
Housing conditions of Ireland's older population

Implications for physical and mental health

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The Irish Longitudinal Study on Ageing

On behalf of the TILDA team

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Key Findings

- Ninety-two percent of middle-aged and older adults in Ireland live in an owner-occupied home, and the majority of these own their homes outright (83%). Eight percent live in rented accommodation, with two thirds of these renting from Local Authorities.
- The vast majority of people aged 50 years and over live in houses, with 3% living in flats or other types of dwellings. Over half live in detached homes.
- Older adults are more likely to live in homes built before 1970 than younger age groups (69% of those aged 75 and over versus 53% of 65-74 year olds and 36% of 50-64 year olds).
- Central heating is widely used, although this differs regionally; one quarter of adults aged 50 and over living in rural areas do not have central heating, compared to 4% in Dublin city or county. Those in rented accommodation are less likely to heat their homes with central heating.
- Over half of adults aged 50 years and over experience some housing problem. The most commonly reported problems are damp/mould, structural problems and heating difficulties. Housing problems were most commonly reported by those living in Local Authority housing and those with mortgages. However, while housing problems are widely reported, 69% are classified as 'minor' by those reporting them.
- Adults who report difficulty heating their homes have poorer self-rated health, and are more likely to report clinically relevant depressive symptoms and chronic pain irrespective of educational attainment. Adults living alone, renters, those living in older housing and those without central heating are most at risk of experiencing difficulties heating their homes. These groups would benefit most from home improvement, energy efficiency and fuel allowance schemes.

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1

Introduction

1.1 Housing and older age

A vital component of successful ageing is functional independence and good quality of life. Good housing conditions are important to maintain good mental and physical health. This is particularly relevant for older adults who tend to spend more time at home than younger adults (1).

Previous research has shown that housing conditions in Ireland vary by tenure, type and age of dwelling and household composition (2, 3). The 2011 Census showed that the vast majority of older Irish adults (94%) live in private households, and most are owner-occupiers (4). Renters, and in particular those renting Local Authority housing, may have poorer housing conditions and therefore may be at increased risk of poorer health and wellbeing (3). As people get older, they are more likely to live alone which may affect their ability to maintain housing quality, ensure energy efficiency and manage their accommodation. This can increase the risk of the home becoming unsuitable (3, 5).

Poor housing conditions relate to problems with damp and mould, structural problems and pests, however appropriate heating is a key factor in ensuring comfortable living conditions. A temperature of 18°C is recommended but a further increase of 2-3°C is required for sedentary older adults (6). Cold homes have been associated with increased winter mortality, especially in older people. This is mainly due to exacerbation of respiratory and cardiovascular conditions and increased incidence of stroke (1, 7). Cold housing also exacerbates arthritis, increases the risk of minor illnesses like colds and flus, increases the risk of accidents and injuries and is associated with poorer mental health (8).

1.2 Aims

In this report, we describe the housing circumstances of middle-aged and older Irish adults, identify poor housing conditions such as mould, damp, structural problems and heating difficulties, and then examine the associations between heating difficulties, health and wellbeing.

1.3 Sample

This report uses data from The Irish Longitudinal Study on Ageing (TILDA), a nationally representative cohort study of 8,175 community dwelling adults aged 50 years and over (9). This analysis is based on a sample of 7,134 participants from the second wave of data collection, which took place between February 2012 and March 2013. Social interviewers visited participants in their own homes and carried out a Computer Assisted Personal Interview (CAPI). Participants also filled out a self-completion questionnaire (SCQ) which included a number of questions regarding housing quality. Almost half of all participants were aged 65 years or older and 54% were female. Over half of all participants lived in Dublin city or county or other towns or cities across the country (see Table 1.1).

Table 1.1: Sample characteristics.

| Characteristic | N (%) |
|-----------------------|--------------|
| Gender | |
| Male | 3,261 (45.7) |
| Female | 3,873 (54.3) |
| Age Groups | |
| 50-64 years | 3,679 (51.6) |
| 65-74 years | 2,111 (29.6) |
| ≥75 years | 1,344 (18.8) |
| Location | |
| Dublin city or county | 1,698 (23.8) |
| Another town or city | 2,033 (28.5) |
| A rural area | 3,403 (47.7) |

In this report, we present the percentage of respondents classified into different groups. Estimates have a 95% confidence interval, which indicates that there is a 95% chance that the sampled confidence interval includes the true population value. Analysis is weighted to account for differences in age, sex and education in the 2011 Census, which ensures that the estimates are representative of the whole population of adults aged 50 years and over in Ireland.

1.4 Report structure

The report is structured as follows: Chapter 2 describes the housing circumstances of middle-aged and older adults in Ireland, including the household composition, tenure characteristics, type of house, construction date, number of rooms and the presence of central heating. Chapter 3 identifies poor housing conditions reported by older adults in Ireland. Chapter 4 focuses on heating difficulties and describes the associations with physical and mental health. Chapter 5 summarises the findings and discusses implications for housing related policies.

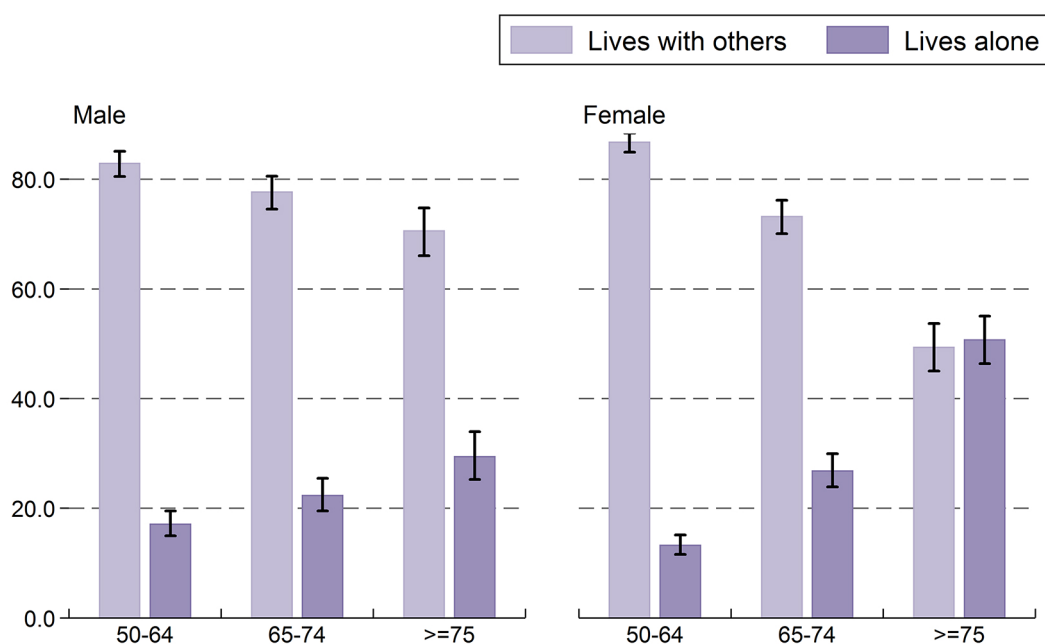
2

Housing profile of middle-aged and older adults in Ireland

2.1 Household composition

The majority of adults aged 50 years and over in Ireland live with a spouse or other family members (77%), while one quarter live alone. The proportion of adults living alone increases with age from 15% in the 50 to 64 year olds to 42% in those 75 years and over. Women aged 75 and over were more likely to live alone compared to men in the same age group (51% versus 32%) (Figure 2.1).

Figure 2.1. Household composition by age and gender.

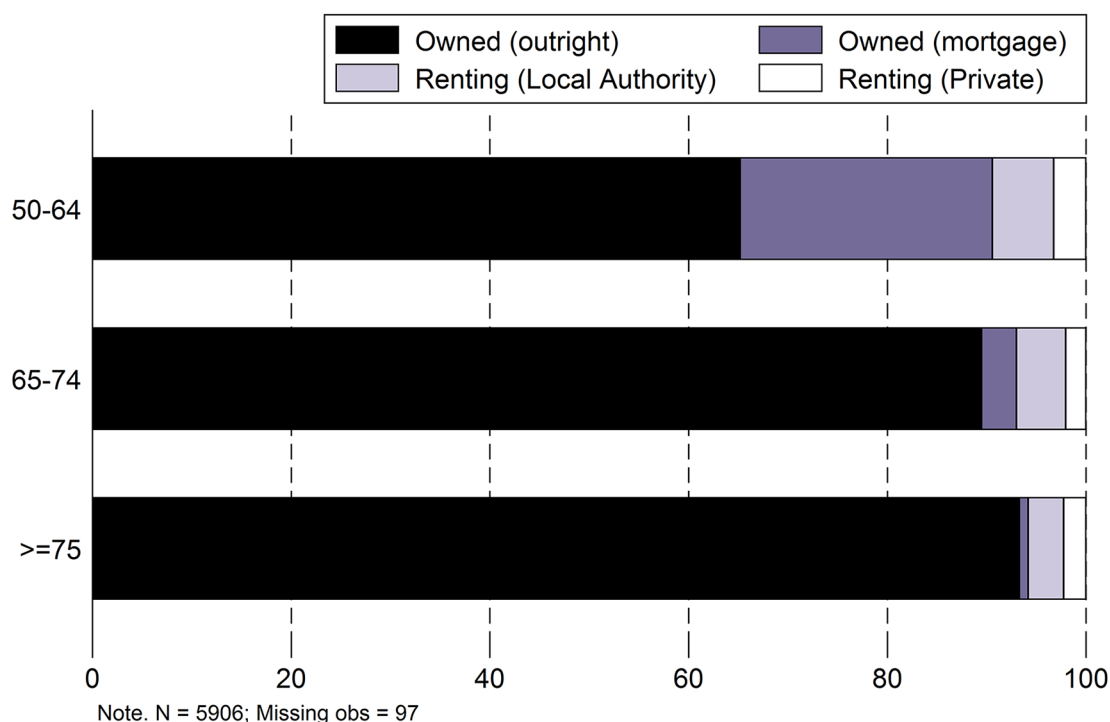


Note. N = 6003; Missing obs = 0; Error bars correspond to 95% confidence intervals

2.2 Tenure

Over 90% of adults aged 50 and over in Ireland are owner-occupiers (78% outright homeowners and 14% mortgage holders). Figure 2.2 shows that those aged 75 and over are more likely to own their homes outright (93%) compared to adults aged 50 to 64 years (65%). Overall, 8% live in rented accommodation (6% Local Authority renters and 3% rent privately) however the proportion of renters is similar when examined by age group.

Figure 2.2. Type of tenure by age.



2.3 Housing profile

The type of building, construction date and number of rooms in each house occupied by the over 50s, stratified by local area is presented in Table 2.1. The majority of Irish adults (97%) live in detached, semi-detached or terraced houses with the remaining 3% living in flats, apartments or other types of dwellings. A higher proportion of middle-aged and older adults in rural areas of Ireland live in detached housing (88%) compared to those living in Dublin city or county (16%) or other towns or cities (38%).

Table 2.1: Housing profile by local area.

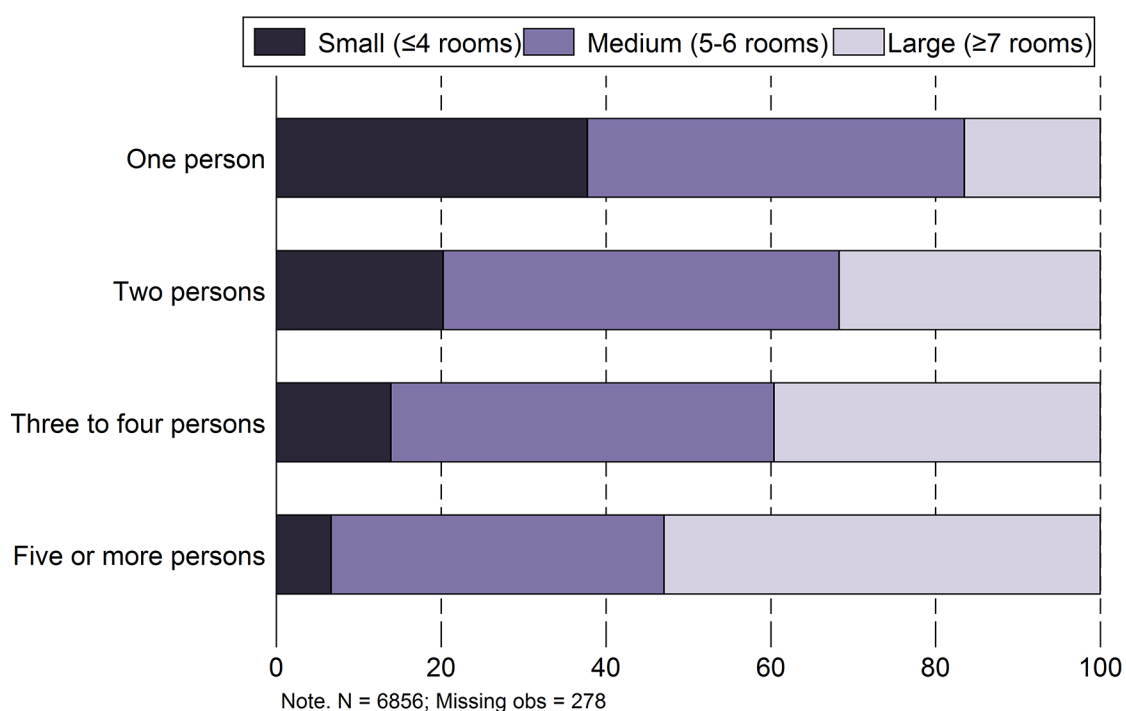
| | Dublin city or county | | Another town or city | | A rural area | | Total | |
|--------------------------|-----------------------|---------|----------------------|---------|--------------|---------|-------|---------|
| | % | 95% CI | % | 95% CI | % | 95% CI | % | 95% CI |
| Type of Dwelling | | | | | | | | |
| Detached | 16 | [13-20] | 38 | [34-42] | 88 | [86-90] | 58 | [54-61] |
| Semi-detached | 50 | [44-55] | 34 | [30-37] | 7 | [6-8] | 24 | [22-27] |
| Terraced | 29 | [24-35] | 25 | [21-29] | 4 | [3-5] | 16 | [14-18] |
| Flats/Other | 5 | [4-7] | 4 | [3-5] | 1 | [0-1] | 3 | [2-3] |
| House Size* | | | | | | | | |
| Small (≤ 4 rooms) | 16 | [13-19] | 27 | [24-31] | 21 | [18-24] | 21 | [20-23] |
| Medium (5-6 rooms) | 55 | [50-60] | 46 | [43-49] | 43 | [41-46] | 47 | [45-49] |
| Large (≥ 7 rooms) | 29 | [25-34] | 26 | [23-30] | 36 | [33-39] | 32 | [30-34] |
| Construction Date | | | | | | | | |
| Pre-1919 | 9 | [6-12] | 9 | [8-12] | 18 | [16-20] | 13 | [12-15] |
| 1919-1940 | 11 | [9-15] | 8 | [6-10] | 9 | [8-11] | 9 | [8-10] |
| 1941-1970 | 37 | [32-42] | 28 | [24-32] | 17 | [15-19] | 24 | [22-27] |
| 1971-2000 | 40 | [34-46] | 46 | [42-50] | 48 | [45-50] | 46 | [43-48] |
| 2001 or later | 3 | [2-4] | 9 | [7-11] | 9 | [8-10] | 8 | [7-9] |

*excludes kitchenettes, sculleries, bathrooms and toilets, garages, consulting rooms, offices and shops.

House size was defined by the number of rooms in the house (bedrooms and living spaces). Houses with four or fewer rooms were classified as small, while houses with seven or more rooms were classified as large. House sizes ranged from one to twenty rooms. Overall, half of Irish adults aged 50 and over live in medium sized houses (5-6 rooms), although housing size does vary by location. A higher proportion of people in non-Dublin towns or cities live in smaller homes (27%) compared to those living in Dublin (16%) and rural areas (21%). In addition, the over 50s living in rural areas were more likely to live in large homes (36%) compared to those living in non-Dublin towns and cities (26%).

Housing size is also associated with the number of people in the household (Figure 2.3). Over a third of adults aged 50 and over who live alone live in small houses, with less than one-fifth living in large houses. Over half of the larger households with five or more people live in large houses with only 7% living in small houses.

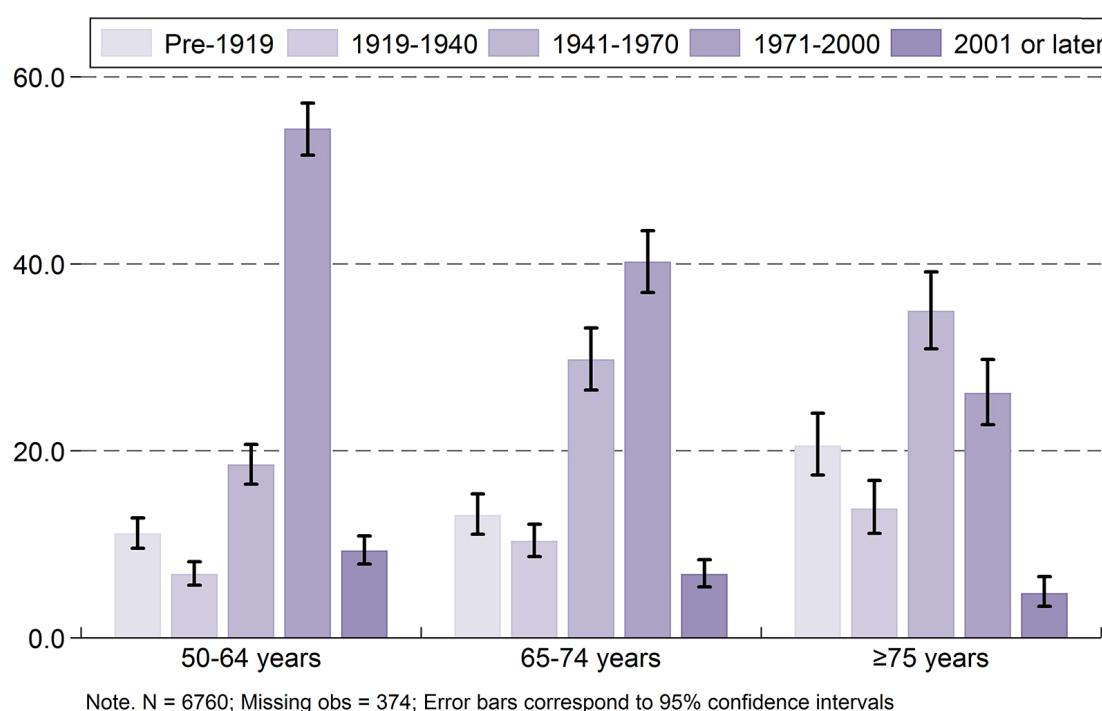
Figure 2.3. Housing size by composition of the household.



Over half of all homes (54%) were built after 1970, while 13% were built before 1919.

Over 50s who live in rural areas are more likely to have an older house than those living in Dublin or other urban areas, with 18% of houses in rural areas built before 1919 compared to 9% in Dublin or other urban areas.

Older adults are more likely to live in older houses (Figure 2.4). Sixty-nine percent of adults aged 75 years and over live in houses built before 1971 compared to 53% of adults aged 65 to 74 years and 36% of adults aged 50 to 64 years.

Figure 2.4. Housing construction dates by age group.

2.4 Central heating

Over 80% of middle-aged and older adults in Ireland have central heating in their homes, however this does vary by location. Almost all adults aged 50 and over in Dublin city or county have central heating in their houses (96%), compared to 84% in other urban areas, and 74% in rural areas. Fewer adults living in houses built pre-1919 have central heating, with 27% of these relying on other heating methods, compared to 17% of adults in houses built after 1919. Central heating is less likely in private rented or Local Authority housing (68%) compared to owner-occupied housing (83%).

3

Poor housing conditions

3.1 Poor housing conditions

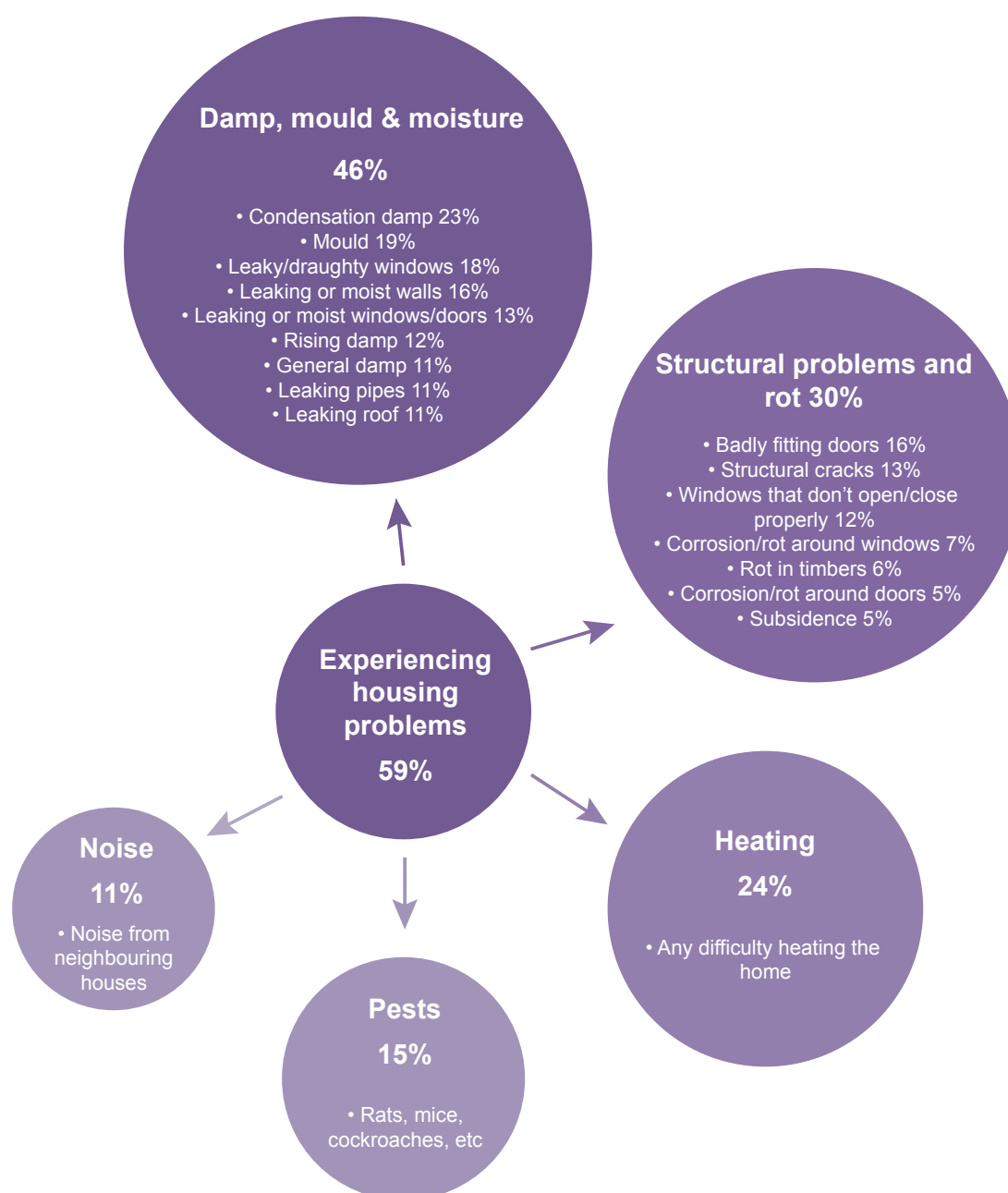
Nineteen questions were asked about problems in homes including questions about damp, mould and moisture, the structural condition of the house, heating, pests and noise. Respondents were asked to state whether the problem was major, moderate or minor, or not a problem for them.

Figure 3.1 illustrates the problems reported in relation to housing. Three out of every five adults aged 50 years and over in Ireland report at least one housing problem (59%). Nearly half report a problem with damp, mould or moisture ingress (46%), while 29% report a structural or rot problem and 24% report difficulty heating their homes. Problems with pests and noise are reported less frequently (11-15%)¹.

Several of the problems reported are likely interconnected, and thus the presence of a particular problem may exacerbate others. For example, it is likely that structural problems such as badly fitting windows and doors will allow moisture ingress, which in turn could affect the adequacy of heating.

¹ Note: A small number of free text problems were reported (n=85), concerned with general maintenance of the home (n=36), problems in the neighbourhood (n=29), insulation (n=21), and garden upkeep (n=12), and are not shown in the analysis due to small numbers.

Figure 3.1. Common housing problems.



Despite the high proportion of middle-aged and older Irish adults who report poor housing conditions, 69% of problems were considered minor, with 19% and 12% reported as moderate and major problems respectively.

3.2 Determinants of poor housing conditions

Housing problems varied by demographics, tenure, construction date and central heating. These are described below.

3.2.1 Demographic Factors

Demographic factors such as age, gender and living arrangements can have an impact on an individual's ability to access and maintain good quality housing. The profile of adults most likely to report housing problems is described in Table 3.2. Adults aged 50 to 64 years are more likely to report any problem (62%), compared to adults aged 65 to 74 years (56%) and 75 years or over (55%), and this was also true for problems with damp/mould, heating and noise. No large differences in reporting poor housing conditions were found between men and women (data not shown).

Overall, there was no difference in reporting problems between those living alone and those living with others, although those living alone were more likely to report experiencing difficulties heating their homes than those who live with others (28% versus 23%).

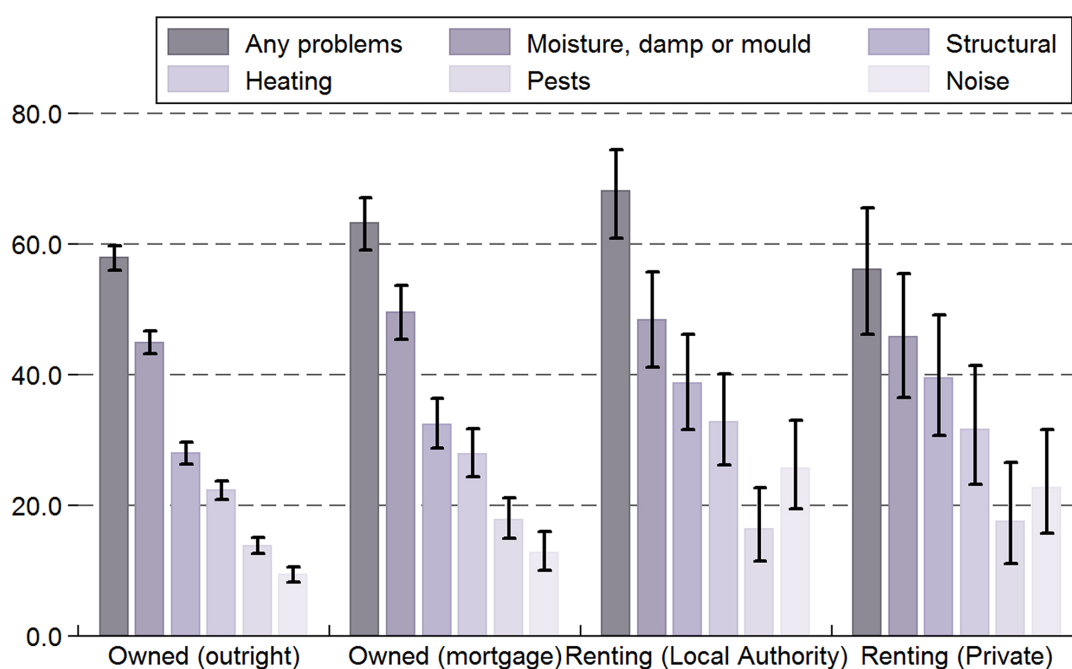
Table 3.2: Prevalence of reported housing problems by age group and household composition.

| | Any problem | | Damp/Mould | | Structural | | Heating | | Pests | | Noise | |
|---------------------------|-------------|---------|------------|---------|------------|---------|---------|---------|-------|---------|-------|---------|
| | % | 95% CI | % | 95% CI | % | 95% CI | % | 95% CI | % | 95% CI | % | 95% CI |
| 50-64 years | 62 | [60-64] | 49 | [47-51] | 31 | [30-34] | 27 | [25-29] | 16 | [14-17] | 13 | [12-15] |
| 65-74 years | 56 | [54-59] | 43 | [40-45] | 26 | [23-28] | 22 | [20-24] | 15 | [13-17] | 9 | [8-11] |
| ≥75 years | 55 | [51-59] | 41 | [38-45] | 29 | [25-33] | 18 | [16-21] | 12 | [10-14] | 6 | [5-8] |
| | | | | | | | | | | | | |
| Living alone | 60 | [57-63] | 46 | [43-49] | 32 | [29-35] | 28 | [25-31] | 16 | [14-18] | 11 | [9-13] |
| Living with others | 59 | [57-61] | 46 | [44-48] | 29 | [27-31] | 23 | [21-24] | 14 | [13-16] | 11 | [10-12] |
| | | | | | | | | | | | | |
| Total | 59 | [58-61] | 46 | [44-48] | 30 | [28-31] | 24 | [23-25] | 15 | [14-16] | 11 | [10-12] |

3.2.2 Tenure

Tenure can impact whether individuals are able to deal with housing difficulties themselves or have to rely on a landlord or Local Authority. Middle-aged and older adults who own their homes outright may also have increased financial ability to pay for home improvements, as well as increased incentive to invest in the property. Local Authority renters are more likely to report a housing problem (68%) compared to adults who own their homes outright (58%) (Figure 3.2). Adults renting houses (both privately and from a Local Authority) are more likely than homeowners to report noise related problems (25% versus 10%), structural problems (39% versus 29%) and inadequate heating (32% versus 23%).

Figure 3.2. Any housing problem and specific housing problems, by tenure.

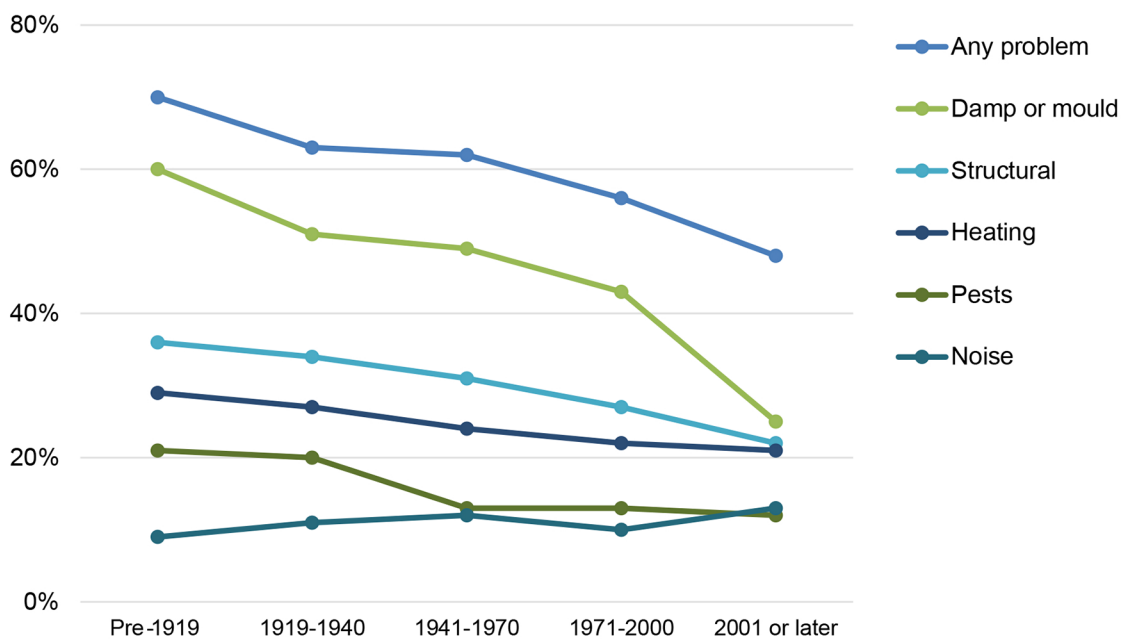


Note. N = 5612; Missing obs = 391; Error bars correspond to 95% confidence intervals

3.2.3 Construction date

The date in which the dwelling was built is important as modern building regulations can ensure better quality housing. Older housing will also have experienced more years of wear and tear which can affect quality and increase housing problems. Figure 3.3 shows that more housing problems are reported by adults living in houses built before 1919 (70%) and less in more recently built houses (48% of houses built in 2001 or later). Most notably, damp or mould was reported by 60% of adults living in houses built pre-1919 compared to 25% of adults living in houses built in 2001 or later.

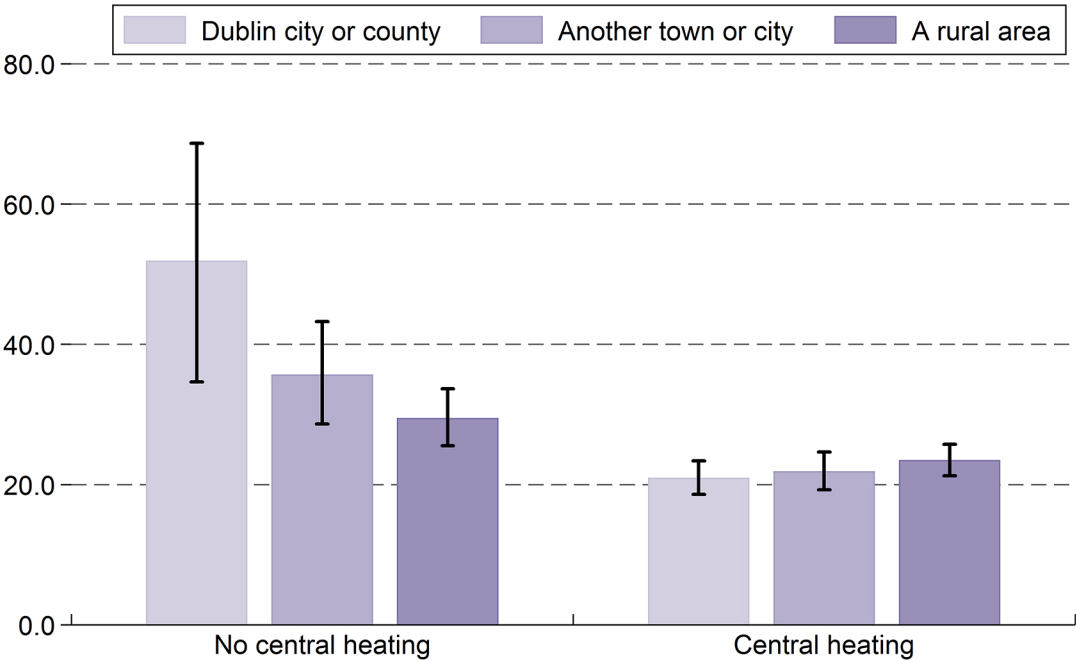
Figure 3.3. Housing problems by dwelling construction date.



3.3 Central heating and heating difficulties

Central heating systems distribute heat throughout the house and therefore would be expected to make it easier to maintain a comfortable living temperature in all rooms. Adults who do not have central heating in their homes report more heating difficulties (32%) compared to those with central heating (22%). This disparity was particularly marked in Dublin city and county, where over half of those without central heating experience problems heating their homes compared to 21% of those with central heating (Figure 3.4).

Figure 3.4. Heating difficulties by central heating and location.



Note. N = 5650; Missing obs = 353; Error bars correspond to 95% confidence intervals

4

Heating and health

Experiencing difficulties with heating can have direct and indirect effects on mortality risk, physical health and mental health of older adults (8). This section examines if problems with heating are associated with self-rated health, chronic pain and mental health (depressive symptoms).

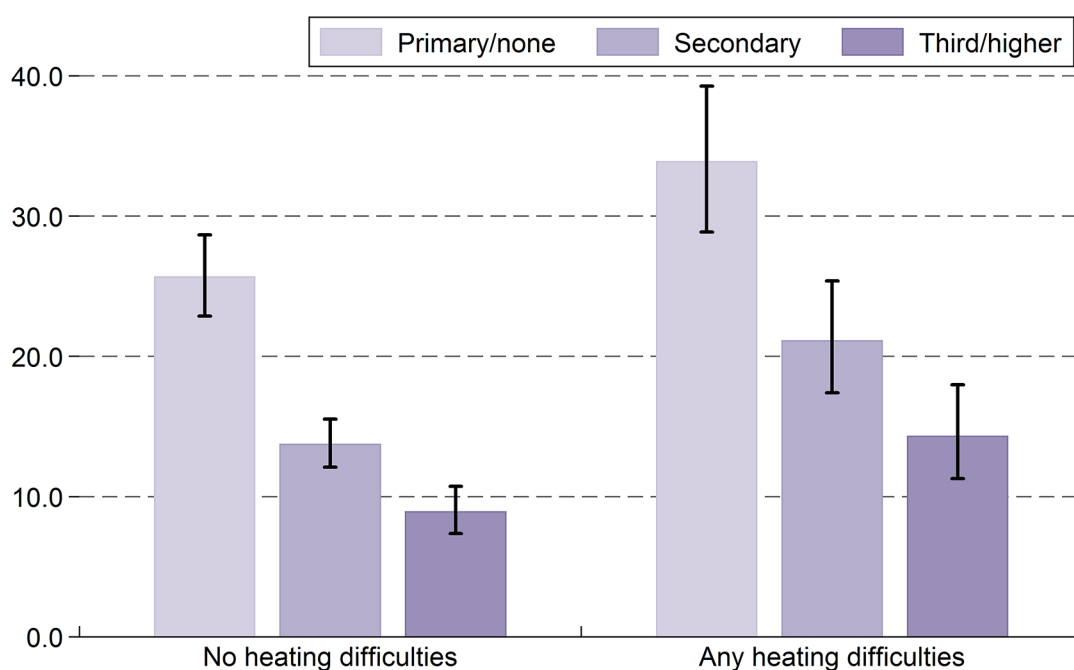
Participants were asked to rate their physical health as 'excellent,' 'very good,' 'good,' 'fair,' or 'poor.' Responses were recoded into two levels of health, 'fair/poor' or 'excellent/very good/good'. Participants who reported that they were often troubled by pain were categorised as suffering from chronic pain. Depressive symptoms were assessed using the Centre for Epidemiological Studies Depression (CES-D) scale (10). A score of ≥ 16 indicates clinically relevant depressive symptoms.

In TILDA, educational attainment has been used as an indicator of socio-economic status. Health outcomes were compared across three levels of educational attainment (primary or less, secondary and tertiary education) (11).

4.1 Heating and self-reported health

Adults who experience difficulties heating their homes are more likely to report their health as 'fair' or 'poor' than adults who don't experience difficulties, irrespective of educational attainment (Figure 4.1). Overall, 24% of adults with heating difficulties rate their health as fair/poor, compared to 17% of those without heating difficulties.

Figure 4.1. Self-reported fair or poor health by heating difficulties and educational attainment.

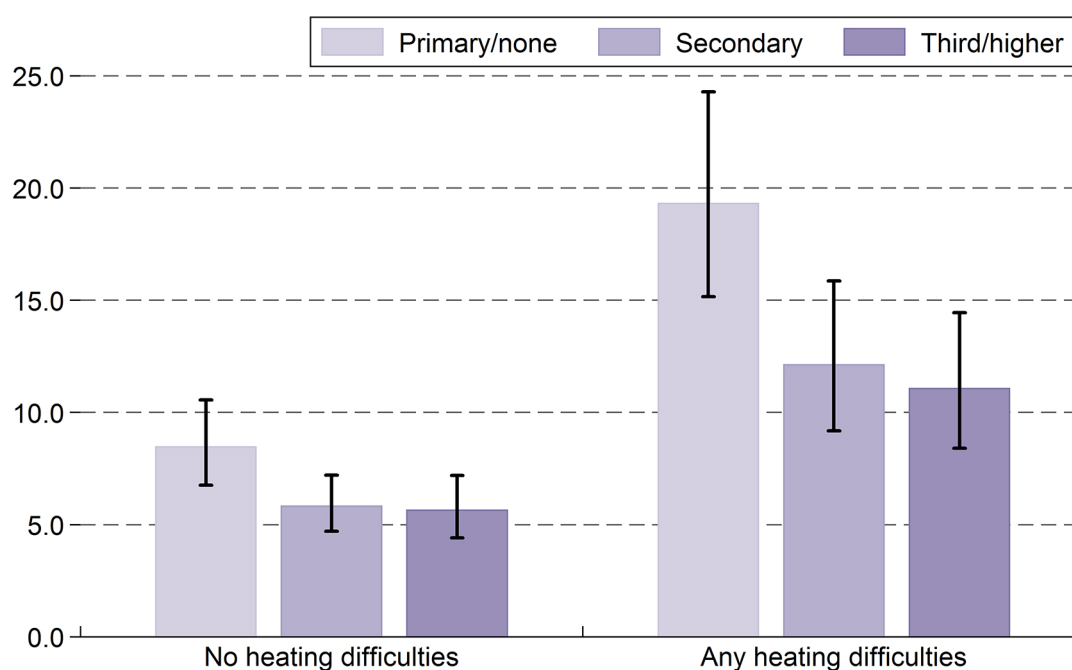


Note. N = 5780; Missing obs = 223; Error bars correspond to 95% confidence intervals

4.2 Heating and mental health

Adults aged 50 and over who report difficulty heating their homes are twice as likely to have clinically relevant depressive symptoms compared to those who do not have heating difficulties (14% versus 7%). This effect is evident across all levels of educational attainment, but is strongest in those with primary or no education (19% versus 8%) (Figure 4.2).

Figure 4.2. Clinically relevant depressive symptoms by heating difficulties and educational attainment.

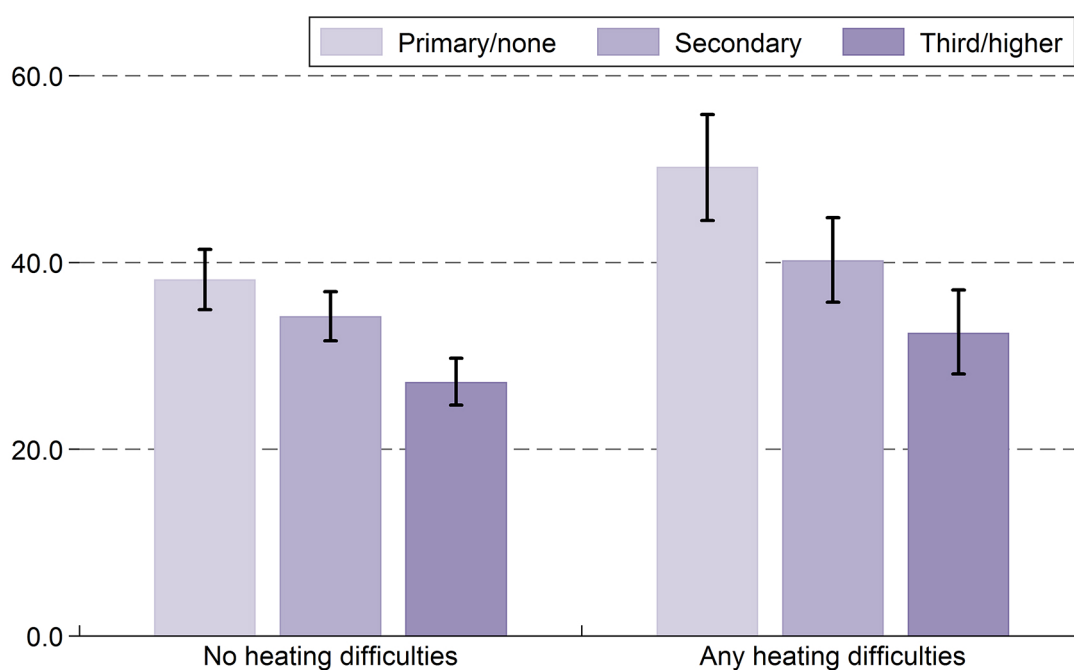


Note. N = 5700; Missing obs = 303; Error bars correspond to 95% confidence intervals

4.3 Heating and chronic pain

Adults aged 50 years and over who have difficulty heating their homes are more likely to report chronic pain compared to those who do not report heating difficulties (42% versus 34%). Prevalence of chronic pain is higher in adults reporting any heating difficulties across all educational levels but this increase is most evident in those with primary or no education, where 50% of adults with heating difficulties report chronic pain compared to 38% of those with no heating difficulties (Figure 4.3).

Figure 4.3. Chronic pain by heating difficulties and educational attainment.



Note. N = 5780; Missing obs = 223; Error bars correspond to 95% confidence intervals

5

Conclusions

The majority of adults aged 50 years and over in Ireland live with others (77%) and live in owner occupied homes (92%). In older age groups, adults are more likely to live alone, but also more likely to own their homes outright, suggesting greater financial stability. Nearly half of Irish adults aged 50 or over live in houses with five or six rooms, and increasing house size is closely associated with a higher number of people living in the household. Over half report at least one housing problem; however, 70% of these problems were classified as minor. The most common concerns are damp or mould (46%), structural problems (30%) and difficulties with heating (24%). Adults renting their homes either privately or from a Local Authority are more likely to report any housing problem than adults who own their homes outright. The age of the house and the availability of central heating are also related to experiencing housing difficulties, particularly with heating.

Adults who report difficulty heating their homes have poorer self-rated health, are twice as likely to have clinically relevant depressive symptoms and are more likely to report chronic pain, compared to adults who do not have difficulty heating their homes. Both depression and chronic pain are strong predictors of functional decline in older adults (12, 13). These associations between heating difficulties and health were present across all levels of educational attainment, although the difference was greater in those who had primary or no education. This suggests that those who left education at earlier ages are at increased risk of poor housing conditions and the associated adverse health effects.

Cold weather and cold housing can have serious health implications especially for older adults. It is estimated that an extra 3,500 deaths occur for every 1°C reduction in winter temperature in the UK (8). The World Health Organisation recommends that indoor home temperatures are kept at a minimum of 18°C and even higher for sedentary older adults (6). A 1°C decrease in home temperature is associated with a 1.3 mmHg increase in blood pressure in older people (14) while cold housing has been shown to increase the risk of circulatory disease, respiratory problems, mental ill-health and death (8).

We have found that adults living in social housing are the least likely to have central heating and the most likely to report heating difficulties. In Ireland, the Department of

Communication, Energy and Natural Resources (DCENR) reports that over 60% of Local Authority tenants are unemployed or retired and so may have limited income (15). Fuel Allowance is provided by the Department of Social Protection for 26 weeks during winter (reduced from 32 weeks in 2013) to pay for heating the home. It is available to those receiving a state pension or satisfying a means test. Winter fuel schemes have been shown by previous research in England and Wales to reduce excess winter mortality (16). Policies which seek to improve Local Authority housing through universal central heating and energy efficiency measures could also reduce heating problems in these households. Schemes for wider access to central heating and energy efficacy measures should also be extended to those occupying older houses, mortgage owners, outright homeowners experiencing financial difficulties and those renting privately.

Many studies have linked difficulty heating the home to fuel poverty. Fuel poverty is defined as difficulty maintaining a warm home due to the cost of heating, or spending 10% or more of household income on heating (17). A recent study carried out by the DCENR estimated that a quarter of all Irish households spent more than 10% of household income on heating (2). Another study reported that half of older people in Ireland went without food or new clothing in order to pay for heating bills and are likely to forego heating and food if they have other high priority bills such as mortgages to pay (5). As the older population are likely to spend more time at home, they are at increased risk of fuel poverty as they require their homes to be heated for longer periods (18, 19).

In February 2016, the DCENR announced a Strategy to Combat Energy Poverty (15). This includes a pilot scheme to provide energy efficiency interventions for people who are suffering from acute health conditions and living in poorly insulated homes. This scheme may provide evidence of the impact of improved heating on energy bills and public health expenditure. Accessibility to energy efficiency measures, such as cavity wall and attic insulation, will also be improved and the department will carry out a public consultation to establish minimum energy efficiency standards for rental accommodation.

A positive finding from this TILDA report is the lower reporting of problems in modern housing. We have shown that poor housing conditions, and in particular, problems related to damp and moisture ingress, are lower in more recently built housing. This may reflect the improvement in building standards in Ireland, in particular since the 1990s (20). Building regulations imposed in 1997 set out national rules for new buildings' ability to resist moisture and weather, which had previously only been regulated locally (21). However, this highlights the need to make energy efficiency and home improvement schemes easily accessible for those in older housing, especially as this report has shown

that the over 75s in Ireland are more likely to occupy older housing.

This report is based on a nationally representative sample of middle-aged and older Irish adults. While some research has suggested that older adults are more likely to experience fuel poverty (22), older adults in Ireland are less likely to report difficulties heating their homes. In future waves of TILDA, we will collect the percentage of household income spent on heating bills, and whether the household goes without other essentials to be able to afford heating. This will allow us to estimate how much fuel poverty is experienced by older Irish adults.

As the data presented in this report are cross-sectional, we cannot determine if poor housing quality leads to poorer health or if adults in poorer health are more likely to live in poor quality housing for other reasons. Future waves of the study will allow us to disentangle this relationship. The temporal association between the ability to pay for heating and its impact on health will also be directly measured. Finally, the association between social inequality and health should also be considered when interpreting these results. Older people in lower socio-economic groups are at increased risk of multi-morbidity, while also being at increased risk of fuel poverty.

In conclusion, poor housing conditions such as heating difficulties are associated with poorer physical and mental health in middle-aged and older Irish adults. Adults in lower socio-economic groups, and those living in older houses and rented accommodation are more likely to report housing problems. Policies addressing housing quality, energy efficiency and central heating should be targeted in these specific groups to improve housing conditions and potentially to improve health and reduce morbidity and mortality.

6

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