



RAPID REVIEW OF KNOWLEDGE LANDSCAPE FOR THE LTIB

**Prepared for Te Tūāpapa Kura Kāinga | Ministry of
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Bedford Consulting and associates who prepared this report are independent research organizations. The analysis and interpretation in this report reflect the views of the authors. This report contains a rapid review of recent published literature relating to housing and population change in New Zealand. By their very nature, rapid reviews are not assessments of the quality of the research reported in the publications. The publications that are mentioned in the report do meet some specific criteria for inclusion but the quality of the research is not one of these. While the authors have been careful in presentation of data and information in this report from a wide range of sources, no liability is accepted for any incorrect statement or information in this publication.

TABLE OF CONTENTS

TABLE OF CONTENTS	II
LIST OF TABLES	IV
LIST OF FIGURES	V
EXECUTIVE SUMMARY	VI
1. REVIEW TERMS OF REFERENCE, SCOPE AND STRUCTURE	1
2. REVIEW APPROACH.....	3
2.1 Profile of reviewed references	3
2.2 Key steps	4
<i>Preliminary scan.....</i>	<i>4</i>
<i>Assessment of references for eligibility.....</i>	<i>5</i>
<i>Creation of review databases and analysis.....</i>	<i>6</i>
<i>Identification and description of key research findings</i>	<i>7</i>
3. POPULATION CHANGE AND AGEING	8
3.1 Population Ageing and Population Diversity	9
<i>Diversity in the younger population.....</i>	<i>12</i>
<i>Diversity in regional population change</i>	<i>12</i>
3.2 Demographic Dividends, Young Populations, Dependency and Disability	13
<i>People with disabilities.....</i>	<i>14</i>
4. RELEVANT BBHTC LANDSCAPE REPORT REFERENCES	17
4.1 Research identified from the Landscape Report of relevance to the LTIB.....	17
<i>LTIB areas of interest</i>	<i>17</i>
<i>LTIB sub-populations.....</i>	<i>18</i>
4.2 Concluding comments on research in the Landscape Report	20
5. CORE REFERENCES.....	22
5.1 Research focusing on population change, housing and urban systems	23
<i>Other core references commenting on population change</i>	<i>25</i>
5.2 Area of interest 1: dwelling types and performance	27
5.3 Area of interest 2: housing stock, size and positioning.....	30
5.4 Area of interest 3: affordability and tenure security	33
6. ADDITIONAL RESEARCH OF RELEVANCE TO THE LTIB	38
6.1 The supplementary references and areas of interest	38
6.2 Population change and ageing	39
<i>National perspectives on population change and ageing.....</i>	<i>39</i>
<i>Sub-national population ageing analyses.....</i>	<i>41</i>
6.3 Other key themes in the supplementary references	43
<i>The health impacts of poor housing.....</i>	<i>43</i>
<i>House condition and resilience</i>	<i>43</i>
<i>Thermal performance and fuel poverty</i>	<i>44</i>
<i>Urban and neighbourhood planning and design</i>	<i>44</i>
<i>Housing affordability</i>	<i>44</i>
<i>Housing accessibility</i>	<i>44</i>

<i>Housing supply</i>	45
<i>Māori housing and papakāinga</i>	45
6.4 Multi-year research programmes	45
7. KEY THEMES AND ISSUES IN THE RAPID REVIEW	47
7.1 Themes and issues	47
<i>Structural tenure change is happening alongside structural ageing</i>	47
<i>Strong evidence of housing unaffordability and financial precarity</i>	48
<i>Housing deprivation among young people</i>	48
<i>Social and financial benefits of secure, low-cost housing</i>	49
<i>Stock typology meets neither household needs nor preferences</i>	49
<i>Impacts of poor house condition and performance</i>	49
<i>Impacts of crowded housing</i>	50
<i>Rising homelessness</i>	50
<i>Increasing pressure on housing-related government financial assistance</i>	50
<i>Increasing financialisation of housing</i>	51
<i>Renting experiences in later life and precarity faced by older tenants</i>	51
<i>Lack of housing options for an ageing population</i>	51
<i>Lack of housing options based on Māori cultural principles and values</i>	52
<i>Lack of housing options based on Pacific cultural principles and values</i>	52
<i>Lack of housing options for disabled people</i>	52
7.2 Divergence and consistency in the research	53
8. LOOKING AHEAD	55
8.1 Structural ageing and housing	55
8.2 Housing as a human right	56
8.3 Limitations and gaps in the reviewed research	58
8.4 Official datasets and forecasts	62
<i>Official sources of population data</i>	62
<i>Māori sub-population</i>	64
<i>Pacific sub-population</i>	65
<i>Seniors sub-population</i>	65
<i>Youthful sub-population</i>	65
<i>People with a disability</i>	66
8.5 Final comments	66

LIST OF TABLES

Table 2.1: Components of the rapid review’s database.....	4
Table 2.2: Inclusion criteria: areas of interest and sub-populations.....	5
Table 3.1: References to population change.....	8
Table 3.2: Distribution of the references with a key focus on population change.....	9
Table 3.3: Numerical and structural changes in major ethnic populations, 2018-2043.....	10
Table 4.1: References by sub-population with some analysis of population change.....	20
Table 5.1: Spread of core references across areas of interest.....	22
Table 5.2: Characteristics of 8 core references with a key focus on population change.....	24
Table 5.3: Core references with some comment on population change by area(s) of interest.....	25
Table 5.4: Core references with some comment (but not key focus) on population change by housing area(s) of interest and sub-population.....	26
Table 5.5: Dwelling type.....	27
Table 5.6: Dwelling performance.....	28
Table 5.7: Location of research.....	32
Table 5.8 Housing affordability and tenure security	34
Table 5.9: Tenure	35
Table 6.1: The supplementary references: distribution across the LTIB’s areas of interest.....	38
Table 6.2: Addressing population change: the supplementary references by housing area(s) of interest.....	39

LIST OF FIGURES

Fig. 3.1: Estimated resident population, 2018-base and estimated 2043 median variant.....	9
Fig. 3.2: Estimated resident population of people of Māori ethnicity, 2018 and 2043 (median variant).....	11
Fig. 3.3: Estimated resident population of people of Pacific ethnicities, 2018 and 2043 (median variant).....	11
Fig. 3.4: Estimated resident population 2018 and 2043, percentage change by ethnicity, people aged under 15 and aged 65 years and over.....	12
Fig. 3.5: Projected average annual population change, by region, 2018-2048.....	13
Fig. 3.6: Child dependency and aged dependency by ethnicity, estimated resident population 2018 and 2043	14
Fig. 5.1: Distribution of the 116 core references across the sub-populations.....	22
Fig. 5.2: Distribution of the 116 core references across the three priority housing areas of interest and sub-populations.....	23

EXECUTIVE SUMMARY

1 Terms of reference

1.1 This report is a response to a request from the Ministry of Housing and Urban Development (HUD) for a rapid review of recent published research as an input to a Long-Term Insights Briefing (LTIB) on the implications of our ageing population for our housing and urban development futures over the next 20-30 years.

1.2 The rapid review covers literature addressing the LTIB's three areas of interest with regard to housing:

- Our dwelling types and the performance needed from them
- The housing stock, its size, and positioning within towns and cities
- The affordability and security of housing

1.3 In addition the review gives particular attention to the implications of structural and numerical ageing for five sub-populations that have been prioritised for the LTIB:

- Māori
- Pacific peoples
- Seniors
- Young people
- People ageing with a disability

1.4 Three key components to the literature search were specified in the Terms of Reference for the review:

- Extraction of references from the *Building Better Homes Towns and Cities* landscape document (the Landscape Report) that are relevant to the LTIB (covered in section 4 of the report)
- A rapid review of recent literature addressing the 3 housing and 5 sub-population priorities specified in the Terms of Reference (covered in sections 5-7 of the report)
- A review of recent official statistics dealing with the ageing population with particular reference to projections of structural and numerical change over the next 20-30 years (covered in section 3 of the report)

2 Content and approach

2.1 The report focuses on the intersection between four bodies of literature concerned with:

- Structural population ageing;
- Tenure change;
- The housing experiences of specific sub-populations;
- Key elements and dynamics of the housing system as expressed in the LTIB areas of interest.

From this diverse literature we found 239 references which we have classified as core references (116) and supplementary references (123).

2.2 The 116 core references, listed in Annex 1, consist of references about:

- At least one of the LTIB's areas of interest, and
- At least one of the LTIB's key sub-populations

Just over 70% of the 116 core references include a reference to the implications of structural population ageing on housing and urban development, but most references only have some discussion, or a brief mention, of population ageing.

2.3 The 123 supplementary references, listed in Annex 2, provide important insights and context which we considered would assist the development of the LTIB. Those references comprise:

- References with a primary focus on population change
- References that provide relevant insights for the LTIB, on either:
 - housing and/or urban development
 - a sub-population of interest to the LTIB
 - analysis undertaken by a small number of Territorial Local Authorities in relation to their responsibilities under the National Policy Statement on Urban Development (NPSUD).

3 Key messages about the evidence arising from the rapid review

3.1 There are 9 key messages relating to the scope, strength and coverage of the evidence relating to the LTIB:

- There is a thin body of research directly related to the LTIB's key focus on the implications of ageing for housing and urban development.
- Few of the studies that deal with future population change make explicit reference to dwelling types and performance; housing stock, size, and positioning; and housing affordability and security.
- The small number of studies that deal with housing stock into the future draw on population projections that are undifferentiated by age group or ethnicity. There is analysis of the changing trajectories of different cohorts as the population ages.
- Most of the studies that address Māori and Pacific housing issues deal with the contemporary population, often with little reference to specific age groups, or structural population ageing.
- There is a critical gap in coverage of ageing with disability and implications for housing.
- While the most-researched sub-population in terms of housing needs and experiences is today's seniors (55+), there is little analysis of the impacts of socio-demographic and housing trends.
- There are some studies relating to the housing conditions of specific population sub-groups, but their current housing experiences and needs cannot be assumed to provide models for their future experiences.
- There is little acknowledgement of the quite significant heterogeneity in growth trajectories, and associated changes in age structures within some the major ethnic groups, especially Pacific and Asian peoples, and the relevance of these for housing futures.
- Our analysis identified two gaps in population projections and estimates:
 - There are no forecasts or projections of dwelling numbers.
 - No forecasting of ageing with disability has been identified.

4 Key findings from the rapid review

4.1 Key findings from the rapid review can be summarised as follows:

- The current dominant stock typology does not meet the household needs or preferences of many sections of the population and there is very limited provision of culturally-appropriate housing.
- While there has been considerable research on the continuing impacts on health and wellbeing of poor house condition and performance, little research considers the implications of these for an ageing population.
- Over the last two decades there has been a systematic shift to building higher cost, larger size homes. This has been accompanied by a significant increase in housing unaffordability, affecting both owner-occupiers and renters.
- There is a growing concentration of stock in the private rental market owned by property investors, leading to the commodification of housing.
- There has been a significant increase in the demand and need for social rental housing. This is forecast to grow in future due to increasing numbers of people reaching retirement age as private-sector tenants who are no longer able to afford market rents.
- There is a lack of tenure security due to inadequate legal protections for renters (despite recent reforms), poor dwelling condition, and unaffordable rentals.
- Homeownership does not guarantee tenure security. Many homeowners are stretched by unaffordable mortgages, rising rates, running costs and the cost of repairs and maintenance.
- The decline in homeownership across all age groups is forecast to increase in future. There is an increase in numbers and proportions of households in the intermediate housing market, and this is forecast to increase.
- Household size is declining due to the ageing population, changing partnership patterns and couples choosing not to have children. No research was identified that specifically focuses on challenges facing single-person households, despite the growing number of these households and recognition of their precarity in the housing market.
- There are increasing rates of household crowding. The most affected are Pacific and Māori households, and younger age groups due to the population profiles of these populations.
- There has been a marked rise in both the incidence of and research on homelessness in recent years, affecting all age groups, including seniors. Rates of homelessness are highest among Pacific and Māori young people.
- There is little research on the housing experience of different Pacific communities and a lack of ethnic specific data. Pacific households are particularly affected by declining homeownership and they are over-represented in crowded households and in statistics on the homeless.
- Recent research refers to the need to situate discussions of housing and 'home' within epistemologies rooted in Mātauranga Māori and Pacific experience.
- Increasing numbers of older people are reaching retirement with a mortgage or are living in rental accommodation. There is a marked rise in homelessness and growing evidence of housing-related poverty among older age groups and increasing reliance on the state for housing-related income support.

- Children and young people are particularly affected by homelessness and housing deprivation. Young disabled people are more likely to experience housing deprivation than their peers.
- There is practically no accessible or universally-designed housing for an ageing population and disabled population. Disabled people are more likely to live in rental accommodation and in dwellings in poorer condition. Many feel they have no choice in the housing they accept due to limited accessible housing stock and affordability issues.

6 Gaps identified from the rapid review

6.1 The rapid review revealed some significant gaps in the literature addressing the LTIB's concerns:

- Research that systematically bring together structural changes in the population over the next 20 years, and the implications of those changes for housing and urban development.
- Assessments of the potential options and scenarios for our housing and urban futures at both national and sub-national levels, especially with regard to types of housing needed where, for which groups, and when.
- Research on the implications of the complex and variable patterns of population ageing in different ethnic groups for housing deprivation and homelessness in the future.
- Inquiry into how future housing for the various population sub-groups interfaces with two significant issues which will shape our future society:
 - equity, inclusion and exclusion, particularly inter-generational relationships and reciprocities
 - the relationship between our housing infrastructure and other infrastructural needs.
- Studies of interactions between critical aspects of the housing system (supply, affordability, quality) and management of pandemics and climate change.
- Research on the future housing needs of an increasingly diverse older population.
- Assessment of the implications of current housing circumstances for children and young adults and how these affect future life choices and opportunities.
- Analysis of housing, housing markets and the needs and aspirations of Māori whanau informed by Mātauranga Māori epistemologies.
- Analysis of housing needs of diverse Pacific communities informed by understanding of their cultural practices and preferences.
- Research on the housing needs of diverse Asian ethnic populations in the context of their trajectories for population ageing.
- Data and research on the current and future housing needs of diverse disabled communities and the implications for ageing with a disability.

7 Limitations of the recent research landscape

7.1 There are three key limitations of the research landscape covered in the rapid review:

- There is no ready-made body of research that addresses the nexus between population ageing and the housing system.
- The research literature on housing and structural ageing is very diverse and siloed, covering multiple sectors, methods and disciplines
- There is limited research that considers possible housing future scenarios for an ageing population. The focus of most recent research is on current housing experiences and needs.

Current conditions cannot be assumed to be relevant for future housing experiences and expectations.

1. REVIEW TERMS OF REFERENCE, SCOPE AND STRUCTURE

Te Tūāpapa Kura Kāinga Ministry of Housing and Urban Development (HUD) is preparing a Long-Term Insights Briefing (LTIB) focusing on **the implications of our ageing population for our housing and urban development futures** over the next 20-30 years. HUD has three areas of interest in relation to the key focus of the LTIB:

- Our dwelling types and the performance needed from them
- The housing stock, its size, and positioning within towns and cities
- The affordability and security of housing

Furthermore, the LTIB will give particular attention to the implications of structural and numerical ageing for:

- Māori
- Pacific peoples
- Seniors
- Young people
- People ageing with a disability

This report recognises that the central concern of the LTIB is with the nexus between population ageing and the housing system. After a comprehensive review of research into population dynamics, housing research and urban research, this report concludes:

- no ready-made body of research currently exists that addresses that nexus; and
- relevant research is typically siloed into disciplines, subject areas and sectors.

This report outlines the nature and scope of relevant recent published research, especially with reference to the period 2018-2021, along with reference to key earlier literature of relevance to the LTIB. A total of 239 references were identified as being relevant to the LTIB. Of these, 116 are core references. These specifically deal with the LTIB areas of interest and sub-populations. In addition, 123 references were found that cover research providing useful insights and context but not centrally concerned with the preoccupations of the LTIB.

In this report, we provide a summary of key findings, the extent of agreement and disagreement around them, and comment on research gaps. The report is structured as follows:

- Section 2 describes how the rapid review was done.
- Section 3 provides the demographic context for the LTIB's focus on the implications of population ageing for housing and urban development. It draws on official statistics and forecasts pertinent to population ageing.
- Section 4 identifies research references and analysis contained in *Building Better Homes Towns and Cities* (BBHTC) Landscape Report that are relevant to the LTIB.
- Section 5 presents a rapid review of the 116 core research references.
- Section 6 presents additional research (123 references) providing useful insights and context for the LTIB.
- Section 7 highlights 15 themes emerging from the rapid review and comments on areas of convergence/divergence in the research reviewed.

- Section 8 comments on the adequacy of current research identified in this rapid review for the LTIB focus on the implications of our ageing population for our housing and urban development futures.

2. REVIEW APPROACH

The research literature potentially of relevance to the LTIB is very diverse, covering multiple sectors, methods and disciplines. To manage that diversity, the review has focused on the intersection between four distinct bodies of research concerned with structural population ageing, tenure change, the housing experiences of specific sub-populations and key elements and dynamics of the housing system (as expressed in the LTIB areas of interest).

We have developed a method to consistently review the research literature and arrive at a set of relevant references that identify important population trends, as well as housing trends, conditions and issues for the sub-populations of interest to the LTIB. From that diverse research literature, we have developed a set of core references of relevance to the LTIB, and a set of supplementary references that contribute to the evidence based needed for the LTIB. Overall, we found 239 references: 116 core references and 123 supplementary references.

This is a ‘rapid’ review completed within a short timeframe. While every care has been taken to canvass widely literature of potential relevance to the LTIB, we have not identified any systematic literature reviews that would provide an analytic framework and a synthesis of findings, as well as a review of the quality of research. We have not assessed the quality of the research identified for rapid review.

2.1 Profile of reviewed references

The 116 core references, listed in Annex 1, consist of references about:

- At least one of the LTIB’s areas of interest, and
- At least one of the LTIB’s key sub-populations.

Just over 70 percent of the 116 core references include some reference to the implications of structural population ageing on housing and urban development. However, few of these papers have a key focus on population ageing.

The 123 supplementary references (listed in Annex 2) did not meet the criteria for including in the core references (see section 2.3 below for criteria) but they do provide important insights and context for the LTIB. They comprise:

- References with a primary focus on population change.
- References that provide relevant insights for the LTIB, on either:
 - housing and/or urban development
 - a sub-population of interest to the LTIB
- Analysis undertaken by councils in relation to their responsibilities under the National Policy Statement on Urban Development (NPSUD).

Table 2.1 presents numbers and percentages in each component of the rapid review database.

Table 2.1: Components of the rapid review's database

Component	References	
	Number	%
<i>1. Core references</i>	116	48.5
a) Rapid review	72	30.1
b) BBHTC*	44	18.4
<i>2. Supplementary references</i>	123	51.9
a) Population change	23	9.6
b) Council forecasts	7	2.9
c) Other supplementary references	93	38.9
Total references	239	100.0

*See section 4 below for discussion of these references

2.2 Key steps

To focus our effort and confine the review to research that meaningfully informs the LTIB, we approached the task in successive steps. These are outlined below:

- A preliminary scan and collection of New Zealand literature to identify any research relating to housing and urban development, population change and key sub-populations prioritised for the LTIB.
- Assessment of each reference for inclusion in the review or exclusion.
- Creation of the review database to inform the research platform for the LTIB.
- Analysis of the review database.
- Identification and description of key research findings of relevance to the LTIB.

Preliminary scan

In the preliminary scan over 320 references were identified through consultation of a range of information sources. These included:

- Building Better Homes, Towns and Cities (BBHTC) National Science Challenge
- Ageing Well National Science Challenge
- Wellington School of Medicine He Kāinga Ora Housing and Health Research Programme
- University Presses and research inventories
- Ngā Pae o te Māramatanga (New Zealand's Māori Centre of Research Excellence)
- Government departments, ministries and agencies including - Statistics NZ, Ministry of Social Development, Office for Seniors, Te Puni Kōkiri, Ministry for Pacific Peoples, the Treasury, Reserve Bank, Ministry of Transport, Ministry of Business, Innovation and Employment, the New Zealand Productivity Commission, Retirement Commission
- Research funds including Health Research Council, Marsden Fund, Endeavour Fund
- Building Research Association (BRANZ)
- Private research organisations such as Whakauea Research for Māori Health and Development, NZIER, BERL, CRESA, Katoa Ltd

- Local Government Councils
- Not-for-profit sector e.g., community housing providers, Community Housing Aotearoa.

A key database used at this stage was the BBHTC Landscape Report’s review of research. Section 4 reviews the relevant references from that report.

Assessment of references for eligibility

We assessed each reference for eligibility using criteria for inclusion and exclusion. Eligibility criteria were based on the areas of interest and population sub-groups of the LTIB as well as criteria around type of publication, publication date, and so on. The inclusion criteria specifically relating to the LTIB focus are presented in Table 2.2.

Table 2.2: Inclusion criteria: areas of interest and sub-populations

LTIB focus	Inclusion criterion	Search focus
Area of Interest 1: Our dwelling types and the performance needed from them	Dwelling type	House / stand-alone dwelling Townhouse Unit Apartment Types of homelessness
Area of Interest 1: Our dwelling types and the performance needed from them	Dwelling performance	Thermal Condition Resilience Accessibility / universal design
Area of interest 2: The housing stock, its size, and positioning within towns and cities	Housing stock	Under supply Over supply Supply balanced
Area of interest 2: The housing stock, its size, and positioning within towns and cities	Dwelling size	1-bedroom 2-bedroom 3-bedroom 4+-bedroom Other types of dwellings
Area of interest 2: The housing stock, its size, and positioning within towns and cities	Zoning type	Nationwide Inner city Suburban Provincial Rural
Area of interest 2: The housing stock, its size, and positioning within towns and cities	Location	Actual location of study (if any)
Area of interest 3: The affordability and security of housing	Affordability	Affordable rental Affordable owner-occupation Unaffordable rental Unaffordable owner-occupation
Area of interest 3: The affordability and security of housing	Tenure type	Owner-occupation Rental Other tenure types
Area of interest 3: The affordability and security of housing	Tenure security	Secure tenure Insecure tenure
Sub-population	Māori	Māori Iwi
Sub-population	Pacific communities	Pacific communities Specific Pacific ethnicity

Sub-population	Seniors	65+ age group 50-64 age group
Sub-population	Young people	Children (0-14 years) Young people (15 years to 20s) Families with dependent children
Sub-population	People ageing with a disability	Different types of disability
Sub-population	Location	Nationwide Regional or territorial authority
Sub-population	Other	Asian European MELAA Immigrant / new settler
Ageing population	Analysis of population and demographic change	Key focus Some commentary Brief mention No mention
Ageing population	Location of population change analysis	Nationwide Regional or territorial authority Sub-population
Ageing population	Projections, forecasts	Nationwide Regional or territorial authority Sub-population

Further to the criteria set out in Table 2.2, we included references that met the following conditions:

- Published within the last decade. A few earlier references were included because they were deemed of significance to the LTIB. This is due to their findings or analysis being unavailable elsewhere, and/or because they have had a significant influence on the development of the knowledge base relevant to the LTIB.
- A major focus on research.
- A major focus on NZ data and analysis.
- Published literature.

Although we canvassed the available literature widely, some references in which relevant research was expected yielded little. These references were eventually excluded from the review. We assessed and excluded references for the following reasons:

- Insufficient information on housing and/or urban development, and on a sub-population of interest to the LTIB.
- Outside of the timeframe and of marginal relevance to the LTIB.
- The reference has insufficient research data and analysis (e.g. the primary focus is strategy, monitoring, programme evaluation, standards, policy/programme commentary or evaluation, advocacy).
- Literature with slight mention of NZ housing and/or urban development, and primarily focused on other jurisdictions.
- The research is unpublished.

Creation of review databases and analysis

Team members were assigned literature sources to investigate. From those investigations, sets of references to review were compiled. Information about each reference was gathered through reading

the title, abstract, programme description, and executive summary. In many cases, a closer reading of a document text was required to assess its content and relevance to the LTIB.

Team members used their own copy of a formatted Excel worksheet to capture information from their source references. Recording of information from each reference was standardised as much as possible using an Excel worksheet with drop-down codes assigned to key variables. The Excel worksheet used a standard set of variables with fixed codes supplemented by additional free-text variables. The key variables were created from the LTIB areas of interest and sub-populations. Some adjustments in the number of variables and fixed codes were made after an initial period of coding in which codes were tested and compared across team members for code relevance and consistency in coding. That process allowed us to account for the range of information being found and to refine codes or embed additional codes emerging in the free-text. Content was recorded using free-text, including full referencing details, a brief description of the reference, key findings and method.

Once reference collection, description and coding were complete, each team member's worksheet was merged, thus combining all references into a single excel database. Cleaning was then undertaken to remove duplicate references and any that had not met the eligibility criteria for inclusion.

Identification and description of key research findings

This rapid review presents literature at the intersection of separate bodies of literature. As noted above, there are no systemic reviews that collate and present findings. Nor is there a ready-made analytic framework to guide discovery of findings. Consequently, we developed variables based on the LTIB areas of interest and sub-populations in order to identify an evidence base for the LTIB. We then conducted analysis to:

- Identify and describe the range of findings across the references, including trends, themes and issues.
- Identify the extent of agreement and disagreement around findings in the core literature.
- Identify gaps in the literature and areas for further research that would support the development of a robust evidence base for the LTIB.

Note that core and supplementary references referred to in the following sections of this report are listed in Annexes 1 and 2. References to documents, websites or data sources that are not included in the core or supplementary references are detailed in footnotes.
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3. POPULATION CHANGE AND AGEING

This section provides the demographic context for the LTIB’s focus on the implications of population ageing for housing and urban development. Population ageing involves both numeric and structural ageing. Numerical ageing generally refers to growth in the size of population at specific ages or within specified age groups of interest. This growth affects the size of each of the populations of interest, enabling estimation of a range of factors relating to housing requirements. In contrast, structural ageing refers to changes in the shape of the population that are associated with declining fertility and mortality and an increasing concentration of people at older age groups.

Changes in the relative sizes of age groups have significant effects on the nature of housing requirements. For example, the number of people in older ages, with varying needs, may grow at a greater rate than those in younger ages, modifying the interaction between competing resource burdens imposed on different age groups.

The research identified as core and supplementary to the LTIB rapid review is described in more detail in subsequent sections. This section provides an outline of some characteristics of New Zealand’s ageing population through to 2043. Around half (49.2%) of the 239 references in the core and supplementary references make no direct reference to population change (Table 3.1). A much higher share of the 116 core references (71.6%) give some attention to population change than is the case in the 123 supplementary references (31.4%). Only 29 references (12.1%) have population change as a key focus: 8 of the core references discussed in section 5, and 21 in the supplementary references discussed in section 6. The distribution of these 29 references are summarised in Table 3.2.

Table 3.1: References to population change

Focus on population change	References		Total
	Core	Supplementary	
<i>Numbers</i>			
Key focus	8	21	29
Some commentary	46	11	57
Brief mention	29	7	36
No reference	33	84	117
Total	116	123	239
<i>Percentages</i>			
Key focus	6.9	17.0	12.1
Some commentary	39.7	8.9	23.7
Brief mention	25.0	5.6	15.1
No reference	28.4	68.5	49.2
Total	100.0	100.0	100.0

Table 3.2: Distribution of the references with a key focus on population change

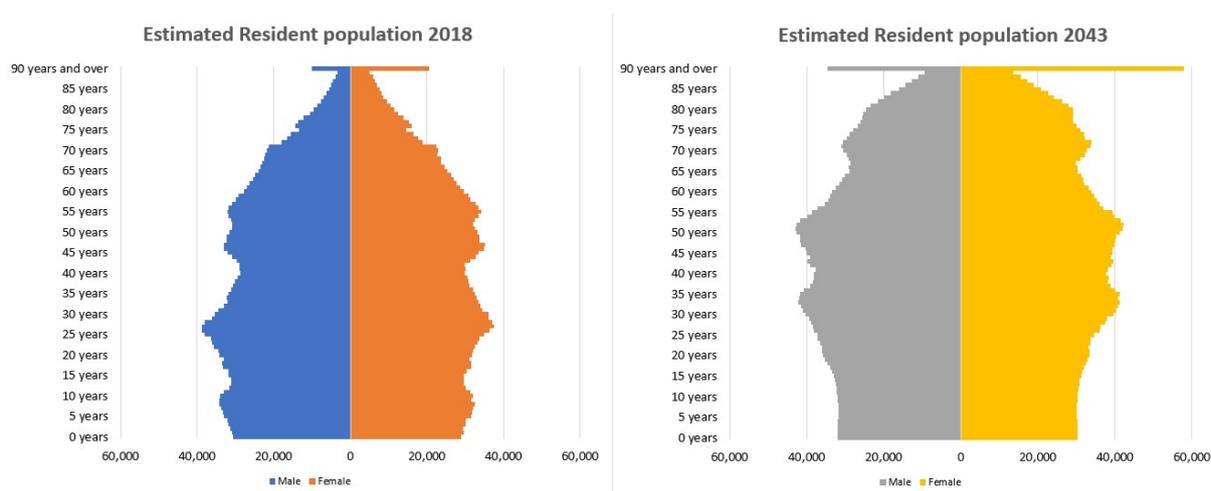
Component	References	
	Number	%
<i>Core references</i>	8	27.6
<i>Supplementary references</i>	21	72.4
Population change	14	48.3
Council forecasts	5	17.2
Other	2	6.9
Total references	29	100.0

3.1 Population Ageing and Population Diversity

As Figure 3.1 illustrates, New Zealand’s population will age quite significantly between 2018 and 2043. The projected population structure for 2043 shows clearly the structural changes accompanying on-going transitions in fertility and mortality within the major sub-groups in the population, as well as an expected impact of net migration gains especially on the numbers aged between 20 and 50.

In terms of numerical ageing, the population aged 90+ is expected to treble from around 30,680 in 2018 to around 92,300 in 2043. At the same time those aged under 15 years are expected to decline slightly from around 946,400 in 2018 to around 935,600 in 2043, implying a declining pool of New Zealand-resident entrants into the labour force.

Fig 3.1: Estimated resident population, 2018-base and estimated 2043 median variant



Subsumed within the structural change in the total population that is summarised in Fig 3.1 are quite significant variations in population structure for the major ethnic groups. Table 3.3 contains a summary of the key numerical and structural changes in New Zealand’s major ethnic groups between 2018 and 2043 that have been reported in Stats NZ’s latest projections. Included in the last block of figures in Table 3.3 is a summary of structural changes that can be observed in the population pyramids in Fig. 3.1.

Table 3.3: Numerical and structural changes in the major ethnic populations, 2018-2043

Age and ethnic group	Population		% of total		% change
	2018	2043	2018	2043	2018-43
<i>Aged under 15</i>					
European/Other*	636,900	600,200	18.5	15.4	-5.8
Māori	255,700	303,700	31.3	24.5	18.8
Pacific	133,500	170,000	32.8	26.2	27.3
Asian	153,400	254,500	19.9	16.2	65.9
MELAA**	18,200	34,800	23.6	20.0	91.2
Total population***	946,400	935,600	19.3	15.4	-1.1
<i>Aged 15-64</i>					
European/Other	2,174,500	2,269,400	63.2	58.3	4.4
Māori	510,700	786,300	62.5	63.3	54.0
Pacific	252,500	410,500	61.9	63.2	62.6
Asian	566,200	1,112,200	73.5	70.6	96.4
MELAA	55,700	121,400	72.3	69.7	118.0
Total population	3,219,200	3,746,800	65.7	61.9	16.4
<i>Aged 65 and over</i>					
European/Other	630,300	1,023,800	18.3	26.3	62.4
Māori	50,100	151,700	6.1	12.2	202.8
Pacific	21,600	68,800	5.3	10.6	218.5
Asian	51,000	208,100	6.6	13.2	308.0
MELAA	3,100	17,900	4.0	10.3	477.4
Total population	735,000	1,373,500	15.0	22.7	86.9
<i>All age groups</i>					
European/Other	3,441,700	3,893,400	100.0	100.0	13.1
Māori	816,500	1,241,700	100.0	100.0	52.1
Pacific	407,600	649,300	100.0	100.0	59.3
Asian	770,600	1,574,800	100.0	100.0	104.4
MELAA	77,000	174,100	100.0	100.0	126.1
Total population	4,900,600	6,055,900	100.0	100.0	23.6

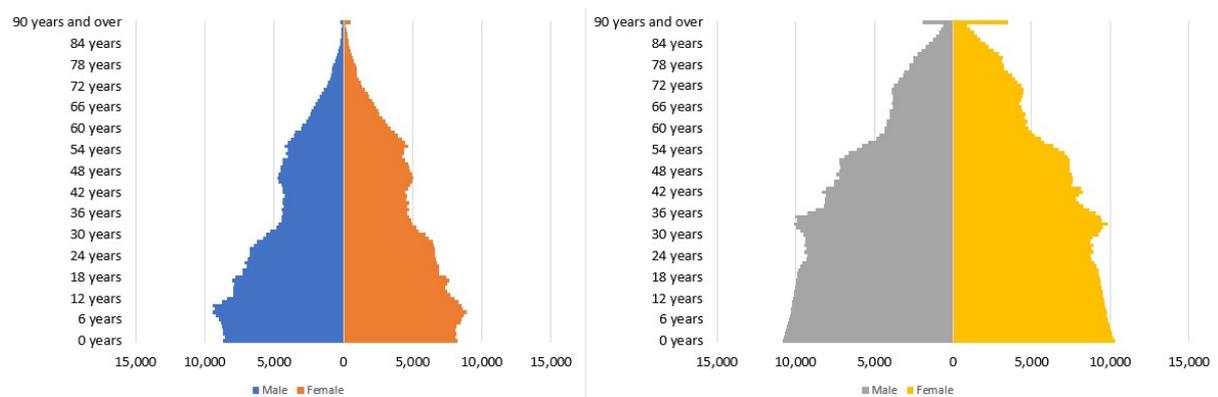
* European/Other includes 'New Zealanders'. ** MELAA is the very diverse population comprising Middle East, Latin American and African ethnicities. *** The total population is less than the sum of the ethnic populations because each ethnic group includes all people declaring an ethnicity linked with that group as well as an ethnicity linked with any of the other groups.

When assessing the statistics in Table 3.3 it is very important to keep in mind that all of the ethnic groups are made up of diverse peoples – none are relatively homogeneous populations. All groups

include members of other ethnic groups and as a result the totals for each of the groups sum to more than the country's total population. The table is included because it summarises the broad trends in structural ageing within New Zealand's total population at a national level over the next 20 years.

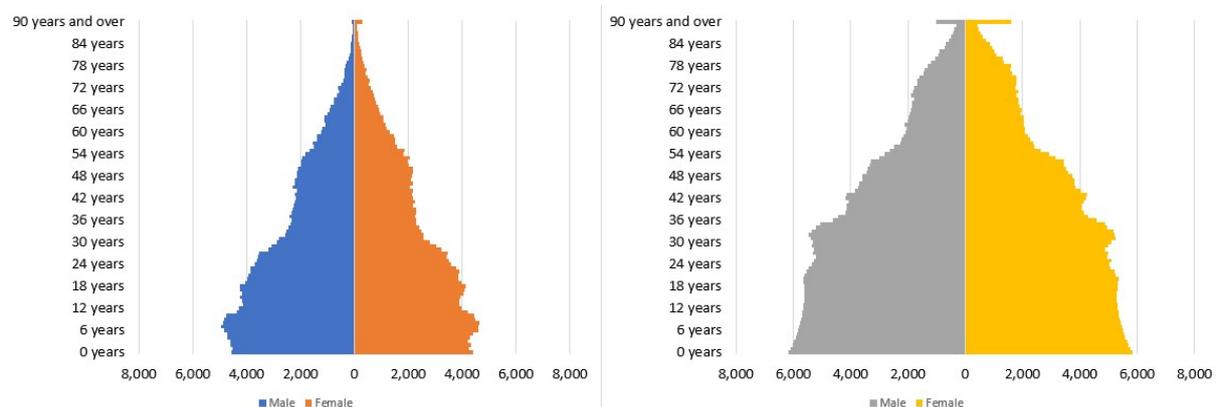
As Table 3.3 and Fig 3.2 illustrate, the Māori ethnic population is expected to increase significantly over the 2018-2043 period (from 816,500 to 1,241,700 people, a 52% increase). Numbers of Māori aged 65 years and over are expected to more than treble from 50,100 to 151,700, provided fairly ambitious assumptions about increased survivorship in the older ages are realised. In contrast to the population as a whole, Māori aged under 15 years are expected to increase by around 19%, implying continued growth in the demand for housing for families with young children.

Fig 3.2: Estimated resident population of people of Māori ethnicity, 2018 and 2043 (median variant)



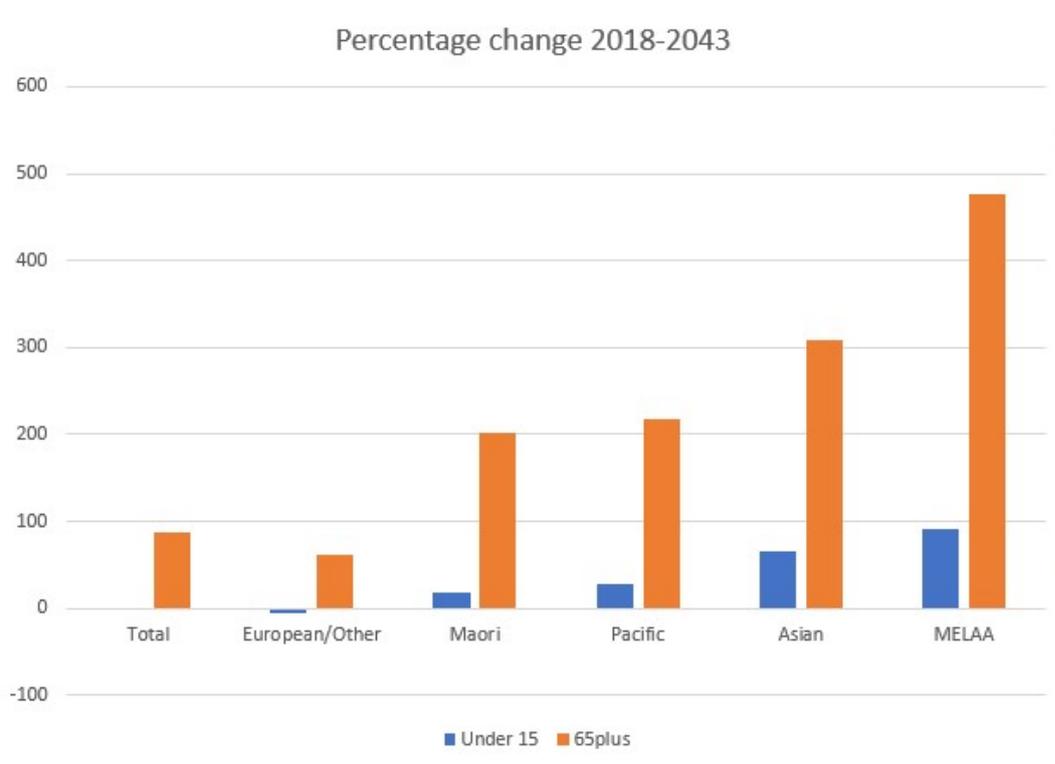
Population change among Pacific communities has similarities to Māori, with a projected increase for those aged 65 years and over by around 220% from 21,600 people in 2018 to around 68,800 in 2043 (Fig 3.3). The number of Pacific people under the age of 15 years is expected to grow by just over 27% across this period.

Fig 3.3: Estimated resident population of people of Pacific ethnicities, 2018 and 2043 (median variant)



Changes in percentages of people aged under 15 years and over 65 years in the major ethnic groups are summarised in Fig. 3.4.

Fig 3.4: Estimated resident population 2018 and 2043, percentage change by ethnicity, people aged under 15 and aged 65 years and over



Diversity in the younger population

The key characteristic of the ethnic composition of the youthful population is its high degree of diversity. New entrants into these youngest ages are expected to become increasingly diverse. These youthful cohorts will carry this diversity with them into the future older age groups.

Differences in fertility rates by ethnicity have a major effect on the composition of the youth population. In 2018, the youthful population aged under 25 years comprised 1,603,880 people or 32.7% of the resident population, of whom 25.0% were Māori and 13.3% were Pacific. By 2043 the youth population is expected to number around 1,614,300 people of whom 30.5% are expected to identify as Māori and 17.2% as Pacific (with a growing proportion who identify with more than one ethnic group).

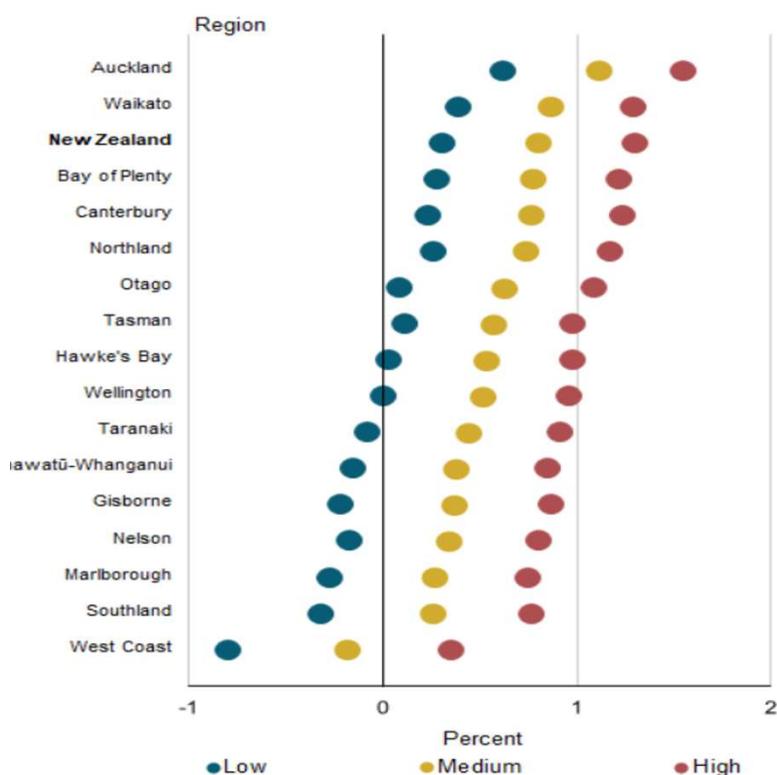
Multiple ethnic identification is a fundamental feature of the youth population. In the 2018 Census, 64% of Māori under 25 also identified with at least one other ethnicity. Similarly, among Pacific youth, who are also predominantly NZ-born, 46% identified with at least one ethnicity outside of the Pacific grouping.

Diversity in regional population change

There are significant variations in population structure across New Zealand’s regions and major urban areas, reflecting different demographic histories and ethnic mixes of their populations. This diversity has important implications for the types of housing required to meet varying social and cultural needs of people at different stages of the life cycle. Location is an important part of the structural ageing story. As can be seen from Fig. 3.5, regions will experience population change at varying rates because

of the dynamics of internal and international migration and differing fertility and mortality experiences.

Fig 3.5: Projected average annual population change, by region, 2018-2048



Source: Stats NZ (2021) <https://www.stats.govt.nz/information-releases/subnational-population-projections-2018base2048>

3.2 Demographic Dividends, Young Populations, Dependency and Disability

One of the emerging research themes, both in New Zealand and overseas, is the third demographic dividend, which has been aptly labelled the ‘silver demographic dividend’, “which is generated through the use of the untapped work capacity of healthy older adults. It is of great importance to note that this topic is closely related with changes in the health of the elderly” (Ogawa et al, 2021, 65).¹ There has been an increase of people aged 65 years and over in the labour force from 1 in 15 people in 1990 to 1 in 4 people in 2021.² In 2020, 6 percent of the labour force was aged 65 years or older. By 2043 it is expected that around 9 percent of the workforce will be in the older ages (with an estimated range of 7-11 percent), among whom 1 in 9 people are expected to be aged over 80 years of age. Given the differences in life expectancy by ethnicity, the distribution of labour skills suitable for older ages, relative incomes, and the rate of change in these characteristics, it is expected that the housing needs of the older ages will change markedly.

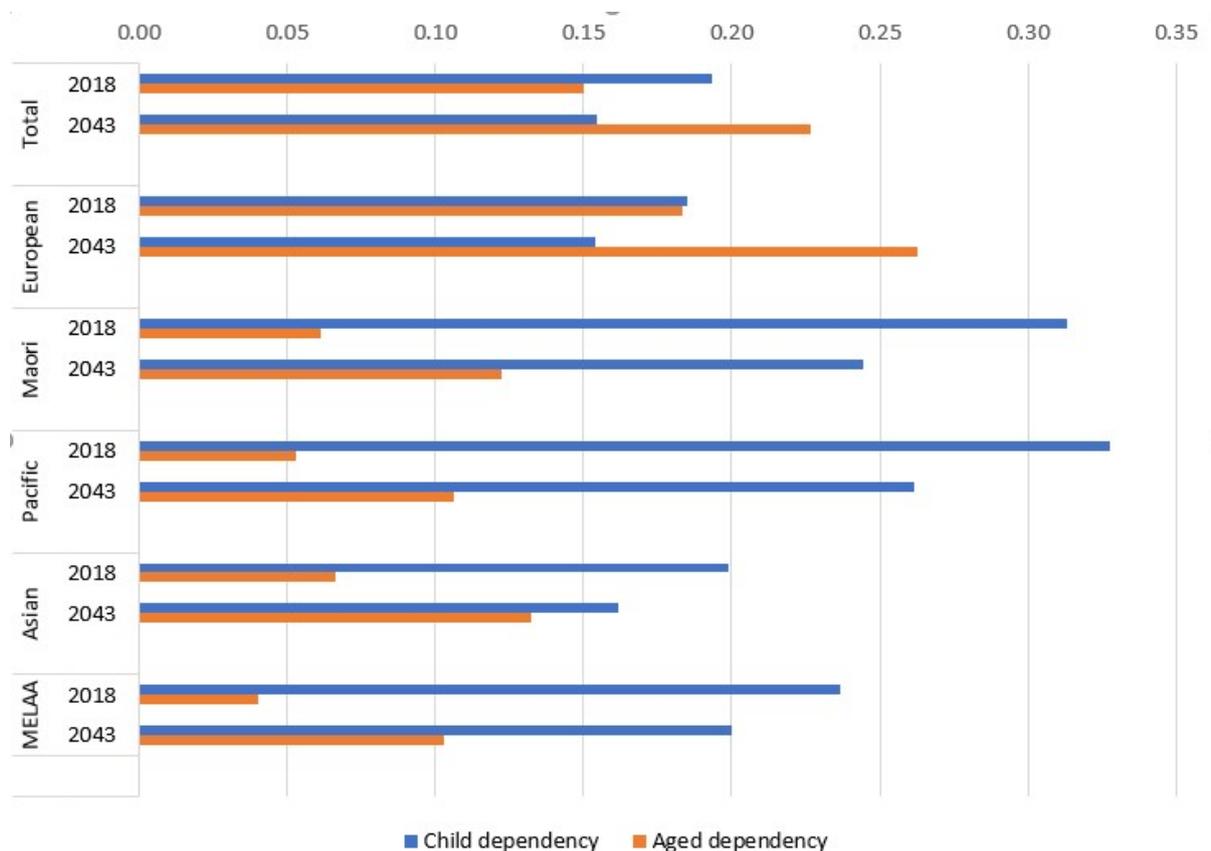
The size of the youth population is expected to slightly decline over the 2018-2043 period as fertility rates fall. This is especially apparent with people of European ethnicities, where the numbers aged

¹ This reference is in Annex 2.

² Stats NZ (2021) National Labour Force Projections 2020 (base) -2073. <https://www.stats.govt.nz/information-releases/national-labour-force-projections-2020base-2073>

under 15 years are expected to decline in contrast to the large increase in the population aged 65 years and over (Fig 3.6). For Māori and Pacific, the youthfulness of their populations will remain of paramount importance both demographically as well as for the types and affordability of the housing they will need.

Fig 3.6: Child dependency and aged dependency by ethnicity, estimated resident population 2018 and 2043



People with disabilities

People with disabilities are not separately identified in population estimates and projections, and there is limited information on the population living with disabilities. There was some housing and disability data collected in the 2013 Disability Survey.³ This information was limited to home ownership, housing suitability and condition, amenities, building modifications present or required, and accessibility. On all measures, including household crowding, people living with disabilities were shown to be worse off than people without disabilities.

No recent forecasting of ageing with disability has been identified, although Saville-Smith et al. (2007) examined New Zealand and international data on disability prevalence and forecasting, and concluded that limitations in estimating and forecasting disability prevalence make it difficult to establish future

³ Stats NZ (2017) Disability and housing conditions: 2013. <https://www.stats.govt.nz/reports/disability-and-housing-conditions-2013>

demand for housing suitable for the disabled population.⁴ The incidence and severity of disabilities increase with age, while the incidence of those with congenital or early-onset disabilities tends to be more consistent across time. The importance of this point is that, although it is expected that older people are likely to be healthier, the population which is both disabled and older, requiring specialised housing needs, is likely to grow numerically in the coming decades.

People with disabilities may also age faster. There is evidence that they experience a high rate of medical, functional, and psychosocial complications and/or changes about 20-25 years sooner compared to ageing individuals without disabilities (National Rehabilitation Information Centre, 2012).⁵ Specifically, as Kailes (2001) notes “...as persons with disability reach age 50, many show the kind of functional ages that would not be expected until age 70-75 in people without disabilities”.⁶

Specialised life tables are a potentially useful tool for understanding the current and future patterns of disability and healthy life expectancy. There are estimates of healthy life expectancy (MSD, 2016)⁷ - also referred to as independent life expectancy (Ministry of Health, 2015)⁸. While these publications are now a little dated, they do point to some important considerations.

They indicate that in 2013, the average healthy life expectancy was around 65.2 years for males and 66.5 years for females (life expectancy at the time was 79.5 and 83.2 years respectively). For Māori, the average healthy life expectancy at that time was 54.3 years for males and 60.4 for females. Despite significant limitations in definition of disability thresholds, a lack of detail on causes of disability, and the uncertain relationship between disability and mortality, these estimates provide a useful indicator for years lived disabled for selected populations.

In addition, the Ministry of Health (2020) makes extensive use of the Global Burden of Disease (GBD) data covering years lost due to disability.⁹ Their report sits within the context of the 2019 Initial Mental Health and Wellbeing Commission which includes housing among determinants of health in its mandate. The Global Burden of Disease dementia collaborators team noted that there could be an increase by 127% in the all-age number of individuals with dementia in New Zealand between 2019 (65,616 people) and 2050 (148,956 people) (GBD 2022).¹⁰ This study identified population ageing and

⁴ Saville-Smith, K., James, B., Fraser, R., Ryan, B. and Travaglia, S. (2007) *Housing and Disability Future Proofing New Zealand's Housing Stock for an Inclusive Society* Wellington: Centre for Housing Research Aotearoa New Zealand.

⁵ National Rehabilitation Information Centre (2012) Aging with disabilities. *reSearch*, 7(1).
<https://naric.com/?q=en/publications/volume-7-issue-1-aging-disabilities>

⁶ Kailes, J.I. (2001). Aging with a Disability. Retrieved from <http://www.jik.com/awdrtcawd.html>

⁷ Ministry of Social Development (2016) *The Social Report 2016 - Te purongo oranga tangata*.
<https://socialreport.msd.govt.nz/health/health-expectancy.html>

⁸ Ministry of Health (2015) *Independent life expectancy in New Zealand 2013*.
<https://www.health.govt.nz/system/files/documents/publications/independent-life-expectancy-new-zealand-2013-jul15-v2.pdf>

⁹ Ministry of Health (2020) *Longer, healthier lives: New Zealand's health 1990-2017*.
<https://www.health.govt.nz/system/files/documents/publications/longer-healthier-lives-new-zealands-health-1990-2017.pdf>

¹⁰ GBD (2022) Estimation of the global prevalence of dementia in 2019 and forecasted prevalence in 2050: an analysis for the Global Burden of Disease 2019. *Lancet Public Health* 7, e105-125

population growth as almost equal contributors to this increase. Modifiable risk factors were relatively minor and partly offset by improvements in education through the life course.

Although recent medical advances mean that there has been a decrease in incidence rates and changes to outcomes, growth in the size of the older population indicates that this will continue to be a significant factor for ageing with disabilities as well as increased incidence and prevalence of disability as populations age.

4. RELEVANT BBHTC LANDSCAPE REPORT REFERENCES

The BBHTC Landscape Report's review of research relevant to the BBHTC mission presents a large set of research potentially of interest to the LTIB.

The Landscape Report reviewed publications between 2012 and 2018, covering a wide range of disciplines and topics relating to the BBHTC mission. Over 400 research publications relating to housing and the built environment were identified. Examining the publications collated in the Landscape Report allowed us to accelerate literature search and analysis while avoiding duplication. Those publications were assessed for their relevance to the LTIB's three areas of interest and five sub-populations.

4.1 Research identified from the Landscape Report of relevance to the LTIB

Our review identified 44 references in the Landscape Report that are relevant to the LTIB. Analysis of these is dealt with as part of the core research references. These references are unevenly spread across the areas of interest and sub-populations. There are also a few references that address population and tenure changes. These are discussed separately below.

LTIB areas of interest

In summary:

- Much of the relevant research considers housing affordability and security (area of interest 3).
- There is less research on the implications of the ageing population for housing stock, size and positioning (area of interest 2).
- There is least research on dwelling types and performance (area of interest 1).

With regard to area of interest 1 – *dwelling types and performance* – the Landscape Report revealed a considerable amount of research concerned with building performance. This was the 4th most researched area in terms of publications, reflecting the research investment into building performance through the BRANZ Levy. There was less research focusing on dwelling typology.

Only 11 references relating to dwelling types and performance were relevant to the LTIB. Few references considered specific dwelling types. Dwelling performance also attracted little research. Four dwelling performance categories were examined: thermal, condition, accessibility and resilience. Some references covered more than one category. A key example is Statistics NZ's (2016a) publication on disability and housing condition, which covered thermal performance, dwelling condition and accessibility. Thermal performance was the most mentioned of the four dwelling performance categories, covered by seven references.

Research relating to area of interest 2 – *housing stock, size, and positioning* – was scattered across a large number of publications in the Landscape Report covering urban design, housing markets and intensification. We found 22 references of relevance to area of interest 2. All 22 references about stock focused on under-supply. Key themes included under-supply of:

- Social housing rental stock.
- Affordable private rental.
- Affordable housing to purchase, particularly for first-home buyers.

- Stock meeting cultural needs.
- Stock suitable for disabled and universally-designed housing.
- Appropriately sized, affordable and accessible homes for older people, including smaller-sized dwellings.
- Housing stock in Auckland.

Only three references were specifically concerned with house size (number of bedrooms). In addition, seven references focused on dwellings with too few bedrooms, or lacking space for the number of residents and their needs. In particular, crowding was examined in relation to Pacific and Māori households.

In terms of housing in the urban system, only two references concerned zoning. One looked at zoning in relation to building housing on multiple-owned Māori land in the Western Bay of Plenty (Millar, 2014), while the other looked at district plan rules about partitioning and accessory dwelling units (Saville-Smith et al., 2017).

Information about area of interest 3 – *housing affordability and security* – was scattered across a variety of publications dealing with unmet demand, homelessness, crowding, the rental market and the financialisation of housing. We found 36 relevant references. Some references were concerned with both housing affordability and with security. There was a strong focus on tenure security and on unaffordable rentals. There was only one reference focusing on affordable owner-occupation and no references about affordable rental.

All 31 references about tenure security focused on insecure tenure. Rental tenure, whether private, public, council or community housing, was subject to more research reporting than ownership tenure or any other tenure. Where tenure was specifically analysed, references mostly referred to private rental, although there were a few references concerning unaffordable owner-occupation affecting seniors.

Research themes about rental tenure insecurity included: the increasing numbers of renters; lack of rental housing supply; experiences of older renters; and the intermediate housing market. A body of research provides insights into aspects of tenure insecurity relating to housing precarity, severe housing deprivation and homelessness. Several studies focus on the lived experience of homelessness, including among Pacific peoples, Māori and children and young people and seniors.

LTIB sub-populations

The Landscape Report found that about one-fifth (81 research outputs) referenced a population or cultural experience of built environments in their title, abstract or executive summary.

Older people were the population group referenced most frequently and Māori the most commonly referenced cultural group. Children were the third most referenced group, generally in relation to the impacts of housing on health. There were very few references to young people and disabled people. We found this research distribution repeated in the 44 references of relevance to the LTIB: seniors (36 references), Māori (20), children/young people (15), Pacific peoples (14), people ageing with disabilities (4).

Some references cover more than one sub-population (e.g., Pacific and Māori). In addition, a few references included analysis of other sub-populations, usually in the context of analysis of census data. Those were Asian, MELAA, NZ European, multigenerational households, and recent migrants. Three publications focused on age cohorts rather than a specific age group such as seniors or young people/children.

Much of the Māori research in the period covered by the Landscape Report was concerned with dwelling design, papakāinga development, and housing-related health burdens on Māori. There was little research about Māori population ageing and the implications of a changing population structure for housing provision. There was very limited research about Pacific communities and disabled people's housing. The references identified focused on housing experiences, needs and precarity. There was similarly little research about children and young people's housing although there has been a strong focus on the impacts of poor housing on the health of children.

Where relevant research was location-specific, there was a preponderance of studies focusing on Auckland's housing issues. These studies tend to emphasise housing unaffordability and undersupply, as well as housing stress among Māori and Pacific communities and renters. The second most-researched location was the Western Bay of Plenty sub-region where much of the relevant research has been commissioned by SmartGrowth. Some research has a comparative focus on more than one location (e.g., Witten et al. 2017).

Much of the population sub-group research identified in the Landscape Report is not directly relevant to the LTIB, since it does not pay particular attention to the implications of structural ageing for those sub-groups. In the set of 44 relevant references, most did not have population change as a key focus, although 19 references had some commentary and a further 15 had a brief mention. Only three references had a key focus on the interaction between population, demographic and tenure changes in conjunction with an area of interest or population sub-group. Those references are Jackson & James (2016) and Mitchell and Glaudel (2017), both of which have a sub-regional focus, and Statistics NZ (2016b). The latter is an analysis of Māori and Pacific tenure patterns. All three studies point out the decline of owner-occupation and corresponding increase in renter households. This trend is increasingly apparent across all age groups, and affects Pacific and Māori households the most.

Jackson and James (2016) analysed population ageing in the Western Bay of Plenty sub-region (comprising Tauranga City and Western Bay of Plenty District). This research was part of a programme funded through the Ageing Well National Science Challenge, Life When Renting, and concerned the implications of structural tenure change for older age groups. This programme included consideration of the housing needs, experiences and trajectories of older NZ European, Māori and Asian, as well as demographic age cohort analysis using data from 1986-2013 censuses.

Jackson and James (2016) concluded that there has been a dramatic shift away from people living in owner-occupied dwellings, since 2001. That shift was led by older age cohorts and has been occurring earlier in the life-cycle for each successively younger cohort. Younger cohorts have not progressed to the higher levels of homeownership experienced by their older counterparts when at the same age. For the total New Zealand population, the peak homeownership rate was experienced by the cohort born between 1927 and 1931. When that cohort was aged 60-64 years, their homeownership rate was 87.7%. Yet by 2013, that cohort's homeownership rate had declined to 61.8%. Younger age cohorts have not reached that peak of homeownership, and their homeownership rates have dropped

further. While renting is higher among younger age cohorts, it is also growing among those aged 65 and over.

Mitchell and Glaudel (2017) studied current and future housing demand in the Western Bay of Plenty sub-region. They found that homeownership rates have been falling and are projected to drop to 58.1% in the Western Bay of Plenty and 54.6% in Tauranga City by 2047. Couple-only renter households will grow the most. Renter occupied dwellings with people aged 65 years and older are projected to increase. House prices have been increasing by double the rate of household incomes and rents have been increasing one percentage point per annum faster than incomes since 1991. Renter stress is increasing across the sub-region and impacting households at higher income levels.

Statistics NZ (2016b) explored changes in tenure between 1986 and 2013, with specific examination of Māori and Pacific tenure patterns. The proportion of all people in households living in an owner-occupied dwelling fell from 75.2% to 63.7% between 1986 and 2013. Over the same period, the proportion of the population living in dwellings that were not owned increased from around one-quarter to over one-third of the population (24.8 percent to 36.3 percent). The proportion of Pacific and Māori populations living in an owner-occupied dwelling fell at a faster rate than for the total population (down 34.8% and 20.0%, respectively). In 1986, around half of Pacific and Māori children lived in an owner-occupied dwelling. By 2013, the proportions were 38.5% of Māori children and 28.4% of Pacific children. Even when adjusted for the differing age structure in the Pacific and Māori populations compared to the total NZ population, there are large disparities in individual homeownership rates across ethnic groups.

The sub-population most focused on in relation to population change (with at least some analysis or a key focus on population change) was seniors (21 references), followed by Māori (12 references). There was very little research about disabled people and population change. Only four references were found. Of those, three had a brief mention of population change and one had no reference to population change. No reference about disabled people had a key focus on population change.

Table 4.1: References by sub-population with some analysis of population change

Sub-population	Number of references*	% total
Seniors	21	47.7
Māori	12	27.3
Pacific	10	22.7
Children/young people	10	22.7
Disabled	0	0.0
Total BBHTC references	44	100.0

4.2 Concluding comments on research in the Landscape Report

The BBHTC Landscape Report provides an understanding of both persistent and emerging housing problems, as well as how those problems are experienced by the sub-populations of interest to the

LTIB. Little of that research is directly focused on the central preoccupation of the LTIB with the nexus between population ageing and the housing system.

Our conclusions from our review of the research in the Landscape Report research are:

- Few references combine analysis of population change with analysis of housing. Only three references have a key focus on population change and/or ageing population. In addition, 34 references have either some commentary or a brief mention concerning population change.
- In relation to area of interest 1, *dwelling types and performance*, there are more references concerned with dwelling performance than dwelling type. References concerned with dwelling performance covered thermal performance, dwelling condition and accessibility and resilience, although there is only a small number of publications.
- There is some research on area of interest 2, *housing stock, size, and positioning*. The main aspect covered in relation to area of interest 2, is under-supply of affordable housing stock, which is mentioned in most references.
- There is considerable research on area of interest 3, *affordability and security*, particularly on unaffordable rental. Almost three-quarters of the references are concerned with tenure security / insecurity.
- Auckland dominates as a research location. Location-specific research includes analysis of the population groups of Māori, Pacific and seniors.
- Seniors were the most referenced sub-population group, followed by Māori.
- There is a noticeable absence of research about disabled people's housing experiences, only four publications. However, in contrast to the other sub-populations, there were more references about dwelling types and performance in relation to disabled.

5. CORE REFERENCES

This section presents a rapid review of the 116 core research references that specifically deal with the LTIB areas of interest and sub-populations. All of the core references are listed in Annex 1. Most of the core reference literature was published between 2012 and 2021, although a small number of key research papers published earlier are referred to. They are included to provide critical context and continuity, given that some of the most important analyses of the implications of population ageing for housing were undertaken in the 1980s and the 1990s. Table 5.1 shows the spread of core references across the LTIB areas of interest.

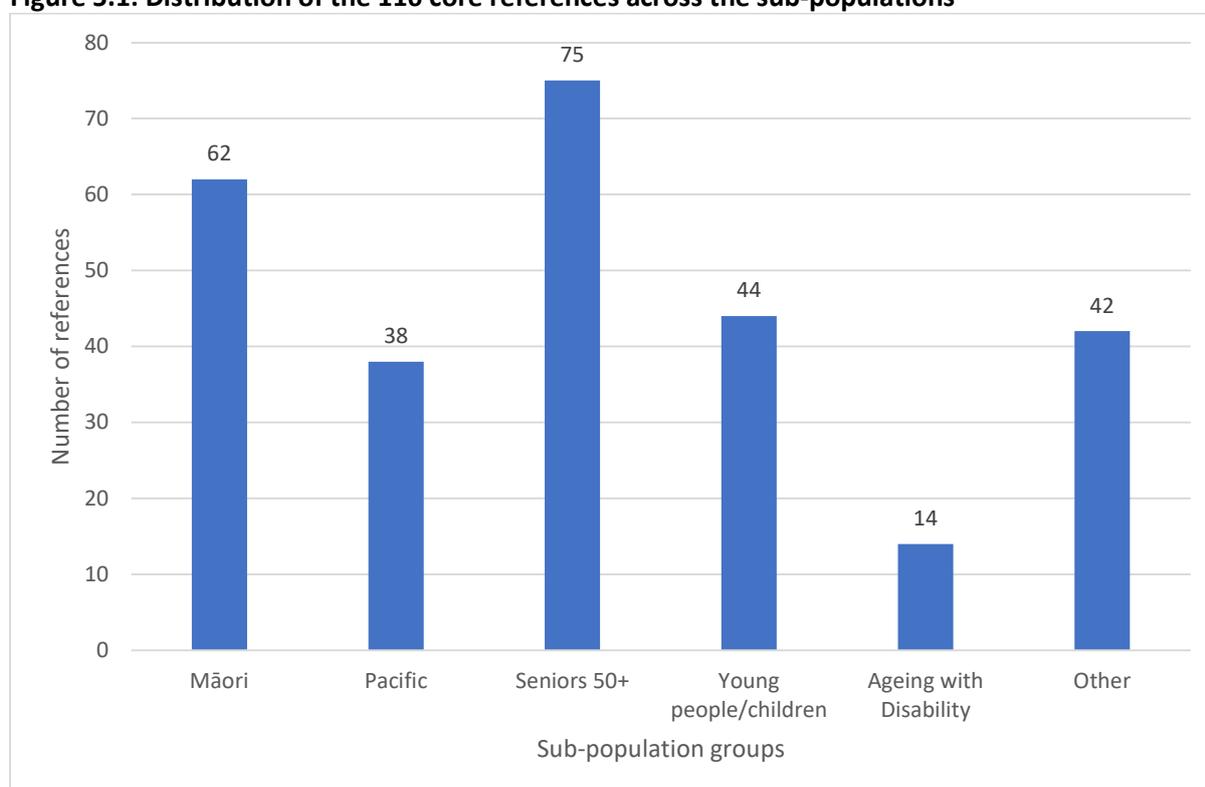
Table 5.1: Spread of core references across areas of interest

Area of Interest	Number of references*	% total
Area of interest 1: Dwelling types and performance	69	59.5
Area of interest 2: Housing stock, size and positioning	54	46.6
Area of interest 3: Affordability and tenure security	106	91.4
Total core references	116	100.0

* Some references cover more than one area of interest

Figure 5.1 shows the distribution of core references across the LTIB's sub-populations. Some references cover more than one sub-population (e.g., Pacific and Māori).

Figure 5.1: Distribution of the 116 core references across the sub-populations



There is more research about seniors than the other sub-populations (75 references). The second most-researched group is Māori (62), followed by children/young people (44) and Pacific peoples (38).

There is little research about people ageing with disabilities, only 14 publications. In addition, a few references included analysis of other sub-populations, usually in the context of analysis of census data. Those were Asian ethnicities, MELAA, ethnicities, NZ European, multigenerational households, and recent migrants. Three publications focused on age cohorts rather than a specific age group such as seniors or young people/children. The spread of the 116 core references across the areas of interest and sub-populations is summarised in Figure 5.2.

Figure 5.2: Distribution of the 116 core references across the three priority housing areas of interest and sub-populations

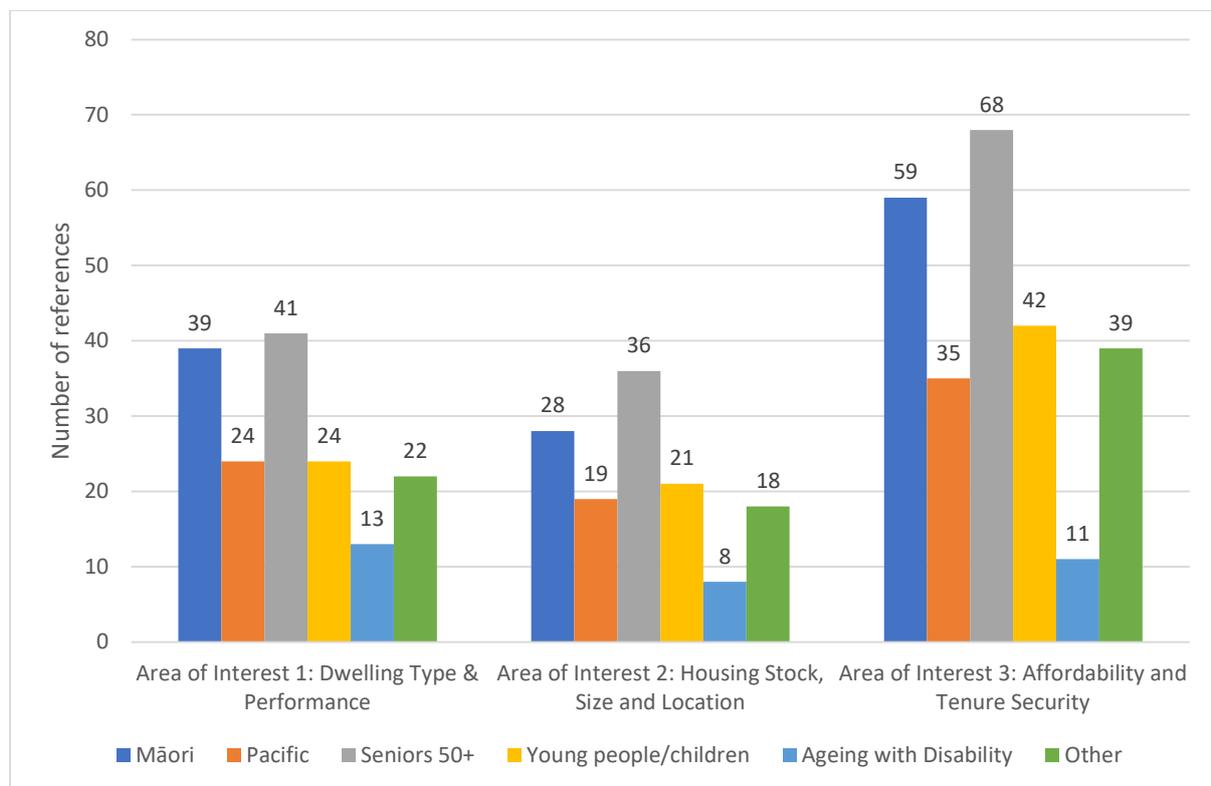


Figure 5.2 clearly shows that most of existing core research relevant to the LTIB focuses on area of interest 3: *housing affordability and security*. Within that area, the most references concern seniors, followed by Māori. There is less research on area of interest 1: *dwelling types and performance*. Again, more references focus on seniors and Māori. Area of interest 2: *housing stock, size and positioning*, has the smallest numbers of references. More references focus on seniors and Māori than the other sub-populations. In all areas of interest there is little research about people ageing with disabilities.

5.1 Research focusing on population change, housing and urban systems

It has already been noted that just over 70 percent of the 116 core references comment on some aspects of population change (Table 3.1). However, only 8 references (6.9%) have population change as a key focus and make some reference to the LTIB's three areas of interest and the five prioritised sub-populations (Table 5.2).

Table 5.2: Characteristics of 8 core references with a key focus on population change

Authors	Areas of interest	Sub-populations
Saville-Smith, James, Warren (2009)	All three	Māori, Pacific, Seniors (50+) Young people/children
Jackson and James (2016)	Housing stock + affordability/tenure	Seniors (50+), Young people/children
Statistics NZ (2016)	None	Māori, Pacific, Seniors (50+) Young people/children
Mitchell and Glaudel (2017)	Affordability/tenure	Māori, Pacific, Seniors (50+)
Taylor, Mackay, Russell (2020)	All three	Māori, Pacific, Seniors (50+) Young people/children, People with disabilities
Spoonley (2020)	Dwelling type + affordability/tenure	Seniors (50+), Young people/children
Mitchell, James, Saville-Smith (2020)	All three	Māori, Pacific, Seniors (50+), Young people/children
Royal Society Te Apārangi (2021)	All three	Māori, Pacific, Seniors (50+) Young people/children, People with disabilities

Three of the 8 references listed in Table 5.1 were part of the group obtained from BBHTC’s Landscape Report database (Jackson and James, 2016; Statistics NZ, 2016b; Mitchell and Glaudel, 2017). Those three reports are described in section 4.1. above. Only one of the core references, published more than a decade ago, directly focused on population ageing (Saville-Smith et al., 2009). These authors examine the implications of an ageing population for housing and urban development over the next two decades. They also address patterns of housing futures likely to be evident among people 65 years and older between 2010 and 2050. Their research is directed to improving New Zealand’s ability to plan for and respond to the changing housing demands of older people over the next forty years. The authors outline three realistic scenarios of the possible futures for older people’s housing designed to provoke reflection and allow stakeholders, decision-makers and advisers to leave their current short-term focus to look at the opportunities and challenges presented by an ageing society well into the future.

Amongst the four references that were published in 2020 or 2021, the report by Mitchell et al. (2020) on housing issues in the Tauranga/Western Bay of Plenty sub-region is the most substantive. Their report refers to all three of the LTIB’s areas of interest, but the primary focus is on the deterioration in housing affordability as a result of housing costs increasing at a faster rate than household incomes at a time when the region’s population is increasing rapidly.

Mitchell et al. (2020) point out that house prices in the Tauranga/Western Bay of Plenty sub-region have increased at approximately double the annual average compounded rate of growth of household incomes whereas rents have increased at between 2.0 and 2.1 percentage points per annum faster than household incomes. This sub-region had the highest proportion of stressed households in the country's main urban areas. One-parent households had very high levels of housing stress, along with Māori and Asian households. Cohort analysis of customised census data showed that there were rising numbers and proportions of older renters between 1986-2013. It is expected that greater proportions of the younger cohorts will reach age 65 as renters. The challenges that seniors encounter in the rental market in the sub-region are: a shortage of affordable rental housing, cold and damp housing often in poor repair, housing lacking accessible and age-friendly features, and a risk of homelessness.

Other core references commenting on population change

A further 75 (65%) of the 116 core references contain some comments on population change. The great majority (66) address aspects of affordability and tenure, and 48 of them also address at least one other LTIB area of interest. Table 5.3 shows the distribution of the 75 references across various combinations of the LTIB's areas of interest.

Table 5.3: Core references with some comment on population change by area(s) of interest

Area(s) of interest	Core references	
	Number	%
<i>One area</i>		
Dwelling type/performance	4	5.3
Housing stock/positioning	2	2.7
Affordability/tenure	18	24.0
<i>Two areas</i>		
Dwelling type/stock	2	2.7
Dwelling type/affordability	18	24.0
Housing stock/affordability	11	14.7
<i>All three areas</i>		
	19	25.3
None of the areas of focus	1	1.3
Total with some comment on population change	75	100.0

There is also a strong focus on the older population in these references. Three-quarters (56) of the 75 references address housing issues facing seniors (Table 5.4). Just under half of the papers refer to Māori with smaller shares specifically mentioning Pacific peoples and the younger population. Just under 10 percent (9 references) deal with issues relating to people with disabilities.

Table 5.4: Core references with some comment (but not key focus) on population change by area(s) of interest and sub-population

Housing area(s) of focus	Prioritised sub-population					Other groups
	Māori	Pacific	Seniors	Young people	Disabled people	
<i>One area</i>						
Dwelling type/performance	1	1	2	1	2	0
Housing stock/positioning	1	1	2	0	0	1
Affordability/tenure	7	4	13	8	1	4
<i>Two areas</i>						
Dwelling type/stock	0	0	2	0	1	0
Dwelling type/affordability	11	5	13	4	2	7
Housing stock/affordability	6	2	11	4		5
<i>All three areas</i>						
None of the areas of focus	1	0	1	1	0	1
Total	36	21	56	23	9	23

Two clusters of papers make some reference to the implications of numerical and structural ageing for housing. The first cluster addresses the transition out of homeownership into rental accommodation that has occurred across the population in recent decades, and which is particularly noticeable amongst the older age groups and in the Māori and Pacific population sub-groups. Some of the recent studies addressing this transition and its longer-term implications for housing supply, type and affordability include: Allen (2019), Bates et al. (2019b), Cram and Munro (2020), James (2019a, 2021c), James et al. (2021c), Menzies et al. (2019), Nana et al. (2019), Saville Smith (2019a-c, 2020) and Whitehead and Walker (2021).

The second cluster of papers deals with issues relating particularly to those people experiencing severe housing deprivation, including homelessness. The research shows that people in all ethnic and age groups are represented in the population experiencing severe housing deprivation, but higher proportions of those in the Māori and Pacific sub-groups are facing major challenges in this regard. Although there are no references that attempt to forecast what shares these housing-stressed groups might comprise of future populations in New Zealand, a key message in many of the studies is clear: ageing population structures will exacerbate housing stress and housing deprivation in those groups. Relevant recent studies include: Amore (2019), Amore et al. (2021), Clark et al. (2021), James et al. (2021c), Rua et al. (2019), Rout et al (2019) and Tanielu (2019).

5.2 Area of interest 1: dwelling types and performance

Area of interest 1 comprises 69 references; 39 references mentioned some aspect of dwelling type and 55 mentioned some aspect of dwelling performance. Some references covered both dwelling type and performance.

Dwelling types

The spread of references across specific dwelling types is presented in Table 5.5.

Table 5.5: Dwelling type

Dwelling type	Number of references*	% total
House	21	18.1
Townhouse	5	4.3
Unit	5	4.3
Apartment	10	8.6
Mobile Dwelling	10	8.6
Other**	26	22.4
Total core references	116	100.0

* Some references mention more than one aspect of dwelling type

** Other dwelling types include papakāinga, minor dwellings, co-housing, improvised dwellings

Curtis and Brunsdon (2018) focused on rental houses and apartments, while Haarhoff et al (2019) and Allen and O'Donnell (2020) explored perceptions of apartment living in medium-density developments. James et al.'s (2017) publication on the impacts of leaky buildings included discussion of houses, apartments and townhouses. This publication also considered resilience.

Five references focused on papakāinga and/or kaumātua housing (Berghan 2020, 2021; Emery and McLean 2019; Millar, 2014; Palmer, 2016).

Two references focused on partitioning of existing housing into smaller units and/or accessory dwellings (Saville-Smith et al. 2017; Yavari et al., 2018). Three references concerned co-housing (Berghan 2020, 2021; James and Saville-Smith, 2017).

Notably, several references (Amore 2016, 2019; Amore et al. 2020; Bates et al. 2019a, 2019b, 2020; Cram 2020; James et al. 2020; Rua et al. 2019) referred to tenants living in improvised accommodation including vehicles, sheds, containers, garages and illegal/non-consented dwellings, reflecting the increasing number of households reliant on a growing informal accommodation market for shelter.¹¹ The majority of these informal tenants paid rent. For example, Bates et al. (2019b) describe the experiences of an older Waiheke Islander paying rent to the owner of the converted house bus he occupied, as well as rent for the site it was parked on.

¹¹ For examples of overseas research see Shrestha, P., Gurran, N. & Maalsen, S. (2021) Informal housing practices, *International Journal of Housing Policy*, 21:2, 157-168, DOI: 10.1080/19491247.2021.1893982

Dwelling performance and condition

Dwelling performance was the focus of 55 references, some of which concerned more than one aspect of performance (Table 5.6).

Table 5.6: Dwelling performance

Dwelling performance	Number of references*	% total
Thermal	40	34.5
Condition	34	29.3
Accessibility /universal design	27	23.3
Resilience	11	9.5
Other**	8	6.9
Total core references	116	100.0

* Some references mention more than one aspect of performance

** 'Other' includes poor performance due to unsuitable housing, e.g., too small, unsuitable for intergenerational households, or unsuitable for cultural needs and preferences

Thermal performance attracted the largest group of references (40). This dwelling performance aspect was often examined in relation to other performance aspects. Several references included analysis of dwelling condition and thermal performance (Clark et al., 2021; Emery and McLean (eds.) 2019; James et al., 2020; Allen and O'Donnell, 2020), highlighting the well-known deficits in New Zealand housing stock of coldness, damp and mould. Using BRANZ national house condition survey data, White and Jones (2017) focused on thermal performance and dwelling condition. James et al. (2018) analysed the Building Code's standards in relation to thermal performance and accessibility. Yavari et al. (2018) provided a life-cycle energy assessment of partitioned units. Haarhoff et al. (2019) discuss the use of energy efficient and water saving features in a development at Hobsonville Point, in the broader context of sustainability.

Thirty-four references mentioned aspects of dwelling condition, including:

- The generally poor quality of New Zealand housing stock (Marks et al., 2021; Tanielu, 2019; Menzies et al., 2019; Mitchell et al., 2020; Saville-Smith, 2019c; Bates et al., 2019b, 2020).
- Unmet needs for repairs and maintenance (Varona et al., 2021; James and Saville-Smith, 2018; Ho et al., 2021; Coleman et al., 2016).
- Pest infestation (Bates et al., 2019b).
- Lack of basic amenities (Amore, 2019; Amore et al., 2021). Amore et al., (2021) estimate that, at the time of the 2018 Census, 60,399 people were living in dwellings that lacked one (or more) basic amenities (e.g., cooking facilities, drinking water, toilet, bath/shower).

Māori, Pacific and disabled people were consistently identified as burdened by living in dwellings with the worst performance and conditions (Varona et al., 2021; Emery and McLean (eds.) 2019; Tanielu 2019; Teariki, 2017; Brown et al., 2021).

Rental housing was generally in a poorer state of repair than owner-occupied housing (White et al., 2017; White et al., 2021). Bates et al., (2019) outline the trade-offs older renters make between

affordability and safety/quality and Adcock et al., (2021) explore the compromises young Māori mothers make between autonomy, affordability and quality when trying to access housing appropriate for their children. James (2021) discusses the challenges poor quality housing pose to ageing in place.

Twenty-seven publications mentioned universal design and/or accessibility. Of these, thirteen had a focus on disability. The Te Tapeke Fair Futures Panel (The Royal Society Te Apārangi, 2021) identified issues both with a lack of accessible stock and a lack of affordability. McIntosh and Leah (2017) highlight how New Zealand's housing stock is ill prepared to meet the needs of our ageing population and the rise in disability that will accompany population ageing. James et al. (2018) discuss how crucial accessibility and dwelling functionality are to ageing in place, and the reliance of New Zealand researchers on overseas research due to limited research investment in this area. James et al. (2020) assert that the lack of housing appropriate for and targeted to older tenants puts them at increased risk of homelessness.

Brown et al. (2021) outline the marginalisation, exclusion and lack of agency experienced by people with disabilities when trying to access housing, as well as high housing costs, poor conditions and low satisfaction. James (2019) and James and Saville-Smith (2019) explore design solutions for people with dementia ageing at home and the importance of culturally appropriate, tailored design solutions to support the provision of care and enable ageing in place. Smellie and Robertson (2019) demonstrate the disabling impact of an inadequate needs assessment and poorly targeted solutions for a double amputee.

Resilience was the least-researched performance category (11). Saville-Smith (2020) describes the over-representation of older people in coastal areas susceptible to coastal flooding, king tides and tsunami, and James and Saville-Smith (2018) discuss the role of resilient and universal design features to support ageing in place.

While researchers acknowledge the need for sustainable and energy saving technologies, few discuss this need in relation to climate change. Saville-Smith et al. (2009) note that developers, builders, designers, planners and regulators in the building industry expected concerns around climate change to 'drive the development of better performing homes' (p. 85). That is not so far apparent. Saville-Smith et al. (2019c) raise the issue of the impact of adverse natural events and climate change with regard to house prices and insurability. James et al. (2018) explore existing New Zealand based and international tools designed to enhance energy efficiency and, in some instances, respond to or mitigate the impacts of climate change.

A few references consider the implications of the COVID-19 pandemic on the functionality and liveability of housing, in particular what can be learned about dwelling type, design, performance and security from people's housing experiences during the pandemic. Brown et al. (2021) consider the impact of the pandemic on the wellbeing of disabled people specifically with regard to their living and housing circumstances. In that study, most respondents had identified two or more deficits in their housing prior to the pandemic. Those living in rental accommodation had the lowest levels of satisfaction with their housing conditions. Boulton et al. (2020) examine how Māori meanings of 'home' are adapting, developing and changing in the current COVID-19 context. James (2021b) found that important features of the home that support seniors to manage through a pandemic include: having enough space/flexible space; living close to services, amenities and one's social network;

having sufficient storage; having access to a private outdoor area; and having adequate heating. Older tenants reported more housing-related anxiety during lockdown than seniors living in other tenures.

5.3 Area of interest 2: housing stock, size and positioning

Fifty-four references mention one or more aspects relating to housing stock, house size and location within towns and cities.

Housing stock

All 54 references that examined stock supply focused on under-supply. References such as the following had a key focus on under-supply: Coleman (2014); Johnson et al. (2018); and The New Zealand Productivity Commission (2012). The main themes of under-supply were:

- A lack of affordable and social housing stock (Johnson, 2015, 2017).
- Under-supply of rental stock (Johnson et al., 2018; Mitchell, 2015b; Mitchell and Glaudel, 2017; Witten et al., 2017).
- Deficit of affordable housing to purchase, particularly for first-home buyers (Mitchell, 2015a, 2015b; Mitchell and Glaudel, 2017; Sharma and Murphy, 2015; Yeoman and Akehurst, 2015).
- Lack of stock meeting the needs of Māori (Berghan, 2021; Boulton et al., 2021a, 2021b; Emery and McLean, 2019; Millar, 2014; Palmer, 2016; Rua et al., 2019), including older Māori (Cram, 2016) and young māmā (Adcock et al., 2021).
- Lack of stock meeting the needs of Pacific communities (Joynt et al., 2016; Salesa, 2018; Tanielu, 2019).
- Lack of stock suitable for disabled, particularly stock lacking accessible features (Brown et al., 2021; Statistics NZ, 2016a).
- Lack of appropriately sized, affordable and accessible homes for older people (James and Cram, 2017; James and Saville-Smith, 2016a; Johnson, 2015; Keeling 2014; Saville-Smith 2019a, 2020; Saville-Smith and James, 2016; Saville-Smith et al., 2016; Smellie and Robertson 2019; Yavari et al., 2018).
- Stock under-supply in Auckland (Parker, 2015; Yeoman and Akehurst, 2015).

House size

Only 8 references were specifically concerned with house size. Saville-Smith et al. (2016) focused on smaller-sized stock for the older population, while Saville-Smith et al. (2017) examined ways of increasing supply, through re-purposing existing stock into smaller dwelling units. The latter report estimated the number of dwellings that could be partitioned and the additional stock units that would be generated through partitioning. Yavari et al. (2018) showed how a typical three-bedroom house could be converted into small units to enable ageing in place.

Some publications concerned with multi-unit dwellings or medium-density housing developments consider questions of dwelling size in the context of residents' preferences, liveability and affordability (e.g., Haarhoff et al., 2019). Allen and O'Donnell's (2020) study covered 500 residents, a mix of ages, ethnicities and tenures. The majority lived in two-bedroom dwellings. Key features appreciated by residents were: access to natural light, thermal comfort, affordability, privacy, build quality and room size. Other publications focusing on dwelling size preferences include James (2020a), Saville-Smith et al. (2016), and Yeoman and Akehurst (2015).

Several references commented on the implications of dwellings with too few bedrooms, or lacking in space for the number of residents and their needs. Crowding was examined in relation to Pacific households (Amore, 2019; Johnson et al., 2018; Joynt et al., 2016; Macpherson, 1997; Salesa, 2018; Statistics NZ, 2018) and Māori households (Amore, 2019; Cram 2020; Cram and Munro, 2020; Johnson et al., 2018; Lysnar et al., 2016; Parker, 2015; Statistics NZ, 2018). Lysnar and Dupuis (2015) discussed the housing needs of multi-generational households, a small but growing group. Statistics NZ (2016a) noted that disabled children were more likely than non-disabled children to live in a home that was too small for the household's needs.

Zoning and locations in urban systems

To examine the positioning of the housing stock, we analysed references in terms of whether there was consideration of zoning, and whether the research focused on an actual location.

Zoning is an aspect of the positioning of the housing stock in a place. The rules in district plans that involve zoning of residential housing have significant implications across all the LTIB areas of interest. Zoning rules determine the actual location where residential dwellings are permitted. Zoning rules also impact on section size as well as the placement, size, type and density of dwellings that can be built on a site. Those rules also determine whether and where communal developments such as papakāinga housing or co-housing can be constructed. In turn the constraints or opportunities imposed by zoning rules affect housing affordability, since dwelling location, size and density all affect house-purchase prices and rental prices.

Only 13 references were concerned with zoning in relation to any of the sub-populations. Most of those looked at zoning in relation to building housing on multiple-owned Māori land. For example, Millar (2014) discussed zoning in regard to kaumātua housing in the Western Bay of Plenty. Berghan (2020), Boulton et al. (2020, 2021a, 2021b) and Menzies et al. (2019) consider zoning in relation to papakāinga and/or co-housing developments in both rural and urban settings. Saville-Smith et al. (2017) reviewed district plan regulations and zoning restrictions across the country that facilitate or inhibit partitioning of existing stock and development of accessory dwelling units.

Sixty references mention a specific study area or areas. Table 5.7 shows the locations where research has tended to focus. There is a clear emphasis on larger urban centres and/or high-growth areas. Some research has a comparative focus on more than one location, e.g., Witten et al. (2017) surveyed renters and landlords in Auckland, Wellington, Christchurch and Dunedin.

Auckland was the most researched location. Thirty-nine references referred to research carried out in the Auckland region, including six references that explored the experiences of older renters on Waiheke Island (Bates et al., 2019a, 2019b, 2020; Coleman et al., 2016; James et al., 2020; and James 2021a). More than half of the Auckland references (23) addressed affordability (e.g., Bates et al., 2019b; Mitchell 2019; Joynt and Hoffman, 2021; Rout et al., 2019; Witten et al., 2018). Tenure security was considered in 21 papers (e.g., Clark et al., 2021; James et al., 2020; Li, 2011; Saville-Smith (ed.) 2019). One study focused on housing choice in Auckland, including housing types, sizes and locations where people would choose to buy or rent, within financial constraints (Yeoman and Akehurst 2015).

Table 5.7: Location of research

Location	Number of references*	% total
Auckland, Counties Manukau, Waiheke Is.	39	33.6
Western Bay of Plenty sub-region, Tauranga	10	8.6
Christchurch	9	7.8
Hamilton, Waikato Region	9	7.8
Wellington	8	6.9
Napier, Hastings, Hawkes Bay	5	4.3
Te Tai Tokerau/Northland	4	3.4
Nelson, Tasman, Marlborough	4	3.4
Other Bay of Plenty – Whakatane, Rotorua	2	1.7
Dunedin	1	0.9
Oamaru	1	0.9
Total core references	116	100.0

* Some references mention more than one location

Of the Auckland references:

- Eight addressed the lived experiences of Māori, the challenges Māori face accessing appropriate housing or building on multi-owned Māori land (Berghan 2020, 2021; Brown et al, 2021; Clark et al., 2021; James et al., 2020; Marks et al., 2021; Rout et al., 2019; and Saville-Smith (ed.), 2019).
- Seven explored aspects of housing in relation to Pacific communities (Brown et al., 2021; Clark et al., 2021; Macpherson, 1997; Marks et al., 2021; Salesa, 2018; Saville-Smith (ed.), 2019; and Tanielu, 2019).
- Four referred to changing housing preferences of Asian migrants (Clark et al., 2021; Ho et al., 2018, 2021; and Li, 2011).
- Sixteen looked at issues affecting older people (for example: Bates et al., 2019a, 2019b, 2020; Coleman et al., 2016; Mitchell, 2019; James, 2020; Joynt and Hoffman, 2021; Saville-Smith, 2019b).
- Nine referred to young people (e.g., Curtis et al., 2020; Haarhoff et al., 2019; Macpherson, 1997; Marks et al., 2021; Tanielu, 2019).
- Only one reference referred to people ageing with a disability (Brown et al., 2021).

The Waikato, Bay of Plenty, and Hawkes Bay, were also quite frequently identified as study areas. Nine dealt with issues in the Waikato (Brame, 2019; Clark et al., 2021; James et al., 2020; Marks et al., 2021; Berghan 2021; Brown et al., 2021; Ho et al., 2021; Li 2011), ten with issues in the Bay of Plenty (Emery and McLean (eds) 2019; James 2021a; James et al., 2020; Mitchell et al., 2020; Cram and Munro 2020) and five with issues in Hawke’s Bay (Adcock et al., 2021; James 2021a; Cram and Munro 2020; James et al., 2020). Much of this research came out of the BBHTC National Science Challenge, predominantly spanning the Affordable Homes for Generations and Kāinga Tahī, Kāinga Rua components. Research on the Western Bay of Plenty sub-region (Tauranga and Western Bay of Plenty councils), e.g., Jackson and James (2016), Millar (2014), Mitchell and Glaudel (2017) reflects interest in the high-growth sub-region by SmartGrowth and others.

Christchurch was identified as an area of research activity in nine references. Most of these had some focus on declining homeownership and/or rental housing (Saville-Smith, 2019b; Mitchell, 2015b; Whitehead and Walker, 2021; Rout et al., 2019; Witten et al., 2017). Three references had a primary focus on housing issues affecting Māori, including the housing needs and aspirations of older Māori (Cram, 2016), interventions and solutions for declining homeownership rates and increasing homelessness (Rout et al., 2019), and the association between socioeconomic variables and rates of homeownership (Whitehead and Walker, 2021). Christchurch was one of four regions included in a study of the impacts of leaky homes on older homeowners conducted by James et al. (2017) and Mitchell's (2018) analysis of intermediate and shared equity models included a case study of a low-rise, multi-unit, shared equity development targeted to low-income key worker families in Christchurch. Lysnar and Dupuis (2015) explored the experiences of families living in multi-generational dwellings.

Eight references had a focus on Wellington. Teariki (2017) evaluated the impact of housing on the health and settlement patterns of Kiribati migrants. Saville-Smith et al. (2009), conducted a series of workshops with diverse groups to identify issues likely to affect the housing futures of the older population. Wellington was a focus area in Mitchell's (2015b) analysis of tenure and population change, and in Saville-Smith's (2019b) preliminary analysis of land pricing and building costs for a concept design of shared rental housing for older adults. Other references that specified a Wellington based component include Adcock et al. (2021), Saville-Smith (ed.) (2019), Witten et al. (2017) and James et al. (2017).

There is a lack of South Island based research, although one publication from the BBHTC: Thriving Regions programme was identified (Taylor et al., 2020) exploring population ageing, migration and housing stock pressures in Oamaru. One reference from the BBHTC: Affordable Housing for Generations programme was identified exploring the challenges of ageing in place for older renters in Marlborough and other regions (James, 2021a) and one design experiment from the BBHTC: Building Solutions programme (Saville-Smith, 2019a) was identified analysing the yield associated with concept plans for shared rental housing for seniors in Blenheim.

Four references focused on Māori housing circumstances in Te Tai Tokerau. These were funded by Te Puni Kōkiri, MSD and Housing NZ. The research included analysis of tenure, condition, crowding and dwelling type. Nana et al. (2019) examined the health, economic and social outcomes associated with different housing circumstances. They found that those living in owner-occupied dwellings generated the least fiscal cost in terms of hospital, corrections and welfare payments. Living in a severely crowded dwelling had the largest net fiscal cost. Saville-Smith et al. (2019) found dwellings in Te Tai Tokerau to be in much poorer condition than the East Coast, the Eastern Bay of Plenty and national stock overall. Just under 30 percent of dwellings surveyed were in very poor condition.

5.4 Area of interest 3: affordability and tenure security

The following definitions were used to guide literature search and analysis of references for this area of interest.

Housing affordability is a measure of a household's ability to pay for its housing needs. As such, affordability is about the relationship between household income and expenditure on housing (NZ Productivity Commission, 2012). We use a standard and internationally recognised definition of

affordability. Affordable housing is where a household spends no more than 30% of their gross household income paying rent or servicing the mortgage and non-discretionary costs associated with buying and operating a property (e.g., rates). Those households spending more than 30% of their gross household income on housing costs are deemed to be in *unaffordable housing*. Those households spending more than 50% of their gross household income on housing costs are considered to be living in *severely unaffordable housing* (Mitchell and Glaudel, 2017).

Tenure security is about the right to occupy a property, and it applies to any type of tenancy. Tenure security is a multi-faceted term, specified in various ways in legislation and policy in different jurisdictions. For all types of tenure, tenure security involves affordability and the ability to remain in the property as long as desired. Dimensions of tenure security specifically relating to tenants include the length of tenancy and conditions of removal of tenancy, and the adequacy of tenancy conditions (James and Saville-Smith, 2016b).

Area of interest 3 has the highest number of core references, at 106. Table 5.8 shows the numbers of references addressing affordability and tenure security (some references were concerned with both themes). There was a strong focus on tenure security (84), affordability (78) and on unaffordable rentals (59). This reflects a growing recognition that a lack of affordable housing is a key factor driving housing stress, insecurity and homelessness (James et al., 2020). There were only eight references about affordable rental and seven references focusing on affordable owner-occupation.

Table 5.8: Housing affordability and tenure security

Area of interest component	Number of references*	% total
Tenure security	84	72.4
Housing affordability	78	67.2
Unaffordable rental	59	50.9
Unaffordable owner-occupation	38	32.8
Affordable rental	8	6.9
Affordable owner-occupation	7	6.0
Total core references	116	100.0

* Some references mention more than one aspect

Most of the research examining tenure security focused on insecure tenure. Where tenure was specifically analysed, references mostly referred to private rental (77 references, Table 5.9). Rental tenure, whether private, public, council or community housing, is more studied than ownership tenure or any other tenure type. This is not surprising, considering the inherent insecurities of rental tenure in New Zealand (James and Saville-Smith, 2016b).

Table 5.9: Tenure

Tenure	Number of references*	% total
Private rental	77	66.4
Owned (no further information)	32	27.6
Public rental	28	24.1
Council	15	12.9
Community housing provider	18	15.5
Owned with mortgage	18	15.5
Multiple-owned land	11	9.5
Family trust	6	5.2
Occupation right / License to occupy	5	4.3
Owned without mortgage	10	8.6
Provided rent free	3	2.6
Other**	13	11.2
Total core references	116	100.0

* Some references mention more than one tenure type

** 'Other' includes forms of progressive homeownership (shared equity, rent-to-buy), unspecified tenure associated with living with family and others, and lack of shelter/homelessness

Research about specific aspects of the rental sector include:

- The increasing numbers of renters (Mitchell 2015b; Parker, 2015; The New Zealand Productivity Commission, 2012).
- Under-supply of rental housing (Johnson, 2013; Parker, 2015).
- Rental unaffordability (Bentley, 2020; Brame, 2019; Mitchell and Glaudel, 2017).
- The private rental sector and older people (Keeling, 2014; Johnson, 2015; James and Saville-Smith, 2016), including seniors' pathways to renting (James et al., 2021c) and impacts on their tenure security (Bates et al., 2019a, 2019b, 2020).
- Unaffordable rentals experienced by Māori (Adcock et al., 2020; Cram and Munro, 2020; Nana et al., 2019; Rout et al., 2019; Rua et al., 2019; Varona et al., 2021).
- Unaffordable rentals experienced by Pacific (Tanielu, 2019).
- Unaffordable rentals experienced by young people (Clark et al., 2021).
- Unaffordable rentals experienced by disabled people (Brown et al., 2021).
- The growing numbers of households in the intermediate housing market (Joynt and Hoffman, 2021; Mitchell, 2015a, 2019).

The 38 references examining unaffordable owner-occupation included analysis of:

- Long-term trends in the decline in homeownership (Johnson et al., 2018; Mitchell, 2015b; Morrison, 2008; Saville-Smith et al., 2009; Perry, 2017; The New Zealand Productivity Commission, 2012).
- Seniors experiencing housing stress as owner-occupiers (Coleman et al., 2016; Saville-Smith, 2013; Saville-Smith et al., 2016), including the impacts of leaky building syndrome on older homeowners (James et al., 2017).

- Struggles of Pacific households to achieve homeownership (Sharma and Murphy, 2015).
- Evidence from household surveys (Law and Meehan, 2013).

The few references focusing on affordable rental tend to associate affordability with public housing, housing provided by not-for-profit community housing organisations, and alternative tenure models (e.g., Li, 2011; Mitchell, 2018; Saville-Smith, 2019a). The few references concerning affordable owner-occupation focus on alternative tenures and/or housing typologies that potentially increase affordability (e.g., Berghan, 2020; Haarhoff et al., 2019; Mitchell, 2018; Saville-Smith et al., 2017; Witten et al., 2018).

Saville-Smith (ed.) (2019) contains a compilation of findings from several reports showing the long-term outcomes generated from the production of low-cost housing, whether owner-occupied or affordable rental. The reports cover IDI data, residential construction data, inter-generational housing trajectories of those born/brought up in low-cost secure housing (both owner-occupied and rental); impacts and benefits of accessing rent-for-buy; and Māori housing, home and whānau ora.

Housing precarity and homelessness

A considerable body of research provides insights into aspects of tenure insecurity relating to housing precarity, severe housing deprivation and homelessness (e.g., Amore 2016, 2019; Amore et al., 2021; Citizens Advice Bureau, 2015; James et al., 2020, 2021a; Rua et al., 2019). Twenty-six references mention homelessness or risk of homelessness. Some references consider more than one sub-population. Sub-populations within those 26 references mentioning homelessness are: Māori (19), Seniors 50+ (14), Young People/Children (12), Pacific (11), Ageing with Disability (3).

Several studies focus on the lived experience of homelessness and housing insecurity, including:

- People of Pacific ethnicities are overrepresented among populations experiencing severe housing deprivation (Amore, 2016; Amore et al., 2021). Pacific households, particularly Tuvaluan and Tongan households, are highly concentrated in rental housing, where they are vulnerable to affordability pressures and a lack of tenure security (Tanielu, 2019). Existing housing stock is also poorly aligned to the cultural needs, preferences and obligations of Pacific families (Macpherson, 1997; Salesa, 2018) increasing the risk of crowding (Amore, 2019). Older Pacific people have the highest prevalence of severe housing deprivation with the majority sharing severely crowded dwellings with others (Amore, 2019). The lack of literature on Pacific housing issues and tendency to focus on issues of overcrowding make it difficult to identify how diverse Pacific experiences of homeless may be.
- Dispossession of ancestral land, cultural and social alienation were core themes in discussions around the homeless experiences of Māori (Boulton et al., 2020; Berghan 2020; Cram 2020). Boulton et al. (2021a) emphasise that for Māori home is a place of connection, of genealogical and historical importance, and Boulton et al. (2020) suggest that landlessness must be addressed before homelessness can be meaningfully addressed for Māori. Cram (2020) identifies homelessness among Māori who had sold their land, often because they were unable to pay rates and received no assistance. Cram also describes whānau in crowded homes due to systemic undermining of affordability and security in the rental market.
- Children and young people. Growing rates of homelessness and housing deprivation among children and young people have been identified in the literature (Amore, 2016, 2019; Amore et

al., 2021; Rua et al., 2019). Over half of the homeless population is under the age of 25, and of this group a further half is under the age of fifteen (Amore et al., 2019; Rua et al., 2019). However, the ways in which homelessness is experienced by young people are not well-articulated. In 2018, 4.2 percent of children under five lived in dwellings without access to drinkable tap water and 2.3 percent lived in dwellings without electricity (Royal Society Te Apārangi, 2021). A survey of services in the Auckland region between 2014 and 2015 found that 568 of 1,202 people experiencing homelessness were children and 65 had slept rough the night before (Tuai Harris, 2013). Adcock et al. (2021) discuss kinship/friendship networks and doubling up as common methods of dealing with unaffordable housing by young Māori mothers.

- Older people. Johnson (2018) links analysis of homelessness with the ageing population and the growing numbers of people who in 2030 will be aged over 65 years old and not in owner-occupation. James et al. (2020) consider homelessness among seniors, some of whom have formerly owned their homes.

6. ADDITIONAL RESEARCH OF RELEVANCE TO THE LTIB

There is a considerable amount of published research offering important insights into the implications of population ageing for housing and urban development in the future. We have identified 123 supplementary publications which, while not meeting the criteria for inclusion in the core references, do contain content that can inform the LTIB. These references are listed in Annex 2.

6.1 The supplementary references and areas of interest

The distribution of the 123 supplementary references across the three areas of interest and the five prioritised sub-populations is shown in Table 6.1.¹²

Table 6.1: The supplementary references: distribution across the LTIB's areas of interest

Area(s) of interest	Total no of references (% of total)	Sub-population of interest					Other groups
		Māori	Pacific peoples	Seniors (50+)	Young people	Disabled people	
<i>One area</i>							
Dwelling type/performance	16 (13.0)	1	1	3	2		1
Housing stock/positioning	1 (0.8)	1					
Affordability/tenure	14 (11.4)	4	2	3	4		3
Marae-based housing	2 (1.6)	2					
Homelessness	6 (4.9)	5					
<i>Two areas</i>							
Dwelling type/stock	8 (6.5)	2	2	2	2		3
Dwelling type/affordability	12 (9.8)	3	5	2	3	1	3
Housing stock/affordability	3 (2.4)	1	1				2
<i>All three areas</i>							
None of the areas of interest	4 (3.3)	3	4	4	4		2
Overseas	51 (41.5)	9	5	10	7		10
	6 (4.9)						
Total	123 (100.0)	23	17	18	16	1	24
% of total	100.0	18.5	13.7	14.5	12.9	0.8	19.4

Sixteen references (13%) cover dwelling type/performance, 14 references (11%) cover affordability/tenure and 12 references (10%) include a combination of dwelling type and affordability. Fifty-seven references (46%) do not address specifically any of the LTIB's areas of interest.

¹² Note that some of the areas of interest and specific sub-populations in many of these supplementary references just get a mention. Accordingly, they did not meet the criteria for inclusion in the core references.

Of the 123 supplementary references, 41 (33%) refer to a sub-population. Table 6.1 shows that no specific sub-population is addressed in more than 20% of the supplementary references. The numbers of references addressing specific sub-populations are small, especially in the case of people with a disability (just one paper). The 'other groups' category includes immigrants (9 references) and people of Asian ethnicities (6 references).

6.2 Population change and ageing

Just over 30% (39) of the 123 supplementary references made some reference to population change and for 21 (17%) of them population change was a key focus of the study (Table 6.2).

Table 6.2: Addressing population change: the supplementary references by housing area(s) of interest

Housing area(s) of interest	Focus on population change				Total	
	Key focus	Some commentary	Brief mention	None	No.	%
<i>One area</i>						
Dwelling type/performance		1		15	16	13.0
Housing stock/positioning				1	1	0.8
Affordability/tenure	2	1	1	10	14	11.4
Marae-based housing			1	1	2	1.6
Homelessness			1	5	6	4.9
<i>Two areas</i>						
Dwelling type/stock	2	2	1	3	8	6.5
Dwelling type/affordability	1	1	2	8	12	9.8
Housing stock/affordability		1	1	1	3	2.4
<i>All three areas</i>						
None of the areas of interest	3			1	4	3.3
Overseas references	12	5		34	51	41.5
	1			5	6	4.9
Total	21	11	7	85	123	100.0
% of total	17.1	8.9	5.7	69.1	100.0	

National perspectives on population change and ageing

The New Zealand Treasury and the New Zealand Productivity Commission have produced data-based reports that are relevant to assessments of the implications of an ageing population for housing and urban development. None of these reports address any of the LTIB's housing areas of interest or prioritised sub-populations in any detail.

The New Zealand Treasury reports fall into two categories: 1) background research for the Long-Term Fiscal Statement (LTFS) under the Public Finance Act 1989; 2) research papers dealing with long-term population change.

Two papers address the LTFS and its associated Long-Term Fiscal Model (LTFM). Bell (2021) details the demographic, economic and fiscal assumptions and logic in the 2021 LTFM, and notes that “a major reason why the Treasury produces the LTFS is that one of the most predictable aspects of New Zealand’s future is its ageing population structure” (p. 5). This paper includes extensive commentary on how the projected changes in the population could affect labour supply, labour productivity and the national superannuation system. There are no direct references to housing (or to different ethnic groups) in the text of the paper. The only explicit mention of housing is in two tables: Table 2 Shares of expense types that derive growth from operating allowances (p. 29), where housing and community development score the lowest percentages (1.1% average 2006/07-2019/20) of the 11 core Crown Expense areas listed, and Table 3 Expenses types and their long-term stable percentage of nominal GDP (p. 30) where housing and community development and environmental protection each score the lowest share (0.2% average 2006/07-2019/20). Housing per se does not seem to merit any specific comments in the text describing the LTFM.

Van Rensburg et al. (2021) also focus on the economic impacts of an ageing population in New Zealand. The paper explores the way an ageing population could affect the economy with particular reference to labour supply, labour productivity, the demand for different types of goods and services (including housing), and the impact of an ageing population structure on savings and investment decisions. This is a comprehensive assessment of the drivers of demographic change with particular reference to population ageing. The only specific comment with regard to housing relates to the effect of population ageing on house prices, although the authors point out ongoing debate and uncertainty about how population ageing might affect these, suggesting that macroeconomic shocks and housing-specific factors explain more of the variation in house prices than demographic factors.

Bryant (2003) examined the ageing of the New Zealand population between 1881 and 2051, noting substantial heterogeneity and different histories of fertility, mortality, and migration among different ethnic groups and across different geographical regions.

In addition to the Treasury’s analyses, in 2021 the New Zealand Productivity Commission conducted an inquiry into what immigration policy settings would best facilitate New Zealand’s long-term economic growth while at the same time promoting the wellbeing of New Zealanders. In their report *International Migration to New Zealand: future opportunities and challenges*, the Productivity Commission (2021a) examines four major trends that will likely affect future migration to New Zealand and other countries: ageing populations, climate change, exposure to global shocks and technology-driven increases in productivity.

The Productivity Commission summarises the evidence for population ageing contained in Stats NZ’s (2021) projections through to 2073. They note that by 2073 half the population could be older than 47 years, the population 65+ is likely to comprise between 24% and 34% of the total, and 500,000 people will be over 85 yrs. The fiscal challenges these structural (and numerical) changes in the population will pose are reviewed but there is no mention of housing per se. The first reference to housing is with regard to large numbers of return migrants and a potential for tensions between current residents, immigrants and returnees (p. 21). The Productivity Commission suggests that steps

should be taken to improve the responsiveness of housing and infrastructure supply, regardless of the immigration scenario, since these matters not only have significant wellbeing benefits for New Zealanders, but also affect the country's ability to attract, retain and successfully settle talent. It is noted that housing costs and quality are one of the major areas of dissatisfaction with life in New Zealand identified by migrants (Productivity Commission, 2021a).

Another Productivity Commission report addresses the wider wellbeing effects of migration (Productivity Commission, 2021b). This report does not have a major focus on population change but contains a section on housing, including a summary of key studies since 2001 on the effects of immigration on house prices. This section highlights the negative impacts on wellbeing of high net migration gains through increased wealth inequality as well as through contributing to overcrowding and homelessness.

Sub-national population ageing analyses

Some new measures for assessing sub-national population change have been developed by the Treasury using integrated administrative data (IDI) and these are reviewed in McLeod (2018). Although there is no explicit reference to housing in this paper it is relevant to the LTIB because of the refined measures of internal migration and international migration McLeod has developed. Given the importance of migration as a driver of population change at both national and sub-national levels, these methods will be useful in the analysis of population change in different territorial authorities. One example of the use of his method showed that net migration (combining internal and international migration) in Auckland between 2013 and 2016 was only half the level recorded in official estimates.

Sub-national population analyses are being undertaken by territorial local authorities in tier 1 and tier 2 urban areas as part of their housing capacity assessments, which must consider projected populations through to 2048 as part of their response to the National Policy Statement on Urban Development (NPSUD). Five Council assessments are provided as examples: Porirua City Council (Cox et al., 2018), Dunedin City Council (2021), Queenstown-Lakes District Council (Fairgray et al., 2021), Christchurch City Council (Greater Christchurch Partnership, 2021), and Hastings District Council (2021).

Most of these assessments have used projections prepared by Stats NZ. All Councils comment on the sizeable increases in the population aged 50+ and especially 70+ years by 2043, including associated increases in 1 and 2 person households. Most assessments refer to differential patterns of growth in four of the sub-populations of interest - Māori, Pacific, seniors and young people and children. None make reference to people with disabilities which is hardly surprising given the absence of projections for this sub-population.

The Dunedin City Council's (2021) report differentiates between key age groups (0-14, 15-24, 25-64, 65+) and the implications for different types of housing of the variations in the projected growth in numbers in these age groups through to 2043. The Hastings District Council's (2021) report addresses housing capacity, affordability and suitability in the context of projected population growth and structural changes in the major ethnic populations. Reference is made to growth in the older populations (65+ and 80+), the younger age profiles of Māori and Pacific and their lower rates of homeownership. Home affordability is an increasing problem, especially for younger adult first home

buyers. Those aged 65+ will have lower homeownership and be more reliant on rentals. The report by Cox et al. (2018) for Porirua Council does not address the housing needs of specific ethnic groups or age groups, but includes specific consideration of population trends in the surrounding TAs, and the inter-related nature of housing and employment markets where people live in one urban area and work in another.

Two major multi-year research programmes have addressed population change with a strong focus on sub-national trends and prospects. These are: 1) the Marsden-funded *The subnational mechanisms of the ending of population growth. Tai Timu Tangata. Taihoa e?* programme, led by Natalie Jackson; and 2) the MBIE-funded *Capturing the Diversity Dividend of Aotearoa New Zealand (CaDDANZ)* programme, led by Paul Spoonley and Jacques Poot. Jackson and her colleagues examined the mechanisms of sub-national population change in New Zealand between 1976 and 2043, while the CaDDANZ project has explored how the the country can maximise benefits from temporary and circular international migration, growing ethnic diversity, population ageing, changing fertility patterns and urban growth.

A special issue of *Policy Quarterly*, edited by Jackson (2017) (*The ebbing of the human tide. What will it mean?*) contains several papers on the history and future of New Zealand's population. Especially relevant for the LTIB is Jackson and Brabyn's (2017) analysis of the mechanisms of sub-national population growth and decline in New Zealand between 1976 and 2013. This is the most substantive analysis of the contributions that the two key components of population change (natural increase and net migration) make to growth and decline in the populations of New Zealand's TAs, towns, and rural centres over the period 1976-2013 with an extension to 2043. The authors show that at a regional level, age-selective migration can accelerate structural ageing as much as declining fertility rates. Jackson (2016) contains a more substantive discussion of sub-national population change between 2013-2043. There is no discussion about the impacts of these demographic changes on housing in these papers.

Jackson, Brabyn and Stitchbury (2020/21) have developed the *New Zealand Atlas of Population Change*, a visualisation of socio-demographic diversity across New Zealand's 16 Regions, 66 Territorial Authority Areas (TAs), 143 towns and 132 rural centres. There is no specific reference to housing but the numerous maps of changes in the proportions of the population in different age groups between 1976 and 2048 offer insights into the changing demography of New Zealand's regions, towns and rural centres as a result of structural ageing in their populations. This diversity in trajectories of population ageing clearly has implications, at the sub-national level, for housing and urban development.

In two reports on the demographics of Māori and iwi in Te Tai Tokerau, Jackson (2019a,b) examines trends in housing tenure for Māori and non-Māori in the three district councils in Te Tai Tokerau.

The CaDDANZ programme involved extensive collaboration between demographers, sociologists, economists and geographers on New Zealand's changing demography in the late 20th and early 21st centuries. Spoonley (2016a) edited a collection of essays entitled *Rebooting the regions. Why low or zero growth needn't mean the end of prosperity*. The essays address a range of challenges that regions with divergent rates of population growth face. The supplementary references include three of these chapters (Spoonley, 2016b; Jackson, 2016; McMillan, 2016), all of which have population change as a key focus. These deal respectively with:

- Different demographic and economic trajectories of metropolitan areas (Auckland and Christchurch) compared with regions lacking the growth nodes provided by large agglomeration economies (Spoonley, 2016b).
- The dynamics of sub-national population growth and decline in New Zealand between 2013 and 2048 (Jackson, 2016).
- Interventions that overseas countries have been using to attempt to change their demographic futures, and the limitations of these interventions in New Zealand in view of the underlying drivers of population change (McMillan, 2016).

Neither Spoonley (2016b) nor Jackson (2016) directly address the the impact of population dynamics for housing. McMillan (20126) comments on international depopulation experience and housing dimensions of strategies to deal with depopulation.

Spoonley (2020) addresses population ageing and comments on housing for the older population. Spoonley also addresses ethnic variations in current and projected population structures but there is no substantive comment on housing for these groups.

6.3 Other key themes in the supplementary references

The supplementary references show the rich evidence base for understanding the housing challenges facing particular sub-populations. They include references dealing with the following themes:

The health impacts of poor housing

Several references outline the health impacts of poor housing and have particular relevance to the LTIB because of the consistent increase in the number of New Zealand households, particularly Māori, Pacific and low-income families, unable to access even minimally adequate housing. High rates of hospital admission for respiratory conditions associated with poor quality housing have been documented for Māori and Pacific children (Baker & Howden Chapman, 2012) and both old and young people are more likely to be hospitalised in winter and to die from potentially fatal respiratory or cardiovascular conditions (Howden-Chapman et al., 2012). Crowding is associated with increased risk of meningococcal disease, rheumatic fever, tuberculosis, skin conditions, respiratory conditions and transmission of viral infections (Gray and McIntosh, 2011; Gillespie-Bennett et al., 2013). A link between housing issues and poor mental health has also been well documented (Paterson et al., 2018; Gray et al., 2011).

House condition and resilience

House condition is relevant to the LTIB because of its strong association with health and wellbeing, its implications for ongoing affordability (e.g., ability to heat the home, cost of repairs, maintenance and modifications) and the ability of people to remain in their dwellings and communities over time (White et al., 2015; White and Jones, 2017; Gillespie-Bennett et al., 2013). Rental housing has been consistently found to be in poorer condition than owner occupied housing. Tenants have little agency in the repair and upkeep of their dwellings, and less access to cost-effective heating solutions (White and Jones, 2017; White et al., 2015). The capacity our housing to withstand natural disasters and respond to extreme temperatures is also an issue of some urgency given New Zealand's unique climate, geographic features and vulnerabilities, and the challenges of climate change (O'Sullivan et al., 2021; Jaques et al., 2015).

Thermal performance and fuel poverty

Around a quarter of New Zealand households cannot afford to adequately heat their homes (Howden-Chapman et al., 2012). Affordability pressures, building design and quality are key factors contributing to fuel poverty (O'Sullivan 2021). Children/young people, Pacific and Māori households are particularly affected (O'Sullivan et al., 2021; White and Jones 2017; Howden-Chapman and Pene, 2013). Fuel poverty and inadequate indoor temperatures have been associated with cardiovascular and respiratory illnesses, excess winter mortality, excess winter hospitalisations, poor nutrition, poor mental health outcomes, reduced social functioning, poorer educational and employment outcomes and a risk of lifelong, negative health and wellbeing consequences (Howden-Chapman et al., 2012; O'Sullivan et al., 2021; O'Sullivan et al., 2017).

Urban and neighbourhood planning and design

These references explore the potential of different planning approaches and design features for achieving specific social and economic goals at the neighbourhood level. They span issues of affordability (Austin et al., 2014; Early et al., 2015), dwelling typology (Allen, 2015), zoning/land use (Eaqub, 2017), transportation (Early et al., 2015), including active transport and walkability (Allen, 2015; Lietz & Bijoux, 2014) proximity to amenities, public facilities, workplaces, friends and whānau (Lietz and Bijoux, 2014; Allen, 2015). One reference explores the ways that children of preschool age experience urban environments, their preference for green space and desire for physical and social connectivity (Ergler et al., 2015).

Housing affordability

These references cover housing affordability measures (Saville-Smith, 2014; Perry, 2017; Murphy, 2014; Norman and Chitale, 2017), land supply (Murphy, 2016, 2017), finance and development (Murphy, 2017) speculation (Rehm and Yang, 2020), perverse tax incentives (Allan, 2020; Norman and Chitale, 2017), the shortage of smaller affordable dwellings (Tucker and Ryland, 2014) and the burden on young, Pacific, Māori, low income and disabled households (Allan 2020; Paul et al., 2020; Cheer et al., 2002 Howden-Chapman and Pene, 2013; Saville-Smith 2014) among other issues. References demonstrate that many households (both in homeownership and in rentals) are burdened with unsustainable housing costs resulting in growing insecurity (Saville-Smith 2014; Paul et al., 2020; Perry 2017). To retain housing these households are making complicated trade-offs between rent/mortgage payments, healthcare, food, heating, transport, insurance and other necessities (Cheer et al 2002; Perry 2017) and some are pushed out of their communities and/or mainstream housing altogether (Saville-Smith, 2014; Paul et al., 2020).

Housing accessibility

These references highlight the importance of accessible/universally designed housing stock to meet the needs of older people, disabled people and projected increases in disability associated with population ageing (Saville-Smith, 2012). References discuss the potential of simple changes to the home (e.g., removing obstacles, mobility aids) and access to home modifications and repair to increase independence, safety and reduce injury risk within the home (Keall et al., 2015; Wiles et al., 2012). James (2020b) highlights the importance of home design in providing a space for older people both to give and receive care and for enabling people to age in place. Saville-Smith (2012) reiterates the lack

of accessible homes in the existing housing stock, the lack of attention that has been given to the needs of the disabled population (despite persistently poor housing outcomes for this group), and the urgent need for supply side solutions as the proportion of renter and owner occupier households headed by an older person increase.

Housing supply

The references on housing supply show the persistent under-supply of housing stock over time, across the country and in different communities. There is a predominant focus on the trends, size, drivers and implications of under-supply (Coleman and Karagedikli 2018; Paul et al., 2020; Saville-Smith, 2021; Tucker and Ryland, 2014), including under-supply of suitable housing stock for Pacific households (Anae, 2020; Pene et al., 2009), for Māori households (King et al., 2018; Kukutai and Rata, 2017) and for disabled people (Saville-Smith and Saville, 2012). Barriers and opportunities for constructing small, affordable dwellings are considered by Greater Christchurch Partnership (2021) and Tucker and Ryland, (2014). The opportunities and constraints of land supply for housing are considered by Murphy (2016). Barrett and Garret-Walker (2020) consider narratives and framing of the concept of housing supply. They examine the way statistical representations are embedded in larger narratives that drive the governance of housing.

Māori housing and papakāinga

These references expand on and further contribute to discussions around growing the stock of affordable and culturally suitable housing available for Māori. They explore challenges to utilising remaining landholdings, including residential zoning, servicing problems in rural areas, building on marginal land and accessing capital to reduce reliance on private rentals, meet aspirations for improved housing standards and health, and the desire to return to areas of cultural significance (Ryks et al., 2014; Burkhardt and Swallow, 2014). References reiterate the importance of grounding solutions in indigenous knowledge, and conceptions of home, land and kinship (Groot and Peters, 2016). Henry and Crothers (2019) offer a strategy for gathering and analysing large-scale data, that will contribute to an understanding of how Māori might better fulfil aspirations for designing, financing and building housing, as well as their perceptions of housing and papakāinga, and the contribution to Māori wellbeing.

6.4 Multi-year research programmes

There have been no multi-year research programmes that explicitly address population dynamics, including ageing, funded since 2016 by the Marsden Council, the Health Research Council and the Ministry of Business, Innovation and Employment (the Endeavour Fund). A list of programmes funded by these agencies since 2016 that address issues that have some relevance for LTIB is provided in Annex 3. Publications from these programmes have not been identified.

The multi-year programmes include:

- Kukutai's (2016-18) study of colonisation and survivorship of Māori.
- Liu's (2016-18) study of new Chinese migrants in New Zealand and their multi-generational families.
- Kawharu's (2018-20) study of how connected Māori youth are to their ancestral marae.
- Szabo's (2019-21) study of 'ageing well' by migrants in an adopted land.

- Coleman’s study of the lived experiences and geography of people with young-onset Parkinson’s disease.
- Research relating to caring for the older population, including: Moeke-Maxwell’s (2017-2020) investigation of Māori whanau end of life cultural care customs; Alefaio’s (2018-2020) study of caring for our wisdom bearers – Pacific Matua (Elder) care; Hikata et al’s (2020) project on access to residential aged care for Māori and non-Māori; and Moeke-Maxwell et al’s (2020) research on building capacity to carry out end-of-life and end-stage care.
- The University of Otago multi-year research programme addressing maximising wellbeing through public housing and urban regeneration.
- The University of Waikato multi-year research programme on ending racial oppression. Addressing housing disadvantage and revealing the significance of housing systems in maintaining inequalities, are integral parts of this multi-disciplinary programme’s transformational long-term agenda of ending racial oppression in Aotearoa.

7. KEY THEMES AND ISSUES IN THE RAPID REVIEW

Fifteen themes have been identified during our rapid review. These are addressed in turn, in summary form, in this section. Then we comment on the extent to which those themes are contested or consistent across the body of research we have reviewed.

7.1 Themes and issues

Structural tenure change is happening alongside structural ageing

- There has been a marked decline in homeownership across all age groups and this is forecast to increase. Māori and Pacific households are particularly affected. The change in tenure was first established by Morrison (2008). He argued that the falling rate of homeownership was a profound structural shift, not simply younger cohorts deferring home purchase. That study also suggested that younger, single-parent and lower income households would be most affected by the structural shift, that housing would be increasingly regarded as primarily a financial asset, and that there would be growing pressure on rental stock. Morrison's seminal analysis has been confirmed and built on by later studies including Goodyear (2017); Johnson et al., (2018); Mitchell (2019, 2015b), Jackson and James (2016), Rout et al., (2019); Statistics NZ (2021).
- Cohort analysis of customised census data show increasing numbers and proportions of older renters over the period 1986-2013. Greater proportions in younger age cohorts will reach age 65 as renters (James et al., 2021; Mitchell et al., 2020; Saville-Smith, 2019; Saville-Smith (ed), 2019; Saville-Smith, 2020).
- Trajectories of older renters who were former homeowners reflect a societal shift to complex and risky housing pathways. Retention of homeownership is not guaranteed into later life, and this has implications for wellbeing and security in later life (James et al., 2021).
- Within the Māori population, differences in homeownership rates for different age groups are notable. The highest ownership rates are among those aged 65+ (Jackson, 2019a, 2019b).
- Statistical analysis based on longitudinal data of the Māori cohort from the Christchurch Health and Development Study showed that socio-economic conditions in childhood and later in adult life are the most significant predictors of homeownership for Māori. Key variables that increase the likelihood of home ownership by age 35 are: future aspirations, economic stability, partner relationship and mental health. There is high variability in the observed rates of homeownership in each income quintile group, with those in the most advantaged group having rates of home ownership eight times higher than those in the least advantaged group (Whitehead and Walker, 2021).
- There is a growing intermediate housing market (IHM)¹³ (e.g., Mitchell, 2015a). The IHM is increasingly hard to leave. Pathways out of the IHM include ability to access intergenerational wealth and use of government housing assistance products. For lower-income households, community housing providers (CHPs) offering intermediate tenures enable navigation out of the IHM (Joynt and Hoffman 2021).

¹³ The intermediate housing market comprises those households in the private rental market that have at least one household member in paid employment and cannot afford to buy a house at the lower quartile house price under standard bank lending criteria (Mitchell 2015a).

Strong evidence of housing unaffordability and financial precarity

- Over the 2000s there has been a significant increase in housing unaffordability affecting both owner-occupiers and renters.
- Housing unaffordability is widespread, including Māori households (Menzies et al., 2019; Rout et al., 2019; Royal Society Te Apārangi, 2021); Pacific households (Royal Society Te Apārangi, 2021; Tanielu, 2019); individuals and families under 40 (James, 2020); older people (James, 2020, 2021; James et al., 2021; Saville-Smith, 2019); disabled (Brown et al., 2021; Royal Society Te Apārangi, 2021); single-parent households (Royal Society Te Apārangi, 2021); and renting households (Royal Society Te Apārangi, 2021; Saville-Smith, 2019).
- There is a lack of rental tenure security due to inadequate legal protections for renters (despite recent reforms), poor dwelling condition, and unaffordable rentals.
- Housing costs are increasingly unaffordable to median and above median income households. This creates movement of those households into segments of the housing stock previously inhabited by lower income and vulnerable households. In turn the latter households can face homelessness (Figenshow and Saville-Smith, 2020).
- Growth of an 'opportunistic,' informal housing market, comprised of sheds, garages and other non-residential structures and accessed by vulnerable groups who cannot afford to access housing in the formal market (James et al., 2020; Bates et al., 2019b, 2020).
- In many areas housing costs have increased at a faster rate than household incomes, leading to a deterioration in housing affordability (Mitchell et al., 2020).
- Those households experiencing 'very high' and 'high' levels of housing stress are one-parent, Māori and Asian households (Mitchell et al., 2020).
- Shortages of affordable rental housing are apparent in many areas, not just Auckland (e.g., Mitchell et al., 2020).
- Currently a small proportion of people reach age 65 in material hardship and continue to experience material hardship as they enter their 70's (Allen, 2019). This group is likely to grow (Saville-Smith, 2019). The known risk factors for financial vulnerability among people aged 55-76 years include lack of homeownership and loss of or insecure employment. Material hardship in later life is associated with hardship across multiple wellbeing dimensions (Allen, 2019). Older renters, compared to older owner-occupiers are more likely to report a cost barrier to accessing healthcare and prescriptions (Pledger et al., 2020). These findings suggest that homeownership is a key protective factor for an ageing population, however that status is now less likely due to tenure change.
- Housing unaffordability is a driver of residential movement (Curtis et al., 2020).

Housing deprivation among young people

- Younger households see their housing preferences as unobtainable, due to a lack of affordable and suitable housing to rent and to buy (Adcock et al., 2021; James, 2020).
- A survey of 7,721 adolescents from 49 Auckland, Northland and Waikato schools and Kura Kaupapa Māori found that 29% of year 9-13 students surveyed had experienced at least one form of housing deprivation in the 12 months prior to the survey. Five deprivation indicators were examined: inadequate housing; serious housing deprivation; housing financial stress; families splitting up due to lack of space; and moving house frequently. Māori, Pacific, Asian and "other" ethnic groups, disabled youth and LGBTI+ were the most affected. Housing deprivation is high

among young people who report other types of material deprivation such as food insecurity, power insecurity, and transport cost concerns. Youth experiencing housing deprivation are more likely to have been purposefully hit (Clark et al., 2021).

Social and financial benefits of secure, low-cost housing

- Analysis of data from different time periods and locations (1960s Auckland, 1960s Wellington and 1980s Auckland) showed that living in low-cost housing is important to household and inter-generational wellbeing. This study shows that people, whether born in or living in secure low-cost housing, on average generate a net fiscal benefit to government. However, low-cost house production has declined since the 1980s. Now, low-cost new builds are not affordable to low and even lower-middle income households (Nana et al. in Saville-Smith (ed), 2019).
- A study undertaken of the Māori population in Te Tai Tokerau using census and Integrated Data Infrastructure (IDI) data showed the public costs of unaffordable and poorly performing housing. All households except those living in owner-occupied dwellings, had a substantial negative fiscal cost; i.e., the cost of hospitals, corrections and welfare payments, was higher than the amount of tax collected (Nana et al., 2019).
- There is evidence that investment in low-cost housing is seen as essential by Māori for whānau to be 'at home' and be able to 'be' Māori and 'do' or live Māori values such as whanaungatanga, manaakitanga and aroha (Cram in Saville-Smith (ed.), 2019).
- There has been a significant growth in the need for social housing (Johnson, 2013; Millar, 2014; Tanielu, 2019). This demand is forecast to grow due to increasing numbers of people entering retirement as private-sector tenants who are no longer able to afford market rents (Johnson, 2013, 2017).

Stock typology meets neither household needs nor preferences

- There has been a systematic shift to building higher cost, larger homes. This trend has reduced both affordability and choice.
- Household size is declining largely due to the ageing population yet there continues to be a shortage of suitable smaller sized homes.
- There is some evidence of a growth in multigenerational households (Lysnar and Dupuis, 2015). Such households have specific housing needs and preferences that are not catered for by the market (Saville-Smith et al., 2009; Allen and O'Donnell, 2020).

Impacts of poor house condition and performance

Impacts include both private costs, on individuals and households, in terms of health and wellbeing, and also public fiscal costs in health, welfare and justice.

- There are continuing problems of poor house condition.
- National house condition surveying shows that rental properties are in a poorer state of repair than owner-occupied housing. Within the owner-occupied group, owner-occupiers reporting that they did not have enough money for everyday needs were also more likely to report that their house or flat needed major repairs or maintenance (White et al., 2019). This study suggests that the social and economic costs of poor housing fall disproportionately on renters and low-income owner-occupiers.

- The impacts of poor house condition and performance are clearly established for younger age cohorts. These impacts will affect their health and wellbeing long-term. Impacts include sub-optimal indoor temperatures associated with poorer reported general child health and increased anxiety and depression symptoms for children (Morton et al., 2020).
- Poorer housing conditions and renting are related to poorer mental health, lower quality of life, and greater likelihood of falls among older people, according to a longitudinal study. This study also showed that problem housing is more prevalent in the younger group (65-74 years) of seniors. These data show the importance of housing to wellbeing in older age (Stephens et al., 2021).
- Some areas and ethnic groups are more exposed to inadequate housing than others. Dwellings inhabited by Māori households in Te Tai Tokerau are in much poorer conditions than for New Zealand as a whole, and compared to the East Coast and the Eastern Bay of Plenty, also areas where poor stock condition is over-represented. Overall, 29% of dwellings surveyed in Te Tai Tokerau were in poor and serious condition (Saville-Smith et al., 2019).

Impacts of crowded housing

- Household crowding has increased since 2000 (Amore et al., 2021; Statistics NZ, 2018).
- Pacific and Māori households are most affected.
- There is evidence that living in a severely crowded dwelling has a large net fiscal cost (Nana et al., 2019) and at a personal level, negatively impacts on life satisfaction and material wellbeing (Statistics NZ, 2018).
- Sharing housing is commonly used by young Māori mothers as a way of dealing with unaffordable housing. However, along with poor condition housing, crowded households constrain their ability to parent autonomously (Adcock et al., 2021).

Rising homelessness

- There has been a rise in homelessness, including among older age groups (though from a low base), and households with children (Amore, 2019; Amore et al., 2021; Harris, 2015).
- 2.2% of the population was identified as severely housing deprived in 2018 Census. The increase since the previous census is largely due to more people sharing overcrowded accommodation (Amore et al., 2021).
- Analysis of successive censuses since 2001 show increasing homelessness, the diversity of homeless situations, and the association of severe housing deprivation with factors such as non-European ethnicity, being under age 25, being a new migrant, high residential mobility, being unemployed, being out of the labour force, having an unskilled job, and having a low level of education (Amore, 2019; Amore et al., 2021).
- About one-third of all severely housing deprived adults were employed, but did not have the resources to access minimally adequate housing (Amore, 2019).

Increasing pressure on housing-related government financial assistance

- There have been substantial increases in Government expenditure on the Accommodation Supplement (AS) over the last twenty-five years. This has not addressed housing unaffordability. Most AS households are renters in the private rental market. Both high and low-income households receive the AS, indicating the extent of housing unaffordability, which does not only impact on low-moderate income households. Government expenditure in 2019 of \$1.7 billion had

relatively small overall impacts on the numbers of households in affordability stress. A further \$3.7 billion would be required over the AS expenditure in 2019 for households to be able to reduce housing costs to 30% of their household incomes (a measure of affordability). AS costs will grow as the supply of housing affordable to low income and modest income households continues to decline relative to need (Figenshow and Saville-Smith, 2020; Saville-Smith and Mitchell, 2020).

Increasing financialisation of housing

- Nearly all rental purchases in Auckland from 2002 through 2016 were speculative to some extent with the vast majority being negatively geared and operating at a loss. Speculative investment and financialisation of housing are contributing to increases in unaffordable rentals. Over 40% of renting households in Auckland are paying more than the usually accepted measure of affordable housing cost (Rehm and Yang, 2020).
- The concentration of private rental stock in property investor hands increased significantly between 1986-2018, by 191%, outstripping the overall increase in stock. Stock units in state housing, council housing and other landlords fell over the same period (Saville-Smith, 2021).

Renting experiences in later life and precarity faced by older tenants

- There is some evidence that the majority of people renting in later life are not life-time renters, but have owned home in the past. They have left owner-occupation due to force of circumstances, rather than choice (James et al., 2021; Witten et al., 2017).
- Older renters are more likely to live in poorer health and, overall, are more likely to use some health services than owner-occupiers, yet are more likely to have unmet health needs. Public renters are in the poorest physical and mental health. The increasing reliance on renting among older people has implications for population health and wellbeing, health service delivery and transitions to residential care (Pledger et al., 2020, 2019).
- The experiences of current older tenants indicate possible restricted and vulnerable futures for many older people, as homeownership rates decline.

Lack of housing options for an ageing population

- Equity-realisation to enable downsizing and greater housing choice when older is hard to achieve (Saville-Smith and James, 2016; Saville-Smith et al., 2016; James and Saville-Smith, 2018; Saville-Smith, 2019c).
- The current lack of age-friendly housing options can result in displacement of seniors from communities in which they have lived long-term (Bates et al., 2019).
- The supply of smaller dwellings is inadequate, given trends to smaller households and population ageing (Saville-Smith, 2019). Older people living alone struggle to find affordable housing (Bates et al., 2019).
- Housing features preferred by seniors include: space to carry out desired activities; easy maintenance of home and section; accessibility to the property and the dwelling; warmth; access to services; safety and affordability. Size is important for ensuring a manageable home and property (James, 2020).
- Land and other costs are critical considerations in the ability to increase options for age-friendly housing, particular for affordable housing developed by not-for-profit housing providers (Saville-Smith, 2019a, 2019b).

- Housing options of an ageing population need to also consider access to services and facilities, as well as neighbourhood design (Bates et al., 2019; Ho et al., 2018; Saville-Smith, 2020; Stephens et al., 2021).

Lack of housing options based on Māori cultural principles and values

- Berghan (2020, 2021) looks at applying Mātauranga Māori principles to urban housing projects, including the potential to develop Māori housing using cohousing ideas.
- Emery and McLean (eds) (2019) found that ageing rural housing inhabited by Māori is in poor condition and not designed to meet household and cultural needs.
- Boulton et al. (2020, 2021) examine comparative views of home with reference to those living in and around their traditional rural homelands, and those urban Māori who no longer reside in or near their traditional whenua. Different perspectives on home across generations is also examined. These references explore how comparative views of 'home' relate to concepts such as identity, whakapapa and hauora. Cram (2020) explores what makes a house a home for whānau Māori and how housing supports Whānau Ora (Māori collective wellbeing).
- The specific housing needs and preferences of pakeke and kaumātua are focused on in Cram (2016), Cram and Munro (2020) and Millar (2014).
- Palmer (2016) investigates conditions and restrictions on Māori from building sustainable and affordable housing in urban and rural areas, and investigates ways to overcome these.

Lack of housing options based on Pacific cultural principles and values

- Multi-generational Pacific households are often a choice due to demographic, social and financial pressures, and ill-catered for by current housing stock (Tanielu, 2019).
- Macpherson (1997) provides an example of an innovative solution to the space deficiencies of available housing stock for Pacific families in South Auckland.
- Private rental accommodation for Pacific multigenerational families is becoming increasingly prohibitive and the types of dwellings available are quite unsuitable given Pacific cultural values and principles (Salesa, 1918).

Lack of housing options for disabled people

- There is almost no universally-designed housing for the ageing population and for disabled people (Bates et al., 2020; Brown et al., 2021; James, 2020; McIntosh and Leah, 2017).
- Disabled people are more likely to live in rentals and in dwellings in poorer condition (Brown et al., 2021; Clarke et al., 2021).
- Findings show that disabled people face exclusion from the housing market, and struggle to exert agency in decisions about housing and who they live with (Brown et al., 2021).
- Two literature reviews related to dementia, ageing in place and housing design were identified (James and Saville-Smith, 2019; James 2019). Although most people with dementia are living in private housing, not in residential care, most research focused on design solutions in residential care facilities. There is a lack of research assessing the applicability, transferability and efficacy of those design features to private housing, even though home design can play a vital role in supporting the provision of care and enabling people with dementia to stay in their homes and communities, access the services they need, and facilitate whānau/family support. James (2019) includes literature on Māori and indigenous building design principles, the housing needs and

preferences of kaumātua and indigenous elders, and literature about living with dementia, in particular references giving insights into Māori and indigenous housing needs and issues.

7.2 Divergence and consistency in the research

One of the tasks specified in the Terms of Reference for the rapid review was to “identify the extent of agreement and disagreement around findings in the core literature”. We found little evidence of dispute about key trends, themes and issues in the literature we reviewed.

What is striking about the reviewed research is decades of consistency in identification of the nature and scope of housing problems facing the country. Indeed, many of these problems were identified by the National Housing Commission in 1988.¹⁴ In a similar vein, recognition of the implications of an ageing population for housing and urban development also dates back to the 1980s. A major difference between the debates about housing and population change in the 1980s and the current debates is the emphasis since the early 2000s on issues of affordability and tenure in the case of housing, and recognition of diverse trajectories for ageing within and between the major ethnic groups in the case of current and projected population change.

One significant continuity since the 1980s has been the tendency for there to be little direct connection between literatures on housing and population ageing. Few researchers have undertaken detailed research on the implications of the variable trajectories of structural and numerical ageing for a housing typology that might satisfy diverse expectations and needs within a multicultural population.

Amongst the core references, there are some significant differences in the nature of the themes researchers chose to explore and the issues they raised about aspects of housing and population ageing. However, there were few examples of significant differences in views about specific themes and issues. This was especially the case in the core literature where there are consistent findings on the three areas of interest for the LTIB: dwelling type/performance; housing stock/positioning; housing affordability/tenure.

There are some distinctive areas of focus in recent research but these, in themselves, have not been sources of great contestation between authors of the references we reviewed. If anything, several of these areas have gained quite considerable momentum in research addressing aspects of population change and housing provision in recent years. Examples of such areas of focus include:

- The increasing incidence of housing deprivation and homelessness, especially among Māori and Pacific peoples, but also involving members of all the sub-populations of interest for the LTIB.
- The search for culturally relevant constructs of ‘home’ to inform planning for a wider range of options for adequate housing in an increasingly diverse population.
- The emergence of a new norm for population change in many sub-national contexts – stagnation or slow decline in numbers, rather than on-going, sustained growth – and the implications of this for structural and numerical ageing.

¹⁴ National Housing Commission (1988) *Housing in New Zealand: Provision and Policy at the Crossroads*. Wellington: Government Printer.

- Recognition that adequate housing is a universal human right, not simply a commodity or something that has to be ‘earned’.
- Methodological advances in the way that estimates of gains to the population through international migration are produced, and increasing recognition that the impact of recent international migration on both population growth and the housing market, have been exaggerated.
- The extensive New Zealand evidence base on the role of housing as a key determinant of health and well-being, built up in the 2000s, which clearly shows the potential long-term impacts of dwelling performance, condition and affordability on life chances, individual and family well-being and future housing security.
- Consensus between housing researchers and economists that access to quality affordable housing integrating universal design standards contributes to a healthier, happier and more engaged population and results in considerable cost savings across domains of health, justice and social welfare.

There are areas of debate about the extent to which international migration will influence future population growth in New Zealand, and the impact migration will have on population ageing (see Jackson, 2017 and Spoonley, 2020 in the supplementary references for somewhat different perspectives in this regard). There are also areas of debate around the extent to which a high level of homeownership is an enduring feature of the older population, as suggested by Van Rensburg (2021) in his background paper for the Treasury’s Long-Term Fiscal Strategy. The considerable demographic analysis by Jackson, and earlier work by Morrison (2008) and Mitchell (2015a, 2015b) have clearly established the nature of structural tenure change and its impacts on all age groups, including the decline in homeownership among the older population. The profiles of homeownership by age amongst the various sub-populations of interest to the LTIB have changed considerably over the past two decades and are likely to continue to change significantly into the future.

There is no question that on-going structural changes in both the tenure of housing as well as the ageing population will have very significant impacts on New Zealand’s future housing system. But in the literature that we reviewed, these have not emerged as significant areas of debate between authors. This lack of contestation over ideas about the nature and directions of tenure change and population ageing does not signal that critical issues at the intersection of these two dimensions of structural change have been adequately researched. Indeed, one of the key findings of the rapid review is the on-going tendency for issues relating to housing and population change to be treated separately, rather than the intersections between the housing system and ageing to be examined systematically.

8. LOOKING AHEAD

In concluding our rapid review, we comment on the adequacy of the current research landscape for understanding and responding to New Zealand's housing and urban futures in the context of structural ageing. We also provide some observations on the data sources and forecasting techniques used within public statistics relevant for policy advisers, practitioners and stakeholders dealing with population change in the context of future-proofing housing and urban systems.

8.1 Structural ageing and housing

Our analysis of recent published research on population change shows that, although structural ageing is well established, the significance of its implications for future policy, planning and the provision of amenities and services is not well understood. One commentator argues that the population shifts associated with structural ageing are disruptive, and warns that current practices are "... simply no longer appropriate or adequate" (Spoonley, 2020 pp. 8-9). We found in the research we reviewed that there was little acknowledgement of significant heterogeneity in the growth trajectories and associated changes in age structures within and between the major ethnic groups. There are also significant gaps in population projections and estimates that present challenges to addressing the implications of structural ageing for our future housing and urban environment.

The disruption that structural ageing of populations is causing has been anticipated by demographers in New Zealand and elsewhere for at least three decades. From the late 1980s there has been lively debate about the disruption that "disordered cohorts", caused by fluctuations in fertility, short-lived cycles of net in- and out-international migration, and increased longevity, would cause over the following decades.¹⁵ There is nothing new about the issue of demographic disruption caused by structural ageing in the context of New Zealand's contemporary and future populations. What is new about the present literature addressing population change is the absence of references, like some of those in the 1980s and 1990s, that specifically addressed the relationships between structural ageing and housing.¹⁶ The impacts and implications of structural ageing for housing are quite diverse within the population because of the quite different age distributions and dynamics of population change within different sub-populations.

¹⁵ See, for example, the annual reports of the Population Monitoring Group (PMG) of the New Zealand Planning Council in the 1980s (especially PMG (1986) *The New Zealand Population: Change, Composition and Policy Implications*. Wellington: New Zealand Planning Council (pp. 55-57 on housing). This was an issue that was at the forefront of debates within the New Zealand Demographic Society at the time as illustrated by Pool, I. (1988) 'Implications of change in the cohort/age structure of the New Zealand population' (pp.29-40) and Sceats, J. (1988) 'Implications of changes in New Zealand family formation and household structure' (pp. 41-50), in Crothers, C. and Bedford, R.D. (1988) *The Business of Population*. Wellington: New Zealand Demographic Society.

¹⁶ See, for example, Pool, I. (1986) *Population and Social Trends: Implications for Housing*. Wellington: New Zealand Housing Commission, and Statistics New Zealand (1990) *The Human Face of New Zealand. A Context for Population Policy into the Twentyfirst Century*. Wellington: Report of the Inter-departmental Committee on Population Policy Guidelines (see pp. 48-50 on housing).

As we highlighted in section 3, structural ageing is generating major changes in age distributions across population pyramids. While New Zealand's population is expected to increase by around 24% between 2018 and 2043, the number of people aged 65 years and over is expected to increase from 735,000 to 1,373,500, an increase of around 87%. Over the same period, those aged under 15 years are expected to decline slightly from around 946,400 in 2018 to around 935,600 in 2043. While numerically most of the increase in the older population will be in the European/Other ethnic component, proportionally the increases for Pacific, Māori and other ethnic populations are much larger (see Table 3.1).

The housing trajectories, and consequently the housing resources people take into their senior years in the future, will be both very diverse and very different from the past. Changed housing outcomes and increasing housing stress are already apparent across all ethnic and age groups, but especially so for Māori and Pacific peoples and low-income households. In addition, changes in longevity, as well as in disability prevalence, are placing increasing demand for housing typologies that enable rather than present a barrier to optimising independence, self- and in-home care.

On-going structural ageing will contribute to ensuring that all of these pressures and tensions will increase over the next 20 years unless there are some radical changes in the way housing for an increasingly diverse population is addressed. As Salesa (2018 p. 229) commented in his insightful analysis of New Zealand's Pacific futures: "That Māori, Pacific and Asian peoples will form an increasing proportion of the population, especially in New Zealand's largest cities, is obvious: but having known this for two decades, it is less obvious what we have done to make our future happen. Knowing the future will be profoundly different has not led to our working differently".

8.2 Housing as a human right

These changes in population dynamics, and their interface with housing across the country's urban and rural areas, are already raising issues around housing as a fundamental human right. New Zealand's failure to meet basic human rights obligations relating to housing was highlighted by Leilani Farha (2021), following her visit to New Zealand in 2020 as UN Special Rapporteur on adequate housing. In her final report she stated that "the housing crisis confronting New Zealand is a human rights crisis that must be addressed urgently."¹⁷ She noted the disproportionate effects of the housing crisis on marginalised groups and called for policies to "address historic injustices and displacement and the ongoing discrimination against Māori, Pacific peoples and persons with disabilities and be informed by the Treaty of Waitangi, the United Nations Declaration on the Rights of Indigenous Peoples and the Convention on the Rights of Persons with Disabilities."¹⁸

Rosa Kornfeld-Matte, the Independent Expert on the enjoyment of all human rights by older persons, also visited New Zealand in 2020. She too identified unaffordable and inadequate housing as a critical problem, contributing to financial hardship among the older population and disproportionately affecting Māori and Pacific seniors.¹⁹ She remarked that "New Zealand is undergoing unprecedented,

¹⁷ Farha, L. (2021) Visit to New Zealand Report of the Special Rapporteur on adequate housing as a component of the right to an adequate standard of living and on the right to non-discrimination in this context, Human Rights Council Forty-seventh session (p.1) <https://undocs.org/en/A/HRC/47/43/Add.1>

¹⁸ Ibid. (2021 p. 2)

¹⁹ Kornfeld-Matte, R. (2020) Visit to New Zealand Report of the Independent Expert on the enjoyment of all human rights by older persons, Human Rights Council, Forty-fifth Session <https://digitallibrary.un.org/record/3875126?ln=en>

significant age-structural changes. This necessitates a major shift in mindset, requiring increased awareness and acknowledgment of, and commitment to protecting, the rights of all older persons, and measures to address their concerns and prioritize their cause.”²⁰

In 2021 the Human Rights Commission launched their guidelines on the human right to a decent home and an inquiry into the housing crisis in Aotearoa.²¹ This inquiry has been developed in partnership with the National Iwi Chairs Forum and has the support of Community Housing Aotearoa. There is a need for further research into the implications of an ageing population over the next 20-30 years for the demand for decent homes, especially in the light of the changing composition of the population that is experiencing housing deprivation and homelessness.

The Convention on the Rights of Persons with Disabilities requires that people with disabilities have equal access to a safe and healthy home, protection from discrimination in the housing market and access to appropriate modifications and interventions when required.²² New Zealand is not currently meeting these obligations. Farha (2021) estimated that only around 2% of New Zealand housing stock is accessible and that one in six people required modifications to their homes to be able to live safely in them. She noted that people with disabilities faced challenges accessing housing in the private rental market, due to a reluctance of landlords to make alterations, and that, “there has been very little commitment to universal design in government-led housing schemes or in construction standards for residential housing.”²³

The Accessibility Charter, launched by the Ministry of Social Development (MSD) in February 2018, sets an expectation for public services to better meet the accessibility needs of disabled citizens. Statistics NZ signed the Accessibility Charter in April 2018 and in doing so, formalised a commitment to progressively making all public information, products and services accessible under a 5-year resourced plan. A key objective identified in Article 31 of the Convention on the Rights of Persons with Disabilities Aotearoa is that surveys should be barrier-free for disabled people, so they can engage as they choose, with independence, confidence, and dignity (Independent Monitoring Mechanism, 2020).²⁴

Notwithstanding those commentaries, an acknowledgement of housing as a human right is notably absent in most of the research reviewed. Among the exceptions in the core references are: Figenshow and Saville-Smith (2020) who assert existing policy, legislation and practices contravene New Zealand’s commitment to the right to adequate housing; Tuai Harris (2015) who provides an overview of the right to adequate housing and subsequent obligations in relation to homelessness; and Amore (2019) who explores severe housing deprivation in relation to rights, wellbeing, equity and housing provision. Lawson et al. (2019), in the supplementary references, articulate a principles-based framework that recognizes the right to a home with entitlement sourced in several places. There are also two five year research programmes on “Ending homelessness in New Zealand: Housing First” (2016) and “Public housing and urban regeneration: maximizing wellbeing” (2020), both hosted by the

²⁰ Ibid (2020 p. 3)

²¹ <https://www.hrc.co.nz/news/successive-governments-responsible-massive-breaches-right-decent-home/>

²² UN Convention on the Rights of Persons with Disabilities, <http://www.un-documents.net/a61r106.htm>

²³ Farha, (2021 p. 17)

²⁴ Independent Monitoring Mechanism of the Convention on the Rights of Persons with Disabilities [IMM], (2020) *Making disability rights real. Whakatāturu ngā tika hauātanga*. Wellington, IMM.

University of Otago and funded by MBE's Endeavour Fund, that work from the premise that the right to housing is unconditional, not 'earned' by meeting the requirements of particular regulatory regimes or the vagaries of market forces (see Annex 3).

There is almost a complete lack of research about the implications of people ageing with a disability for housing and urban development. There are few studies of the lived experience of disabled people especially in regard to their housing circumstances and aspirations (e.g., Brown et al., 2021). We found only 14 core references addressing the housing needs of people ageing with a disability for the LTIB. Yet disabled people are among those most vulnerable to housing deprivation and exclusion from the housing market.

8.3 Limitations and gaps in the reviewed research

Despite some excellent research in recent years on projected structural changes in sub-national populations in New Zealand, there remains a significant gap in our understanding of housing and urban futures, especially with regard to types of housing needed where, for which groups, and when. There is also a need for research on how future housing and population requirements interface with two significant areas of inquiry relating to:

- issues of equity, inclusion and exclusion, particularly inter-generational relationships and reciprocities
- the relationship between our housing infrastructure and other infrastructural needs, particularly transport networks, energy networks, access to amenities and services and internet connectedness.

There is no shortage of research or commentary on the housing needs of our current older population, and the challenges faced by increasing numbers of older homeowners and renters at a time of rapid increases in rents and house prices as well as in the costs of improving the performance of poor quality housing. There is also no shortage of research on structural and numerical changes in different age groups in the total population as well as in some of the major ethnic groups. But, as the rapid review has shown, there are not a lot of studies that systematically bring together structural changes in the population over the next twenty years, and the implications of those changes for housing and urban development.

Such research is essential for informing future policy and planning directions. Many Councils are confronted with that challenge in relation to reporting on their future housing capacity and demand under NPSUD requirements. Those assessments are challenging Councils to refresh their development strategies, taking into account anticipated structural and numerical changes in their populations over the next 20-30 years. However, these assessments vary quite considerably in detail and analytical sophistication, both with regard to the anticipated changes in the age and ethnic compositions of their populations as well as the implications of these changes for a housing supply that could meet the needs of their future populations.

Overall, the research landscape revealed by the rapid review shows:

- An increase in research on housing deprivation and homelessness including:

- The dynamics of homelessness for Māori driven out of colonisation, marginalisation and exclusion from employment, as well as significant challenges relating to housing and wealth.
- Housing precarity and its impact on populations not generally seen as being exposed to housing insecurity. Research here and overseas notes that the traditional stereotypes of the homeless population as predominantly older, antisocial, addicted, single men, lacking kinship networks and employment are misleading as to the nature of homelessness.²⁵ Overseas and in New Zealand families with children make up the fastest growing group of homeless (Amore, 2019).

There remains a gap in research on the complex and variable patterns of population ageing in different ethnic groups for housing deprivation and homelessness in the future. There is a limited body of research around housing deprivation and premature dependency on the healthcare system. Similarly, the research is light on the extent and composition of 'hidden homelessness' and the impacts of population and other dynamics on that phenomenon.

- Little attention has been given to the under-supply of housing and the links with skill shortages and international migration. Disruption to both labour and material supply chains has been exacerbated by the COVID pandemic. The pandemic has prompted some analysis of these issues but research findings are sparse to date. Global disruption to both the flows of people and goods will continue to be a feature of both housing and population change in the future.²⁶
- There has been little recent research that has addressed directly the important structural differences and associated housing needs within an older population, which is still frequently defined as simply people aged 65 years and over. A more nuanced approach to ageing is required, beginning with the 50-64 year age group. This lower age threshold for the older population is required because these are the ages when many people are planning to retire or change careers, as well as being the ages when disability, health issues and premature death affect Māori and Pacific peoples. These age-related developments all have implications for housing aspirations and needs in later life. Other critical age groups within the older population include those aged 65-74 years when many people are in reasonable health and often still in full-time or part-time employment, those aged 85-94 years when many require a change in housing or need additional support, and the population aged 95 and over who generally are in much greater need of supported living environments or aged residential care. Issues such as living alone, partnering,

²⁵ See, for example, Cronley, C. (2010) Unraveling the Social Construction of Homelessness, *Journal of Human Behavior in the Social Environment*, 20:2, 319-333.

²⁶ A body of research on the impacts of the pandemic on housing affordability, demand, supply, homelessness, dwelling functionality, the rental sector and housing policy is developing internationally. One example is the Australian Housing and Urban Research Institute's (AHURI) extensive research programme of 9 research themes. Another is the research undertaken by the Housing Europe Observatory, including the publication *State of Housing in Europe, 2021* and the work of the UK Centre for Collaborative Housing Evidence on housing policies and the pandemic. Given that future pandemics are inevitable, analysis of the vital role of housing in keeping people safe should be an essential component of the evidence base for the LTIB's 3 areas of interest. It is especially critical to understand how current inequities in the housing system affecting the LTIB's sub-populations may be further entrenched through the risks posed by future pandemics. See <https://www.ahuri.edu.au/covid-19>; <https://housingevidence.ac.uk/our-work/research-projects/housing-policies-and-the-covid-19-pandemic/>; <https://ec.europa.eu/research-and-innovation/en/horizon-magazine/qa-future-pandemics-are-inevitable-we-can-reduce-risk>

extended family support, multi-family households, and how those ‘play out’ differentially for women and men as well as different household compositions and cultural attachments, all become relevant to understanding housing needs in the context of population ageing. Research in New Zealand is currently limited although examples are in relation to renting are James et al. (2020, 2021).²⁷ In her final report to the UN, Rosa Kornfeld-Matte asserts that: “with ongoing changes of tenure patterns, the number of older persons facing material and economic hardship and poverty will increase and many of them will live in rented housing.”²⁸ She suggests reinvestment in affordable housing and provision of a range of housing choices and options are crucial to meet the needs of older persons and ensure they can live well in their communities.²⁹

- There is a lack of research on the implications of housing for young adults and how this impacts life choices and future opportunities. There is a body of research that addresses the impacts of housing for children, but there is little research exploring housing aspirations, challenges, tenure insecurity and its impacts for young adults (some exceptions being, Adcock et al., 2021; Amore, 2019; Clark et al., 2021; Curtis et al., 2020; James, 2020; Johnson et al. 2018). It is important to recognise that young people’s access to housing will define their life chances across their life trajectory and will define the housing conditions extant across the whole population as the population ages. The issue of structural ageing and housing is not, consequently, about seniors’ housing, it is also about young people’s access to stable and affordable housing. Given the youthful structures of the Māori and Pacific populations, and the increasing share of the young adult population that will identify as Māori and Pacific over the coming decades, it is important that research into their housing needs and preferences is informed by Māori and Pacific epistemologies.
- There is an emerging but still sparse research platform of research providing a Mātauranga Māori understanding and analysis of housing, housing markets and housing economics (Menziez et al., 2019).³⁰ There is some literature on the meaning of ‘home’ for Māori (e.g., Boulton et al., 2020; Cram in Saville-Smith (ed.), 2019; Cram, 2020; Emery and McLean (eds), 2019), Māori housing needs and experiences (e.g., Adcock et al., 2021; Cram and Munro, 2020; James et al., 2021; Whitehead and Walker, 2021), and the challenges of building on multiple-owned Māori land (Rout

²⁷ A common but erroneous assumption that older people have ready access to appropriate housing tends to camouflage real needs and can devalue many older people’s right to dignity as far as their housing futures are concerned. The impacts of renting on financial security and wellbeing in later life are well documented in a considerable body of research in Australia, the United States, Britain and Europe. For example, Colic-Peisker, V., Ong, R. & Wood, G. (2015) Asset poverty, precarious housing and ontological security in older age: An Australian case study, *International Journal of Housing Policy*, 15:167–186; Connolly, S. (2012) Housing tenure and older people, *Reviews in Clinical Gerontology*, 22:286–292; Herbers, D. & Mulder, C. (2017) Housing and subjective well-being of older adults in Europe, *Journal of Housing and the Built Environment*, 32:533–558; Izuhara, M. & Heywood, F. (2003) A life-time of inequality: A structural analysis of housing careers and issues facing older private tenants, *Ageing and Society*, 23:207–224.

²⁸ Kornfeld-Matte (2020 p. 17)

²⁹ Ibid.

³⁰ See also *Families and Whānau Status Report 2018*, which includes analysis of Te Kupenga dataset that provides information on whānau wellbeing. <https://thehub.swa.govt.nz/resources/families-and-whanau-status-report-2018/>

et al., 2019). These themes have a long history of research dating back to the 1980s but have typically not had sustained investment of research funding.³¹

- There are few recent studies addressing the housing needs of Pacific peoples that are informed by understanding of their cultural preferences, despite some innovative research in this regard in the 1990s and early 2000s.³² Evident in this literature is the importance of home as a place for enacting communal values and obligations (Gray and McIntosh, 2011; Pene et al., 2009). Saville-Smith et al. (2009) note a strong desire for and sense of pride in homeownership and owner occupation. Macpherson (1997) emphasises that the housing needs of Pacific families require careful consideration of family structures, obligations and cultural expectations.
- Persistent inadequacies of housing supply, lack of tenure security and homelessness have implications for the future wellbeing of both Māori and Pacific peoples given their very youthful age structures and increasing vulnerability within the housing market. There is an urgent need for research that examines the housing needs of Māori and Pacific peoples over the next 20 to 30 years that takes into account variations in cultural expectations and economic opportunities within these increasingly diverse populations. There remains a tendency to regard populations classified by ethnic labels as being relatively homogeneous when groupings of ethnicities such as 'Pacific', 'Asian', 'European', and 'MELAA' (Middle East, Latin America, Africa) comprise very diverse populations, often with quite different preferences and expectations for housing.
- There is a small but growing number of studies that provide insights into the ageing of Asian ethnic populations and which highlight their housing circumstances. People of Asian ethnicities have a different demography compared to other ethnic groups. For example, whereas Māori are essentially all NZ-born and Pacific are more than two-thirds NZ born, the Asian groups include many overseas born, as well as NZ-born. Their housing trajectories, circumstances, needs and cultural understandings of 'home' are also different. For example, Ho et al. (2018, 2020) consider changing mores of filial piety and tensions between intergenerational living and Chinese elders' desire for living independently. Findings suggest increasing demand from older new settlers for rental housing (Ho et al., 2021) and a preference for public housing (Li, 2011). However, cultural stereotypes around ethnic communities and extended family networks can result in difficulty for older Chinese migrants attempting to access public housing, due to assumptions about filial piety and the obligations this places on their children (Li, 2011).
- There is considerable diversity within the population of Asian ethnicities and it is very important not to generalise about their housing needs and preferences. In addition to migrants from countries in Asia who have chosen to make New Zealand one of their homes, there are also communities of refugees and their descendants from several countries in South and Southeast Asia including Afghanistan, Sri Lanka, Cambodia and Vietnam. Peoples coming from refugee and displaced persons backgrounds (e.g. Rohingya, Afghans, Khmer, Lhotshampa etc) and their dependents are often under-resourced and do not meet the residence criteria for public

³¹ For example, Douglas, E. (1986) *Fading Expectations: the crisis in Māori Housing* A report for the Board of Māori Affairs. Wellington: Department of Māori Affairs; and Māori Women's Housing Research Project (1991) *"... for the sake of decent shelter ..."* Wellington: Housing Corporation of New Zealand.

³² See, for example, Macpherson (1997) in the core references, and Pene et al. (2009) in the supplementary references.

assistance (e.g. superannuation). Refugee families often struggle to obtain adequate housing and older people find themselves being passed around families. Aged care facilities, when able to be accessed, are often unsuitable and homelessness amongst these communities is increasing.

8.4 Official datasets and forecasts

How do official statistics help us to understand the nexus between population ageing and housing? In this section we summarise some of the major sources of statistical information on numerical and structural changes in the population that will assist the LTIB address the implications of structural ageing for housing and urban development over the next 20-30 years.

Official sources of population data

Measuring the volume and location of housing resources that are needed to meet policy outcomes requires at least three pieces of information: housing supply and characteristics, population size and characteristics, and changing patterns of population distribution. These three dimensions are interdependent, but the primary assessment of how many people need to be accommodated, where and with what constraints, provides the basis for the measurement of housing shortfalls or surpluses.

The available official sources of population information include:

- current estimates of population and dwellings
- projections of resident populations
- projections of families and households.

These provide the supporting evidence for the analysis of ageing and other key features of change among the sub-populations of interest identified in the LTIB.³³

Resident population estimates and population projections are the primary official source for the current and future size and age/sex structure of the population and of selected sub-populations at both national and sub-national scales.³⁴ These are based on census counts and include adjustments for census under- and over-coverage, births, deaths, migration and (where appropriate) ethnic mobility. These adjustments account for changes in the population as people are born, die, move into and out of an area or the country, and change their ethnic identifications. Population estimates and projections are available by single year of age and sex, at a range of geographic scales. These enable the identification the size of, and changes in, the populations subject to housing requirements by all groups of interest to the LTIB except for people living with disabilities. A significant but insurmountable constraint on all estimates and projections is that they are not generally directly amenable to detailed

³³ The Stats NZ estimates and projections are methodologically consistent and should, in general, be considered more robust than other, often aspirational, estimates. Nonetheless attention needs to be paid to what was known about the accuracy of these estimates and projections. See Stats NZ (2016) How accurate are population estimates and projections <https://www.stats.govt.nz/methods/how-accurate-are-population-estimates-and-projections>

³⁴ An emerging topic relevant to population futures is the shift to gender rather than sex as the primary dimension of identity. While Census 2023 will be the first census to overtly collect gender as well as sex at birth, some information is available in surveys such as the Household Economic Survey (HES) for the year ended 2020. Gender diversity and equity are likely to become more important in assessing housing outcomes.

multivariate forecasting. They exist as counts by age and sex, often with a sub-national component, and in some cases with an ethnic dimension.

In general resident population estimates and projections are released quarterly. However, it should be noted that ethnic estimates are only produced at 5-yearly intervals following a census, with projections being derived from the most recent base (census year) estimate and intervening known changes to the populations

The Census of Population and Dwellings remains the primary source of information on detailed socio-economic and demographic characteristics of the population in each relevant census year, and may be supplemented by information from other household surveys and administrative data sources (in IDI for example). The New Zealand Linked Census, currently covering 1981 to 2018, is an important source for detailed longitudinal analysis of historical change and trends.³⁵

Life tables are an important resource for understanding potential future longevity based on current understanding of mortality trends. Complete life tables are typically derived every five years for a three-year period centred on a census year for the total New Zealand, Māori, non-Māori, and Pacific male and female populations. These are generally derived at a national level as well as by Regional Council areas and NZDep areas.³⁶ Abridged life tables provide an annual indication of trends in life expectancy and the mortality and survival experience at selected ages, until the complete period life tables are available.³⁷ They are for the total New Zealand male and female populations by age group.

Cohort life tables track the mortality experience of the cohort of people born in a particular year.³⁸ These are released annually and are available for birth cohorts from 1876 onwards. The next release is a scheduled for March 2022.

Actual mortality based on registered deaths, especially for any forecasts for the proximate 5 to 10 years, is of paramount importance when looking at sub-populations because these data inform when people are actually dying. Death information by age, sex, ethnicity and location are available on the StatsNZ website, under the 'population' tab in Infoshare. These data are useful for considering aspects such as the modal age at death for the sub-populations of interest to the LTIB and for providing evidence for assessing expected housing and other accommodation needs over time.

In addition to the population component, there also are quarterly dwelling and household estimates, providing a quarterly series of the number of private dwellings by tenure and households. Tenure is based on much more detailed census data, aggregated as owner occupied, rented, provided free. There are no forecasts or projections of dwelling numbers.

³⁵ Stats NZ (2021) Population statistics user guide. <https://www.stats.govt.nz/methods/population-statistics-user-guide>

³⁶ Stats NZ (2016) Period Life tables: Detailed tables <https://www.stats.govt.nz/information-releases/period-life-tables-detailed-tables>

³⁷ Stats NZ (2021) Births and deaths: Year ended December 2020 (including abridged period life table) <https://www.stats.govt.nz/information-releases/births-and-deaths-year-ended-december-2020-including-abridged-period-life-table>

³⁸ Stats NZ (2021) New Zealand Cohort Life Tables: March 2021 Update <https://www.stats.govt.nz/information-releases/new-zealand-cohort-life-tables-march-2021-update>

Building consents for new homes are released monthly, with a delay of approximately 3 months, with regional and dwelling type data included. For example, the consents data for the year ended November 2021 was released 13 January, 2022.³⁹ It should be noted that consents do not necessarily result in additions to housing stock because of demolitions or consents that are not carried through to completion.

At 31 December, 2021, there were estimated to be 1,983,000 private dwellings and 1,908,700 households in New Zealand.⁴⁰ Within the context of population change, dwelling estimates and housing issues sit the latest Family and Household Projections released on 15 December 2021.⁴¹ These present expected changes in the composition of households over the coming quarter century, along with changes in the types and distributions of families within these households. These projections contribute to analysis of older people and of children by family type (among the sub-populations of interest), however do not currently include ethnicity variables. Stats NZ have flagged household and family projections by ethnicity as a future development, ideally at both national and regional levels.

Māori sub-population

Sources of information on Māori include census, estimates and projections of people of (1) Māori ethnicity and (2) people Māori ancestry/descent. There are also census data on iwi although problems with the enumeration of the Māori population in 2018 meant that there were significant delays in the release of iwi-specific data.⁴²

Changes in census methods in 2018, and recognition of similar limitations in 2013 Census data, led to a revision of Māori estimates and projections across the 2006-2018 period. Revisions to 2006 were constrained by data availability. A full discussion of these issues can be found in Stats NZ (2020) which is essential reading for users of Māori estimates and projections.⁴³ The key set of projections for people of Māori ethnicity is Stats NZ (2021).⁴⁴

The most recent source of sub-national Māori population projections currently available is Stats NZ (2017).⁴⁵ These will be replaced by the 2018-base projections due for publication 29 March 2022. They should be used with caution because they are based on 2013 data and it is known that the accuracy

³⁹ Stats NZ (2022) Building Consents Issued: November 2021. <https://www.stats.govt.nz/information-releases/building-consents-issued-november-2021>

⁴⁰ Stats NZ (2022) Dwelling and Household Estimates: December 2021 quarter. <https://www.stats.govt.nz/information-releases/dwelling-and-household-estimates-december-2021-quarter>

⁴¹ Stats NZ (2021) Family and household projections: 2018(base)-2043. <https://www.stats.govt.nz/information-releases/family-and-household-projections-2018base-2043>

⁴² External Data Quality Panel (2020). Final report of the 2018 Census External Data Quality Panel. Retrieved from: <https://www.stats.govt.nz/news/final-report-from-2018-census-external-data-quality-panel-now-available>

⁴³ Stats NZ (2020) Maori ethnic group population estimates 2006-2018: methods and results. <https://www.stats.govt.nz/methods/maori-ethnic-group-population-estimates-200618-methods-and-results>

⁴⁴ Stats NZ (2021) Maori population estimates as at 30 June 2021. <https://www.stats.govt.nz/information-releases/maori-population-estimates-at-30-june-2021>

⁴⁵ Stats NZ (2017) Subnational ethnic population projections: 2013(base)-2038. <https://www.stats.govt.nz/information-releases/subnational-ethnic-population-projections-2013base2038-update>

of projections deteriorates with distance from the base. Similar quality considerations apply here as for the national Māori projections, noted above (Stats NZ, 2020).⁴⁶

Pacific sub-population

Because of constraints imposed by population size and information gaps, ethnic projections rarely extend below broad groupings of ethnicities, although people of Māori ethnicity and Samoan ethnicity, and those with ethnicities within grouped Indian ethnicities and grouped Chinese ethnicities are available in the official resident population projections. The limitation is that projecting diversity within groupings, to contrast Tongan and Niuean for example, or with identification with ethnicities in more than one grouping (people who are both Māori and one/or more European ethnicities for example) is not readily possible. Similarly, people with multiple membership to populations of interest (for example people who are Pacific and Seniors and Ageing with a disability) may have unknown effects on the apparent outcomes of each group. This limits the ability to identify causal relationships when the observations of interest are associated with more than one category, each of which may contribute differently to observed outcomes.

Seniors sub-population

Populations of seniors are directly available by either single year of age or five-year age groups. While the population defined as 'seniors' may vary in terms of the youngest age group (for example 55 years and over or 75 years and over), the major limitation is in the oldest ages. Generally, data for the oldest ages are available only as a grouped age-group, such as 90 years and over or 95 years and over, and data for these ages are less robust than for younger, larger, cohorts.

For some populations such as Māori and Pacific, the very small number of people surviving into the oldest ages means that data, and more especially any derived rates, for older ages should be treated with caution.

Youthful sub-population

The youthful population, defined here as people under the age of 25 years, comprises people who will be growing up in families requiring housing. From the point of view of housing futures, however, they are a population soon to be entering the work force and forming their own families with additional housing expectations. As has already been noted, the size of the total population aged under 15 years is expected to slightly decline over the 2018-2043 period as fertility rates fall. This is especially apparent for people of European ethnicities. In the case of the Māori and Pacific populations, the numbers under 15 years will continue increasing but they will comprise a smaller share of the totals in these populations in 2043 than they were in 2018. As we have already noted in Section 3, a key characteristic of the youthful population is its high degree of diversity and ongoing diversification. These cohorts are expected to carry this diversity with them into the future older age groups. This will result in changes in their housing requirements as they age.

⁴⁶ Stats NZ (2020) Maori ethnic group population estimates 2006-2018: methods and results. <https://www.stats.govt.nz/methods/maori-ethnic-group-population-estimates-200618-methods-and-results>

People with a disability

There will be a Disability Survey in 2023. Planned content outlined in the consultation document includes questions on housing and household help. Housing suitability and access to amenities information is collected only for people in private households, not from those in residential facilities. Information on children with disabilities is collected by proxy from the child's guardian or principal carer.

With the exception of Saville-Smith et al. (2007), New Zealand research on this topic, as with international literature, rarely addresses the impact on housing needs and housing futures beyond passing references to potential needs for warden-supported housing or purpose-built retirement communities (NZIER, 2004).⁴⁷ Even two recent studies⁴⁸ did not include housing, although they identified correctly that disabled people were prone to be multiply disadvantaged. They did not extend this to the recognition that people in this situation require specialised spaces beyond other cultural or environmental needs.

A key health issue for older people is the onset of dementia. The Global Burden of Disease also identified two other key relevant risk factors affecting the housing requirements for people ageing with disabilities. Mental health is a major factor in years of life lost for people with disability.⁴⁹ People living with stroke injuries may require significant modifications to housing facilities.⁵⁰ Like those with physical and sensory disabilities, the large majority of people ageing with these conditions will live in private dwellings, not in residential care. Therefore, their homes will need to be designed appropriately.

8.5 Final comments

This rapid review shows that many of the persistent housing problems facing New Zealand have been consistently identified for at least three decades. Similarly, recognition of the implications of an ageing population for housing and urban development also dates back to the 1980s. We have seen a shift in emphasis in some research areas in the last two decades, such as an increasing focus on issues of affordability and tenure in the case of housing, and recognition of diverse ageing trajectories within and between the major ethnic groups. But one enduring tendency has been the separation between literatures on housing and population ageing. There are few studies of the implications of the variable

⁴⁷ NZIER.(2004) *Ageing New Zealand and Health and Disability Services: Demand Projections and Workforce Implications, 2001–2021. A discussion document.* Wellington: Ministry of Health
https://nzier.org.nz/static/media/filer_public/d6/03/d603e49f-f168-462f-8b1c-145d973f80f0/ageing_nz.pdf

⁴⁸ Gray, L., MacDonald, C., Becker, J. and Johnston, D. (2022) A qualitative study of emergency management considerations for big-bodied people in Aotearoa New Zealand. *International Journal of Disaster Risk Reduction*, 67, 102646 <https://doi.org/10.1016/j.ijdr.2021.102646>; Bourke, J., Nichols-Dunsmuir, A., Begg A. and Dong, H. (2022). Understanding the longer-term health, wellbeing, and sense of community for disabled people following the 2010-2011 Canterbury earthquakes: a repeated cross-sectional study. *International Journal of Disaster Risk Reduction*, 67, 102649 <https://doi.org/10.1016/j.ijdr.2021.102649>

⁴⁹ GBD (2022) Global, regional, and national burden of 12 mental disorders in 204 countries and territories, 1990-2019: a systematic analysis for the Global Burden of Disease Study 2019. *Lancet Psychiatry* 9, e137-150)

⁵⁰ GBD (2019) Global, regional and national burden of stroke, 1990-2016: a systematic analysis for the Global Burden of Disease Study 2016. *Lancet Neural* 18: 439-458)

trajectories of structural and numerical ageing for a housing system that might satisfy a diversity of expectations and needs within a multicultural population.

There is no question that on-going structural changes in both the tenure of housing as well as the ageing population will have very significant impacts on New Zealand's future housing system. But in the literature that we reviewed, these have not emerged as significant areas of debate between authors. This lack of contestation over ideas about the nature and directions of tenure change and population ageing does not signal that critical issues at the intersection of these two dimensions of structural change have been adequately researched. Indeed, as we have stressed several times, one of the key findings of the rapid review is the on-going tendency for issues relating to housing and population change to be treated separately, rather than the intersections between housing and ageing to be examined systematically.

There are very few studies that address directly the LTIB's key question: what are the implications of an ageing population for our housing and urban development over the next 20-30 years? The review revealed that there have been several innovative developments in the research landscape in recent years, including greater concern for culturally relevant assessment of housing needs and priorities, greater recognition of adequate housing as a universal human right and, at an operational level, a specific requirement for the TAs with jurisdiction over larger urban areas to undertake analysis of future housing demand in the context of an ageing multicultural population. The LTIB provides an opportunity to give New Zealand's future for housing an ageing population some direction and shape, starting from the premise that this future will be profoundly different from our present situation.

ANNEX 1: Core References

Publication reference	Summary	Area of	Area of	Area of	Homelessness	Māori	Pacific	Seniors (50+)	Young people/	Ageing with disability
<p>Adcock, A., Cram, F. and Lawton, B. (2021) "It feels real good having my own space" – Young Māori mothers in the E Hine Study talk about housing. <i>New Zealand Population Review</i>, 47, 171–197. Special Edition: <i>Housing at the heart of place, people and population</i>. https://www.researchgate.net/publication/354765850_It_feels_real_good_having_my_own_space_-_Young_Maori_mothers_in_the_E_Hine_study_talk_about_housing</p>	<p>Explores the housing circumstances, experiences, and aspirations of young, Māori mothers. Māori disproportionately affected by the housing crisis - reliance on private rental. Kinship/friendship networks and doubling up common methods of dealing with unaffordable housing. Limited housing options contribute to material deprivation. Poor quality housing and intergenerational living constrain women's ability to parent autonomously.</p>	✓	✓	✓		✓			✓	
<p>Allen, J. (2019) <i>The wellbeing and vulnerability of older New Zealand adults in retirement: a background paper</i>, Prepared for the Commission for Financial Capability's 2019 Review of Retirement Income Policy. https://cfc-assets-prod.s3.amazonaws.com/public/Uploads/Retirement-Income-Policy-Review/2019-RRIP/Research-docs/The-big-picture/Massey-University-Research-Wellbeing-and-Vulnerability-of-NZers-in-Retirement.pdf</p>	<p>Presents results of a longitudinal study tracking experiences of material wellbeing of older adults aged 55-76. There is diversity in the levels and rate of change in material wellbeing as individuals approach and pass age 65. A small group arrive at age 65 in material hardship and continue to experience material hardship as they enter their 70's. Trajectories of material wellbeing in later life are predicted by homeownership and employment. Experiences of hardship occur across multiple domains of wellbeing.</p>			✓		✓	✓			✓

Publication reference	Summary	Area of	Area of	Area of	Homelessness	Māori	Pacific	Seniors (50+)	Young people/	Ageing with disability
<p>Allen, N. and O'Donnell, G. (2020). <i>Creating improved housing outcomes: Liveable medium-density housing residents' survey</i>. BRANZ Study Report SR434. Judgeford, New Zealand: BRANZ Ltd. https://d39d3mj7qio96p.cloudfront.net/media/documents/SR434_Liveable_MDH_residents_survey.pdf</p>	<p>Findings of a nationwide survey of 500 medium density housing (MDH) residents. The location of a dwelling within a neighbourhood is as important as dwelling liveability. Pākeha more likely to be satisfied with MDH than Māori, Asian or Pacific. Owner occupiers more likely to rate MDH as liveable as a stand-alone house. Renters more likely to report issues with build quality, storage, and room size. MDH ranked more suitable by younger and older residents - less so by those of child-rearing age. Natural light and thermal comfort are important. Affordability is a key component of liveability. Issues: proximity to neighbours; privacy; noise; size.</p>	✓	✓	✓		✓	✓	✓	✓	
<p>Amore K. (2016). <i>Severe housing deprivation in Aotearoa/New Zealand: 2001-2013</i>. He Kainga Oranga/Housing & Health Research Programme, University of Otago, Wellington.</p>	<p>Presents statistics about the severely housing deprived population in New Zealand for 2001, 2006, and 2013. The severely housing deprived or 'homeless' population has grown in size and scale over the last three censuses, at an accelerating rate. About 1 per 100 New Zealanders are homeless. Just over half of homeless are under 25. People identifying as Pacific, Māori, or Asian are over-represented in the homeless population. New migrants are at particular risk.</p>	✓		✓	✓	✓			✓	

Publication reference	Summary	Area of	Area of	Area of	Homelessness	Māori	Pacific	Seniors (50+)	Young people/	Ageing with disability
<p>Amore, K. (2019) <i>Everyone Counts: Defining and measuring severe housing deprivation (homelessness)</i>, (Doctoral Dissertation) University of Otago, Dunedin, New Zealand. https://ourarchive.otago.ac.nz/bitstream/handle/10523/9085/AmoreKate2019PhD.pdf?sequence=5&isAllowed=y</p>	<p>Examines existing definitions of homelessness and seeks to develop a more conceptually rigorous approach. Develops a detailed conceptual definition and classification grounded in both human rights and an understanding of homelessness as a form of poverty. Two-thirds of all severely housing deprived people were sharing in severely crowded private houses. More than half younger than 25 years of age. Severe housing deprivation was associated with non-European ethnicity, being a new migrant, high residential mobility, being unemployed, being out of the labour force, having an unskilled job, and having a low level of education. About a third of all severely housing deprived adults were employed but did not have the resources to access minimally adequate housing.</p>	✓	✓	✓	✓	✓	✓	✓	✓	
<p>Amore, K., Viggers, H. and Howden Chapman, P. (2021) <i>Severe housing deprivation in Aotearoa New Zealand, 2018: June 2021 Update</i>, He Kāinga Oranga/Housing and Health Research Programme, Department of Public Health, University of Otago, Wellington. https://www.hud.govt.nz/assets/News-and-Resources/Statistics-and-Research/2018-Severe-housing-deprivation-estimate/Severe-Housing-Deprivation-2018-Estimate-Report.pdf</p>	<p>Presents estimates of the size and selected characteristics of the severely housing deprived (or 'homeless') population on Census night 2018. 2.2% of population identified as severely housing deprived in 2018 Census. Increase largely due to more people sharing overcrowded accommodation. Under 25's, Pacific and Māori most severely affected.</p>	✓		✓	✓	✓			✓	

Publication reference	Summary	Area of	Area of	Area of	Homelessness	Māori	Pacific	Seniors (50+)	Young people/	Ageing with disability
<p>Bates, L., Coleman, T., Wiles, J. and Kearns, R. (2019) Older residents' experiences of islandness, identity and precarity: Ageing on Waiheke Island. <i>Island Studies Journal</i> 14(2), 171-192. https://www.researchgate.net/publication/335210966_Older_residents'_experiences_of_islandness_identity_and_precarity_Ageing_on_Waiheke_Island</p>	<p>Explores older renters' experiences on Waiheke Island to understand how uncertainties related to ageing, housing and community may influence experiences of islandness, especially in relation to community change and housing affordability. Displacement of some residents. Single people living alone struggle to find, afford, and remain living in suitable accommodation. Lack of specialised health facilities challenge to ageing in place.</p>	✓		✓	✓			✓		
<p>Bates, L., Kearns, R., Coleman, T. and Wiles, J. (2020) You can't put your roots down: housing pathways, rental tenure and precarity in older age. <i>Housing studies</i>, 35(8): 1442-1467. https://doi.org/10.1080/02673037.2019.1673323</p>	<p>Examines older people's experiences of renting within a context of homeownership norms. Three pathways related to renting in older age: life-long renting; loss of homeownership through adversity; and deliberate decision to rent. Diverse narratives of precarity in later life. Intersecting uncertainties associated with health, financial and personal circumstances. Lack of choice in housing decisions for some older renters.</p>	✓	✓	✓	✓			✓		
<p>Bates, L., Wiles, J., Kearns, R. and Coleman, T. (2019) Precariously placed: home, housing and wellbeing of older renters. <i>Health and place</i>, 58 art 102152. https://doi.org/10.1016/j.healthplace.2019.102152</p>	<p>Investigates how housing-related precarities impact upon experiences of ageing and home during later life. Familiarity and place attachment to the neighbourhood and landscape can contribute to older people's strategies for managing housing difficulties.</p>	✓		✓	✓			✓		
<p>Bentley, A. (2020) Sticky Rents and The Affordability of Rentals for Housing in New Zealand Ngā Rēti Hāpiapia me te Whaiutu o ngā Whare Noho Rēti i Aotearoa. <i>New Zealand Population Review</i>, 47: 145-170. https://population.org.nz/wp-content/uploads/2021/08/Bentley_Sticky_Rents_Affordability.pdf</p>	<p>Aims to understand rents and rental affordability in a more nuanced manner. It explores the concept of 'sticky rents' and how tenants experience different patterns of affordability and housing stress. Main focus is on how different data sources and affordability measures aid understanding of dynamic rental markets.</p>		✓	✓					✓	

Publication reference	Summary	Area of	Area of	Area of	Homelessness	Māori	Pacific	Seniors (50+)	Young people/	Ageing with disability
<p>Berghan, J. (2020) <i>Ecology of community: Exploring principles of socially-based tenure in urban papakāinga and cohousing communities</i> (Thesis, Doctor of Philosophy). University of Otago. https://ourarchive.otago.ac.nz/handle/10523/10529</p>	<p>In-depth comparative study of residents' lived experiences in papakāinga and cohousing communities, to inform more socially and culturally sustainable housing development. Motivations for moving into Papakāinga: opportunity for ownership; opportunity to improve living situation; independence; tenure security; better quality housing; location (proximity to whānau and whenua). Identifies critical success factors for applying socially-based tenure principles in modern housing projects.</p>	✓		✓	✓	✓				
<p>Berghan, J. (2021) <i>Kaupapakāinga: The potential for Māori cohousing</i>. Report for Building Better Homes, Towns and Cities: Affordable Housing for Generations, September 2021, Wellington: BBHTC. https://www.buildingbetter.nz/publications/homes_spaces/Berghan_2021_kaupapakainga_potential_for_maori_cohousing.pdf</p>	<p>Explores the potential for Māori to co-opt aspects of the cohousing model. A hybrid approach, combining elements of cohousing and papakāinga could offer an alternative entry point into the housing market for Māori. Existing housing stock does not reflect relational and collective values of Māori and existing collective housing models are largely unaffordable.</p>	✓	✓	✓		✓				
<p>Boulton, A., Allport, T., Kaiwai, H., Harker, R. And Potaka Osborne, G. (2021a) Māori perceptions of 'home': Māori housing needs, wellbeing and policy, <i>Kotuitui. New Zealand Journal of Social Sciences</i>, Online, DOI:1080/1177083X.2021.1920984. https://doi.org/10.1080/1177083X.2021.1920984</p>	<p>Presents findings from the Papakāinga project investigating understandings of 'home' for two groups of Māori - those living in and around their traditional rural homelands, and those urban Māori who no longer reside in or near their whenua. Explores how views of 'home' relate to identity, whakapapa and hauora and how these concepts impact service utilisation and uptake in a rural and an urban area. Challenges the idea that Māori needs with regard to their 'homes' can be reduced to home ownership and home affordability. Challenges the notion that a dry, safe house, deemed to be the safest place to live during Alert levels 3 and 4 in the Covid-19 pandemic, is synonymous with 'home' for Māori whānau.</p>	✓	✓	✓		✓				

Publication reference	Summary	Area of	Area of	Area of	Homelessness	Māori	Pacific	Seniors (50+)	Young people/	Ageing with disability
<p>Boulton, A., Allport, T., Kaiwai, H., Potaka Osborne, G. and Harker, R. (2021b) E hoki mai me ki te ūkaipō - Return to your Place of Spiritual and Physical Nourishment, <i>Genealogy</i> 5(2):45 https://www.mdpi.com/2313-5778/5/2/45</p>	<p>Explores how comparative views of 'home' relate to identity, whakapapa and hauora and how these concepts impact service utilisation and uptake in a rural and an urban area. Explores concepts of tūrangawaewae, papakāinga, ahi kā, ūkaipō and how these concepts have evolved as Māori lives have been greatly disrupted by the forces of colonisation and cultural imperialism. Key message is don't equate the physical building of a house with 'home' for Māori.</p>	✓	✓	✓		✓				
<p>Boulton, A., Allport, T. and Nee, J. (2020) Haukāinga - a review of Māori concepts of 'home', <i>Te Pūtaka - Whakauae Raro Occasional Papers</i>, 1. Whakauae Research Services Ltd. https://www.whakauae.co.nz/uploads/publications/publication322.pdf?1637957828</p>	<p>Literature review of concepts of 'home'. Identifies that 'home' is more than a house, and that there are a range of holistically connected aspects that need to be considered to deliver effective and sustainable solutions around Māori housing. As Māori meanings of 'home' are adapting, developing, and changing, especially in the current COVID-19 context, future policy directions and investments needs to be culturally attuned.</p>	✓		✓		✓				
<p>Brame, L. (2019) Waikato region housing initiative - 2018 housing stocktake. https://www.waikatodistrict.govt.nz/docs/default-source/your-council/plans-policies-and-bylaws/plans/district-plan-review/hearings/hearing-3/submitter-evidence/proposed-district-plan-hearing-3---submitter-evidence-final-housing-stocktake-report-minor-change-6-september-2019.pdf?sfvrsn=68a284c9_2 (Accessed 21 Nov 21)</p>	<p>Stocktake of housing in Waikato region. Covers existing housing stock, future supply and demand, housing affordability and quality. Also discusses: impacts of an ageing population and changing ethnic composition of Waikato's population on housing; homelessness; and housing accessibility. Findings: housing shortfall in Waikato region; increasing demand for housing; sufficient supply capacity in near future (e.g., SHAs); rising cost of private rentals; ageing population more living with a disability; growing Asian, Māori and Pacific populations. Lower rates of home ownership among Māori and Pacific.</p>	✓	✓	✓	✓	✓	✓			✓

Publication reference	Summary	Area of	Area of	Area of	Homelessness	Māori	Pacific	Seniors (50+)	Young people/	Ageing with disability
<p>Brown, C., Johnson, A., Abel Williamson, M. and Potter, M. (2021) <i>Where will we live in the future? Research into the unmet housing needs of people with Disabilities, their Family and Whānau</i>, Disability Connect, Auckland New Zealand. https://disabilityconnect.org.nz/wp-content/uploads/where-will-we-live-in-the-future.pdf</p>	<p>Describes housing experiences prior to and post 2020 Covid lockdown of disabled people and their whānau, including carers. Findings: marginalisation, exclusion, lack of agency. Almost a quarter felt they had no say in where or how they lived. Those in supported living arrangements with family/whānau were more likely to be happy with their living arrangements than those living with others. Owner-occupiers had higher satisfaction levels than tenants. Most respondents identified at least two shortcomings in their home. Over one third spent 40% or more of their income on housing.</p>	✓	✓	✓		✓	✓			✓
<p>Citizens Advice Bureau (2015) <i>Spotlight on CAB Clients needing Emergency Accommodation</i>. Wellington: Citizens Advice Bureau.</p>	<p>In the year ended June 2015 CABs received just over 3000 enquiries about emergency accommodation, which was the fastest growing area of enquiry. Based on in-depth textual analysis of just over 2000 CAB client enquiries about emergency accommodation and bureaux responses. Key themes: cycles of homelessness, structural failings of the rental market, lack of secure tenancy, lack of emergency housing.</p>		✓	✓	✓	✓			✓	

Publication reference	Summary	Area of	Area of	Area of	Homelessness	Māori	Pacific	Seniors (50+)	Young people/	Ageing with disability
<p>Clark, T.C., Drayton, B., Ball, J., Schwenke, A., Crengle, S., Peiris-John, R., Sutcliffe, K., Fenaughty, J., Groot, S. and Fleming, T. (2021) <i>Youth19 Housing Deprivation Brief</i>. University of Auckland & Victoria University of Wellington, New Zealand. https://static1.squarespace.com/static/5bdbb75ccef37259122e59aa/t/60b5f75cbe5ecf21b37bb414/1622538079252/Youth19-housing-deprivation-brief-FINAL.pdf</p>	<p>Presents findings on housing deprivation from the Youth19 survey. In the 12 months prior to the survey, 29% of year 9-13 students surveyed had experienced at least one form of housing deprivation; 10% inadequate housing; 2% serious housing deprivation; 15% said family always worried about housing costs; 10% had their family split up because their house could not accommodate all members; 7% had moved 2 or more times. Māori, Pacific, Asian and "other" ethnic groups, disabled youth and LGBTI+ most affected. Housing deprivation is high among young people who report other types of material deprivation such as food insecurity, power insecurity, and transport costs. Impact on family relationships and social connections. Youth experiencing housing deprivation more likely to have been purposefully hit or harmed.</p>	✓		✓		✓	✓		✓	✓
<p>Coleman, A. (2014) Squeezed in and squeezed out: the effects of population ageing on the demand for housing. <i>Economic record</i>. 90(290): 301-315. https://doi.org/10.1111/1475-4932.12080</p>	<p>Examines how increasing longevity affects the housing choices of working age and retired people using a heterogeneous agent overlapping generations model that incorporates owner-occupier and rental sectors, credit constraints, detailed tax regulations and a housing supply sector. Increasing longevity generally leads to declining home ownership rates among young people, with bigger declines if the government increases taxes and pensions rather than relying on additional private provision of retirement income.</p>		✓							
<p>Coleman, T., Kearns, R. and Wiles, J. (2016) Older peoples' experiences of home maintenance issues and opportunities to maintain ageing in place. <i>Housing studies</i>. 31(8): 964-983. https://doi.org/10.1080/02673037.2016.1164834</p>	<p>Considers how older adults' experiences of home maintenance issues shape their opportunities to maintain ageing in place. Based on a case study on Waiheke Island, Auckland</p>	✓		✓				✓		

Publication reference	Summary	Area of	Area of	Area of	Homelessness	Māori	Pacific	Seniors (50+)	Young people/	Ageing with disability
<p>Cram, F. and Munro, M. (2020). Life when renting for older Māori. <i>AlterNative: An International Journal of Indigenous Peoples</i>, 16, 1, 64-75. DOI: 10.1177/1177180120903504 https://www.buildingbetter.nz/publications/homes_spaces/Cram_Munro_2020_life_when_renting_for_older_maori_alternative_jrnl.pdf</p>	<p>Explores housing experiences of older Māori renters in the Hawke’s Bay region. Main drivers to renting were to live closer to whānau or renting out of necessity. Some older Māori homeowners rented to be close to whānau or services in another location. There was less choice for older Māori whose circumstances changed (e.g., divorce, business failure) making homeownership no longer affordable. Many participants struggled with living costs. Most had a good relationship with their landlord/agent and wanted to remain where they were.</p>	✓		✓		✓		✓		
<p>Cram, F. (2016) <i>Older Māori: Downsizing experiences, outcomes and needs</i>. Auckland: Katoa Ltd. https://downsizing.goodhomes.co.nz/wp-content/uploads/2017/06/Ma%CC%84ori_Downsizing2.pdf</p>	<p>Examines housing issues facing older Māori, as well as their housing needs and aspirations, particularly the question of whether to downsize.</p>		✓	✓		✓		✓		
<p>Cram, F. (2020) <i>He mātou whare, he mātou kāinga hoki – a house that is a home for whānau Māori</i>. Report for Building Better Homes, Towns and Cities: Revitalising the Production of Affordable Housing for Productive, Engaged and Healthy Lives. May 2020, 32 pgs. Wellington: BBHTC. https://www.buildingbetter.nz/publications/homes_spaces/Cram_May2020_he_matou_whare_hs.pdf</p>	<p>What makes a house a home for whānau Māori and how does housing support Whānau Ora (Māori collective wellbeing)? Thematic analysis of interviews with 27 Māori key informants. The material environment extends beyond the four walls of a home and into the whenua, in acknowledgement of the importance of place for a sense of belonging. The meaning of home extends beyond the dwelling to the whenua. Facilitators of ontological security were collective (social and cultural) capital, financial capital, and structural responsiveness. Barriers were poverty, poor quality housing and structural resistance.</p>	✓		✓		✓				

Publication reference	Summary	Area of	Area of	Area of	Homelessness	Māori	Pacific	Seniors (50+)	Young people/	Ageing with disability
<p>Curtis, B., Maynard, A. and Kanade, N. (2020) Exploring the squeezed middle: Aucklanders talk about being ‘squeezed’, <i>Kōtuitui: New Zealand Journal of Social Sciences Online</i>, 15:1, 8-21 https://www.tandfonline.com/doi/pdf/10.1080/1177083X.2019.1635497?needAccess=true</p>	<p>Explores how middle-class Aucklanders see themselves in terms of being squeezed. Price of housing (rent and ownership) dominated concerns around saving, repaying student loans, undervaluation of work. Resentment that prosperity is out of reach for young people and previous expectations unattainable. Concerns around ageing centred on housing - how to service a mortgage or rent through retirement, or in the case of job loss or illness. Student loans seen as a huge barrier to entering home ownership. Participants in all age groups reported intergenerational living arrangements, reflecting the need for childcare assistance, desire for extended family, support through tertiary education, a way to save money or reduce rent.</p>			✓						
<p>Curtis, M. and Brunson, N. (2018) <i>Building to Rent</i> SR 390, Porirua: BRANZ https://d39d3mj7qio96p.cloudfront.net/media/documents/SR390_Building_to_rent.pdf</p>	<p>The strain of unaffordable housing means that previously untenable housing may be becoming part of the stock. Consequently, vulnerable tenants may have no option but to occupy sub-par housing. Considers whether there are incentives for landlords to invest in their properties. Much of the rental stock is in a condition only requiring minor repairs to bring it up to the same standard as owner-occupied stock. For over half the stock, less than \$5,000 would need to be spent to bring it up to the same standard as a typical owner-occupied home. About half of the tenants surveyed said that they could not afford to pay any more in rent than they are currently paying. Estimates that by 2038, likely to be an additional 225,000 rental units over the 2013 Census. Estimates that the number of people 65 years or over in rental accommodation is likely to more than double between 2013 and 2038.</p>	✓		✓			✓			✓

Publication reference	Summary	Area of	Area of	Area of	Homelessness	Māori	Pacific	Seniors (50+)	Young people/	Ageing with disability
<p>Emery, T. and McLean, I. (Eds.). (2019) <i>Toitū te kāinga, toitū te ora, toitū te tangata: Healthy homes, healthy people</i>. Report for Building Better Homes, Towns and Cities Kāinga Tahī, Kāinga Rua, 139pgs. Rotorua: Toi Ohomai Institute of Technology. https://www.buildingbetter.nz/publications/ktkr/Emery_McLean_Eds_2019_Toitu_te_kainga.pdf</p>	<p>Multi-method, multi-cultural collaborative approach to develop modular prefabricated housing design solutions for papakāinga that would deliver improved life-time affordability and a high-quality indoor environment for health and wellbeing. Focused on the needs of whānau living in older, degrading housing stock in disadvantaged areas with aspirations of cultural revival and spiritual wellbeing. 88% of participants had chronic health issues related to poor housing.</p>	✓	✓	✓		✓				
<p>Figs show, S. and Saville-Smith, K. (2020) Housing. In Hassall, G. & Karacaoglu, G. (Eds) <i>Social Policy Practice and Processes in Aotearoa New Zealand</i> (pp. 289-316). Palmerston North: Massey University Press. https://www.massey.ac.nz/books/social-policy-practice-and-processes-in-aotearoa-new-zealand/</p>	<p>Discusses the evolution of housing policy in New Zealand. Explores the paradigm shift that emerged in the 1980s and came to fruition in the 1990s housing reforms, persisting until late into the second decade of the 21st century. Suggests alternative trajectories for housing and the potential for breaking the vicious cycle of overheated house prices, constrained housing choices, housing financialisation and homelessness. Argues that inequality is now driven by housing costs and is related to reductions in direct government provision of housing and assistance. Removal of government support is associated with the financialisation and commodification of housing. Housing costs are unaffordable even to median income households.</p>	✓		✓	✓	✓	✓			✓

Publication reference	Summary	Area of	Area of	Area of	Homelessness	Māori	Pacific	Seniors (50+)	Young people/	Ageing with disability
<p>Haarhoff, E., Allen, N., Austin, P., Beattie, L. and Boarin, P. (2019). <i>Living at Density in Hobsonville Point, Auckland: Resident Perceptions</i>. Working Paper 19-01 for Building Better Homes, Towns and Cities Urban Wellbeing: Shaping Places: Future Neighbourhoods, 75pgs. Auckland: BBHTC. https://www.buildingbetter.nz/publications/urban_wellbeing/Haarhoff_et_al_2019_Living_at_Density_WP19-01.pdf</p>	<p>Reports on the case study of Hobsonville Point, Auckland. Presents findings on residents' perceptions of higher density living. Reasonably high resident satisfaction 'despite the density'. Range of house sizes allows residents to match space needs with affordability. Physical environment (amenities, public spaces) key factors in satisfaction. Concerns: traffic, parking, privacy, lack of flexibility of internal spaces, lack of storage space, limited provision of community and retail spaces.</p>	✓	✓	✓				✓	✓	
<p>Ho, E., Cheung, V., Lee, E. and Kaur, S. (2018) 'East meets West: Asian elders' experiences of aging-in-place in a Western Country'. In <i>Surviving and Thriving the Asian Conference on Aging and Gerontology 2018 Official Conference Proceedings</i>. https://renting.goodhomes.co.nz/wp-content/uploads/2018/08/elsies-paper-from-the-2018-Asian-conference-on-Aging-and-Gerontology.pdf</p>	<p>Explores the ageing experience of Asian elders (Korean, Indian, Chinese) who migrated to NZ in later life and what is needed to enable positive ageing for these groups. Asian elders' ability to age in place is influenced by interactions with housing, family, community and government resources and services. Changing practices around filial piety and intergenerational independence leading to a desire for living independently from family.</p>	✓		✓				✓		
<p>Ho, E., Lewin, J. and Muntz, M. (2021) <i>Ageing Well in a New Country: Preliminary Findings of a Survey of Older Chinese in New Zealand</i>. https://www.researchgate.net/publication/265317184_Ageing_Well_in_a_New_Country_Preliminary_Findings_of_a_Survey_of_Older_Chinese_in_New_Zealand/link/555d145508ae86c06b5d4538/download</p>	<p>Reports on survey findings about the experiences of ageing in New Zealand among older Chinese adults who migrated to New Zealand since 1986. Older Chinese more likely to rent or live in homes rented or owned by children/family. Most satisfied with their homes though issues with cold, mould, damp, and condensation common. Home modifications, repairs and maintenance practices uncommon. Cultural preference for intergenerational housing changing and many older Chinese would prefer to live separately from children.</p>	✓		✓				✓		

Publication reference	Summary	Area of	Area of	Area of	Homelessness	Māori	Pacific	Seniors (50+)	Young people/	Ageing with disability
<p>Jackson, N. and James, B. (2016) <i>Homeownership, Renting and Residence in a Home Owned by a Family Trust for the Western Bay of Plenty and Total New Zealand, by birth cohort, for the period 1986-2013</i>. Wellington: Centre for Research, Evaluation and Social Assessment. https://renting.goodhomes.co.nz/wp-content/uploads/2017/06/wbop-cohort-report-final2.pdf</p>	<p>Analysis of homeownership, renting and residence in a home owned by a family trust, based on census data for the Western Bay of Plenty sub-region, by birth cohort, from 1986-2013. There are diminishing levels of homeownership, and rising levels of renting and family trusts, for almost all age cohorts in the study area. The reduction in homeownership levels is pronounced for each successively younger cohort when at the age of its immediate predecessor. Decline in homeownership appears greater for most age cohorts than their national level counterparts, falling from a higher peak than nationally, to lower levels than nationally. Decline in homeownership was led by the older cohorts and has been occurring earlier in the life-cycle for each successively younger cohort. Prospectively, the 2013 data indicate that home ownership levels of younger cohorts will decline and renting levels increase.</p>			✓				✓	✓	
<p>James, B. and Saville-Smith, N. (2019) <i>Building solutions to enable people with dementia to age in place: A literature review</i>. Report for Building Better Homes, Towns and Cities: Building Solutions Project. August 2019, 66 pgs. Wellington: BBHTC. https://www.buildingbetter.nz/publications/homes_spaces/James_Saville-Smith_2019_building_solutions_to_enable_people_with_dementia_to_age_in_place.pdf</p>	<p>Literature review of New Zealand and international evidence about building design solutions for people with dementia living in their own homes. Most people with dementia do not live in institutional care. Home design can play a vital role in supporting the provision of care and enabling people to remain in their homes and communities. Identifies elements of responsive building design that address: entrance and exit solutions; self-navigation; individual function, day-to-day self-management, and independence; enjoyment and ambience of the home; mitigation of behavioural issues. There is a lack of research assessing the applicability of specific design solutions to housing in the community.</p>	✓								✓

Publication reference	Summary	Area of	Area of	Area of	Homelessness	Māori	Pacific	Seniors (50+)	Young people/	Ageing with disability
<p>James, B. (2019) <i>Home, Space and Place: A review of Māori and Indigenous literature contributing to dementia-friendly housing design</i>. Report for Building Better Homes, Towns and Cities: Building Solutions Project. October 2019, 46 pgs. Wellington: BBHTC.</p> <p>https://www.buildingbetter.nz/publications/homes_spaces/James_2019_a_review_of_Maori_and_Indigenous_literature_contributing_to_dementia-friendly_housing_design.pdf</p>	<p>Literature review of research on building solutions to improve the functionality of housing for Māori and indigenous people with dementia. Emphasises the importance of cultural values, worldviews, and practices in both understanding dementia and in designing living environments that support the person with dementia to stay living in their own home, to access the services they need, and for their whānau or family to support them to do so. Many older Māori and indigenous people face significant housing inadequacies: unsafe; insecure; overcrowded; unaffordable; poor condition.</p>	✓		✓		✓		✓		
<p>James, B. (2020) <i>The meaning of home and affordability: Housing trade-offs among seniors and among 20-40 year-olds</i>. Working paper for Building Better Homes, Towns and Cities Affordable Housing for Generations: Component C, 38pgs. Wellington: BBHTC.</p> <p>https://www.buildingbetter.nz/publications/homes_spaces/James_2020_meaning_of_home_and_affordability_housing_trade-offs.pdf</p>	<p>Examines how 'making a home' includes considerations of affordability and involves diverse financial and non-financial trade-offs between dwelling characteristics, dwelling location, and wider considerations of place. Collates and re-examines survey data relating to two distinct life stages: family formation, and retirement. Findings: most younger households see their housing preferences as unobtainable; key drivers of moving house are to increase connectivity, increase dwelling size, improve house condition or amenity, enter homeownership, and to reduce housing costs. For older people, important features of the home include: space to carry out desired activities; easy maintenance; accessibility; warmth; access to services; safety and affordability.</p>		✓	✓				✓		

Publication reference	Summary	Area of	Area of	Area of	Homelessness	Māori	Pacific	Seniors (50+)	Young people/	Ageing with disability
<p>James, B. (2021a) <i>Ageing in place as an older tenant: Independence and uncertainty</i>. Research Bulletin for Building Better Homes, Towns and Cities, Affordable Housing for Generations. August 2021, 5pgs. Wellington: BBHTC. https://www.buildingbetter.nz/publications/homes_spaces/James_Aug2021_aging_in_place_as_older_tenant_bulletin.pdf</p>	<p>Discusses key themes in interviews with 108 older tenants about their experiences of 'ageing in place' in rentals in five areas with an older population profile and increasing proportions of older tenants: loss of homeownership; tenure insecurity and homelessness; unaffordable rents; poor dwelling condition; lack of information about where/how to access support.</p>	✓		✓	✓			✓		
<p>James, B. (2021b). <i>Learning from seniors' experiences of housing and home during the COVID-19 pandemic</i>. Report for Building Better Homes, Towns and Cities, Affordable Housing for Generations. June 2021, 26pgs. Wellington: BBHTC. https://www.buildingbetter.nz/publications/homes_spaces/James_Jun2021_%20learning_from_seniors_experiences_of_housing_and_home_covid.pdf</p>	<p>Discusses experiences of seniors living independently in their communities of the impacts of the COVID-19 pandemic, on their housing and sense of home. Explores how housing performs as the base of care for seniors during the pandemic. Identifies design features of the home that support seniors' independence and resilience. Issues: food security; accessing home based care; accessing information; coping with different living environments. Tenants reported more housing-related anxiety than other tenures.</p>	✓		✓		✓		✓		
<p>James, B. and Cram, F. (2017) <i>Older People and the Rental Market in the Western Bay of Plenty Sub-region: Emerging themes and issues from in-depth interviews</i>. Wellington: Centre for Research, Evaluation and Social Assessment https://renting.goodhomes.co.nz/wp-content/uploads/2018/03/older-people-and-the-rental-market-emerging-themes-from-interviews-mar.pdf</p>	<p>Interim findings from interviews with older renters, housing providers and organisations. Financial shock, divorce or loss of partner are key factors leading to renting. Older renters move due to unaffordable rent, or tenancy termination. Service providers and older renters identify the biggest issue is unaffordable rents. Some older renters find applying for a tenancy very stressful. Housing pressures affecting all age groups are resulting in some older renters taking in younger relatives, which can pose financial and tenancy risks to the older person. Papakāinga housing is important for older Māori. Papakāinga stock is diverse, including older, ill-suited stock along with recently built, fit-for-purpose rental accommodation co-designed with kaumātua.</p>		✓	✓		✓		✓		

Publication reference	Summary	Area of	Area of	Area of	Homelessness	Māori	Pacific	Seniors (50+)	Young people/	Ageing with disability
<p>James, B. and Saville-Smith, K. (2016a) <i>Older People and the Rental Market in the Western Bay of Plenty Sub-region</i>. Wellington: Centre for Research, Evaluation and Social Assessment. https://renting.goodhomes.co.nz/wp-content/uploads/2017/06/wbop-rental-market-29-nov-final-1.pdf</p>	<p>Presents census data on renting among the 65+ age group in the sub-region. The sub-regional rental market presents financial challenges for older people who have a low income and few or no assets. Those receiving only NZ Superannuation / Veterans Pension and with no or few assets would be reliant on accessing the AS for practically all one and two-bedroom properties in the sub-region, including stock provided by councils and community housing providers. There is little stock specifically targeted to older renters.</p>		✓	✓				✓		
<p>James, B. and Saville-Smith, K. (2018) Designing housing decision-support tools for resilient older people. <i>Architectural Science Review</i>, https://doi.org/10.1080/00038628.2018.1505597</p>	<p>Reports on 3 NZ research programmes about older people, housing, 'ageing in place' and resilience. Using participatory research techniques and co-design, the programmes generated evidence-based decision-support tools to help older people maintain independence. The tools help improve decisions around: repairs and maintenance assessment and solutions; dwelling and location choices and housing options. Findings from the programmes are presented about repairs and maintenance practices, responses to adverse natural events and downsizing decision-making.</p>	✓	✓					✓		

Publication reference	Summary	Area of	Area of	Area of	Homelessness	Māori	Pacific	Seniors (50+)	Young people/	Ageing with disability
<p>James, B. and Saville-Smith, N. (2016b) <i>Tenure Security for Older Tenants: A country review of policy, programmes and regulation</i>. Wellington: Centre for Research, Evaluation and Social Assessment. https://renting.goodhomes.co.nz/wp-content/uploads/2017/06/tenure-security-overview-final-july.pdf</p>	<p>Considers overseas models to promote tenure security in the rental market. Explores the extent to which tenure security measures are targeted specifically to older tenants and ageing in place. Includes overview of NZ's rental market and older tenants. Finds an international trend towards deregulation of the private rental market. Only two tenure security provisions were identified that specifically target older tenants, relating to termination and landlord subsidies for accessibility modifications to existing dwellings.</p>			✓				✓		
<p>James, B. and Saville-Smith, N. (2017) <i>Cohousing: An enduring idea but is it a new opportunity for older people?</i> Wellington: Centre for Research, Evaluation and Social Assessment.</p>	<p>Review of international and NZ literature on cohousing. Overseas, cohousing is presented as a beneficial option for older people, enabling them to reduce and share housing costs and providing social engagement and support. Although cohousing is not common in NZ, it may be a way of improving housing options for seniors. But there are challenges: development funding and risks, on-going costs associated with cohousing which may make it unaffordable for low-income older residents, lack of familiarity with cohousing among planning and regulatory agencies and the public.</p>	✓	✓	✓				✓		

Publication reference	Summary	Area of	Area of	Area of	Homelessness	Māori	Pacific	Seniors (50+)	Young people/	Ageing with disability
James, B., Bates, L., Coleman, T. Kearns, R., and Cram, F. (2020) Tenure insecurity, precarious housing and hidden homelessness among older renters in New Zealand <i>Housing studies</i> . https://www.tandfonline.com/doi/abs/10.1080/02673037.2020.1813259?journalCode=chos20	Examines factors precipitating participants' homelessness and pathways out of homelessness. Argues that homelessness risk is central to older tenants' experience of New Zealand's under-regulated rental market. Factors implicated in homelessness included: divorce/separation; financial crises; tenancy termination; unaffordable rent; return to NZ; release from prison; loss of rental in earthquake; dangerous building notice. Pathways out of homelessness included advice/support from family, friends. Individual's social connections were critical for accessing housing and other services and supports, as well as for maintaining personal independence. The role of agencies in helping participants into permanent housing was negligible.	✓		✓	✓	✓		✓		
James, B., Coleman, T., Cram, F., Bates, L. and Kearns, R. (2021) Pathways to renting among older former homeowners. <i>New Zealand Population Review</i> , 47, 225–261. Special Edition: <i>Housing at the heart of place, people and population</i> . https://population.org.nz/wp-content/uploads/2021/08/James_etal_Older_Renters.pdf	Explores the housing pathways of older renters who were formerly homeowners and identifies typical pathways out of homeownership: sudden shock, tenure churn, planned choice and kinship ties. Trajectories of renters who were former homeowners reflect a societal shift to complex and risky housing pathways.			✓	✓	✓		✓		
James, B., Rehm, M. and Saville-Smith, K. (2017) Impacts of leaky homes and leaky building stigma on older homeowners. <i>Pacific Rim Property Research Journal</i> , 23(1):15-34.	Reports on older New Zealanders' leaky homeowners' experiences, issues and impacts. Covers not only the experience of owning a leaky home, but also the implications of leaky home stigma for seniors' ability to optimise their housing choices. Adverse impacts were identified on the use value and financial value of older people's homes, retirement planning, physical and mental health, relationships and social connections, and ability to age in place.	✓	✓	✓				✓		

Publication reference	Summary	Area of	Area of	Area of	Homelessness	Māori	Pacific	Seniors (50+)	Young people/	Ageing with disability
James, B., Saville-Smith, N., Saville-Smith, K. and Isaacs, N. (2018) <i>Doing Better in Residential Dwellings: Going beyond the Code in Energy and Accessibility Performance ER27</i> , Porirua: BRANZ	Brings together findings from four research reports about exceeding the NZ Building Code to construct better performing dwellings. Two case studies: thermal performance and the accessibility of residential buildings. Accessibility and thermal performance are crucial to ageing societies. Compared with research investment into residential energy performance, the research investment into accessible dwellings is tiny.	✓						✓		✓
Johnson A., Howden-Chapman P. and Equb, S. (2018), <i>A Stocktake of New Zealand's Housing</i> , Wellington: New Zealand Government. https://www.beehive.govt.nz/sites/default/files/2018-02/A%20Stocktake%20of%20New%20Zealand%27s%20Housing.pdf	Overview of the state of housing markets and the housing system in NZ. Findings: the response to homelessness is inadequate; homeownership is unaffordable, particularly in main centres; lack of housing supply is exacerbated by infrastructure funding constraints; numbers of private renters are growing and are under stress; housing insecurity increasing particularly for Māori and Pacific; seniors face housing-related poverty; problems of poor house performance and crowding.	✓	✓	✓	✓	✓	✓	✓		
Johnson, A. (2013) <i>Give Me Shelter An Assessment of New Zealand's Housing Assistance Policies</i> , Auckland: Salvation Army. https://www.salvationarmy.org.nz/sites/default/files/uploads/GiveMeShelter2013FinalWeb.pdf	Examines significant shifts in housing policy and provision since the 1990s, including the dismantling of home ownership support and the move to the Accommodation Supplement and reform of social housing. Points to increased need for housing assistance emanating from an ageing population as fewer people reach retirement as owner-occupiers. Suggests key policy changes needed and a new vision for secure, affordable housing.			✓				✓		

Publication reference	Summary	Area of	Area of	Area of	Homelessness	Māori	Pacific	Seniors (50+)	Young people/	Ageing with disability
Johnson, A. (2015) <i>Homeless Baby Boomers Housing Poorer Baby Boomers in their Retirement</i> . Auckland: Salvation Army. https://www.salvationarmy.org.nz/sites/default/files/uploads/20151201SPPUSAHomelessbabyBoomersrReportwebv1.pdf	Considers the housing futures of the around 200,000 people who in 2030 will be aged over 65 years old and not own their home. Falling homeownership rates, increasing financial and housing precarity among older age groups. Predicts rise in homelessness among older people.		✓	✓	✓	✓		✓		
Johnson, A. (2017) <i>Taking Stock: The Demand for Social Housing in New Zealand</i> . Auckland: Salvation Army. https://www.salvationarmy.org.nz/sites/default/files/uploads/20170814spputakingstockreport.pdf	Considers how much social housing is needed in NZ. Suggests a need for between 1500 and 3500 additional social housing units each year, for at least the next decade. About half will need to be in Auckland. Estimates are relatively conservative. Analysis suggests growth in numbers of households at risk of housing-related poverty and increasing numbers reaching 65 as private-sector tenants no longer able to afford market rents.		✓	✓				✓	✓	
Joynt, J. and Hoffman, L. (2021) <i>Navigating in and out of Aotearoa New Zealand's intermediate housing market: a housing pathways analysis</i> . Auckland Council technical report, TR2021/14 https://knowledgeauckland.org.nz/media/2076/tr2021-14-navigating-in-and-out-of-nzs-intermediate-housing-market.pdf	Identifies various views, challenges, goals, and aspirations concerning homeownership and renting for householders within the Intermediate Housing Market (IHM) and examines the key impacts of being trapped in this market across various domains, including health, work, education, whānau, and social networks. Examines successful strategies for navigating out of the IHM into owner-occupation.		✓	✓				✓	✓	
Joynt, J., Tuatagaloa, P. and Lysnar, P. (2016) <i>Pacific people and housing in Auckland: a stocktake of issues, experiences and initiatives</i> . Auckland: RIMU, Auckland Council.	Provides an understanding of housing issues faced by Pacific people in Auckland. Discusses Pacific perspectives on ageing and caring for elders, including relevance for housing given insecure tenure and lack of affordable housing. Pacific families struggle to find larger homes to accommodate multi-generational families. Overcrowding impacts on physical, mental and social wellbeing and educational outcomes.	✓	✓	✓			✓	✓		

Publication reference	Summary	Area of	Area of	Area of	Homelessness	Māori	Pacific	Seniors (50+)	Young people/	Ageing with disability
Keeling, S. (2014) Later life in rental housing: current New Zealand issues <i>Policy quarterly</i> 10(3):49-53.	Notes the ageing population and decline of owner-occupation, even among older age groups. Identifies policy issues. Policy implications of growing number of older renters include: need for income support; tenure security; greater integration of social services, welfare, and housing; attention to housing needs of older people in regions and rural areas; increasing need for social and affordable rentals.			✓				✓		
King, P., Hodgetts D., Rua, M. and Te Whetu, T. (2016) Emplaced Cultural Practices. pp 331-362 in. E.J. Peters & J. Christiansen (eds), <i>Indigenous Homelessness: Perceptions from Canada, Australia and New Zealand</i> . Minneapolis: University of Manitoba Press.	Investigates cultural factors which enabled a group of homeless men to work in a marae garden. Discusses the reciprocal contributions made by the men, the marae and the service providers. Notes the importance of moving beyond Eurocentric models of addressing homelessness which do not meet Māori culture and values.			✓	✓	✓				
Law, D. and Meehan, L. (2013) <i>Housing Affordability in New Zealand: Evidence from Household Surveys</i> NZ Treasury Working Paper 13/14. https://www.treasury.govt.nz/publications/wp/housing-affordability-new-zealand-evidence-household-surveys-wp-13-14.html	Evidence from two surveys: the Household Economic Survey (HES); and the Survey of Family, Income and Employment (SoFIE). Examines how patterns of house prices, expenditures, and homeownership have changed over time and across groups. A model examining whether an individual or couple is likely to find homeownership affordable is developed based on income, net wealth, house prices, and the structure of mortgage contracts. Factors associated with a higher likelihood of owning a home include being partnered, female or older, and living in any region other than Auckland.			✓		✓	✓	✓		

Publication reference	Summary	Area of	Area of	Area of	Homelessness	Māori	Pacific	Seniors (50+)	Young people/	Ageing with disability
<p>Li, W. (2011) <i>Shifting selves: home beyond the house. A study of ageing, housing and wellbeing of older Chinese migrants to New Zealand</i>. Waikato University. PhD thesis. https://researchcommons.waikato.ac.nz/handle/10289/5126</p>	<p>Examines the relationship between minority identity, family diversity and ageing well. Consideration of the role of filial piety in participants' housing and ageing experiences. Identifies housing and health supports as integral to ageing in place. The majority preferred to live independently from their children. Many reported positive experiences of ageing, but experienced difficulty accessing public housing.</p>			✓				✓		
<p>Lysnar, P. and Dupuis, A. (2015) <i>Meeting the housing needs of multi-generational households</i>. LR 0461, Porirua: BRANZ. https://www.branz.co.nz/pubs/research-reports/er4/</p>	<p>Examines multi-generational households (MGHs), where more than one generation of related adults live together. There is no typical MGH, and various reasons for MGH living. The experiences of MGH living were generally positive. Issues: lack of privacy, overcrowding, interference (e.g., regarding child rearing practices), noise, lack of control and autonomy, disruption caused by visitors and providing hospitality. Advantages: financial benefits, care of seniors and young children, strengthening family bonds, companionship and practical help with everyday activities and chores.</p>			✓		✓	✓	✓	✓	
<p>Lysnar, P., Tuatagaloa, P. and Joynt, J. (2016) <i>Māori and Housing in Tamaki Makaurau: A stocktake of issues, experiences and initiatives</i>. Technical Report 2016/026. Auckland: Auckland Council</p>	<p>Draws on existing literature and data to provide an understanding of the housing issues faced by many Māori in Auckland. Main housing challenges: household crowding, low homeownership rates and less stability as a result of renting.</p>			✓		✓				

Publication reference	Summary	Area of	Area of	Area of	Homelessness	Māori	Pacific	Seniors (50+)	Young people/	Ageing with disability
<p>Macpherson, C. (1997) A Samoan Solution to the Limitations of Urban Housing in New Zealand. pp. 151-174 in J. Rensel and N. Rodman (eds) <i>Home in the Islands: Housing and Social Change in the Pacific</i>. Honolulu: University of Hawai'i Press. https://www.scribd.com/document/432080317/Jan-Rensel-Margaret-Rodman-Home-in-the-Islands</p>	<p>A classic study of the way Samoan families adjusted to the two-bedroom state house with stand-alone garage in South Auckland. One of the best studies of the innovative use families made of the garage as a significant family social and cultural space, far too valuable to house a vehicle. Offers insights into how the housing needs of Pacific families require careful consideration of family structures, obligations and cultural expectations.</p>	✓	✓	✓			✓		✓	
<p>Marks, E.J., Somerville-Ryan, M., Walker, C., Devlin, M., Chen, R., Atatoa Carr, P.E., Berry, S., Smith, A. and Morton, S.M.B. (2021) <i>Housing-related experiences of families with young children in contemporary Aotearoa New Zealand. How do these experiences differ for families living in rental or social housing and/or on low incomes?</i> Wellington: Ministry of Social Development. https://www.growingup.co.nz/sites/growingup.co.nz/files/documents/housing-related-experiences-of-families-with-young-children-in-contemporary-aotearoa-new-zealand.pdf</p>	<p>The study uses data from the contemporary Growing Up in New Zealand study to better understand the housing experiences of New Zealand children, particularly those in rental accommodation and for those living in low incomes households in the first five years of life. 30% of families changed housing tenure at least once in the preschool period. Homeownership offered the most stable tenure. Renter households more likely to experience crowding and poor housing conditions. Material hardship higher for rental households. All clusters valued proximity to family and friends. Owner occupiers and private renters more likely to rate neighbourhood safety as important. Public renters typically rated affordability as the prime reason for moving. Household tenure and income journeys were associated with differences in health and wellbeing outcomes for children.</p>	✓		✓		✓	✓		✓	
<p>McIntosh, J. and Leah, A. (2017) Mapping housing for the disabled in New Zealand. <i>New Zealand Medical Journal</i>, 130 (1457):69-78</p>	<p>Summarises information from the NZ Disability survey. NZ housing stock is ill-prepared for the increase in disability that will accompany population ageing.</p>	✓	✓					✓		✓

Publication reference	Summary	Area of	Area of	Area of	Homelessness	Māori	Pacific	Seniors (50+)	Young people/	Ageing with disability
<p>Menzies, D., Whitehead, J., Walker, G., Reid, J. and MacFarlane, A. (2019). <i>Economics and financing of housing for Māori - literature review</i>. Report for Building Better Homes, Towns and Cities: Whai Rawa Whenu, Kāinga Tahi, Kāinga Rua, Wellington, BBHTC. https://www.buildingbetter.nz/publications/ktkr/Menzies_et_al_2019_Econ_&_Financing_Literature_Review_Whai_Rawa_KTKR.pdf</p>	<p>This literature review focuses on economic and financial structural and regulatory approaches to Māori housing, to investigate the barriers and bridges to opportunities for Māori. It sets a platform for further quantitative and qualitative research on Māori housing. There is a relative paucity of literature that aligns with a mātauranga Māori understanding of economics. Identifies planning, legal, and financial barriers to housing on Māori land. Proposes innovative ideas for addressing collateral financing, such as loan guarantees for housing development on multiply-owned Māori land. Most of the land remaining in Māori ownership is not in the larger cities, which is where the impact of unaffordability predominantly affects those least resourced, particularly younger Māori. Housing affordability affects Māori more than most other New Zealanders. The literature indicates that well housed families and people can contribute more, are happier and healthier.</p>	✓		✓	✓	✓			✓	
<p>Millar, H. (2014). The State of Kaumātua Housing: Planning for an Ageing Population. <i>Planning Quarterly</i>, 194:5-10.</p>	<p>Notes how an aging population and house affordability issues create a need to plan for increased 'kaumātua housing'. Sets out the reasons why high numbers of Māori experience housing problems and have a higher need for social housing provision. Outlines how local councils can adapt planning restrictions and assist Māori with planning for developing Māori land with the aim of increasing affordable housing levels for Māori. Affordable Māori housing initiatives require central and local government assistance. Māori demand for social housing will increase, given declining home-ownership rates.</p>	✓	✓	✓		✓		✓		

Publication reference	Summary	Area of	Area of	Area of	Homelessness	Māori	Pacific	Seniors (50+)	Young people/	Ageing with disability
<p>Mitchell, I. (2015a) <i>Can work, cannot afford to buy the intermediate housing market</i> LR 0484 Porirua: BRANZ https://d39d3mj7qio96p.cloudfront.net/media/documents/ER5s_Summary_of_can_work_cannot_afford_to_buy_the_intermediate_housing_market.pdf</p>	<p>The intermediate housing market (IHM) is the fastest growing segment of the housing continuum and focuses on the households unable to purchase a dwelling. The number of households in the IHM has increased over the past 24 years by approximately 102% nationally and 182% in the Auckland region. 47% of all intermediate households are now located in Auckland. The increase has been driven by an increase in the size of the rental market and house prices increasing at a faster rate than household incomes. Over the next decade, an increasing proportion of Auckland's renters are likely to be priced out of home ownership. The proportion of renters unable to purchase a dwelling significantly increases if interest rates return to their long term average.</p>			✓				✓	✓	
<p>Mitchell, I. (2015b) <i>Census, demographic trends and the impact on home ownership outcomes</i>. ER2, Porirua: BRANZ.</p>	<p>Data from the 2013 Census confirms a number of demographic trends. New Zealand's population is aging, and as a consequence, there is a growing number of households with people aged 65 years and older. In conjunction with the increase in the age of the people living in households, the number of couple-only and one-person households is also increasing. The proportion of owner-occupied households has continued to decline as the proportion of renter households has increased.</p>			✓		✓	✓	✓	✓	

Publication reference	Summary	Area of	Area of	Area of	Homelessness	Māori	Pacific	Seniors (50+)	Young people/	Ageing with disability
<p>Mitchell, I. (2018) <i>Alternative Tenure Models and their Potential Applicability in a New Zealand Context</i>, External Research Report ER35, BRANZ Ltd, Judgeford, New Zealand. Available: https://d39d3mj7qio96p.cloudfront.net/media/documents/ER35_Alternative_tenure_models_and_their_potential_applicability_on_a_NZ_context.pdf</p>	<p>This research investigates whether intermediate/shared equity tenure models used overseas are applicable in a New Zealand context and analyses whether they could increase access to affordable, quality housing with long term security of tenure. It explores the potential application of different models to meet households needs as they age and at the different pressure points along the housing continuum. The case studies demonstrate that as housing affordability declines the level of household income required under a shared equity model can easily exceed 120% of median household income and the need to provide significant quantities of low-cost capital if these tenures are to operate at scale.</p>	✓		✓				✓		
<p>Mitchell, I. (2019) <i>What's happened in the intermediate housing market since 2015?</i> External Research Report LR11136, BRANZ Ltd, Judgeford, New Zealand. Available: https://d39d3mj7qio96p.cloudfront.net/media/documents/ER37_Whats_happened_in_the_intermediate_housing_market_since_2015.pdf</p>	<p>Presents an update on the trend relating to the size of the intermediate housing market since 2015. The number of households in the IHM has increased over the past 27 years by approximately 152% nationally and 231% in the Auckland region. A key driver has been house price growth exceeding the growth of household incomes. Housing affordability is poor even for households earning more than the median household income. A range of essential worker households need two full time incomes to affordably pay market rents. These costs have the potential to impact on the region's ability to attract essential workers. One of the consequences is increasing diversity of renters including more couples-with-children and older renters. Discusses alternative/intermediate tenures to increase affordability.</p>		✓	✓				✓	✓	

Publication reference	Summary	Area of	Area of	Area of	Homelessness	Māori	Pacific	Seniors (50+)	Young people/	Ageing with disability
<p>Mitchell, I. and Glaudel, C. (2017) <i>Housing Demand and Need in Tauranga and Western Bay of Plenty</i>, Wellington: Livingston and Associates Ltd and Community Housing Aotearoa. http://www.smartgrowthbop.org.nz/media/1971/smartgrowth-housing-need-and-demand-report_final-dec-2017-002.pdf</p>	<p>Explores housing trends, current and future housing demand in Tauranga and the Western Bay of Plenty. Homeownership rates have been falling and are projected to drop to 58.1% in the Western Bay of Plenty and 54.6% in Tauranga City by 2047; Renter occupied dwellings with people aged 65 years and older are projected to increase by 6,830 in Tauranga and 1,970 occupied dwelling sin Western Bay of Plenty; Renter stress is increasing and impacting households at higher income levels; Majority of renters cannot affordably purchase a home at median home prices. Over 100% projected growth in couple only and one person renter households by 2047; Projected increase of households aged 65 and older to 43% in 2047.</p>			✓		✓	✓	✓		
<p>Mitchell, I., James, B. and Saville-Smith, K. (2020) <i>Tauranga/Western Bay of Plenty: Housing Affordability Stress Outcomes</i>, Research report prepared for Accessible Properties, Ltd. Retrieved 23 November 2021, Available https://assets.website-files.com/5cc8c92271a23e543566ea72/604ab31c2072ff41dcc1ae2_2020%20Nov%20-%20Accessible%20properties%20-%20Tauranga%20WBOP%20Final.pdf</p>	<p>This report investigates trends in housing stress in Tauranga and Western Bay of Plenty. The deterioration in housing affordability is a result of housing costs increasing at a faster rate than household incomes. Tauranga/Western Bay of plenty not owned and owned with a mortgage households had the highest proportion of stressed households in the country's main urban areas. One-parent households had very high levels of housing stress. Māori and Asian households had high levels of housing stress. It is expected that greater proportions in younger age cohorts will reach age 65 as renters. Challenges seniors encounter in the rental market in the sub-region are: lack of affordable rentals, cold and damp housing, housing in poor repair, lack of accessible housing, and a risk of homelessness.</p>	✓	✓	✓	✓	✓	✓	✓		

Publication reference	Summary	Area of	Area of	Area of	Homelessness	Māori	Pacific	Seniors (50+)	Young people/	Ageing with disability
<p>Morrison, P. (2008) On the Falling Rate of Home Ownership in New Zealand. Wellington: Centre for Housing Research Aotearoa New Zealand. https://thehub.swa.govt.nz/assets/documents/falling-rate-home-ownership-in-nz.pdf</p>	<p>Traces the changing level and distribution of home ownership by the age of household reference person over four New Zealand censuses (1991, 1996, 2001, and 2006). More housing decisions are being made to purchase housing as an asset, affecting the relationship between tenure, housing type and location. Successive reductions in the home ownership rates of all but the very oldest age groups, implies the presence of a structural shift in the parameters around ownership. Delayed and more highly variable entry into home ownership and frequent switching between tenures. Lower income groups noticeably less competitive in the ownership market in 2006 than they were in 1991.</p>	✓	✓	✓					✓	
<p>Morton, S., Lai, H., Walker, C., Cha, J., Smith, A., Marks, E. and Pillai, A. (2020) <i>Keeping our children warm and dry: Evidence from Growing up in New Zealand</i>, External Research Report ER58, BRANZ Ltd, Judgeford, New Zealand. Available https://d39d3mj7qio96p.cloudfront.net/media/documents/ER58_Final_GUINZ_Report_2_07_2021.pdf</p>	<p>The children in the GUINZ study collected indoor climate (temperature and humidity) information about their home and school environments as an added component to a routine data collection wave of the longitudinal study. Suboptimal indoor temperatures tended to be associated with: poorer reported general child health and increased anxiety and depression symptoms for children; greater material deprivation/hardship; housing and financial difficulties; low levels of perceived parenting support; regularly experiencing problems with dampness and mould; renting; and greater household crowding.</p>	✓				✓	✓		✓	

Publication reference	Summary	Area of	Area of	Area of	Homelessness	Māori	Pacific	Seniors (50+)	Young people/	Ageing with disability
<p>Nana, G., Dixon, H., Green, S. and Groom, M. (2019) <i>Housing and wellbeing for Māori in Te Tai Tokerau</i>, Haratua. https://www.tpk.govt.nz/en/a-matou-mohiotanga/housing/maori-housing-supply-and-demand-in-te-tai-tokerau</p>	<p>This research project examines which health, economic and social outcomes are associated with the different housing circumstances of Māori living in Te Tai Tokerau. Examines seven housing groups: Owner; Renter; No heating; No telecom; Overcrowded; Severely overcrowded; No fixed abode. Except for those living in owner-occupied dwellings, each of the other housing groups had a substantial negative fiscal cost. On average for those groups, the cost of hospitals, corrections, and welfare payments, was higher than the amount of tax collected. Having no access to telecommunications and living in a severely crowded dwelling had the largest net fiscal cost, at approximately \$6,000 per person.</p>	✓		✓		✓				
<p>NZ Govt. (2021) <i>Child Poverty Related Indicators Report</i>. https://childyouthwellbeing.govt.nz/sites/default/files/2021-05/cpri-report-20210512.pdf</p>	<p>This is the second Child Poverty Related Indicators (CPRI) report, focusing on trends up to and including the 2019/20 year. 36% households with children (0-17) spent more than 30% of their disposable income on housing (32% of Māori households and 34% Pacific households). 33% of households with a child with a disability and 35% of households with a disabled adult spent over 30% on housing. Possible downward trend in issues with damp and mould, but still an issue for households with children, Māori households, Pacific households, households with a disabled child and sole parent households.</p>	✓	✓	✓		✓	✓		✓	✓

Publication reference	Summary	Area of	Area of	Area of	Homelessness	Māori	Pacific	Seniors (50+)	Young people/	Ageing with disability
Palmer, F. (2016) <i>Building sustainable papakainga to support Māori aspiration for self-determination</i> Doctoral Thesis, Auckland University of Technology, Auckland.	This research investigates conditions which restrict Māori from building sustainable and affordable housing, and ways to overcome these restrictions. Access to housing for Māori is associated with a complex history and ongoing process of colonisation, which restricts Māori from owning land and building Māori-centred developments within urban areas, and limits options for development on Māori-owned land in rural regions. It considers the responsiveness of local government in supporting papakāinga development centred on Māori values for an affordable housing development located in Kaitaia.		✓	✓		✓				
Parker, C. (2015) <i>Housing supply, choice and affordability. Trends, economic drivers and possible policy interventions Auckland: RIMU, Auckland Council.</i>	Analyses the housing affordability problem, identifies causes, and gives preliminary advice on a list of possible solutions. Covers demand and supply drivers of housing unaffordability. Risks and consequences - loss of social cohesion, relocation, increased household crowding.		✓	✓		✓	✓	✓		
Perry, B. (2017) <i>Household Incomes in New Zealand: Trends in indicators of inequality and hardship 1982 to 2016.</i> Wellington: Ministry of Social Development.	Findings based on the 2015-16 Household Economic Survey (HES). The report provides information based on household income both before deducting housing costs (BHC) and after deducting housing costs (AHC). Includes consideration of impacts of changing tenure patterns on material wellbeing and discussion of the impacts on older people.			✓				✓	✓	

Publication reference	Summary	Area of	Area of	Area of	Homelessness	Māori	Pacific	Seniors (50+)	Young people/	Ageing with disability
Pledger, M., Dunn, P., McDonald, J., Cumming, J. and Saville-Smith, K. (2020) Is the use of health services by older adults in New Zealand associated with their housing tenure?. <i>The New Zealand medical journal</i> , 133(1510), 23–34.	Explores associations between tenure and the health service use of older New Zealanders. Older renters are more likely to live in poorer health than older owner-occupiers and, overall, are more likely to use some (public) health services yet are more likely to have unmet health needs. Public renters are in the poorest physical and mental health and owner-occupiers in the best overall health. Renters more likely to report a cost barrier to accessing healthcare/prescriptions. Few renters had health insurance. The increasing reliance on renting among older people has implications for population health and wellbeing, health service delivery and transitions to residential care.	✓		✓		✓	✓	✓		
Pledger, M., McDonald, J., Dunn, P., Cumming, J. and Saville-Smith, K. (2019). The health of older New Zealanders in relation to housing tenure: Analysis of pooled data from three consecutive, annual New Zealand Health Surveys. <i>Australian and New Zealand Journal of Public Health</i> , 43(6), 182–189. https://doi.org/10.1111/1753-6405.12875	Explores the relationships between the housing tenure of older New Zealanders, their health-related behaviours, and physical and mental health. Renters were more likely to be living alone on lower annual incomes. Overall measures of physical and mental health showed a health gradient, with public renters in the poorest health and owner-occupiers in the best health. Higher rates of renting among Māori and Pacific people and older females means that these groups are particularly vulnerable to any negative impact of renting on health.	✓		✓		✓	✓	✓		

Publication reference	Summary	Area of	Area of	Area of	Homelessness	Māori	Pacific	Seniors (50+)	Young people/	Ageing with disability
<p>Rout, M., Reid, J., Menzies, D. and MacFarlane, A. (2019) <i>Homeless and landless in two generations – Averting the Māori housing disaster</i>. Report for Building Better Homes, Towns and Cities: Kāinga Tahi, Kāinga Rua, 22pgs. Wellington: BBHTC https://www.buildingbetter.nz/publications/ktr/Rout_et_al_2019_Homeless_&_landless_in_two_generations_KTKR.pdf</p>	<p>The purpose of this paper is to identify the interventions needed to reverse declines in home ownership for Māori. Firstly, it examines the causes of the overall decline in Māori home ownership over the past 100 years. It then identifies the interventions needed to retrofit existing state institutional structures and create alternatives where needed. If home ownership continues to decline at the rate it has been falling since 1991 Māori will almost be entirely renters by 2061. Public sector policy is inflexible and does not permit housing solutions geared to context.</p>			✓	✓	✓		✓	✓	
<p>Royal Society Te Apārangi (2021) <i>Spotlight on Housing: Te Tapeke, Fair futures in Aotearoa</i>. https://www.royalsociety.org.nz/what-we-do/our-expert-advice/spotlight-on-housing/</p>	<p>This paper considers what a fairer future for housing might look like in Aotearoa New Zealand. Nearly a third of NZ households spent 30%+ of their total household income on housing costs in 2019. Housing costs affect wellbeing, and reduce money left for food and other necessities. Single parent households are most likely to find housing costs unaffordable overall. Disabled people under 65 were more likely to rate their housing costs as less affordable compared with non-disabled people of any age or disabled people over 65.</p>	✓	✓	✓	✓	✓	✓	✓	✓	✓

Publication reference	Summary	Area of	Area of	Area of	Homelessness	Māori	Pacific	Seniors (50+)	Young people/	Ageing with disability
<p>Rua, M., Hodgetts, D., Stolte, O., King, D., Cochrane, B., Stubbs, T., Karapu, R., Neha, E., Chamberlain, K., Te Whetu, T., Te Awekotuku, N., Haar, J. and Groot, S. (2019) Precariat Māori households today. <i>Te Arotahi Series Paper 02</i>, Auckland: Ngā Pae o te Māramatanga. http://www.maramatanga.co.nz/research/arotahi-papers</p>	<p>This project responds to the continued socio-economic exclusion of many Māori households. It examines the multiple hardships that compromise a person's ability to sustain their housing including: low incomes, racism in the rental market, poor quality housing, insecure and overcrowded and unaffordable housing, social exclusion, and stigma. The authors make explicit reference for the need for the Ministry to "fully grasp the complex pathways of homelessness, pathways often stemming from colonialism, as well as socio-economic and intergroup inequalities that manifest in the everyday lives of precariat Māori whānau."</p>	✓	✓	✓	✓	✓			✓	
<p>Salesa, D. (2018) <i>Island Time. New Zealand's Pacific Futures</i>. Wellington: BWB Texts, Bridget Williams Books. https://www.bwb.co.nz/books/island-time/</p>	<p>Reflects on how New Zealand is planning for a future with much larger shares of Māori and Pacific peoples in the population. Reference is made to the very significant deterioration in the availability of affordable housing for Pacific peoples. In the 1970s there was much higher home ownership amongst NZ's Pacific populations, now they have the lowest percentage of people owning houses of any major ethnic group in NZ. The cost of rental housing is increasingly prohibitive, and the accommodation available for Pacific families is quite unsuitable for their needs.</p>	✓	✓	✓			✓			

Publication reference	Summary	Area of	Area of	Area of	Homelessness	Māori	Pacific	Seniors (50+)	Young people/	Ageing with disability
<p>Saville-Smith K. (2013) <i>Housing Assets: A Paper for the 2013 Review of Retirement Income</i>, Auckland: Commission for Financial Literacy and Retirement Income. https://cffc-assets-prod.s3.ap-southeast-2.amazonaws.com/public/Uploads/Retirement-Income-Policy-Review/Background-papers/KiwiSaver/dccb06cf11/RI-Review-2013-Housing-Assets-and-Retirement-Income.pdf</p>	<p>Explores the connections between housing assets and retirement incomes. Housing assets are an important part of ensuring retirement incomes are adequate for acceptable living standards as well as managing the societal costs arising from future age-related health and service costs. Neither older people's housing nor retirement incomes can be effectively dealt with in isolation from each other. Nor can it be divorced from addressing younger households' increasing marginalisation from home ownership in New Zealand. Suggests that all age cohorts benefit from a functional and affordable housing stock and supply.</p>			✓				✓	✓	
<p>Saville-Smith, K. and Mitchell, I. (2020). <i>Accommodation Supplement: High expenditure, low efficacy</i>. Research Report, December 2020, for Building Better Homes, Towns and Cities Homes and Spaces for Generations: Affordable Housing for Generations. Wellington: BBHTC. https://www.buildingbetter.nz/publications/homes_spaces/Saville-Smith_Mitchell_Dec2020_accommodation_supplement_high_expenditure_low_efficacy.pdf</p>	<p>The growth of Accommodation Supplement (AS) expenditure in tandem with falling owner occupation, rising homelessness and persistently unaffordable housing prices and rents raises questions around the value and efficacy of the AS. There have been substantial increases in Government expenditure on AS over the last twenty-five years, however many New Zealand households continue to face significant affordability problems. AS leaves unaddressed issues of crowding, poor quality housing and homelessness. AS costs will grow as the supply of housing affordable to low income and modest income households continues to decline relative to need.</p>			✓	✓				✓	

Publication reference	Summary	Area of	Area of	Area of	Homelessness	Māori	Pacific	Seniors (50+)	Young people/	Ageing with disability
<p>Saville-Smith, K. (2019a). <i>Building for Shared Rental Homes by Non-profit Community Housing Providers: Maximising yield, reducing risks and effectively using land for older people's rental housing</i>. Report for Building Better Homes, Towns and Cities contestable fund research: Building Solutions. Wellington: BBHTC. https://www.buildingbetter.nz/publications/homes_spaces/Saville-Smith_2019_Building_for_shared_rental_homes_CHPs.pdf</p>	<p>This study is one component of a project on building solutions that addresses some of the barriers to make our building stock perform better for the needs of older people. It focuses on the increasing demand for affordable, secure rental housing among older people and the limited delivery of rental and affordable housing to older people. Research outputs include: a set of concept plans for shared rental for older people (similar to Abbeyfield), developed to suit a specific site, but transferrable to other sites; an analysis of the yield associated with that concept; and an analysis of construction costs. This report focuses on the yield associated with the concept design. The yield has a significant impact on costs, capital requirements and returns which are associated with land consumption.</p>	✓	✓	✓				✓		
<p>Saville-Smith, K. (2019b). <i>Building for Shared Rental Homes by Non-profit Community Housing Providers: Building Costs</i>. Report for Building Better Homes, Towns and Cities contestable fund research: Building Solutions. Wellington: BBHTC. https://www.buildingbetter.nz/publications/homes_spaces/Saville-Smith_2019_Shared_rental_building_costs.pdf</p>	<p>The second report of a project on building solutions that address some of the barriers to make our building stock, both new build and retrofit, perform better for the needs of older people. The project focuses on the increasing demand for affordable, secure rental housing among older people and the limited delivery of rental and affordable housing to older people. This report focuses on the estimated build costs of the concept design. Land has long been identified as critical factor in the viability of community housing provision. This analysis reinforces that.</p>	✓	✓	✓				✓		

Publication reference	Summary	Area of	Area of	Area of	Homelessness	Māori	Pacific	Seniors (50+)	Young people/	Ageing with disability
Saville-Smith, K. (2019c) <i>Housing, New Zealand's Tenure Revolution and Implications for Retirement Incomes: A paper for the 2019 Review of Retirement Income Policies</i> , Prepared for the Commission for Financial Capability. https://cfc-assets-prod.s3.ap-southeast-2.amazonaws.com/public/Uploads/Retirement-Income-Policy-Review/2019-RRIP/Research-docs/Home-ownership/CRESA-Housing-NZs-Tenure-Revolution-and-Implications-for-Retirement.pdf	This paper challenges the assumption older people come to retirement as owner occupiers. Among those reaching National Superannuation age in the next ten years, the rate of owner occupation is likely to be around 30% lower than their predecessors. Conversely, the rate of renting among the 55-64 years cohort will be 40% higher. Older renters tend to be less well than older owner occupiers with flow on effects for health service utilisation costs. Supply of smaller dwellings out of alignment with trends to smaller households and the ageing of the population respectively.	✓	✓	✓	✓	✓	✓	✓		
Saville-Smith, K. (2020) From vicious to virtuous: Repositioning New Zealand's housing to sustain better later lives. Chapter in: B. Judd, K. Tanoue, and E. Liu, (Eds.) <i>Ageing in Place: Design, Planning and Policy Response in the Western Asia-Pacific</i> . Cheltenham: Edward Elgar Publishing.	Explores key aspects of New Zealand's homes and settlements that compromise older people's personal, social and economic independence and self-determination. Argues New Zealand's homes and neighbourhoods are ill-adapted to meet the challenges presented by the cultural and demographic diversification of New Zealand's population, the rapid fall in owner-occupation and under-supply of affordable housing. Approach to ageing is often disabling. Information barriers, complexity of housing related decisions, and fragmented and inconsistent advice and dominant framing around health and age appropriateness limit older peoples' choices and agency.	✓	✓	✓				✓	✓	

Publication reference	Summary	Area of	Area of	Area of	Homelessness	Māori	Pacific	Seniors (50+)	Young people/	Ageing with disability
<p>Saville-Smith, K. (Ed.) (2019) <i>Revitalising the Production of Affordable Housing for Productive, Engaged and Healthy Lives: Integrated Report</i>. Report for Building Better Homes, Towns and Cities: Homes and Spaces for Generations. Wellington: https://affordablehousing.goodhomes.co.nz/wp-content/uploads/2020/08/Saville-Smith_Nov2019_revitalising_production_affordable_housing.pdf</p>	<p>Integrated report presenting data from 4 components: IDI analysis of long-term outcomes of living in secure, low-cost housing; intergenerational housing trajectories; impacts of accessing rent-for-buy; Housing, home and whānau ora. On average, people living in secure low-cost housing generated a net fiscal benefit to government. Since the 1980s, low-cost house production has declined, and low-cost new builds are not affordable to low and even lower-middle income households. Low-cost housing viewed as essential for whānau to be 'at home' and be able to 'be' Māori and 'do' or live Māori values such as whanaungatanga, manaakitanga and aroha.</p>		✓	✓		✓	✓		✓	
<p>Saville-Smith, K. and James, B. (2016), <i>The Housing Older People would Choose A review of Selected New Zealand Research</i>. Wellington: Centre for Research, Evaluation and Social Assessment. http://www.smartgrowthbop.org.nz/media/1664/the-housing-older-people-would-choose-final.pdf</p>	<p>Reviews NZ research about: the characteristics and amenities that older people consider important in their housing and living environment; the reasons older people give for wanting or needing to move; the actual reasons why older people move; and housing choices, taste and aspirations. Most older people want to age-in-place. Residential movement is both by choice and in response to shocks (forced). Key decisions are made around place, specific location and dwelling, and involve trade-offs. Often housing preferences cannot be met due to financial constraints and lack of suitable housing supply.</p>		✓					✓		

Publication reference	Summary	Area of	Area of	Area of	Homelessness	Māori	Pacific	Seniors (50+)	Young people/	Ageing with disability
<p>Saville-Smith, K., Brunsden, N. and White, V. (2019) <i>Māori housing need, stock and regional population change in Te Tai Tokerau: Dwelling Condition Te Tai Tokerau Component 4</i>, Report prepared for Te Puni Kokiri, Ministry of Social Development and Housing NZ. https://www.tpk.govt.nz/en/a-matou-mohiotanga/housing/maori-housing-supply-and-demand-in-te-tai-tokerau</p>	<p>Establishes the stock condition of Māori housing. There are two aspects of stock condition that are of concern. The first is cold, damp housing arising from poor insulation, orientation and heating. The second is dilapidation and significant disrepair. Dwellings in Te Tai Tokerau are in much poorer condition than the East Coast, the Eastern Bay of Plenty and national stock overall. Almost a third of dwellings surveyed were in poor or serious condition.</p>	✓		✓		✓				
<p>Saville-Smith, K., James, B. and Rehm, M. (2016) <i>Equity release - Realities for Older People Wellington: Centre for Research, Evaluation and Social Assessment</i>. https://downsizing.goodhomes.co.nz/wp-content/uploads/2017/06/Equity-Realisation-and-Older-People.pdf</p>	<p>Focuses on whether realisation of housing assets is a viable downsizing strategy. Highlights the difficulties older people experience finding smaller, affordable dwellings. Finds some movers expend the same or more in their purchase of owner occupation than they receive from a sale price. For those moving to retirement villages, non-discretionary housing and service costs mean that realised equity is directed to day-to-day living costs for a substantial proportion of the 'cashed-up' residents.</p>		✓	✓				✓		

Publication reference	Summary	Area of	Area of	Area of	Homelessness	Māori	Pacific	Seniors (50+)	Young people/	Ageing with disability
Saville-Smith, K., James, B., Warren, J. and Coleman (2009). Older People's Housing Futures in 2050: Three Scenarios for an Ageing Society https://thehub.swa.govt.nz/assets/documents/older-peoples-housing-futures-2050-report.pdf	This research is concerned with the patterns of housing futures likely to be evident among people 65 years and older between 2010 and 2050. It presents three possible scenarios to stimulate reflection on opportunities and challenges presented by an ageing society. In 2050 around quarter of the population will be older people. Most older people will live in their own homes, but renter households headed by an older person will more than double. Older people will be more diverse ethnically and may have more diverse housing needs. Over half a million can be expected to have a disability that impairs their mobility. Dwellings built from 1970s through to the early 21st century can be expected to dominate the stock. Consumer workshops identified unaffordable housing as a pressing issue. Home ownership was seen as increasingly difficult for young people and largely unachievable for some groups. Growing number of older people who were not homeowners was recognised. More options for older people's housing and tenure was also a dominant theme. A key uncertainty was the willingness and ability of today's young people to care for their elders in the future.	✓	✓	✓		✓	✓	✓	✓	✓
Saville-Smith, K., Rehm, M., James, B. and Murphy, L. (2016) <i>Downsizing and the Housing Stock– Realities for Older People</i> , Wellington: Centre for Research, Evaluation and Social Assessment. https://downsizing.goodhomes.co.nz/wp-content/uploads/2017/06/Dwelling-size-and-downsizing-22-Sept.pdf	Examines practicalities of moving from a dwelling with a larger footprint or number of bedrooms to a smaller dwelling given a shift by the building industry away from the low-cost housing sector to upper quartile new-build dwellings. The asset-value of dwellings has been increasingly emphasised while their use-value has become less and less prominent. The building industry had low levels of recognition, capability, or willingness to deliver accessible housing.			✓				✓		

Publication reference	Summary	Area of	Area of	Area of	Homelessness	Māori	Pacific	Seniors (50+)	Young people/	Ageing with disability
<p>Saville-Smith, K., Saville-Smith, N. and Fraser, R. (2017) <i>ADU Potential: Have we the potential to use our existing stock of homes to create a bigger stock of affordable, fit for purpose homes? Wellington: Building Better Homes Towns and Cities National Science Challenge</i> https://www.buildingbetter.nz/publications/homes_spaces/adm/Saville-Smith_et_al_2017_ADU_Potential.pdf</p>	<p>This report explores the potential of accessory dwelling units (ADUs) and partitioning to increase the stock of affordable housing in New Zealand. It estimates that 12% of New Zealand's housing stock could be partitioned to deliver 180,000 additional dwellings without impinging on greenfield sites or unutilised vacant residential land. The potential for additional housing through ADUs is unlikely to be realised because of local regulations and lack of consistency between councils.</p>	✓	✓	✓				✓		
<p>Sharma, R. and Murphy, L. (2015) The housing experiences of Fijian migrants in Auckland. <i>International Journal of Housing Markets and Analysis</i>, 8 (3):396-411</p>	<p>This paper examines the housing experiences of Fijian migrants in Auckland. The majority of respondents had attained homeownership. Homeownership was prized for conveying a sense of “independence” and was aligned with notions of Fijian Indian culture. Both homeowners and renters expressed high levels of satisfaction with the locational attributes of their homes. While the majority of renters aspired to homeownership, a lack of affordable housing was noted.</p>			✓			✓			
<p>Smellie, T. and Robertson, T. (2019) Relocating or ageing in place? A story of housing modifications in rural NZ <i>Scope (Health & Wellbeing)</i> 4:45-57. https://www.thescopes.org/assets/Uploads/7-SCOPE-HW-Smellie.pdf</p>	<p>Focuses on housing modifications funded by Ministry of Health. Discusses the reasons and issues behind the growing need for complex housing modifications. Captures the experience of a couple in their 50s receiving housing modifications in a rural town. Wellbeing and quality of life improved for the double-amputee when the modifications were installed however, the initial positive response was superseded by the reality of incomplete solutions and partial enablement, which may undermine the couple's ability to remain in their home. Unmet needs for modifications arose early in the process, suggesting an inadequate needs assessment.</p>	✓	✓	✓				✓		✓

Publication reference	Summary	Area of	Area of	Area of	Homelessness	Māori	Pacific	Seniors (50+)	Young people/	Ageing with disability
Spoonley, P. (2020) 'OK Boomer', Chapter 10 in his book <i>The New Zealand. Facing Demographic Disruption</i> . Massey University Press.	This chapter explores a range of issues, including home ownership, for the population born between the mid-1940s and the late 1960s -- the baby boomers. Comments on the high level of home ownership amongst those in their 70s and 80s compared with those aged 15-40 years. Highlights the affordability of housing in the 1970s/80s compared with 2010s/20s. Points to a future where many of the younger generation in the 2020s will not be able to afford to purchase housing and may struggle with affordability of rental housing.	✓		✓				✓	✓	
Statistics New Zealand (2016a) <i>Disability and housing conditions 2013</i> , Wellington: Statistics New Zealand https://www.stats.govt.nz/reports/disability-and-housing-conditions-2013	This report compares housing characteristics of disabled and nondisabled people living in private dwellings. Disabled people were more likely than non-disabled people to live in rental accommodation and to live alone or in a couple-only household (reflecting the older average age). Disabled people were more likely to report problems with their house including difficulty keeping their home warm and issues with damp. Disabled children were more likely than non-disabled children to live in a home too small for their needs. Around a third of disabled people with a physical impairment used building modifications to improve accessibility to, or within, their home, 17% needed some modifications to their home to improve accessibility.	✓	✓	✓				✓	✓	✓

Publication reference	Summary	Area of	Area of	Area of	Homelessness	Māori	Pacific	Seniors (50+)	Young people/	Ageing with disability
<p>Statistics New Zealand (2016b) <i>Changes in home-ownership patterns 1986–2013: Focus on Māori and Pacific people</i>. Wellington: Statistics New Zealand. https://www.stats.govt.nz/reports/changes-in-home-ownership-patterns-1986-2013-focus-on-maori-and-pacific-people</p>	<p>Explores changes in tenure patterns between 1986 and 2013 for the Māori and Pacific populations. For Pacific people and Māori, the proportion of their populations living in an owner-occupied dwelling fell at a faster rate than for the total population. The greatest fall in home ownership for was in the 1990s, when there was a prolonged recession and unemployment was high. Home ownership fell in most areas, but differences emerge between rural and urban areas, and some territorial authority areas. Māori and Pacific people also have lower rates of household wealth.</p>					✓	✓	✓	✓	
<p>Statistics New Zealand (2018) <i>Living in a crowded house: Exploring the ethnicity and well-being of people in crowded households</i>. Wellington: Statistics New Zealand. https://www.stats.govt.nz/reports/living-in-a-crowded-house-exploring-the-ethnicity-and-well-being-of-people-in-crowded-households</p>	<p>This report looks at the changing rates of crowding over time (1991-2013) and impacts for well-being. Crowding rates increased between 2006-2013 and vary markedly by ethnic group. Pacific households have the highest crowding rates. People living in crowded households experienced lower well-being on measures such as life satisfaction and material well-being. People in crowded households were more likely to report house condition problems. Crowding rates have generally fallen for children since 1996. Since 2001, they have risen the most for people aged 20–24 and for people aged over 50.</p>	✓		✓		✓	✓	✓	✓	

Publication reference	Summary	Area of	Area of	Area of	Homelessness	Māori	Pacific	Seniors (50+)	Young people/	Ageing with disability
<p>Stephens, C., Birchall, M. and Thompson, J. (2021) <i>Diversity in housing experiences and their correlates for New Zealand Adults aged 75+ and 65-74 years</i>, Report for the Commission for Financial Capability. Retrieved 17 November 2021, https://cffc-assets-prod.s3.ap-southeast-2.amazonaws.com/public/Uploads/Research-2020%2B/Diversity-in-housing-experiences-2021.pdf</p>	<p>A descriptive picture of the housing status of older people in Aotearoa/New Zealand in 2020. The majority aged 75+ are well housed and satisfied with their neighbourhood provisions. Smaller percentages experience difficulties with housing. They are more likely to have non-secure tenure, poorer housing conditions, and experience less social cohesion. Older people with vision or hearing impairments are more likely to be dissatisfied with neighbourhood quality or accessibility. Comparisons between those aged 75+ and 65-74 years indicate problem housing is more prevalent in the younger group. Neighbourhoods are an aspect of housing provision that is not well planned for.</p>			✓		✓		✓		
<p>Symes, L. (2021) <i>The wealth ladder: house prices and wealth inequality in New Zealand</i>. Analytical note 21/1. Wellington, The Treasury https://www.treasury.govt.nz/publications/an/an-21-01</p>	<p>Preliminary analysis of the relationship between house prices, wealth distribution, and wealth inequality. Housing wealth is the largest and most widely held type of wealth in New Zealand. Between 2001 and 2018, total wealth increased, and older people gained relatively more than younger people. An increase in house prices causes a slight decrease in wealth inequality, but the gap between owners and non-owners widens. Non-owners are almost twice as likely as owners to have high housing costs. Non-owner households are also more likely to live in material hardship. The gap is shown to be widening.</p>			✓				✓	✓	

Publication reference	Summary	Area of	Area of	Area of	Homelessness	Māori	Pacific	Seniors (50+)	Young people/	Ageing with disability
<p>Tanielu, R. (2019) <i>The Housing Crisis Facing Pasifika People in Aotearoa</i>, The Salvation Army Social Policy and Parliamentary Unit, Auckland, New Zealand. https://www.salvationarmy.org.nz/sites/default/files/files/%5Bfile_field%3Atype%5D/sppu_pasifikahousingcrisis_2019.pdf</p>	<p>This paper explores how housing challenges are affecting Pacific people in Aotearoa. It provides ethnic specific data where available. Findings reiterate that Pacific people tend to be young, concentrated in urban areas and dependent on the rental market. Housing stock is ill equipped to meet family size and cultural needs compounding issues with affordability and tenure security. The author notes that demographic, social and financial pressures have contributed to increases in multi-family living, indicating this is not solely a cultural preference. Pacific households have high rates of crowding and the worst housing outcomes of any group. NZ born Pacific are worse off than those born overseas.</p>	✓	✓	✓	✓		✓		✓	
<p>Taylor, N., Mackay, M. and Russell, K. (2020). <i>Searching for community wellbeing: population, work and housing in the town of Oamaru</i>. Working paper 20-08a for Building Better Homes, Towns and Cities Thriving Regions, 36pgs. Christchurch: AgResearch/BBHTC. https://www.buildingbetter.nz/publications/thriving_regions/taylor_et_al_2020_searching_for_community_wellbeing_wp20-08a.pdf</p>	<p>Presents the results of the Oamaru case study of the Thriving Regions Research Programme. It notes moderate growth and changing demographics due to an ageing population and in-migration of workers (especially Tongan). High levels of homeownership have been retained, however house values and rents are rising steadily. Provision of housing for seasonal/transient workers is an issue as evidenced by an increase in hardship applications, including housing assistance. Affordable housing, especially rental housing, is needed to support the wellbeing of migrant workers and populations.</p>		✓	✓		✓	✓	✓		

Publication reference	Summary	Area of	Area of	Area of	Homelessness	Māori	Pacific	Seniors (50+)	Young people/	Ageing with disability
Teariki, M. (2017) Housing and health of Kiribati migrants living in New Zealand. <i>International Journal of Environmental Research and Public Health</i> , 14 (10), no. 1237	Draws on research on the settlement experiences of Kiribati migrants living in New Zealand, to examine how housing influences the health and settlement patterns of this group. It finds Kiribati migrants are highly concentrated in private rentals, with many entering the market by taking over the leases of other Kiribati migrants. Children bear a cost from living in poorly insulated and damp housing, and adults bear the mental costs. There is a lack of incentives for landlords to make improvements. The research concludes that minimum housing standards are needed to protect tenants.			✓			✓		✓	
The New Zealand Productivity Commission (2012) <i>Housing Affordability inquiry</i> . Wellington. https://www.productivity.govt.nz/inquiries/housing-affordability/	Evaluates the factors influencing housing affordability in NZ. Findings cover: taxation; urban planning and housing affordability; paying for infrastructure development; building regulations; building industry performance; private rental market; social housing; and Māori housing.		✓	✓		✓		✓		
Tuai Harris, R. (2015) <i>Invisible in the SuperCity Hidden Homelessness in Auckland</i> , Auckland: Salvation Army. https://www.salvationarmy.org.nz/sites/default/files/uploads/20151118SPPUIInvisible%20in%20SuperCity%20Web%20PDF.pdf	This report illustrates the reality that many people in Auckland do not have adequate housing and are homeless. It focuses on the 'hidden homeless,' including families and children who are sleeping outside, in cars, in overcrowded situations, or in uninhabitable houses. A high proportion of people affected by homelessness (47%) are children. One of the primary causal factors for homelessness in Auckland is a lack of supply of affordable rental properties in the areas that need it most. The author discusses adequate shelter in the context of human rights and concludes with suggested policy directions.			✓	✓	✓	✓		✓	

Publication reference	Summary	Area of	Area of	Area of	Homelessness	Māori	Pacific	Seniors (50+)	Young people/	Ageing with disability
<p>Varona, G., Ogilvie, D., Darbyshire, Z. and Elumalai, V. (2021) <i>Te Pā Harakeke: Māori housing and wellbeing</i>. Wellington, Stats NZ. https://www.stats.govt.nz/reports/te-pa-harakeke-maori-housing-and-wellbeing-2021</p>	<p>The analysis focuses on the connections and associations between various housing measures and Māori wellbeing outcomes. In the 1930s Māori dwellings were much more likely to be owner-occupied than all dwellings. However, Māori homeownership rates fell with urban migration and have continued to fall below that of the total population. Māori experience poorer housing outcomes and higher rates of homelessness. They are more likely to live in unsuitable, crowded homes, and homes affected by dampness and mould. Māori are less likely to have moved from renting to home ownership and have higher rates of unaffordable housing. Housing factors, such as tenure, crowding, dwelling type, and proximity of residence to ancestral marae, were strongly correlated with a number of key kaitiakitanga measures.</p>	✓		✓	✓	✓				
<p>White, V. and Jones, M. (2017) <i>Warm, dry, healthy? Insights from the 2015 House Condition Survey on the presence of insulation, ventilation, heating and mould in New Zealand houses</i>. SR372, Porirua: BRANZ.</p>	<p>This report presents findings from the 2015 BRANZ House Condition (HCS) on key factors associated with, and indicative of, a warm, dry, healthy home: insulation, ventilation, heating, and mould. Around 53% New Zealand houses have no/suboptimal insulation in the roof space and/or subfloor. Ventilation and mould were identified as major issues. Mould was visible in nearly half (49%) of all properties surveyed, but most common in rentals. Most households heat the living area but heating of bedrooms is less common. Tenants have less access to cost-effective heating solutions than owner-occupiers. Children and older people are negatively affected.</p>	✓		✓			✓	✓		

Publication reference	Summary	Area of	Area of	Area of	Homelessness	Māori	Pacific	Seniors (50+)	Young people/	Ageing with disability
<p>White, V., Ferguson, A., Goodyear, R. and Saville-Smith, K. (2021) The condition of owned and rented housing in Aotearoa New Zealand. <i>New Zealand Population Review</i>, 47, 108–144. Special Edition: <i>Housing at the heart of place, people and population</i>. https://population.org.nz/app/uploads/2021/08/White_etal_Condition_Owned_Rented_Housing.pdf</p>	<p>This paper explores the distribution of a range of indicators of housing condition, comparing between owned and rented stock. Owner occupied dwellings were more likely to be stand-alone houses while rentals were more likely to be multi-unit/joined dwellings. Rented dwellings also tended to be smaller, with both smaller footprints and fewer bedrooms. Rentals were in poorer state of repair than owner occupied housing. People living in an owner-occupied dwelling were more likely to report that their house or flat needed major repairs or maintenance when they did not have enough money for everyday needs</p>	✓		✓		✓	✓			
<p>Whitehead, J. and Walker, G. (2021) Exploring the factors affecting Māori home ownership. <i>New Zealand Population Review</i>, 47, 262–304. Special Edition: <i>Housing at the heart of place, people and population</i>. https://population.org.nz/wp-content/uploads/2021/08/Whitehead_Walker_Maori_Home_Ownership.pdf</p>	<p>Investigates the associations between Māori home ownership and socio-economic variables to identify pathways for transitioning Māori from renters to homeowners. Future aspirations, economic stability, partner relationship and mental health are identified as variables that increase the likelihood of home ownership by age 35. High variability in the observed rates of home ownership in each quintile group, with those in the most advantaged group having rates of home ownership eight times higher than those in the least advantaged group. Socio-economic conditions in childhood and later in adult life are the most significant predictors of home ownership.</p>	✓		✓		✓			✓	
<p>Witten, K. Wall, M., Carroll, P., Telfar-Barnard, L., Asiasiga, L., Graydon-Guy, T., Huckle, T., and Scott, K. (2017) <i>The New Zealand Rental Sector</i>. ER022, Porirua: BRANZ https://www.branz.co.nz/pubs/research-reports/er22/</p>	<p>Three-phase study of the New Zealand private rental housing sector. Long-term renting is increasingly the only option for a growing number. A perceptual shift back to viewing a dwelling as primarily a home, rather than an asset, and legislation that ensure secure occupancy are needed to make renting a viable option.</p>		✓	✓		✓	✓	✓	✓	

Publication reference	Summary	Area of	Area of	Area of	Homelessness	Māori	Pacific	Seniors (50+)	Young people/	Ageing with disability
<p>Witten, K., Opit, S., Ferguson, E. and Kearns, R. (2018). <i>Developing community: Following the Waimahia Inlet affordable housing initiative</i>. Report for Building Better Homes, Towns and Cities Urban Wellbeing: Shaping Places: Future Neighborhoods', 52pgs. Wellington: BBHTC. https://www.buildingbetter.nz/publications/urban_wellbeing/Witten_et_al_2018_Developing_community_Waimahia_initiative.pdf</p>	<p>Case study of Waimahia Inlet, an affordable housing development. The study investigates residents' experiences and satisfaction with the design of their homes and neighbourhood, tenure trajectories, and the process of community formation. It also investigates the impacts of the development on neighbouring residents. For many, Waimahia offered a chance to 'get onto the property ladder' and into warm and dry housing. For renters, it provided security and support. Initial apprehensions about higher-density living and more limited private outdoor space had not played out. Two issues were prevalent in terms of negative perceptions: insufficient parking and crime.</p>			✓					✓	
<p>Yavari, F., Khajehzadeh, I. and Vale, B. (2018) Design options for an ageing New Zealand population: A life cycle energy (LCE) analysis. <i>Energy and Buildings</i>, 166:1-22.</p>	<p>This study shows it is possible to convert a typical three-bedroom NZ house into small, shared housing units for seniors that enable ageing in place. A life-cycle energy assessment of scenarios for the house before and after conversion shows that occupancy and design are key factors in whether resources can be saved using this approach. Over 50 years the conversion with 4 occupants showed a 27% saving in life-cycle energy (per person). However, 2 people living in the original house used less energy per person over 50 years than either 2 or 3 people living in the same house converted into two separate units (due to duplication of appliances and furniture and additional hot water use). The resources going into converting the house were minimal.</p>	✓					✓			

Publication reference	Summary	Area of	Area of	Area of	Homelessness	Māori	Pacific	Seniors (50+)	Young people/	Ageing with disability
Yeoman, R. and Akehurst, G. (2015) <i>The housing we'd choose: a study of housing preferences, choices and trade-offs in Auckland</i> . Auckland: RIMU, Auckland Council.	The study collected the views of more than 1400 Aucklanders to understand what is important to them in choosing a place to live. It compares stated aspiration/preferences to both the existing housing stock and what is being built, in order to explore gaps in supply. Trade-offs are made between location, house size and house type. Location is the priority. Constraints are house prices and household incomes. Safety is a key concern.		✓			✓	✓	✓		

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ANNEX 3: Selected Research Programmes Supported by the Endeavour Fund, Health Research Council and the Marsden Fund, 2016-2021

Endeavour Fund (Ministry of Business, Innovation and Employment)

University of Otago (2016) *Ending homelessness in New Zealand: Housing First*, 5 year Programme Grant. Details available at: <https://www.mbie.govt.nz/assets/f388f30305/endeavour-fund-2016-successful-proposals-detailed-summary.pdf>

Unitec Institute of Technology (2019) *Marae Ora, Kāinga Ora: marae-led interventions that develop kāinga*, 3 year Programme Grant. <https://www.mbie.govt.nz/assets/2019-endeavour-round-successful-projects.pdf>

Auckland University of Technology (2020) *Enhancing the impact of major urban regeneration on community wellbeing*, 5 year Programme Grant. <https://www.mbie.govt.nz/assets/Uploads/2020-endeavour-fund-tables-v2.pdf>

University of Otago (2020) *Public Housing and urban regeneration: maximising well being*, 5 year Programme Grant. <https://www.mbie.govt.nz/assets/Uploads/2020-endeavour-fund-tables-v2.pdf>

University of Waikato (2020) *Working to end racial oppression*, 5 year Programme Grant. <https://www.mbie.govt.nz/assets/Uploads/2020-endeavour-fund-tables-v2.pdf>

Health Research Council

Tiatia, R. (2016) *App for houses and households (A4HH)*, 1 year Postdoctoral Fellowship. <https://www.hrc.govt.nz/resources/research-repository/app-houses-and-households-a4hh>

Moeke-Maxwell, T. (2017) *Pae Herenga: an investigation of Māori whanau end of life cultural care customs*, 2 year Māori Health Project. <https://www.hrc.govt.nz/resources/research-repository/te-ao-marama-disability-perspectives-tangata-whaikaha-maori>

Alefaio, S. (2018) *Caring for our wisdom bearers. Pacific Matua (Elder) care*, 3 year Pacific Health Project. <https://www.hrc.govt.nz/resources/research-repository/caring-our-wisdom-bearers-pacific-matua-elder-care>

Jones, B. (2019) *Te Ao Mārama: disability perspectives of tāngata whaikaha Māori*, 1.5 year Māori Health Project. <https://www.hrc.govt.nz/resources/research-repository/te-ao-marama-disability-perspectives-tangata-whaikaha-maori>

Coup, N. (2020) *Tiriho whakamuri, kōkiri whakamaui*, 1 year Community Action Grant.

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Hikata, J. et al. (2020) *Access pathways to residential care for Māori and non-Māori*, 8 month Research Activation Grant 2. <https://www.hrc.govt.nz/resources/research-repository/access-pathways-residential-aged-care-maori-and-non-maori>

Moeke-Maxwell, T. (2020) *Tupu Tika: Building whānau capacity to carry out end-of-life and end-stage care*, 1 year Research Activation Grant 2. <https://www.hrc.govt.nz/resources/research-repository/tupu-tika-building-whanau-capacity-carry-out-end-life-and-end-stage>

Pierse, N. et al. (2020) *Research to maximise health and well-being gains from housing*, 5 year Programme Grant. <https://www.hrc.govt.nz/resources/research-repository/research-maximise-health-and-wellbeing-gains-housing>

Martin, R. et al. (2021) *Flourishing together: including tāngata whaikaha in health policy*, 3 years Emerging Researcher First Grant, <https://www.hrc.govt.nz/resources/research-repository/flourishing-together-including-tangata-whaikaha-health-policy>

Robinson, J. et al. (2021) *Palliative care for people who are homeless and vulnerably housed*, 1 year Research Activation Grant 2. <https://www.hrc.govt.nz/resources/research-repository/palliative-care-people-who-are-homeless-and-vulnerably-housed>

Tautolo, E-S. et al. (2021) *Pacific Island Families: Thriving Young Adults (PIF:TYA)*, 3 years Pacific Health Project. <https://www.hrc.govt.nz/resources/research-repository/pacific-islands-families-thriving-pacific-young-adults-pif-tpya>

Marsden Fund (Royal Society Te Apārangi)

Greenaway-McGrevy, R.T. (2016) *New methods of panel data forecasting applied to New Zealand's property market*, 3 years Standard Grant. <https://www.royalsociety.org.nz/what-we-do/funds-and-opportunities/marsden/awarded-grants/marsden-grants-awarded-2016/>

Kukutai, T.H. (2016) *Counting our Tūpuna: colonisation and indigenous survivorship in Aotearoa New Zealand*, 3 years Standard Grant. <https://www.royalsociety.org.nz/what-we-do/funds-and-opportunities/marsden/awarded-grants/marsden-grants-awarded-2016/>

Liu, L.S. (2016) *Floating families: new Chinese migrants in New Zealand and their multi-generational families*, 3 years Fast Start Grant. <https://www.royalsociety.org.nz/what-we-do/funds-and-opportunities/marsden/awarded-grants/marsden-grants-awarded-2016/>

Kiddle, R.F. (2017) *Making Aotearoa places: the politics and practice of urban Māori place-making*, 3 years Fast Start Grant. <https://www.royalsociety.org.nz/what-we-do/funds-and-opportunities/marsden/awarded-grants/marsden-awards-2017/>

Kawharu, M. (2018) *A question of identity: how connected are Māori youth to ancestral marae, and does it matter?* 3 years Standard Grant. <https://www.royalsociety.org.nz/what-we-do/funds-and-opportunities/marsden/awarded-grants/marsden-fund-awards-2018/>

Refiti, A.L. (2018) *Vā Moana: space and relationality in Pacific thought and identity*, 3 years Standard Grant. <https://www.royalsociety.org.nz/what-we-do/funds-and-opportunities/marsden/awarded-grants/marsden-fund-awards-2018/>

Szabo, A. (2019) *Growing old in an adopted land: re-defining 'ageing well' in the context of migration*, 3 years Fast Start Grant. <https://www.royalsociety.org.nz/what-we-do/funds-and-opportunities/marsden/awarded-grants/marsden-fund-awards-2019/>

Pedersen Zari, M.T.G. (2020) *Wellbeing through nature-based urban design: co-designing climate adaptations in Oceania*, 3 years Standard Grant. <https://www.royalsociety.org.nz/what-we-do/funds-and-opportunities/marsden/awarded-grants/marsden-fund-awards-2020/>

Coleman, T. (2021) *Placing unheard voices: the lived experience and geography of young-onset Parkinson's disease*, 3 years Fast Start Grant. <https://www.royalsociety.org.nz/what-we-do/funds-and-opportunities/marsden/awarded-grants/marsden-fund-awards-2021/>

Refiti, A.L. (2021) *Artefacts of relations – building in the Pacific*, 3 years Standard Grant. <https://www.royalsociety.org.nz/what-we-do/funds-and-opportunities/marsden/awarded-grants/marsden-fund-awards-2021/>