your current arrangements for adaptation assessments within the private sector?**

☐ Very ineffective ☐ Fairly ineffective ☐ Fairly effective ☐ Very effective

4.8 **Please write any (optional) comment on: what changes could be made to minimise waiting times and ensure timely delivery of assessments for private sector adaptations?**

……………………………………………………………………………………………………
……………………………………………………………………………………………………
……………………………………………………………………………………………………
……………………………………………………………………………………………………
……………………………………………………………………………………………………
……………………………………………………………………………………………………

Section 5 Installation

5.1 **Do you have an approved list of contractors to help applicants in the private sector obtain quotations?**

☐ Yes ☐ No

If yes, how do you advertise the list to potential applicants? ***(please tick all that apply)***

☐ Provided on request ☐ Published on website
☐ Included in information package ☐ Other, please specify……………….……………………….

5.2 **Do you help the applicant to understand the specification of the adaptation work?**

☐ Yes ☐ No

5.3 **Do you have a procedure to review approved grant which is not spent by the applicant within a specific timescale?** ***(please tick all that apply)***

☐ Yes, we will inform the applicant to spend the grant within the financial year; otherwise the grant will be withdrawn
☐ Yes, we will inform the applicant a deadline when the grant has to be spent and the grant will be withdrawn if is not spent before the deadline
☐ No, it all depends on the applicant; the grant will be carried forward to the following financial year if is not spent within this financial year
☐ Other, please specify…………………………………………………………………………………...

5.4 **Please write any (optional) comment on: what concerns do you have about the installation process? How these concerns could be addressed?**

……………………………………………………………………………………………………...………
……………...……………………………………………………………………………………...……
……………………...………………………………………………………………………………………
………...……………………………………………………………………...…...…………………….....

Section 6 Monitoring

6.1 **Do you collect performance indicators to monitor the adaptation process for the private sector?**

☐ Yes . ☐ No

If yes, what do your current performance indicators consist of? ***(please tick all that apply)***

☐ Positive outcomes (e.g. number of completed works and their costs)
☐ Customer satisfaction ☐ Impact of adaptations
☐ Delivery times ☐ Other, please specify…………………...……………..

6.2 **Are you aware of any delays in the adaptation process experienced by private owners/tenants?**

☐ Very rarely ☐ Occasionally ☐ Very often

6.3 **In your authority area, what is the average waiting time for each stage of the whole process from first referral to completion of adaptation in 2014/2015? Please describe your own stages if they are different from stages listed left.**

Stage of process	Your own process if different	Average waiting time (days) in 2014/2015
Referral to allocation		
Allocation to OT assessment		
OT assessment to OT recommendation		
OT recommendation to grant approval		
Grant approval to installation		
Total time – first referral to work completion		

6.4 **How would you rate the effectiveness of your adaptation process for private sector overall?**
☐ Very ineffective ☐ Fairly ineffective ☐ Fairly effective ☐ Very effective

6.5 **Please write any (optional) comment on: what improvements could be made to your adaptation process in order to deliver good quality, customer centred and best value?**
……
……
……
……
……
……
……

Please add further comments, if any, on the delivery system for private sector adaptations?
……
……
……

Contact name and email (optional): ……………………………………………………………………

Appendix B: Survey Cover Letter

21st July 2015

Re. Evaluation of Housing Adaptations for Ageing in the Private Sector

Local Authorities Survey

Dear Housing Manager,

You are invited to participate in a **Survey of all local authorities in the UK** by completing the enclosed questionnaire. The objective of this study is to investigate the effectiveness of the existing implementation of national and local government policies in relation to the adaptation process in the private sector.

This survey should not take more than 10-15 minutes to complete. The results will help to identify existing issues with the adaptation approaches for private owners/tenants and develop recommendations for future improvement.

I would be very grateful if you could return the completed questionnaire using the enclosed self-addressed and stamped envelope within two weeks after receiving the letter. If you would prefer to complete this questionnaire online, please go to the website: http://web.sbe.hw.ac.uk/limesurvey/index.php/823864/lang-en.

The research will be carried out following the Heriot-Watt University's Ethical Guidelines. Privacy and anonymity of all participants will be respected. If you have any question about this study, please do not hesitate to contact me at 07419606767, or at wz78@hw.ac.uk.

Your help and assistance are essential to the success of this study and will be greatly appreciated. I look forward to receiving your response.

Sincerely yours,

Ms Wusi Zhou, Ph.D Candidate
Centre of Excellence in Sustainable Building Design
EGIS, Heriot-Watt University
Edinburgh, EH14 4AS
Email: wz78@hw.ac.uk

Appendix C: Interview Questions with Professionals

Questions towards key partners

1. **Planning**
   - There are different funding streams for social and private sector adaptations and it was suggested to pool these different funding streams into a single pot for consistence and equality, but it seems local councils don't have plan to pool different funding together. How do you think of it? What are the advantages and disadvantages of doing that? Any improvements for the whole process?
   - Nearly a third of councils confirmed that their budgets couldn't meet local demand, even increased their budgets? Over-budget is kind of a general issue in local authorities, what are the main reasons for that? (poor budget setting/management, limited budget or high demand) How this issue could be addressed?
   - There was a clear distinction between Scotland and England in the average number of approved adaptations and the average grant paid, 270/£687545 and 129/£723651 respectively – why?
   - What concerns do you have related to adaptations funding in the private sector? What changes would you like to see?

2. **Partnership**
   - On average, there are at least three agencies involving the adaptation process, most include Care and Repair (81%). How do you think of the local joint work for the delivery of adaptations in the private sector?
   - Do you clearly understand responsibilities of different partners (any written guidance)? If not, do you think you it would be better for partnership when you have this written policies? It seems the applicant lost during the process because of the multi-responsibilities.
   - Are you satisfied with your current joint work? What concerns do you have towards the partnership? Do you think it would speed up the process by transferring your agency into in-house organisation? What improvements could be made to speed up the adaptation process?
   - Because of the Public Bodies (Joint Work) Bill, the adaptation service will be delegated to the integrated authority, what impact it will bring on the adaptation process?

3. **Referral**
   - How do private owners/tenants (especially older people) find out information about the local adaptation process? Is it easy for the applicant to make a referral to the adaptation service (what is the referral process)? What are the main sources of referrals?

- How do you think of self-referral?
- What are the barriers to raise the awareness of adaptation services among private owners/tenants?
- How do you think of the initial screening mechanism for dealing with referrals (e.g. fast track urgent need, prioritise referrals for assessment)? Any concerns about that?
- Do you notice any delays at the referral stage? What are the reasons for that? What could help staff to provide quick and consistent responses to all referrals?

4. **Assessment**
   - Research has identified that the biggest delays are at the assessment stage, social work put a lot of efforts on it (e.g. OTs, OT assistants, trusted assessors), and what do you think of the local assessment arrangements? What are the criteria for deciding who should carry out an assessment in each case (do you understand clearly)?
   - How do you deal with (how about) the waiting time for assessment of different priority categories? How changes could be made to minimise waiting times and ensure timely delivery of assessments for private sector adaptations?
   - Are there any delays at the funding stage? Any problems with collaboration between grant officers and OTs? What are the main reasons for that? How could these delays be overcome?
   - Do you think the national eligibility criteria guidance is helpful? Different local authorities have their own criteria, how do you think of your local eligibility criteria?

5. **Installation**
   - Do you think applicants and their family members fully understand what is going to be done about the adaptation? Is it easy for the applicant to find the contractor?
   - I heard sometimes delays are caused by applicants who hold the grant and not to spend; is that true? Why? Any suggestions? Any other delays occur you experienced at the installation stage?
   - What concerns do you have about the installation process? How these concerns could be addressed?

6. **Monitoring**
   - Does the applicant keep informed during the process? Any key case worker?
   - How does the local authority monitor the adaptation process (which performance indicators)? What do you think performance indicators should consist of?
   - Do you think overall the delivery system for adaptation is effective? What makes it effective and what makes it ineffective? What improvements could be made to the adaptation process?

Appendix D: Interview Questions with Clients

Questions towards clients

- How did you hear about the adaptation service? Why did you apply to adapt your house? What was done to your home?
- Did you know where to refer at the beginning? Was it easy to make a referral?
- After referral, have you been explained about what's the next, stages of the adaptation process, and the partnership for the delivery?
- How long have you waited for assessment? How many times have you been visited during assessment? Did the OT or OTA listen to you about what adaptation work you need and provide you other options – moving or chance to see alternatives?
- Have you been told local eligibility criteria and priority system?
- Have you been informed when your assessment was completed and the case was transferred to Care & Repair (moved to next stage)?
- Could you remember how long it takes from OT's first visit to assessment finish? How do you think of local assessment arrangements, very effective, ok, or not at all?
- Did you have difficulty finding contractor to give you quotes? Did you understand in advance what would be done to your home? Were there things either done that you didn't want or you want that weren't done?
- During the whole process, were there any difficulties or concerns and did you know who to contact?
- Are you satisfied with the joint work and the results? How do you think of the effectiveness of the adaptation process?
- Would you like to raise any other issues regarding the process? What changes could be made to improve the operation for a better service?

Appendix E: Questions in Focus Group Discussion

Questions for focus group meeting

1. **Planning**
   - How do you think of pooling different funding streams into a single pot for social and private sector adaptations? How do you set and monitor the budget for adaptations in private housing?
   - Nearly a third of councils confirmed that their budgets couldn't meet local demand, over budget is a common issue in local councils, what are the main reasons for that? How this issue could be addressed?
   - What concerns do you have related to adaptations funding in the private sector? What changes would you like to see?
2. **Partnership**
   - How do you think of your current joint work for the delivery of private sector adaptations?
   - Because of the Public Bodies Act 2014, the adaptation service will be delegated to the integrated authority, what impact will it bring on the adaptation process?
   - What concerns do you have towards your partnership? What improvements to the joint work could be made to speed up the adaptation process?
3. **Referral**
   - How do private owners/tenants find out information about the adaptation process? What are the main sources of referrals? What are the barriers to raise the awareness among older people of the adaptation service?
   - How do you think of the initial screening mechanism? Do you agree to set target waiting time for assessment of each priority category?
   - Do you notice any delays at the referral stage? What could help staff to deal with referrals more effectively?
4. **Assessment**
   - What do you think of local assessment arrangements and eligibility criteria?
   - What changes could be made to minimise waiting times and ensure timely delivery of assessments for private sector adaptations?
   - Are there any delays at the funding stage? How could these delays be overcome?
5. **Installation**
   - Have you noticed delays caused by applicants who want to instruct their own contractors or hold the grant and not to spend?
   - What concerns do you have about the installation process? How these concerns could be addressed?
6. **Monitoring**
   - How does your authority, as well as the client, monitor the whole process?
   - What makes your delivery system effective and ineffective? What improvements could be made to streamline the adaptation process?