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Staidéar Fadaimseartha na
hÉireann um Dhul in Aois

The Irish Longitudinal
Study on Ageing

Altered lives in a time of crisis: The impact of the COVID-19 pandemic on the lives of older adults in Ireland

Findings from The Irish Longitudinal Study on Ageing

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Key Findings

Chapter 2:   Methodology

- This COVID-19 study was carried out by The Irish Longitudinal Study on Ageing in Ireland.

- TILDA participants were recruited from the nationally representative sample of community-dwelling adults aged 60+ in Ireland.

- The sample size for this report was 3,677.

- Self-Completion Questionnaires (SCQs) were posted to participants home addresses and returned by pre-paid post.

- TILDA is co-funded by the Government of Ireland through the Department of Health, by Atlantic Philanthropies, and by Irish Life PLC. The COVID-19 study described in this report is funded the Health Research Board under the Rapid Response Research and Innovation Fund.

Chapter 3:   Changes to everyday activities in response to COVID-19 restrictions

- There is a high level of compliance with Government advice in relation to COVID-19, with a large majority of the participants engaging in protective behaviours to prevent the spread of COVID-19.

- Eighty percent of the over-60s are adhering to social distancing guidelines, 98% are washing their hands more frequently than before and 74% report wearing a protective face mask when outside.

- The COVID-19 pandemic has changed the social behaviour of adults aged 60 years and older. Sixty-nine percent of participants report leaving the house less often than before, and 53% report doing grocery shopping less often than before as a result of the COVID-19 pandemic. Furthermore, 62% of participants report not travelling to visit family members at all, and 80% not to visit friends, since the outbreak of the COVID-19 pandemic.

- Older women report higher levels of changed behaviours in response to Government recommendations compared to men.

- Adults aged 60-69 report higher levels of changed behaviours in different settings (at work, in outdoor places and indoor public places) compared to adults aged 70 and older.

- National television is rated the most trusted source for COVID-19 information, followed by the Health Service Executive website and the official Irish government website.

- A large majority of participants report getting up-to-date news on COVID-19 from national television (72%) and national radio (61%), while two fifths of participants report getting news from Irish newspapers (39%) and other television stations (37%).

- With respect to understanding Government guidance on COVID-19, half of people over 60 years find it extremely easy to understand (51%) and 39% find it very or somewhat easy to understand.

- Only 27% of adults aged 60 and over report that their level of knowledge on COVID-19 is extremely good, while 54% consider their level of knowledge somewhat good.

Chapter 4:   COVID-19 concerns, exposure, symptomology and mortality

- The combined prevalence of a positive PCR test, doctor-suspected cases and self-suspected cases of COVID-19 infection among adults aged 60 and over is 5%.

- The prevalence of a confirmed or suspected case of COVID-19 infection is three-times higher in the 60-69 compared to the 70 and over age group (6% versus 2%). The same prevalence rates by age group are observed among those who live alone.

- The prevalence of a confirmed or suspected case of COVID-19 infection is 70% higher in males versus females.

- The highest prevalence of confirmed or suspected cases of COVID-19 infection is among those with a third level education (6%) compared to those with secondary (4%) or primary level (5%). Non-response to the question is 11%, 5% and 3% among primary, secondary and third level educated participants respectively.

- The prevalence of a confirmed or suspected case of COVID-19 infection is almost twice as high in Dublin (7%) compared to other cities (4%) and towns or rural areas (4%).

- The older adults most concerned about the COVID-19 pandemic are aged 70 and over and live alone (54%), are female (52%), are educated to primary level (56%), and live in rural areas (51%).

- The prevalence of COVID-19 infection by relationship to older adults is low but is highest among friends and neighbours (0.8%), followed by children (0.7%) and spouses or partners (0.6%), relatives and siblings (0.3%), and grandchildren and parents (0.2%).

- The most prevalent symptoms reported by older adults during the COVID-19 pandemic are: muscle and joint pain (17%), cough (9%), shortness of breath (6%), sore throat (5%), diarrhoea (4%), fever (2%), loss of smell or taste (2%), nausea or vomiting (1%).

- Since the start of the pandemic, 1 in 20 (5%) adults aged 60 and over have lost a family member or friend due to COVID-19 infection.

- Of those adults who lost a family member or friend due to COVID-19, almost two-thirds were neighbours or friends, 30% were relatives and 5% were a close family member.

- Among adults who lost someone close due to COVID-19 the majority are: aged 60-69 years (55%), live alone aged 70 and over (56%), female (55%), third level educated (44%) and live in Dublin (50%).

Chapter 5: Loneliness during the COVID-19 pandemic

- COVID-19 restrictions have greatly reduced opportunities for social participation and interactions. This poses a risk of increased loneliness among older adults.

- Loneliness is associated with poorer physical and psychological wellbeing as well as premature mortality.

- One-in-ten adults aged 60 years and older feel that they often lack companionship (9%) and/or often feel isolated from others (9%), while 11% hardly ever or never feel in tune with the people around them.

- Five percent of older adults often feel left out and 7% often feel lonely, while 30% feel lonely at least some of the time.

- During the COVID-19 pandemic, average loneliness scores on the University of California, Los Angeles Loneliness scale were 4.5 from a maximum of 10. This is more than double the average score in 2018/19.

- Women and older adults who live alone were the loneliest, while those who completed third level education were least lonely.

- Despite greater restrictions on the over 70s, there was little difference in the levels of loneliness reported by older adults aged 60 to 69 or over 70 years of age.

- Loneliness is associated with poorer overall Quality of Life (QoL) as well as the domains of QoL captured by the CASP-12 QoL measurement tool (Control, Autonomy, Self-realisation, and Pleasure).

- Loneliness is associated with both self-rated physical health and self-rated mental health.

- Increased loneliness and social isolation due to COVID-19 restrictions will have negative consequences for the physical and mental wellbeing of older adults.

Chapter 6: Physical activity, sedentary behaviour and mental health

- Almost a quarter (22%) of older adults in Ireland did not meet mimimum recommended levels of physical activity during the COVID-19 pandemic; 43% were minimally active; a third (34%) report engaging in "health enhancing" levels of physical activity.

- Physical activity levels differed by age: Inactive (60-69 years: 19%; 70+ years: 26%); Minimally active (60-69: 41%; 70+: 47%); Active (60-69: 40%; 70+: 27%)

- Women (25%), older adults aged 70+ (26%), and those with primary education or none (27%) are more likely to be physically inactive.

- Most older adults exercise at home about the same amount of time during the COVID-19 pandemic as before the pandemic; 17% increased their exercise at home, while 16% decreased it.

- A third (36%) walk as often during the COVID-19 pandemic as before the pandemic; a quarter (25%) walk less often and a quarter (27%) walk more often.

- A large proportion (45%) of older adults increased DIY at home or gardening.

- A substantial proportion (37%) watch TV more often.

- 37% of older adults report low levels of life satisfaction.

- 21% report potentially clinically meaningful levels of depressive symptoms.

- 29% report high levels of stress and 11% have moderate-to-severe anxiety levels.

- Adults aged 60-69, those who have a third level of education or higher and those who live in urban areas are more likely to be the least satisfied with their life.

- Women, adults with a primary level of education and those who live alone are more likely to report the highest levels of stress, anxiety and depressive symptoms.

- Adults who live in urban areas also more likely to have depressive symptoms.

- Low levels of physical activity are associated with lower levels of life satisfaction, higher levels of stress, anxiety and depressive symptoms.

- Strategies to address the high levels of poor mental health among older adults in Ireland throughout the COVID-19 pandemic, including the promotion and facilitation of physical activity, should be developed as a matter of urgency.

Chapter 7: Use of healthcare services, medications, and health supplements

- Restrictions due the COVID-19 pandemic have had a dramatic effect on non-COVID-19 related healthcare services in Ireland. This has resulted in an array of healthcare needs being unmet. As older adults have greater healthcare needs, they are likely to be the most affected by this.

- Nearly one-third of adults aged 60 years and older (30%) delayed or did not get medical care that they needed.

- The most common reasons for delaying or cancelling healthcare appointments were: deciding that the appointment could wait (39%), the clinic/hospital/doctor's office cancelling the appointment (25%), the appointment being rescheduled (21%), being unable to get an appointment when needed (21%), being afraid to attend an appointment (18%), other unspecified reason (6%), and being unable to afford the appointment (3%).

- Forty three percent of participants delayed dental care, followed by delayed appointment with a GP (31%), an optician (19%), other services (12%), and minor surgery (10%).

- Not being able to get an appointment (57%) was the primary reason for delaying dental care.

- Among those who delayed a GP appointment, being afraid to go to the appointment was the primary reason (53%).

- Many adults aged 60 and older attended online or telephone consultations with healthcare services. Forty-six percent of older people availed of a telephone or online appointment with a GP, 39% with a pharmacist, 21% with a hospital doctor and 10% with another health professional.

- A large majority of older adults could access hygiene products (gloves; hand sanitiser; masks; and soap) when needed. Among those who reported difficulty in purchasing these products, the main reason given was that they were not available in retail outlets.

- The pandemic had little impact on the use of prescribed medications, with a large majority of older adults (94%) continuing to take the same medications as before the beginning of the pandemic.

- Almost one in seven (14.5%) adults aged 60 years and older have started taking Vitamin D supplements since March 2020. This is in addition to the 9% of TILDA participants who took supplements before the pandemic.

- This chapter provides valuable information on healthcare utilisation in the older population in Ireland, including the effect of the pandemic on the delivery of services and the challenges faced by older people in accessing these services. Furthermore, the findings provide an important baseline for identifying and evaluating the long-term impact of COVID-19 on health outcomes, which may be of particular importance for older people with pre-existing conditions.

Chapter 8: Changes to caregiving roles

- During the COVID-19 pandemic 15% of the population aged 60 and older report that they cared for someone, more than double the proportion (6%) who report caring in 2018.

- A similar proportion of women (19%) and men (16%) are carers, increased from 7% of women and 5% of men in 2018.

- The average age of carers is 69 for women and 71 for men.

- Carers are more likely to be married, and women who are carers are more likely to have a tertiary education.

- Women who live in Dublin are more likely to report they had cared for someone during the pandemic (23%) compared to women (15%), and men (12%) who live in a rural area.

- More than 50 hours of care per week is provided by 27% of women and 25% of men who are carers aged 60-69 years and 36% of women and 41% of men who are carers aged 70 years and older.

- 43% of women and 48% of men carers aged 60-69 years report that the main recipient of care was their spouse.

- Carers aged 60-69 years also provided care for other family members: among, carers 14% of women and 15% of men report that they provide care for parents, 12% of women and 6% of men report they provide care for other relatives, 14% of women and 8% of men report they provide care for children and 10% of women and 12% of men report they provide care for grandchildren 6% of women and 10% of men also provide care for friends and neighbours.

- Among carers aged 70 years and older, the main recipient was their spouse (71% of women and 88% of men)

- Women aged 70 years and older who provided care during the pandemic also provided care to children (10%) and grandchildren (14%).

- 4% aged 60 years and older stopped caring since 2018, 2% have continued caring since 2018 and 13% of adults aged 60 years and older who report caring during the COVID-19 pandemic are new carers.

- Women aged 70 years and older who continued as carers during the pandemic have a higher purpose in life than women who report either no caring or who became a new carer during the COVID-19 pandemic in the same age group.

- Men aged 70 years and older who became a new carer during the COVID-19 pandemic report lower quality of life, higher depressive symptoms and higher perceived stress compared to non-carers.

- •ecoming a new carer was associated with worse self-rated mental health than non-carers for men aged 60-69 years and 70 years and older.

- Women aged 70 years and older who became new carers during the pandemic had increased depressive symptoms and higher anxiety compared to those who were not carers in the same age group.

- Many of the older population took on new caring roles during the COVID-19 pandemic. To enable family caring to continue, state-provided home support must also be available to facilitate and support carers.

1 Introduction

Mark Ward and Rose Anne Kenny

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The Irish Longitudinal
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1 Introduction

1.1 TILDA data collection

TILDA is a large-scale longitudinal study that collects information on the health, economic and social situation of a nationally representative sample of 8,504 older community-dwelling adults in Ireland and looks at how their circumstances change, with ten years of data gathered so far. Data collection waves occur once every two years. When the COVID-19 pandemic reached Ireland in March 2020, TILDA was uniquely positioned to document the impact the pandemic has on the lives of older adults. With the support of the Health Research Board, TILDA surveyed 4,000 of its existing participants between July and November 2020. This report describes the information collected in this survey.

1.2 The TILDA COVID-19 study

The TILDA COVID-19 study report covers a range of aspects of the lives of adults aged 60 years and older during the first few months of the pandemic. As well as information on changes to normal day activities due to social-distancing and other restrictions on social interactions, we examine how these alterations to peoples' lives have impacted on their physical and mental wellbeing. The report also describes peoples' exposure to the virus as well as that of their families and friends.

1.3 Structure of this report

This report begins with a description of the TILDA COVID-19 Self-Completion Questionnaire (SCQ) and the methodology used to collect information on the experiences of adults aged 60 years and older during the COVID-19 pandemic.

In Chapter 3, some of the changes to older adults' lives are described as well as their hygiene practices and social distancing during the pandemic. This chapter also examines the information sources people used to inform themselves on COVID-19 and, importantly, their levels of trust in different media platforms.

Chapter 4 describes the level of concern about SARS-CoV-2 among different sociodemographic groups before examining exposure to SARS-CoV-2 among adults aged 60 years and older. The demographic profile of participants infected by SARS-CoV-2 is described as well as their medical treatment. This chapter also discusses infection exposure and mortality among older adults' families, friends and other close contacts. As well as the risk of and exposure to the SARS-CoV-2 virus, public health responses to restrict the spread of the virus have had a dramatic impact on the everyday lives of the entire population, including older adults.

Chapter 5 focuses on levels of loneliness reported during the pandemic. Firstly, levels of loneliness reported during the pandemic are compared to levels recorded in 2018/2019 among the same older adults. We also show the importance of loneliness to older adults' quality of life, and self-rated physical and mental wellbeing.

In Chapter 6, changes in physical activity and sedentary behaviour during the COVID-19 pandemic are described. The association between these behaviours and mental health are also examined. The mental health indicators included are: Self-rated life satisfaction, Perceived stress, Anxiety, and Depressive Symptoms.

Non-COVID-19 related health services have been severely curtailed since the beginning of the pandemic with many elective services and routine appointments postponed or cancelled. In Chapter 7, we examine the impact of the COVID-19 pandemic on healthcare utilisation among adults aged 60 and older in Ireland. Specifically, this chapter discusses delays in medical care appointments; the type of services delayed; reasons why health appointments were delayed; use of online and telephone consultations; access to protective hygiene products; and medication and supplement use.

TILDA has previously described the extent of caregiving that older adults provide, including care for grandchildren and their spouses. In Chapter 8, caring during the pandemic are described, and changes to care since the beginning of the pandemic are described. The final section examines wellbeing and mental health outcomes by caring status.

2 Methodology

Mark Ward, Minjuan Wang, Christine McGarrigle and Niamh Clarke

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2 Methodology

Key Findings

- This COVID-19 study was carried out by The Irish Longitudinal Study on Ageing in Ireland.

- TILDA participants were recruited from the nationally representative sample of community-dwelling adults aged 60+ in Ireland.

- The sample size for this report was 3,677.

- Self-Completion Questionnaires (SCQs) were posted to participants home addresses and returned by pre-paid post.

- TILDA is co-funded by the Government of Ireland through the Department of Health, by Atlantic Philanthropies, and by Irish Life PLC. The COVID-19 study described in this report is funded the Health Research Board under the Rapid Response Research and Innovation Fund.

2.1 Introduction

Due to restrictions on household visits and face-to-face interactions in response to the COVID-19 pandemic, it was not possible to conduct in-person interviews for this COVID-19 study. Therefore, SCQs were mailed to TILDA participants at their home address. Once completed, participants then posted the questionnaires to TILDA using a prepaid envelope provided by TILDA. Data collection began in early June 2020, while the first national lockdown was in place. In September and October 2020, TILDA contacted by telephone all outstanding participants who had not yet returned a questionnaire in order to encourage participation. The final completed questionnaires were received by TILDA in November 2020.

At each of the previous five waves of TILDA data collection, participants were provided with a Self-Completion Questionnaire (SCQ) which they completed in their own time and returned to TILDA using a pre-paid envelope. Previous SCQs were used to collect information on topics deemed to be more sensitive such as quality of life, interpersonal relationships, ageing perceptions and alcohol consumption. Details of the sampling methods used in each of the five previous waves of TILDA are described elsewhere. (1–6) In this Chapter, we describe the survey instrument and other important features of the methodology, and provide an overview of the characteristics of the participants.

2.2 Funding

TILDA is co-funded by the Government of Ireland through the Department of Health, by Atlantic Philanthropies, and by Irish Life PLC. The COVID-19 study described in this report is funded the Health Research Board under the Rapid Response Research and Innovation Fund (Ref. COV19-2020-070). Further details about the study can be found here: https://www.hrb.ie/news/latest-news/news-story/article/covid-19-tilda-project-to-survey-and-protect-older-people-in-ireland/

2.3 Ethical approval

Ethical approval for the wider TILDA study was granted by the Faculty of Health Sciences Research Ethics Committee in Trinity College Dublin. TILDA adheres to the guidelines set out in the 1964 Helsinki declaration and its later amendments. Ethical approval for this COVID-19 study was obtained from the Irish National Research Ethics Committee COVID-19 on 17th June 2020, Application number: 20-NREC-COV-030-2.

2.4 Survey instrument

Participant information was collected by Self-Completion Questionnaire (SCQ). Questionnaires were first posted to TILDA participants in early July 2020 and data collection continued until November 2020. Once completed, participants returned the questionnaire to TILDA by pre-paid envelope.

The design of the questionnaire was guided by three important considerations. Firstly, where possible we included indicators that are routinely collected by TILDA and worded questions identically. By doing this, we can examine how the pandemic has changed the lives of older adults over time. Secondly, TILDA is part of the Health and Retirement Study (HRS) family of cohort studies, and as such we aimed to collect information that was comparable to similar studies being conducted in other jurisdictions such as the English Longitudinal Study of Ageing (ELSA); the HRS; and the Survey of Health, Ageing and Retirement in Europe (SHARE). Data harmonised between these and other studies will be available at a later date from the Gateway to Global Aging (https://g2aging.org/). Thirdly, our choice of indicators included in the questionnaire was informed by the World Health Organisation's COSMO (COVID-19 Snapshot MOnitoring) toolkit. This toolkit provides guidance for the development of survey instruments to capture insights into changes due to the COVID-19 pandemic. The toolkit is available to download from here https://apps.who.int/iris/handle/10665/333549

The TILDA SCQ contained nine sections that capture information on many aspects of people's lives during the pandemic. The contents of each section are summarised in Table 2.1.

Table 2.1. Content of the TILDA COVID-19 SCQ

Domain	Measures
Preventative behaviours & Precautionary measures	Marital status; marriage history; education; migration history; childhood.
Social contacts, activities & health behaviours	Usual daily activities; social distancing; adherence to preventative hygiene behaviours; change in behaviours; living arrangements; access to outdoor spaces.
Health and well-being	Eye colour; self-rated physical health; self-rated mental health; life satisfaction; UCLA loneliness measure; CES-D8 depression scale; CASP-12 quality of life; Ryff Purpose in Life sub-scale; PSS-4 Perceived Stress Scale; GAD-7 Anxiety Scale; sleep patterns; quality of relationships.
Economic well-being	Employment situation; receipt of Pandemic Unemployment Payment; income; household spending; household expenses; savings; general financial situation.
Caring	Caring for others; receipt of state services; help received.
Healthcare utilisation	Healthcare needs; unmet healthcare needs; telephone and online healthcare appointments; medications; health supplement use.
Information sources	News sources, frequency and level of trust; understanding of government guidance; knowledge of COVID-19.
Ageism & discrimination	Perceived ageism; experience of ageism; agreement with cocooning policy.
COVID-19 exposure and testing	Concern with COVID-19; symptoms and diagnosis of COVID-19

2.5   Response rates

A total of 5,535 booklets were posted to the participants aged 60 and older and 3,677 of those responded, achieving a response rate of 66% during a turnover period of less than four months. Table 2.2 shows the response rates for participants aged 60 years and older by age and gender. The highest response rate (72%) was among the female group aged 60–69 years.

Table 2.2. Response rates among TILDA participants aged 60 years and older, by age group and gender

Age Group	Male % (n)	Female % (n)	Total % (n)
60-69 years	66 (739)	72 (973)	69 (1717)
≥70 years	65 (898)	63 (1067)	64 (1965)
Total	66 (1637)	67 (2040)	66 (3677)

2.6　Dataset

The results presented in this report were generated from TILDA dataset C19SCQv1-1-1. The dataset contains survey information from 3,677 TILDA participants aged 60 years and older. An anonymised dataset will be made publicly available in 2021 via the Irish Social Science Data Archive (ISSDA) at University College Dublin: https://www.ucd.ie/issda/data/tilda

2.7　Statistical methods

The results presented in this report are largely descriptive. Percentages are reported for categorical variables, while means or medians are reported for continuous variables. As a probability sampling method was used, there is a quantifiable degree of uncertainty in all point estimates. To account for this, all point estimates in this report are presented with 95% confidence intervals (CI). The 95% CI can be interpreted as the range within which there is a 95% chance that the true population parameter lies.

2.7.1 Weighting

Although TILDA is nationally representative of the older community-dwelling population in Ireland, patterns of response to this COVID-19 SCQ component of the study may vary across certain subgroups of the sample. Participation in later waves of the study is also influenced by levels of participation at earlier waves and by sample attrition. To account for these systematic differences in responses and to ensure that the estimates derived from the sample remain representative of the original target population, two weights were calculated. Weighting ensures that for the estimates calculated, subgroups within the sample are represented proportionate to the number of that subgroup present in the population of Ireland. Weights were calculated by multiplying the base 2011 CAPI weight by the reciprocal of the probability that a participant completed the COVID-19 SCQ Wave (following participation at Wave 1). The probability was calculated using a multivariate logistic regression model, with the following baseline predictors: age, gender, level of education, marital status and urban or rural residence. A second longitudinal weight that included attrition between Wave 1 and the COVID-19 SCQ (participation in Wave 5 and in the COVID-19 SCQ), was also calculated. All of the analyses presented in this report have been weighted accordingly.

2.7.2 Software

All analyses in this report were conducted using Stata 14.2 or 15.1. In-house Stata functions and style sheets were used to create the tables and graphs.

2.8   Other resources

Since the start of the COVID-19 pandemic in March 2020, TILDA has produced numerous research publications to inform the public health response to the pandemic. These, along with previously published TILDA reports, can be accessed here: https://tilda.tcd.ie/publications/reports/, here: https://tilda.tcd.ie/CovidData/reports/ and here: https://tilda.tcd.ie/CovidData/briefs/

2.9   Characteristics of participants

The sample included in the analysis presented in this report are TILDA participants aged 60 years and older who returned a completed COVID-19 SCQ. As shown in Table 2.3, the average age of participants is 71 years and 53.5% are aged 70 years or older. There is a higher percentage of women (55.3%) than men (44.7%). Over 40% of participants had attended third level education, while 18.7% left the education system before secondary school. Just over one-in-four participants live alone, while the remainder lived with at least one other person, typically a spouse. Finally, one quarter of those who completed the questionnaire live in Dublin City or County, 29.1% live in another town or city, and the remaining 44.3% live in a rural area, as defined by the Central Statistics Office.

Table 2.3. Sociodemographic characteristics of TILDA COVID-19 study participants

	N	%
Mean age	3,614	71.2 (range 60 to 98)
Age groups		
60 to 69 years	1,682	46.5
≥70 years	1,932	53.5
Gender		
Men	1,612	44.7
Women	1,993	55.3
Education		
Primary	676	18.7
Secondary	1,438	39.8
Third level	1,497	41.5
Household status		
Living alone	990	27.4
Living with others	2,624	72.6
Household location		
Dublin City or County	960	26.6
Another town or city	1,051	29.1
Rural	1,599	44.3

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Changes to everyday activities in response to COVID-19 restrictions

Georgia Lalor, Sarah Gibney and Mark Ward

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3 Changes to everyday activities in response to COVID-19 restrictions

Key Findings

- There is a high level of compliance with Government advice in relation to COVID-19, with a large majority of the participants engaging in protective behaviours to prevent the spread of COVID-19.

- Eighty percent of the over-60s are adhering to social distancing guidelines, 98% are washing their hands more frequently than before and 74% report wearing a protective face mask when outside.

- The COVID-19 pandemic has changed the social behaviour of adults aged 60 years and older. Sixty-nine percent of participants report leaving the house less often than before, and 53% report doing grocery shopping less often than before as a result of the COVID-19 pandemic. Furthermore, 62% of participants report not travelling to visit family members at all, and 80% not to visit friends, since the outbreak of the COVID-19 pandemic.

- Older women report higher levels of changed behaviours in response to Government recommendations compared to men.

- Adults aged 60-69 report higher levels of changed behaviours in different settings (at work, in outdoor places and indoor public places) compared to adults aged 70 and older.

- National television is rated the most trusted source for COVID-19 information, followed by the Health Service Executive website and the official Irish government website.

- A large majority of participants report getting up-to-date news on COVID-19 from national television (72%) and national radio (61%), while two fifths of participants report getting news from Irish newspapers (39%) and other television stations (37%).

- With respect to understanding Government guidance on COVID-19, half of people over 60 years find it extremely easy to understand (51%) and 39% find it very or somewhat easy to understand.

- Only 27% of adults aged 60 and over report that their level of knowledge on COVID-19 is extremely good, while 54% consider their level of knowledge somewhat good.

3.1 Introduction

The COVID-19 pandemic has required dramatic changes to the everyday activities of older adults, as well as the adoption of new hygiene practices. As we approach a year since a lockdown was first announced, and more than a year since identification of the novel coronavirus, we are advised to continue to adhere to the guidelines introduced in the initial response to the pandemic in March 2020. It therefore remains critical that we have information on the extent of behavioural changes among older adults. While other chapters in this report examine the effect these changes have on people's wellbeing, here we describe some of the changes older adults have made to their daily activities, as well as compliance with relevant recommended hygiene practices. We also provide information on the news and other media from which adults aged 60 years and over get information on COVID-19, as well as their levels of trust in these sources.

Behavioural change and compliance with public health guidance and restrictions have formed an important part of every national response to the COVID-19 pandemic. Survey research published by the Central Statistics Office (CSO) indicates that there has been a high level of compliance with Government restrictions in Ireland in response to the global COVID-19 pandemic, with 80.6% and 59.9% of participants aged 16+ indicating high levels of compliance for the month of April and June 2020, respectively. (1) A cross-sectional survey of adults in the United Kingdom noted that participants reported taking at least one preventive measure against COVID-19. These included washing their hands more frequently with soap (85.8%), avoiding crowded areas (56.5%) and avoiding social events (54.5%). (2) Participants' willingness to self-isolate was high across all the groups, but adoption of social distancing measures was higher for those aged seventy years and older compared to younger age groups. (2) Socioeconomic status impacted participants' ability to work from home, as those with the lowest household income were six times less likely to be able to do so. They were also three times less likely to be able to self-isolate. (2) This research indicates a high degree of self-reported behavioural change during the COVID-19 pandemic. (2) Importantly, emerging research also highlights significant differences between different sociodemographic and socioeconomic groups with respect to social distancing behaviour, ability to self-isolate and ability to work from home. (2)

Turning to information sources and COVID-19, the CSO has shown that people aged 16-59 years are accessing news from online channels more often since the initial lockdown due to COVID-19 in mid-March 2020. (3) More than three quarters (76%) of internet users report reading or downloading online news, an increase of 2% on the corresponding January 2020 figure. (3) Among the over 60s, there was a decrease in internet usage for reading or downloading news, from 70% in January 2020 to 64% in March. (3) The means

by which older adults access news and public health information on COVID-19 is important in relation to their knowledge and understanding of Government guidelines. As we look to the near future and the roll-out of vaccinations against the virus, this information can be used to assist the vaccination programme by informing policymakers of where older adults get their health-related information and also the levels of trust they have in these sources.

3.2   Methodology

Here we describe in detail the questions that were asked in the survey questionnaire that are reported on in this chapter.

To capture information on the extent of changes adults aged 60 and over have made to their everyday activities, the following items were included in the TILDA COVID-19 SCQ. Participants were asked how often they did the following 13 activities since the outbreak of the COVID-19 pandemic: go grocery shopping; travel to visit friends; travel to visit family; attend religious services outside the home; exercise at home; walk outside your home for more than 20 minutes; do hobbies, crafts, or puzzles; watch TV, Netflix, stream movies, or shows; volunteer; do garden work or home repair; read books, magazines, or newspapers (in print or online); and meet with social groups on Zoom or other online video conference sites. Each item has four response options ("Not at all" "Less often" "About the same" and "More often").

From the beginning of the pandemic, people have been asked to follow numerous hygiene practices. The SCQ sought to collect information on the extent to which older adults adhered to guidelines on hygiene practices and other protective measures and behaviours to prevent the spread of COVID-19. Participants answered "Yes" or "No" the following five questions:

Did you wash your hands more frequently than usual?

Did you use special hand sanitiser or disinfection fluids?

Did you pay close attention to covering coughs and sneezes?

Did you take any drugs or medicine as a preventative against COVID-19?

Did you wear a protective face mask when outside the home, around other people?

As well as specific behaviours, participants were asked to what extent have they changed their behaviour in a number of specific settings (at home, at work, in outdoor public places, and indoor places) in response to Government recommendations on a scale of 1 (not at all) to 10 (a lot).

Turning to information sources, participants were asked how often they read, watch or listen to news on COVID-19 on an average day, with the following possible responses: "several times a day", "once per day", "less than once per day" or "never". If participants answered, "several times a day", they were asked to indicate about how many times per day they read, watch or listen to news on COVID-19. Most participants report reading watching or listening to news on COVID-19 several times a day (61%) or once per day (34%).

As well as the frequency that participants accessed information about COVID-19, participants were also asked what information sources they listen to, read or watch for news on COVID-19, including national radio, local radio, Irish television, Irish newspapers, Facebook, WhatsApp, Twitter, government websites and the HSE website.

The SCQ also asked about the degree to which adults aged 60 and over found official Irish Government guidance on COVID-19 easy to understand. Specifically, participants were asked "Did you find the official Irish Government guidance on COVID-19 easy to understand?" The response categories were: "extremely easy", "somewhat easy", "somewhat difficult" and "extremely difficult".

The final question on information sources related to COVID-19 asked participants to rate their knowledge of COVID-19, with the following potential responses: "extremely good", "somewhat good", "neither good nor bad", "somewhat bad" or "extremely bad".

This chapter is organised into three sections. Firstly we provide a background to the chapter, outlining the current evidence on precautionary behaviours in response to the COVID-19 pandemic in the older population. Next, we present data on precautionary behaviours in response to COVID-19 in the older population in Ireland, including changes to activities, compliance with social distancing guidelines, protective behaviours to prevent the spread of COVID-19 and behavioural changes due to Government recommendations. This section also presents the findings on the information sources used by participants to obtain information on COVID-19. Finally, we summarise the overall key findings from these two parts of the TILDA COVID-19 self-completion questionnaire.

3.3   Results

There were full data available for 3,614 participants aged 60 years and older in this survey.

3.3.1   Changes to activities due to COVID-19 pandemic

Table 3.1 shows how often adults aged 60 years and older did each of these activities. The majority of participants do the following activities less often as a result of the COVID-19 pandemic: 69% report leaving the house less often than before the pandemic, and 53% report doing grocery shopping less often. Sixteen percent of adults aged 60 and older exercise at home more often than before the pandemic, while 26% went for walks outside the home for at least 20 minutes more often than previously. Nearly half of participants (44%) engage in garden and home DIY work more often since the COVID-19 pandemic. Conversely, many participants are not doing the following activities at all since the outbreak of COVID-19: travelling to visit family members (62%), travelling to visit friends (80%), attending religious services outside of the home (86%), and volunteering (81%).

Table 3.1. Changes to activities due to the COVID-19 pandemic

	Not at all		Less often		About the same		More often		N
	%	95% CI	%	95% CI	%	95% CI	%	95% CI	
How often do you leave your home?	14	[12-16]	69	[67-61]	16	[14-17]	1	[1-2]	3243
How often do you go grocery shopping?	30	[28-32]	53	[51-55]	15	[14-17]	1	[1-2]	3223
How often do you travel to visit friends?	80	[78-82]	19	[17-20]	1	[1-2]	0	[0-1]	3223
How often do you travel to visit family?	62	[60-65]	34	[32-36]	3	[2-4]	0	[0-1]	3239
How often do you attend religious services outside of the home?	86	[85-88]	10	[9-12]	3	[2-4]	0	[0-1]	3210
How often do you exercise at home?	20	[18-22]	16	[14-17]	48	[46-50]	16	[15-18]	3182
How often do you walk outside your home for more than 20 minutes?	13	[11-14]	25	[23-26]	37	[35-39]	26	[24-28]	3243
How often do you do hobbies, crafts, or puzzles?	26	[24-28]	11	[9-12]	40	[38-42]	23	[22-25]	3207
How often do you watch TV, Netflix, stream movies, or shows?	3	[3-4]	6	[5-8]	55	[53-57]	35	[33-37]	3234
How often do you volunteer?	81	[79-82]	8	[7-9]	10	[9-11]	2	[1-2]	3117
How often do you do garden work or home repair?	14	[12-15]	7	[6-9]	35	[33-37]	44	[42-46]	3214
How often do you read books, magazines, or newspapers (in print or online)?	8	[6-9]	5	[4-6]	52	[50-54]	35	[33-37]	3226
How often do you meet with social groups on Zoom or other online video conference sites?	8	[7-9]	36	[34-38]	27	[25-28]	28	[26-30]	4897

3.3.2 Compliance with social distancing guidelines

Overall, there is a high degree of compliance, with 97% of older adults always or often keeping their distance from others. A higher percentage of women (89%) 'always' comply with social distancing guidelines compared to men (73%). (Table 3.2)

Table 3.2. Proportion of adults aged 60 years and over adhering to social distancing guidelines, by gender

	Always		Often		Sometimes		Never		N
	%	95% CI	%	95% CI	%	95% CI	%	95% CI	
60-69 years									
Male	69	[65-73]	27	[24-32]	4	[2-6]	0	[0-1]	654
Female	89	[87-92]	10	[8-13]	0	[0-1]	0	[0-0]	857
Total	*80*	*[77-82]*	*18*	*[16-21]*	*2*	*[1-3]*	*0*	*[0-0]*	*1511*
70+ years									
Male	77	[74-80]	19	[16-22]	4	[2-6]	0	[0-0]	780
Female	88	[85-90]	10	[8-13]	2	[1-3]	1	[0-2]	918
Total	*83*	*[81-85]*	*14*	*[12-16]*	*3*	*[2-4]*	*0*	*[0-1]*	*1698*
Total									
Male	73	[70-76]	23	[21-26]	4	[3-5]	0	[0-0]	1434
Female	89	[87-90]	10	[8-12]	1	[1-2]	0	[0-1]	1775
Total	*81*	*[80-83]*	*16*	*[15-18]*	*2*	*[2-3]*	*0*	*[0-1]*	*3209*

As shown in Figure 3.1, women were more likely than men 'always' to comply with social distancing guidelines. This was true of those aged 60 to 69 and the over 70s.

Figure 3.1. Frequency of compliance with social distancing guidelines by age and gender
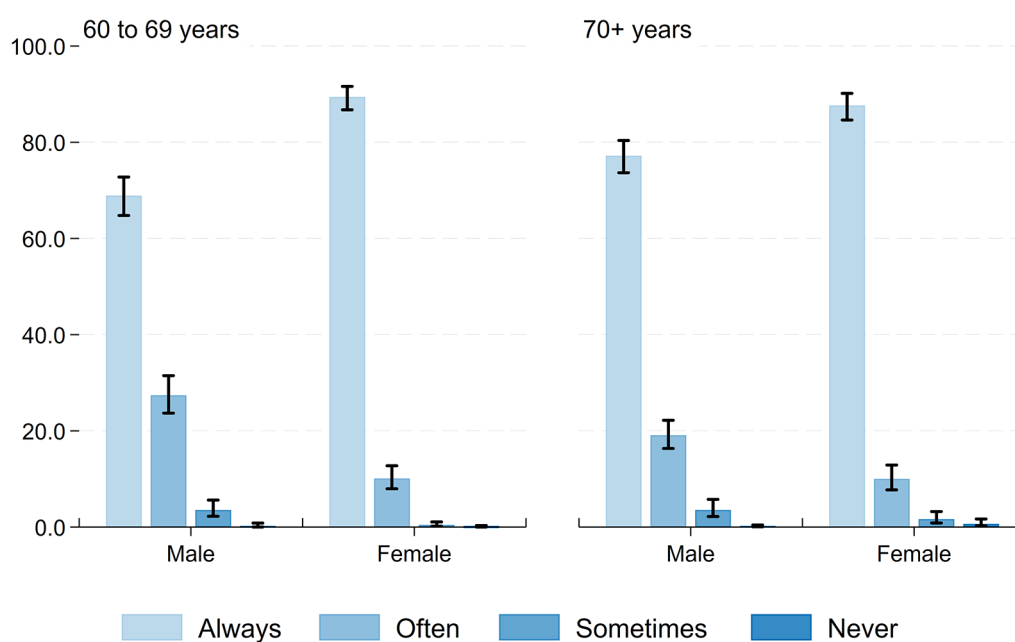
3.3.3 Protective behaviours to prevent spread of COVID-19

Overall, compliance with these guidelines is very high among adults aged 60 years and older. As shown in Table 3.3, nearly all participants wash their hands more frequently, use special hand sanitiser/disinfection fluid and pay close attention to covering coughs or sneezes, and just under three-quarters of participants wear a protective mask when outside among other people.

Table 3.3 Percentage of older adults practicing protective measures and behaviours to prevent the spread of COVID-19

	No		Yes		N
	%	95% CI	%	95% CI	
Did you wash your hands more frequently than usual?	2	[1-2]	98	[98-99]	3277
Did you use special hand sanitiser or disinfection fluids?	8	[7-9]	92	[91-93]	3267
Did you pay close attention to coughs and sneezes?	2	[2-3]	98	[97-98]	3252
Did you take any drugs or medicine to prevent the spread as a preventative against COVID-19?	95	[94-96]	5	[4-6]	3260
Did you wear a protective face mask when outside the home, around other people?	26	[25-28]	74	[72-75]	3245

As seen in Figure 3.2, the use of a protective facemask when outside is higher among women (80%) than men (66%), and higher for adults over 70 years of age (80%) compared with those aged 60-69 (76%). The highest rate of face mask use is seen in women aged 70 years and older.

Figure 3.2. Percentage of older adults who wear a protective face mask when outside among others, by age and gender
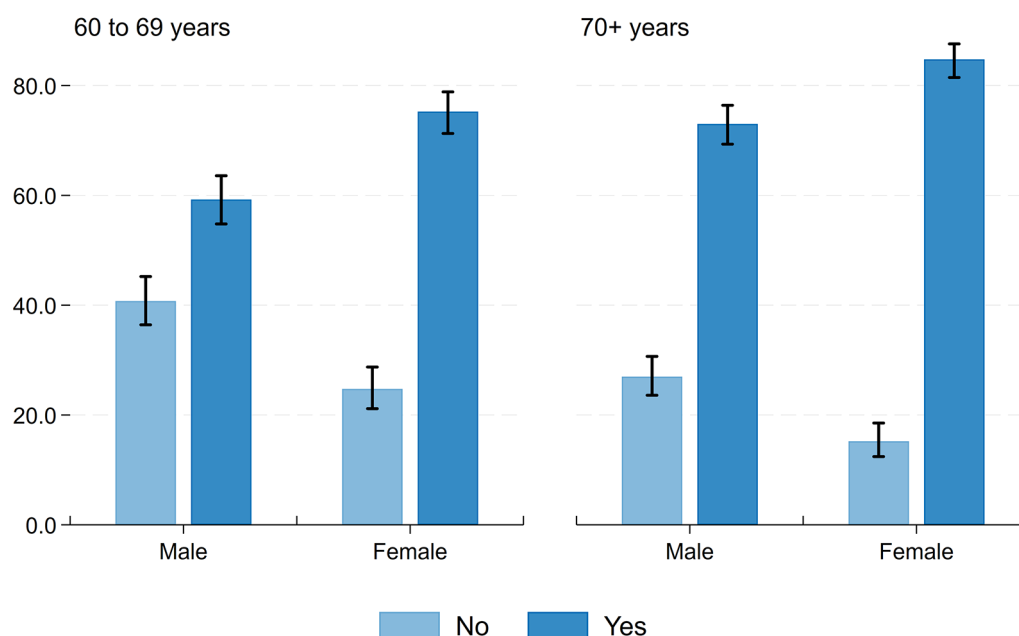
3.3.4 Changing behaviours in response to Government recommendations

Participants were asked to what extent have they changed their behaviour at home; at work; in outdoor public places; and indoor places, in response to Government recommendations, on a scale of 1 (not at all) to 10 (a lot). The average scores for behavioural changes across different sociodemographic groups are presented in Table 3.4. Changed behaviour within the home, in outdoor places and in indoor places is higher for women than men. On average, adults aged 60-69 years have changed their behaviours more than adults over 70 at work, in outdoor places and indoor public places. Increased rates of behavioural change associated with educational attainment are evident at work only. There were no significant differences according to urban or rural location in changes in behaviour in any of these settings.

Table 3.4. Average change in behaviour (from zero to ten) at home, at work, outdoors, and indoors, by gender, age education, and location

	At home Mean (95% CI)	At work Mean (95% CI)	Indoors Mean (95% CI)	Outdoors Mean (95% CI)	N
Gender					
Male	6.64 (6.47, 6.80)	7.54 (7.22,7.85)	8.53 (8.40,8.67)	8.12 (7.97,8.26)	1236
Female	7.07 (6.88, 7.27)	7.79 (7.28,8.30)	8.84 (8.69,8.99)	8.69 (8.54,8.84)	1448
Age Groups					
60 to 69 years	6.97 (6.76, 7.15)	8.08 (7.82,8.35)	8.94 (8.82,9.06)	8.64 (8.51,8.77)	1394
≥70 years	6.77 (6.59, 6.96)	6.43 (5.86,7.01)	8.39 (8.21,8.56)	8.13 (7.95,8.31)	1290
Education					
Primary/none	6.90 (6.63,7.16)	6.90 (6.27,7.53)	8.42 (8.17,8.67)	8.32 (8.08,8.57)	407
Secondary	6.86 (6.69,7.03)	7.83 (7.51,8.15)	8.82 (8.70,8.94)	8.45 (8.31,8.58)	1060
Third/higher	6.84 (6.68,7.00)	8.27 (8.00,8.55)	8.87 (8.77,8.97)	8.48 (8.36,8.59)	1217
Location					
Urban	6.90 (6.72,7.07)	8.16 (7.80,8.53)	8.70 (8.55,8.85)	8.50 (8.36,8.64)	1541
Rural	6.83 (6.65,7.02)	7.20 (6.84,7.56)	8.68 (8.54,8.82)	8.28 (8.12,8.44)	1143
Total	6.90 (6.72,7.07)	8.16 (7.80,8.53)	8.70 (8.55,8.85)	8.50 (8.36,8.64)	2684

3.3.5 Information sources on COVID-19

Most participants report reading, watching or listening to news on COVID-19 several times a day (61%) or once per day (34%). Regarding the most common news sources, Figure 3.3 shows that most participants get up-to-date news on COVID-19 from Irish television (72%) and national radio (61%), while two fifths of participants get news from Irish newspapers (39%) and other television stations (37%). Social media, including Facebook (11%), Twitter (1%) and WhatsApp (6%), and Government (5%) and HSE (7%) websites, are used by fewer older adults than other media.

Figure 3.3 Percentage of adults aged 60 and older who used selected news sources during the COVID-19 pandemic
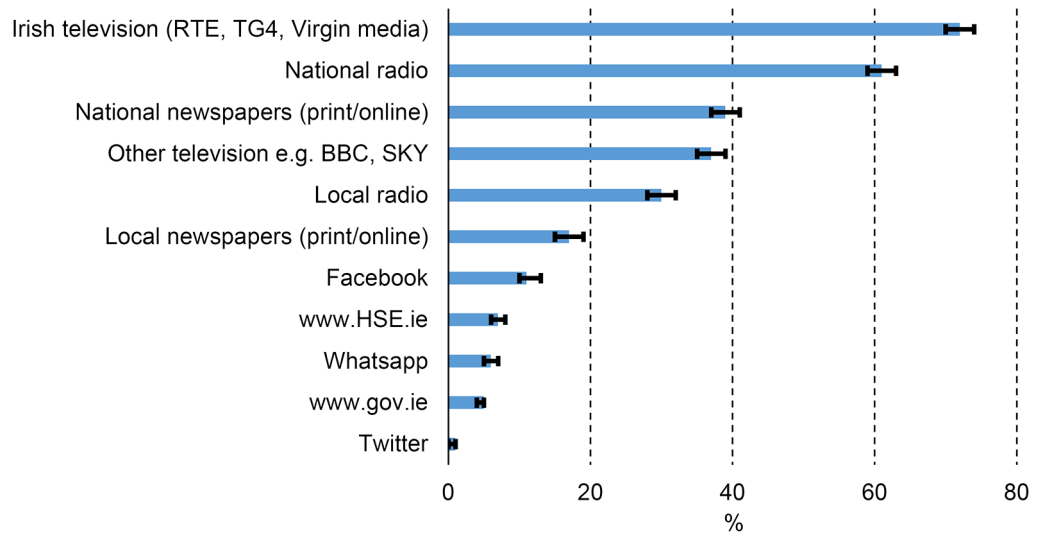
Of the media outlets listed, the average level of trust in these news sources was 7.7 out of a maximum of 10. National television is rated the most trustworthy outlet (mean = 8.28), followed closely by the HSE website (mean = 8.26) and the official Irish Government website (mean = 8.11). Information from Facebook (mean = 4.24) and WhatsApp (mean = 4.47) are deemed to be the least trustworthy by participants (Figure 3.4).

Figure 3.4. Level of trust on a scale selected news sources among adults aged 60 and older during the COVID-19 pandemic
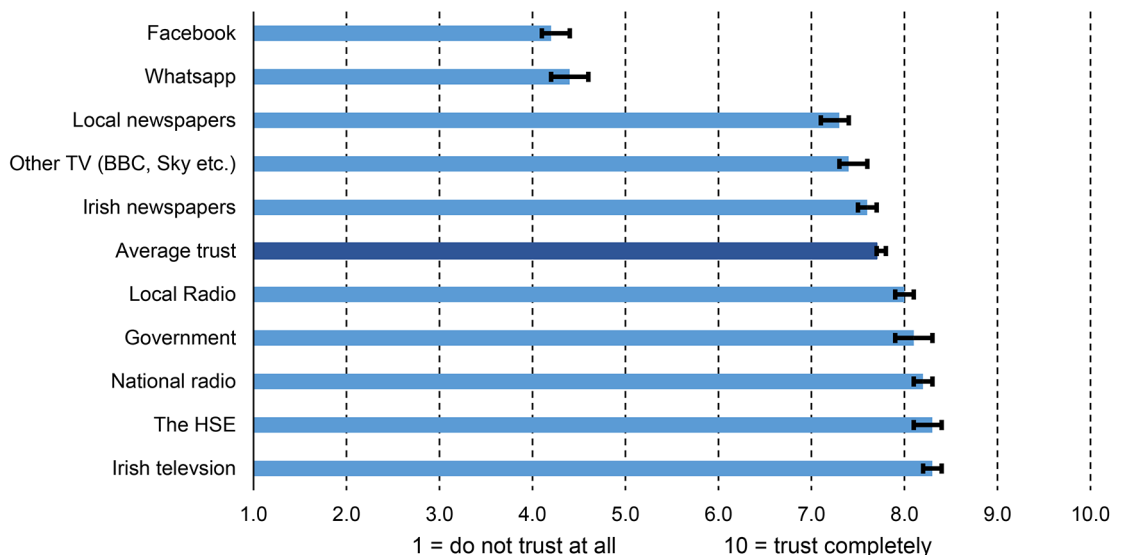
As shown in Table 3.5, the vast majority of participants find the guidance extremely easy (51%) or somewhat easy (39%) to understand, with 8% and 2% finding the information somewhat difficult or extremely difficult to understand, respectively. Differences in self-reported understanding of the Irish government guidance is seen between genders, age groups and level of education. A greater proportion of women (54%) rate government guidance as "extremely easy" compared to men (48%); those aged 60-69 (54%) compared to adults aged over 70 (48%); and those with third level education (57%) compared to adults with primary (45%))and secondary (54%) level education.

Table 3.5. Ease that older adults understand official government guidance by gender, age, and education

	Extremely easy		Somewhat easy		Somewhat difficult		Extremely difficult		N
	%	95% CI	%	95% CI	%	95% CI	%	95% CI	
Gender									
Male	48	[44-51]	40	[37-43]	10	[8-12]	2	[1-4]	1454
Female	54	[51-57]	38	[35-41]	7	[5-8]	2	[1-3]	1791
Age groups									
60 to 69 years	54	[51-57]	37	[34-40]	7	[5-9]	2	[1-3]	1515
≥70 years	48	[45-51]	41	[38-43]	10	[8-12]	2	[1-3]	1730
Education									
Primary/none	45	[40-49]	40	[36-44]	11	[9-14]	4	[3-6]	581
Secondary	54	[51-56]	39	[36-42]	7	[5-8]	1	[0-2]	1282
Third/higher	57	[54-60]	37	[34-40]	6	[4-7]	0	[0-1]	1382
Total	*51*	*[49-53]*	*39*	*[37-41]*	*8*	*[7-10]*	*2*	*[1-3]*	*3245*

The final question on information sources related to COVID-19 asked participants to rate their knowledge of COVID-19. As shown in Table 3.6, most participants describe their knowledge of COVID-19 as extremely good (27%) or somewhat good (54%), with 17% percent describing their knowledge as neither good nor bad. Differences in level of knowledge are seen between genders, age groups and education levels. In those who describe their level of knowledge as extremely good, higher rates are associated with higher educational attainment in older people aged 60-69 and among women.

Table 3.6. Self-rated knowledge of COVID-19 by gender, age, and education

	Extremely good		Somewhat good		Neither good nor bad		Somewhat or extremely bad		N
	%	95% CI	%	95% CI	%	95% CI	%	95% CI	
Gender									
Male	23	[21-26]	56	[53-59]	19	[17-22]	2	[0-3]	1447
Female	30	[28-33]	53	[50-56]	15	[13-18]	2	[0-3]	1793
Age groups									
60 to 69 years	30	[28-33]	54	[50-57]	15	[12-17]	2	[0-3]	1518
≥70 years	24	[21-26]	55	[52-58]	19	[17-22]	2	[0-3]	1722
Education									
Primary/none	19	[16-23]	53	[48-57]	25	[22-30]	2	[0-3]	574
Secondary	30	[27-33]	55	[52-58]	14	[12-16]	2	[0-3]	1280
Third/higher	36	[33-39]	55	[52-58]	8	[7-10]	1	[0-1]	1386
Total	*27*	*[25-29]*	*54*	*[52-56]*	*17*	*[15-19]*	*2*	*[0-3]*	*3240*

3.4   Discussion

Overall, participants report a very high level of compliance with Government advice in relation to COVID-19. A large majority of the over 60s are adhering to social distancing guidelines, washing their hands more frequently and wearing a protective face mask when outside among other people. Women show a greater degree of compliance in terms of using these protective measures. In general, compliance among older adults in Ireland appears to be higher than that in the United Kingdom. (2)

This chapter also shows that the COVID-19 pandemic has dramatically changed the social behaviours of older people. Many participants are not engaging at all in certain activities such as travelling to visit family and friends, and they are not leaving their homes as often as before. Conversely, participants are gardening more and engaging more frequently in DIY at home since the outbreak. Women and older adults aged 60 to 69 show a greater level of changed behaviour in response to Government recommendations, at home, in the workplace, and in indoor and outdoor public spaces.

Irish television and the HSE website are rated as the most trusted information sources for COVID-19 information. A low number of older people use the HSE website as an information source, however, with Irish Television being the most-used source for up-date-date news on COVID-19.

The majority of adults aged 60 and over find it extremely easy to understand Government guidance on COVID-19. Overall, women and those with third level education show higher levels of understanding of Government guidance. Finally, participants have a high level of knowledge on COVID-19, with knowledge levels higher in women and in those with third level education.

In order for people to continue make the changes to their normal activities and behaviours required to limit their, and others', exposure to COVID-19, it is critical that public health messaging reaches as many people as possible and that it is easy to understand. In communicating Government guidelines like these, it is also important that trusted media are used. As we have shown in this chapter, levels of trust in media sources vary greatly, with higher trust found in traditional media sources such as national television and, conversely, very little trust in newer media such as Facebook. This information takes on even greater importance as we begin the roll-out of vaccinations. It is essential that information on vaccination for the COVID-19 virus is communicated via trusted news sources that adults aged 60 and over in particular might access for information on a vaccine. These data are of special importance as, according to the published vaccination schedule, priority will be given to people aged 65 and older in long-term care facilities, closely followed by all adults aged 70 years and older.

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4 COVID-19 concerns, exposure, symptomology and mortality

Aisling O'Halloran

Contents

tilda

Staidéar Fadaimseartha na
hÉireann um Dhul in Aois

The Irish Longitudinal
Study on Ageing

4 COVID-19 concerns, exposure, symptomology and mortality

Key Findings

- The combined prevalence of a positive PCR test, doctor-suspected cases and self-suspected cases of COVID-19 infection among adults aged 60 and over is 5%.

- The prevalence of a confirmed or suspected case of COVID-19 infection is three-times higher in the 60-69 compared to the 70 and over age group (6% versus 2%). The same prevalence rates by age group are observed among those who live alone.

- The prevalence of a confirmed or suspected case of COVID-19 infection is 70% higher in males versus females.

- The highest prevalence of confirmed or suspected cases of COVID-19 infection is among those with a third level education (6%) compared to those with secondary (4%) or primary level (5%). Non-response to the question is 11%, 5% and 3% among primary, secondary and third level educated participants respectively.

- The prevalence of a confirmed or suspected case of COVID-19 infection is almost twice as high in Dublin (7%) compared to other cities (4%) and towns or rural areas (4%).

- The older adults most concerned about the COVID-19 pandemic are aged 70 and over and live alone (54%), are female (52%), are educated to primary level (56%), and live in rural areas (51%).

- The prevalence of COVID-19 infection by relationship to older adults is low but is highest among friends and neighbours (0.8%), followed by children (0.7%) and spouses or partners (0.6%), relatives and siblings (0.3%), and grandchildren and parents (0.2%).

- The most prevalent symptoms reported by older adults during the COVID-19 pandemic are: muscle and joint pain (17%), cough (9%), shortness of breath (6%), sore throat (5%), diarrhoea (4%), fever (2%), loss of smell or taste (2%), nausea or vomiting (1%).

- Since the start of the pandemic, 1 in 20 (5%) adults aged 60 and over have lost a family member or friend due to COVID-19 infection.

- Of those adults who lost a family member or friend due to COVID-19, almost two-thirds were neighbours or friends, 30% were relatives and 5% were a close family member.

- Among adults who lost someone close due to COVID-19 the majority are: aged 60-69 years (55%), live alone aged 70 and over (56%), female (55%), third level educated (44%) and live in Dublin (50%).

4.1 Introduction

The ongoing pandemic of SARS-CoV-2, a novel coronavirus that causes COVID-19 infection and disease, is threatening healthcare systems globally as well as in Ireland. (1) The COVID-19 pandemic, and public health-associated restrictions, is having a significant impact on the physical, mental, social and economic health and wellbeing of our citizens. No age group is as greatly affected as the older members of our society, with adults aged 65 and over having a 6-8 times increased risk of hospitalisation, and 80% of deaths due to COVID-19 reported among this age group also. (2,3) Older people are at high risk because of age related deficiencies in immune response, the presence of long-term health conditions, problems with mobility, as well as loneliness and social isolation. (4-6) From the recently published TILDA report, The Older Population of Ireland on the Eve of the COVID-19 Pandemic, we know that three-quarters of community-dwelling older adults in Ireland have ≥2 chronic conditions and one-in-six are living with frailty. (7)

An earlier chapter (Chapter 2) provides a detailed description of the methodology. Thus, a summary of the methodology used in this chapter is provided here. We use attrition weights as described in the Methodology Chapter to make estimates relevant to the general population aged 60 years and over in Ireland. There are five sections in our analysis. Firstly, we examine general concerns about the COVID-19 pandemic and distribution by sociodemographic factors (age, gender, educational attainment, locality and living alone). Next, we focus on the prevalence of exposure to infection leading to COVID-19 by sociodemographic factors and we report on hospitalisation and requirement for oxygen due to COVID-19. In addition, we ask about infection exposure among members of the household and close contacts. We also investigate the prevalence of COVID-19-related symptoms among TILDA participants themselves and among those close to them such as family, relatives, friends and carers. Finally, we report on mortality among family, relatives and friends of TILDA participants. We report on the distribution of all deaths by sociodemographic factors and we also present the breakdown of deaths by relationship to the participant. We provide descriptive data for the population aged 60 years and over and disaggregate by age group (60-69 years or 70 years and over). A detailed description of these topics and the measures used in these analyses is provided at the start of each section.

Data for this chapter come from the COVID-19 Self-Completion Questionnaire (SCQ) completed by TILDA study participants between July and September of 2020. Of the 5,225 participants aged 50 years and older in TILDA at Wave 5, who also participated at Wave 1, 1,410 did not participate in the COVID-19 SCQ, leaving a sample of n=3,815. We remove

from our analysis any participant aged less than 60 years of age (n=136) and those participants with missing data for gender (n=10), educational attainment (n=66) and locality (n=1). Thus, the analytical sample includes n=3,602 participants aged 60 years and older. The average age was 71 years, with an age range of 60–98 years.

4.2 Concern about the COVID-19 pandemic

Given the potential harm both to health and to the economy, and the general sense of uncertainty in relation to the predicted course of the pandemic, we want to gauge the general sense of concern among the older adult population in Ireland. We ask TILDA participants 'Overall, on a scale from 1 to 10 how concerned are you about the COVID-19 pandemic?'. They provide responses on a scale of 1-10, with 1 indicating 'Least concerned' and a score of 10 indicting 'Most concerned'. Below we present the distribution of this score by age, gender, education, locality and living alone.

4.2.1 COVID-19 concerns by age and gender

Figure 4.1. Concerns about COVID-19 pandemic by age
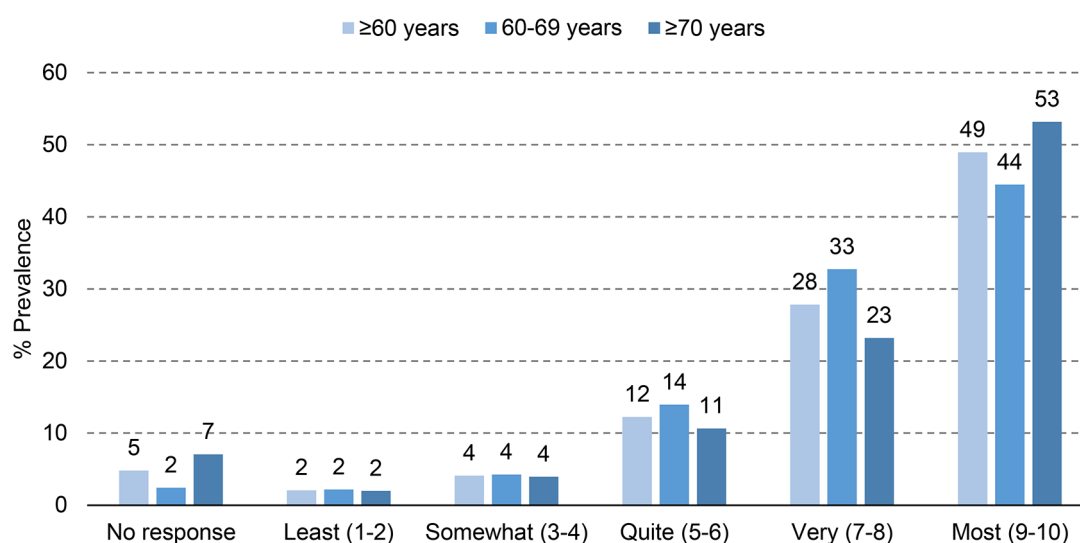
Among the 3,602 TILDA participants in this study aged 60 years and over, 49% are in the 60-69 age group and 51% are aged 70 years and over. Figure 4.1 shows the distribution of scores indicating concern about the COVID-19 pandemic by age group. Overall, the majority show higher levels of concern across all age groups, with only 6% rating concern at scores of 1-4 indicating least or somewhat concerned. In the 60-69 age group, 47% choose scores between 5-8, indicating quite or very concerned, compared to those in

the 70 and over age group at 33%. A higher percentage of adults in the 70 and over age group, however, choose the highest scores of 9-10, indicating most concern about the COVID-19 pandemic (53% compared to 44% for the younger age group).

Figure 4.2. Concerns about COVID-19 pandemic by gender
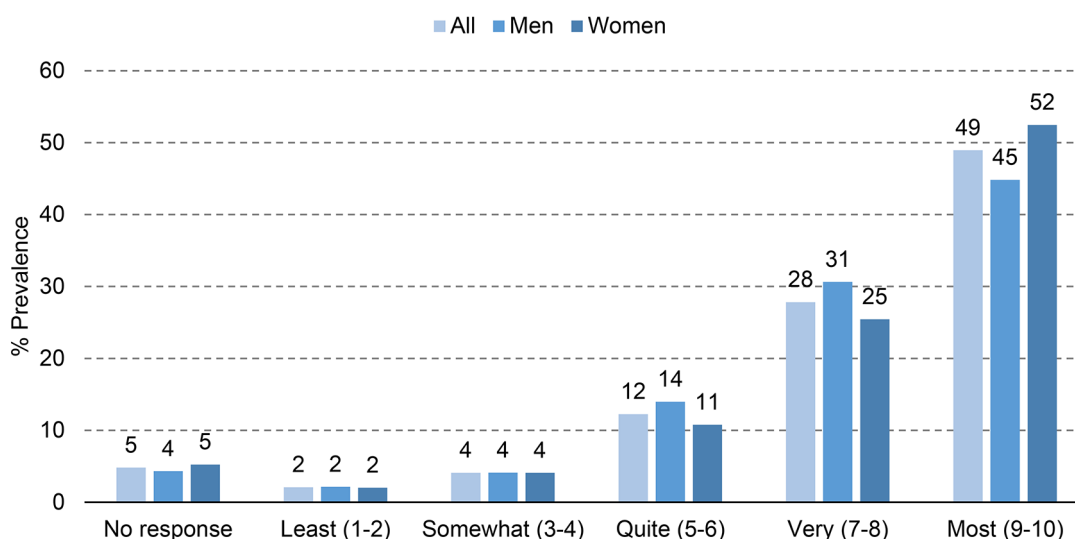
Among the TILDA participants in this study aged 60 years and over, 54% are women. Figure 4.2 shows the distribution of scores indicating concern about the COVID-19 pandemic by gender. Overall, a minority of both men and women show lower levels of concern, with 6% of both genders rating concern at scores of 1-4 (least or somewhat concerned). A higher percentage of men compared to women choose scores between 5-8 indicating quite or very concerned, 45% versus 36% respectively. Conversely, a higher percentage of women compared to men choose the highest scores of 9-10, indicating most concern about the COVID-19 pandemic (52% versus 45% respectively).

4.2.2 COVID-19 concerns by educational attainment

Among the TILDA participants in this study aged 60 years and over, 38%, 43% and 19% attained a primary, secondary or third level education respectively. Figure 4.3 shows the distribution of scores indicating concern about the COVID-19 pandemic by educational attainment. The majority show higher levels of concern, regardless of education level, with only 4-8% rating concern at scores of 1-4 (least or somewhat concerned). A higher percentage of participants with third level education (52%) compared to secondary (45%) or primary level (28%) chooses scores between 5-8, indicating quite or very concerned. Conversely, a higher percentage of older adults with primary level education (56%) choose

the highest scores of 9-10, indicating most concern about the COVID-19 pandemic, compared to older adults with secondary (47%) or third level (40%) education. We note non-response rates are significantly higher among those with a primary level of education.

Figure 4.3. Concerns about COVID-19 pandemic by educational attainment
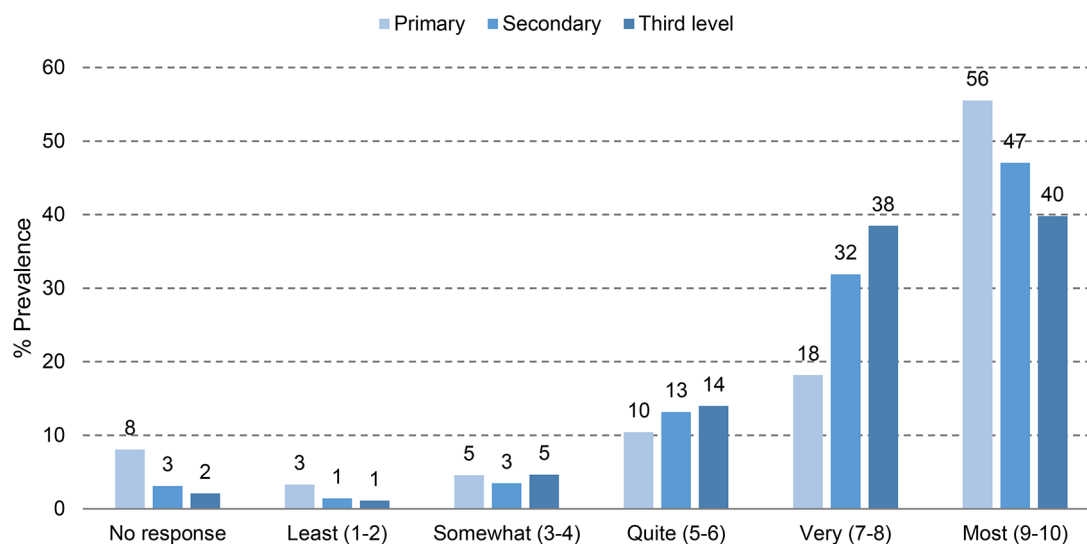
4.2.3 COVID-19 concerns by locality

The percentage of community-dwelling adults aged 60 and over living in Dublin city or county, another city or town and in rural areas is 27%, 32% and 41% respectively. Figure 4.4 shows the distribution of scores indicating concern about the COVID-19 pandemic by locality. The majority show higher levels of concern regardless of locality, with only 5-7% rating concern at scores of 1-4 (least or somewhat concerned). A higher percentage of participants living in Dublin (44%) compared to another city or town (40%) or a rural area (38%) chooses scores between 5-8, indicating quite or very concerned. Conversely, a higher percentage of older adults living in a rural area (51%) chooses the highest scores of 9-10, indicating most concern about the COVID-19 pandemic, followed by older adults living in another city or town (49%) or those living in Dublin (46%).

Figure 4.4. Concerns about COVID-19 pandemic by locality
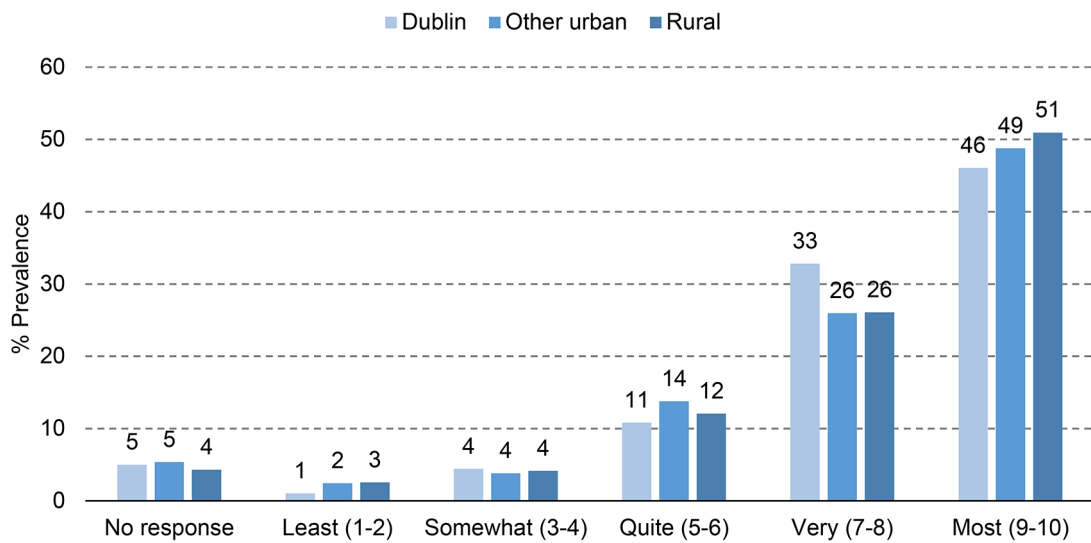
4.2.4 COVID-19 concerns and living alone

The percentage of community-dwelling adults living alone and aged 60 and over, 60-69 years, and 70 and over is 29%, 23% and 35% respectively. Figure 4.5 shows the distribution of scores indicating concern about the COVID-19 pandemic for older adult living alone by age. The majority of older adults living alone show higher levels of concern regardless of age, with only 7-9% rating concern at scores of 1-4 (least or somewhat concerned). A higher percentage of participants living alone in the 60-69 age group (41%) compared to those living alone in the 70 and over age group (29%) chooses scores between 5-8, indicating quite or very concerned. A higher percentage of older adults living alone aged 70 and over (54%), however, chooses the highest scores of 9-10, indicating most concern about the COVID-19 pandemic, compared to those living alone aged 60-69 years (45%).

Figure 4.5. Concerns about COVID-19 pandemic and living alone
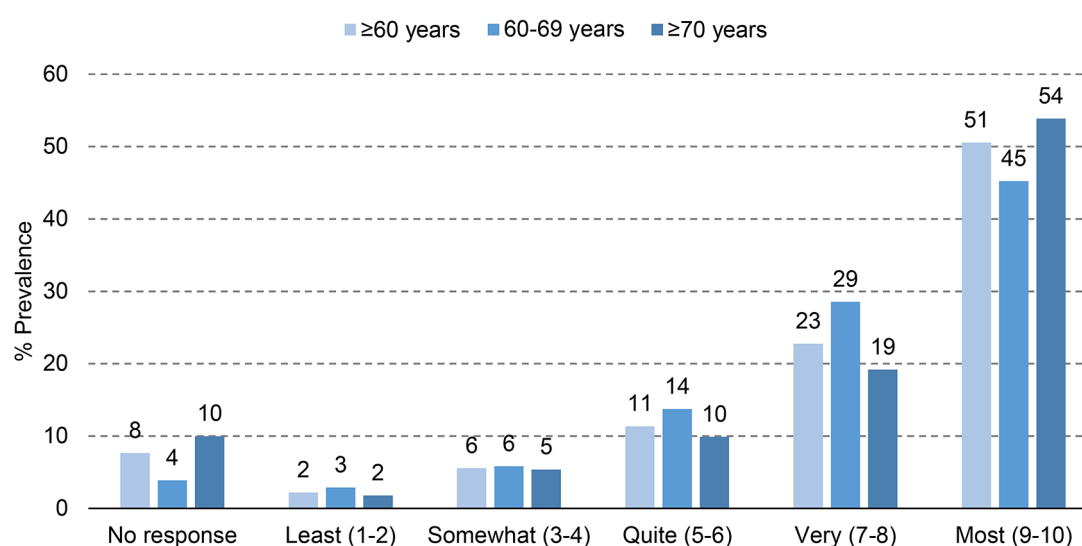
4.3 COVID-19 exposure, hospitalisation, and oxygen support

In this section we report on the prevalence of exposure of older community-dwelling adults in Ireland to SARS-CoV-2 infection. We ask TILDA participants if they think they have had COVID-19. They provide responses of 'Yes, confirmed by a positive test', 'Yes, suspected by a doctor', 'Yes, my own suspicions', 'No, confirmed by a negative test' or 'No, not to my knowledge'. We present the incidence of confirmed or suspected COVID-19 by age, gender, education, locality and living alone. We also report on admission to hospital, hospital length of stay and whether oxygen was required to help with breathing while in hospital.

4.3.1 COVID-19 exposure by age and gender

Figure 4.6 shows the prevalence of exposure to COVID-19 by age. The rates of older adults who report a positive test for COVID-19 (n=13, 0.2%), a doctor-suspected case of COVID-19 (n=18, 0.5%) or a self-suspected case of COVID-19 (n=123, 3.5%) are very low. A further 6% report a negative test for COVID-19, while the majority (83%) did not have COVID-19 to their knowledge. There was a higher prevalence among those aged 60-69 compared to those 70 and over of both doctor-suspected (1.0% versus 0.1%) and self-suspected (5% versus 2%) cases of COVID-19.

Figure 4.6. COVID-19 exposure by age

Legend: ≥60 years, 60-69 years, ≥70 years

% Prevalence

Category	≥60 years	60-69 years	≥70 years
No Response	7	4	9
Positive test	0.2	0.3	0.2
Doctor suspected	0.5	1.0	0.1
Self suspected	4	5	2
Negative test	6	7	6
Did not have Covid	83	83	82
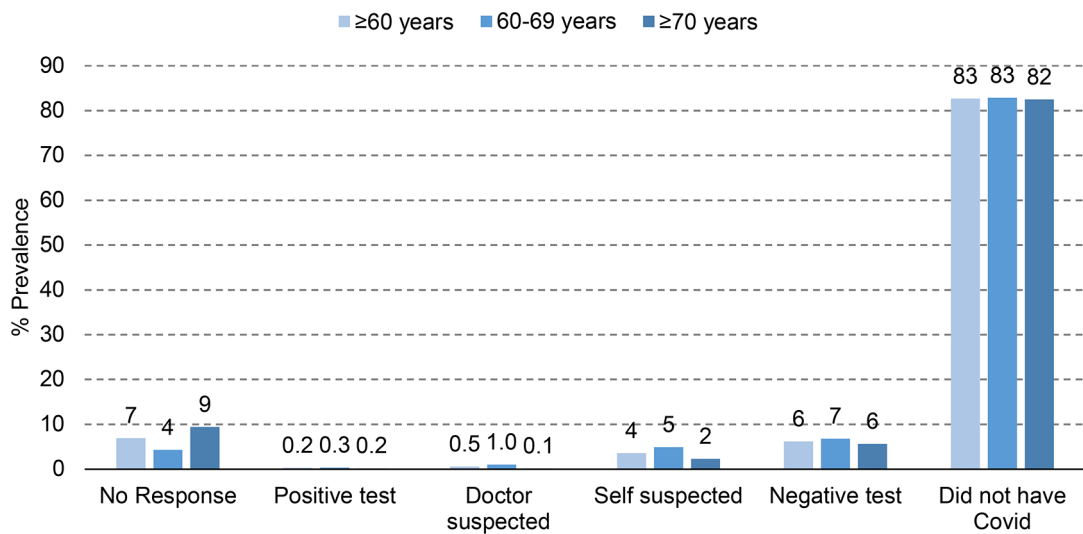
Figure 4.7 shows the prevalence of exposure to COVID-19 by gender. There is a higher prevalence of doctor-suspected (0.8% versus 0.3%) and self-suspected (4% versus 3%) cases of COVID-19 among men versus women. The percentages of men and women who had a negative test or who did not believe they had COVID-19 are similar.

Figure 4.7. COVID-19 exposure by gender

Legend: All, Male, Female

% Prevalence

Category	All	Male	Female
No Response	7	6	8
Positive test	0.2	0.3	0.2
Doctor suspected	0.5	0.8	0.3
Self suspected	4	4	3
Negative test	6	6	7
Did not have Covid	83	83	82

48
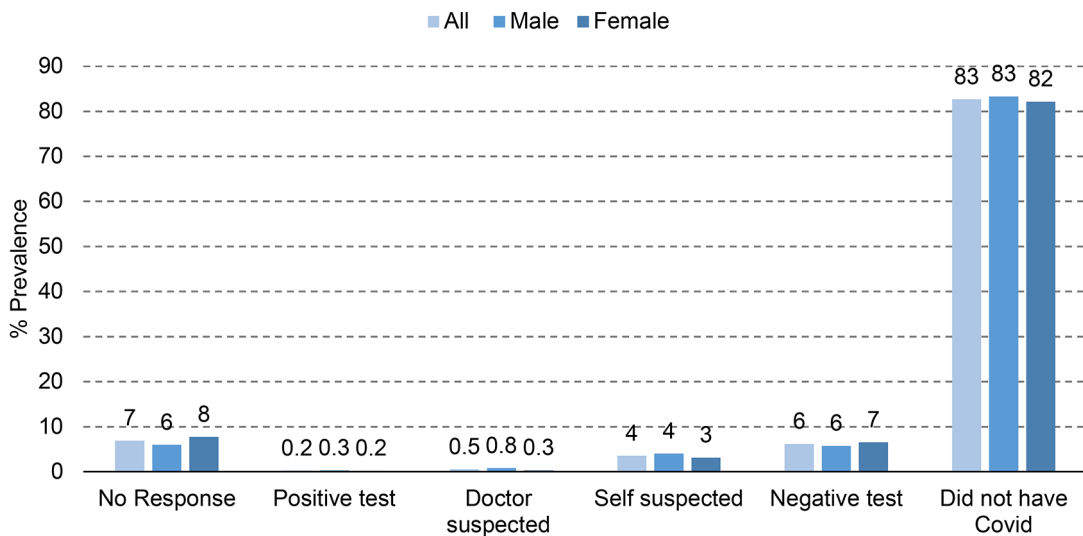
4.3.2 COVID-19 exposure by educational attainment

Figure 4.8 shows the prevalence of exposure to COVID-19 by educational attainment. There is a progressively higher prevalence of positive tests among older adults with third level compared to secondary or primary level education, but the numbers are very small (1.0, 0.3 and 0.0% respectively). Doctor-suspected and self-suspected cases of COVID-19 are marginally higher among adults with primary and third level compared to second level education. Older adults reporting negative tests for COVID-19 infection are similar for all levels of education. Those with a primary level education have higher non-response rates and a lower percentage reporting not having COVID-19 compared to those with secondary or third level educational.

Figure 4.8. COVID-19 exposure by educational attainment
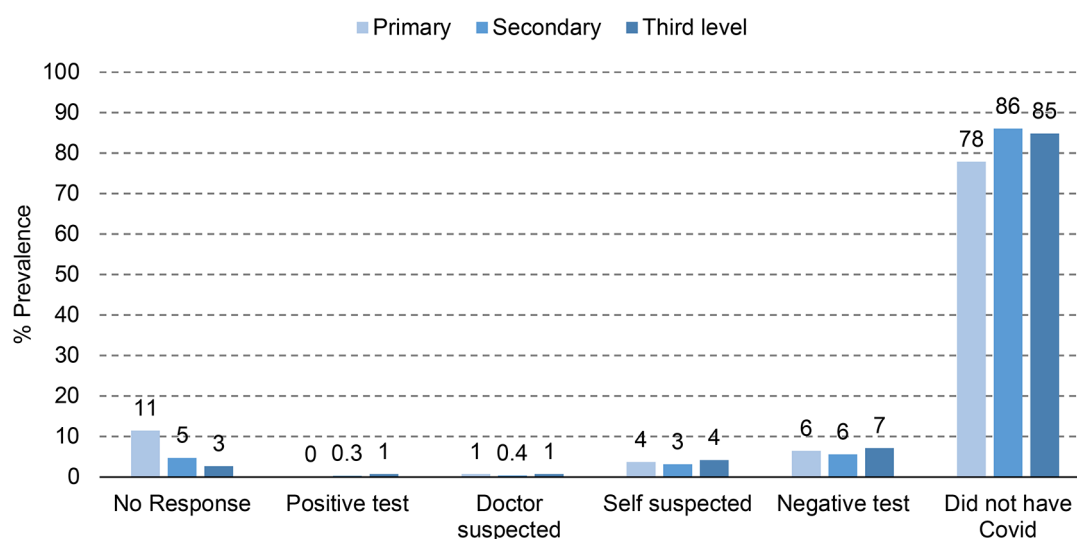
4.3.3 COVID-19 exposure by locality

Figure 4.9 shows the prevalence of exposure to COVID-19 by locality. There is a higher prevalence of positive tests and self-suspected cases of COVID-19 among older adults living in Dublin, while the prevalence of doctor-suspected cases is similar among older adults living in Dublin and other cities and towns. Older adults reporting negative tests for COVID-19 infection are similar for all localities at 5-7%. Older adults living in Dublin report a lower percentage who did not believe they had COVID-19 compared to those living in other towns and cities and those living in rural areas.

49

Figure 4.9. COVID-19 exposure by locality
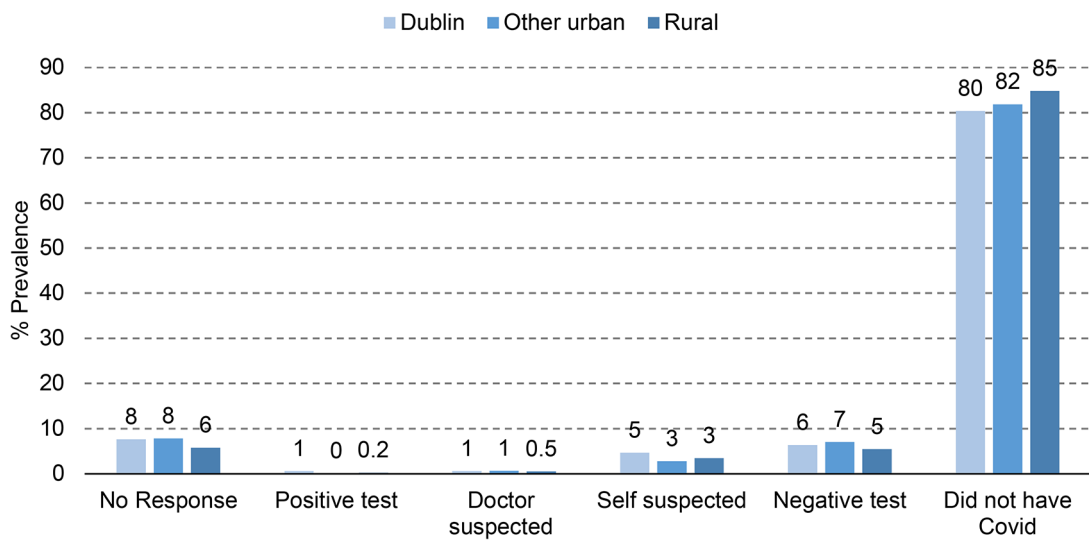
4.3.4 COVID-19 exposure and living alone

Figure 4.10 shows the prevalence of exposure to COVID-19 among older adults living alone in the community by age. There is a higher prevalence of doctor-suspected and self-suspected cases of COVID-19 among adults living alone in the younger 60-69 age group compared to the 70 and over age group. The prevalence of negative tests for COVID-19 is also higher in the younger age group. There is no difference in the prevalence of positive tests for COVID-19 between the younger and older age groups of adults living alone.

Figure 4.10. COVID-19 exposure and living alone
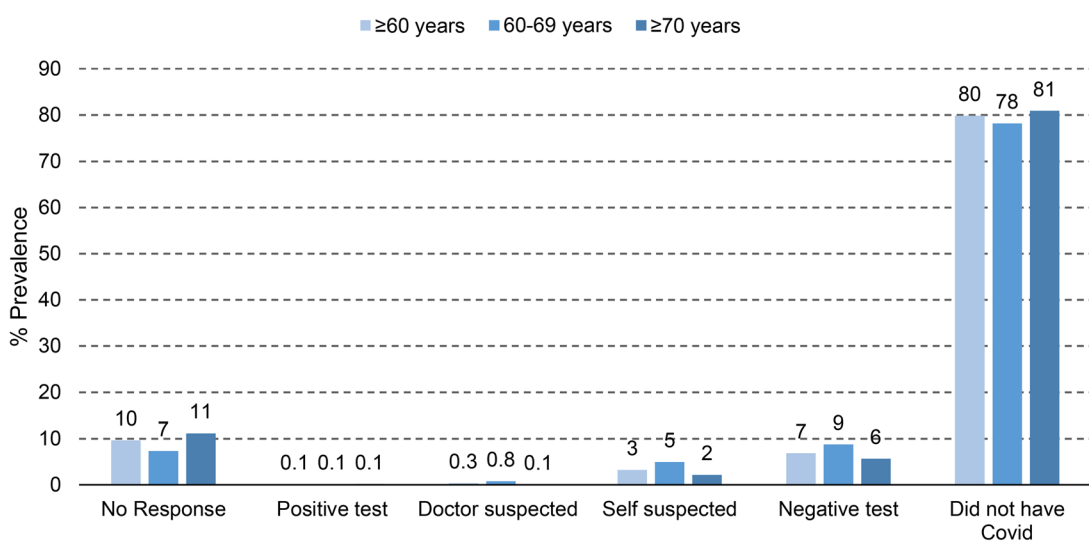
4.3.5 COVID-19 exposure and hospitalisation

Of the thirteen individuals who report having a positive test for COVID-19, three (23%) were admitted to hospital, with length of hospital stay ranging from 6 to 31 nights. Just one of the individuals admitted to hospital was administered oxygen to help them to breathe.

4.4 COVID-19 exposure among household and close contacts

In addition to reporting on whether older adults had contracted COVID-19 themselves, we also want to find out if others living with or close to older adults had been exposed to SARS-CoV-2 infection. We ask TILDA participants 'Has anyone in your household other than you been diagnosed with COVID-19? If yes, what is their relationship to you?'. The response options are: Spouse/partner, sons/daughters, parents, grandchildren, siblings, other relatives, friend/neighbour, and carer. We also ask participants 'Have you been in close contact with anyone with COVID-19?'. The response options to this question are: 'Yes, I was in contact with a confirmed/tested COVID-19 case', 'Yes, I was in contact with a suspected COVID-19 case' and 'No, not to my knowledge'.

4.4.1 COVID-19 exposure among household

Figure 4.11 shows the distribution by relationship of other people with a diagnosis of COVID-19 who live with or are close to older adults. Once again, the prevalence of COVID-19 positive cases within each of the different groups living with or close to older adults is very low, at less than 1%. In the 60 and over age group, the highest percentage of COVID-19 positive cases are among friends and neighbours, followed by children, spouses and partners, siblings, other relatives, grandchildren, and parents. The lowest percentage of COVID-19 cases is among carers of older adults in this age group. A similar pattern is seen for the 60-69 age group, but grandchildren ranked 4th highest above parents, siblings and other relatives by percentage of COVID-19 positive cases. Compared to the pattern for those aged 60-69 years, some notable differences are observed for those aged 70 and over. Firstly, children ranked above friends and neighbours as the group with the highest prevalence of positive COVID-19 cases. Secondly, parents ranked above grandchildren. Finally, carers ranked above both parents and grandchildren by prevalence of COVID-19 cases among adults aged 70 and over.

Figure 4.11. COVID-19 exposure in household
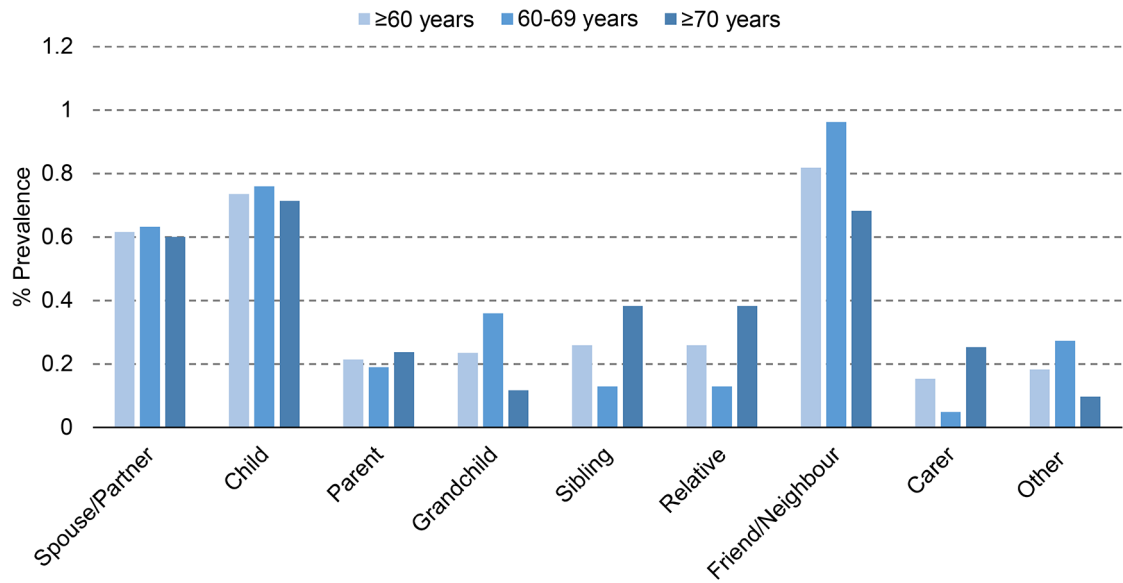
4.4.2 COVID-19 exposure and close contacts

Figure 4.12 shows the percentage of older adults who were close contacts of either a confirmed or suspected case of COVID-19. Among those aged 60 and over, 2% are close contacts of a confirmed case and 1% are close contacts of a suspected case. There are no differences between the 60-69 and 70 and over age groups in relation to close contacts.

Figure 4.12. COVID-19 exposure and close contacts by age
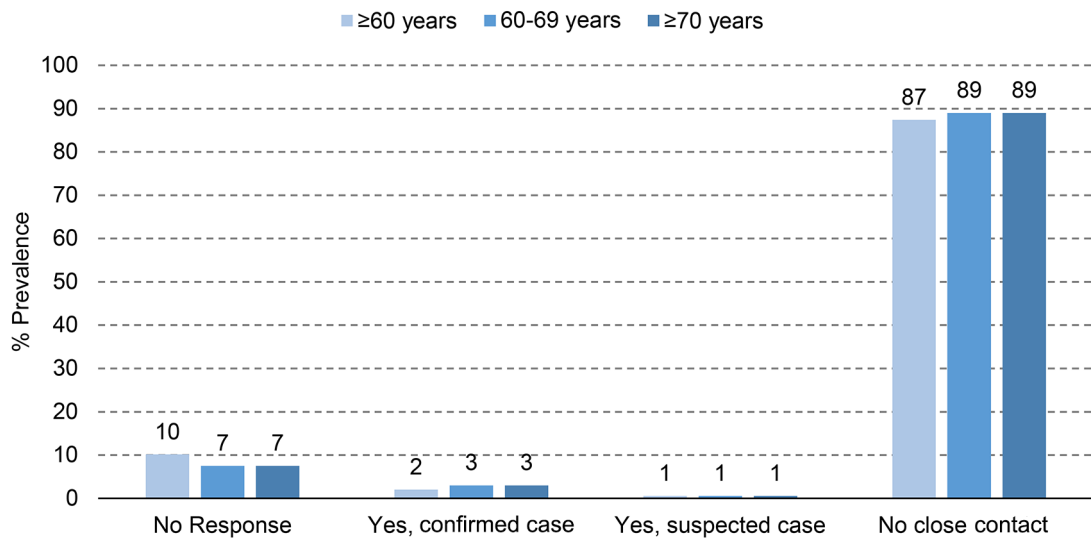
4.5 Symptoms during the COVID-19 pandemic

In this section, we report on the prevalence of symptoms among older community-dwelling adults in Ireland during the COVID-19 pandemic. We ask TILDA participants 'Have you or anyone close to you experienced any of the following symptoms during the COVID-19 pandemic?'. Participants indicate if they themselves or someone close to them has displayed any of the following symptoms: shortness of breath, cough, fever, sore throat, diarrhoea, nausea or vomiting, loss of sense of smell or taste, muscle or joint pain, or none of these symptoms.

4.5.1 Symptoms during COVID-19 pandemic by age

Figure 4.13 shows the prevalence of symptoms in older adults during the COVID-19 pandemic by age group. Among those aged 60 and over, the most common symptoms ranked by prevalence are: muscle or joint pain, cough, shortness of breath, sore throat, diarrhoea, fever, loss of sense of smell or taste, nausea or vomiting. A similar pattern in the prevalence of symptoms is reported for the 60-69 and 70 and over age groups. The majority of older adults across age groups (53-58%) report having none of these symptoms during the COVID-19 pandemic.

Figure 4.13. Symptoms during COVID-19 pandemic by age
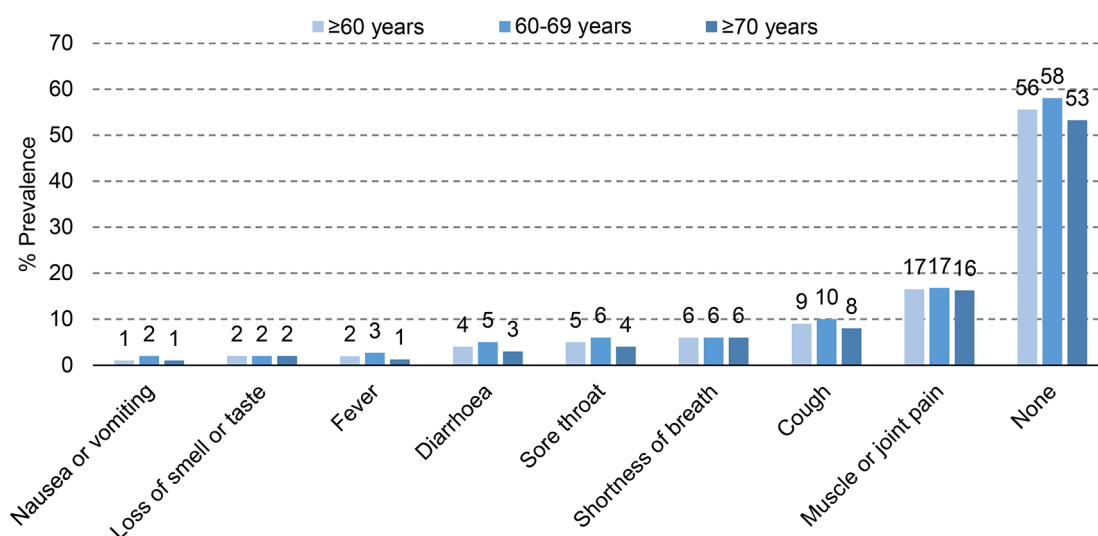
4.5.2 Symptoms among people close to older adults during COVID-19 pandemic

Figure 4.14 shows the prevalence of symptoms among people who are close to older adults during the COVID-19 pandemic. Among those who were close to adults aged 60

and over, the most common symptoms ranked by prevalence are: muscle or joint pain, cough, sore throat, shortness of breath, fever, loss of sense of smell or taste, diarrhoea, nausea or vomiting. The majority of older adults across age groups (43%) report having none of these symptoms during the COVID-19 pandemic.

Figure 4.14. Symptoms among people close to older adults during COVID-19 pandemic
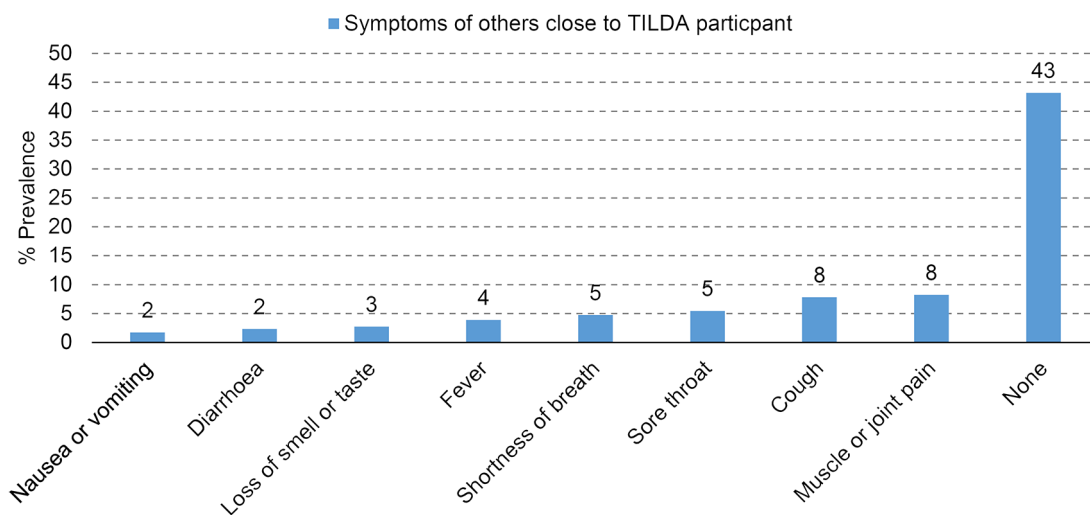
4.6 COVID-19 Mortality

One of the tragic and upsetting consequences of the COVID-19 pandemic has been the loss of loved ones, relatives and friends due to COVID-19. Mortality has been more common among older adults. We asked TILDA participants 'Tragically, many people have already lost loved ones due to COVID-19. Has anyone close to you, such as a friend or family member, died with COVID-19?'. The response options are 'Yes' or 'No'. We then asked participants 'If, sadly, someone you know has died with COVID-19, what was their relationship to you?' The response options were: Spouse/partner, sons/daughters, parents, grandchildren, siblings, other relatives, friend/neighbour, and carer. Below we present the distribution of mortality among family relative and friends by participant age, gender, education, locality and living alone. We also present mortality by relationship to the participant.

4.6.1 Mortality by age and gender

Figure 4.15 shows the prevalence of mortality of a family member or friend among older adults due to COVID-19 by age. Among adults aged 60 and over, 5% or 1 in 20 report the loss of a family member or friend due to COVID-19. The prevalence was 6% in the 60-69

age group and 5% in those aged 70 and over. Correspondingly, 89% and 85% report not having lost a friend or family member due to COVID-19 in the 60-69 and 70 and over age groups. We note that non-response in the older age group was higher than in the younger age group (10% versus 5%).

Figure 4.15. COVID-19-related mortality among family and friends by participant age
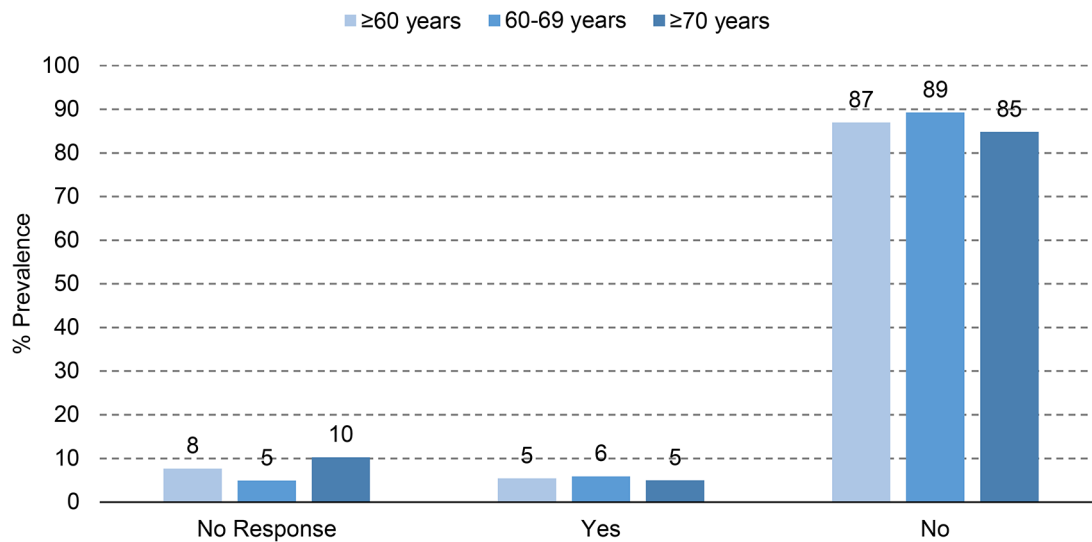
Figure 4.16 shows the prevalence of mortality due to COVID-19 of a family member or friend among older adults by gender. Among adults aged 60 and over, 6% of women and 5% of men report the loss of a family member or friend due to COVID-19. Correspondingly, 88% of men and 86% of women report not having lost a friend or family member due to COVID-19. Non-response rates were similar for both genders.

Figure 4.16. COVID-19-related mortality among family and friends by participant gender
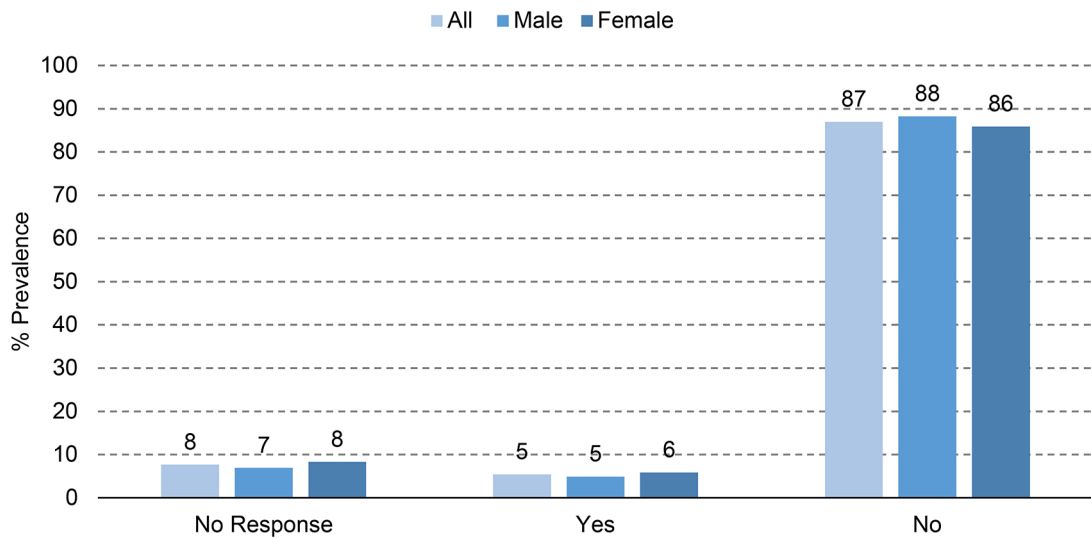
4.6.2 Mortality by educational attainment

Figure 4.17 shows the prevalence of mortality due to COVID-19 of a family member or friend among older adults by educational attainment. Among adults aged 60 and over, 8% of third level educated, 5% of secondary educated and 5% of primary educated participants report the loss of a family member or friend due to COVID-19. Conversely, 89% of third level educated, 90% of secondary educated and 83% of primary educated participants report not having lost a friend or family member due to COVID-19. We note the non-response rates among those with primary education were four times higher than those with a third level education and twice as high as with second level.

Figure 4.17. COVID-19-related mortality among family and friends by participant educational attainment
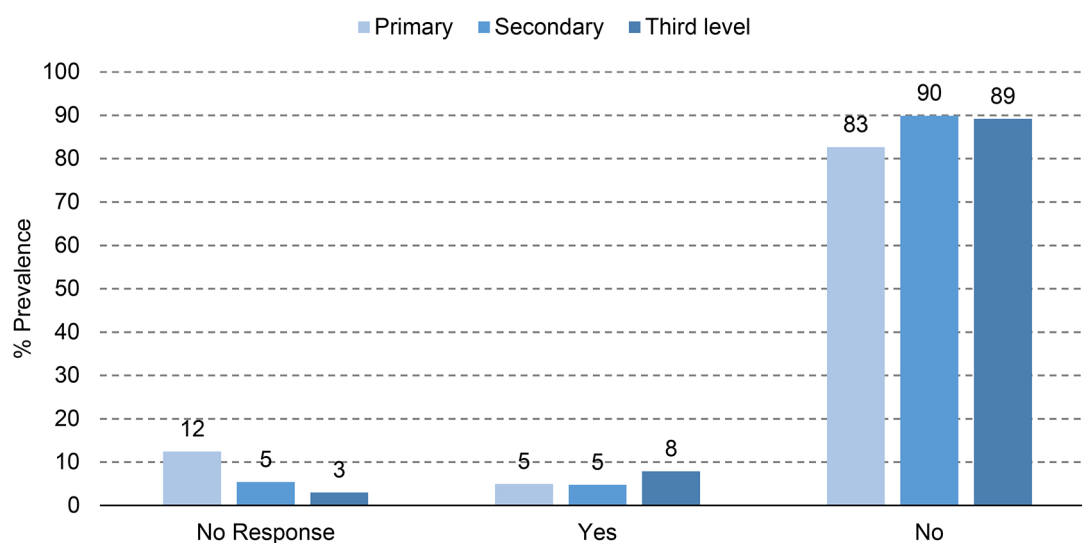
4.6.3 Mortality by locality

Figure 4.18 shows the prevalence of mortality due to COVID-19 of a family member or friend among older adults by locality. Among adults aged 60 and over, 9% living in Dublin, 5% living in another city or town and 4% living in rural areas report the loss of a family member or friend due to COViD-19. Conversely, 82% living in Dublin, 87% living in another city or town and 90% living in rural areas report not having lost a friend or family member due to COVID-19. We note the non-response rates were higher among those living in Dublin and other urban areas compared to those living in rural areas.

Figure 4.18. COVID-19-related mortality among family and friends by participant locality
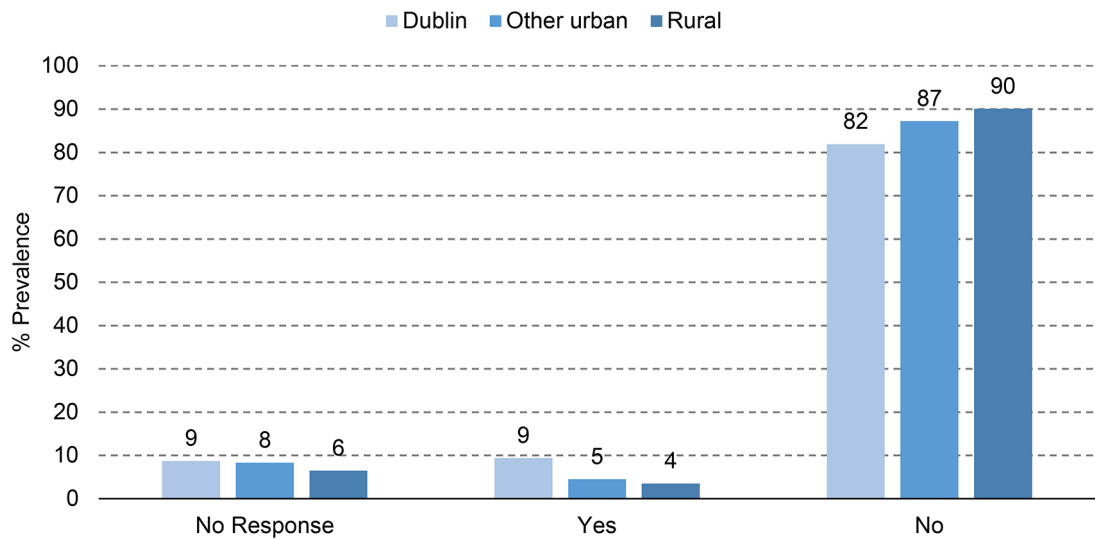
4.6.4 Mortality and living alone

Figure 4.19 shows the prevalence of mortality due to COVID-19 of a family member or friend among older adults who live alone by age. Among adults aged 60 and over who live alone, 5% report the loss of a family member or friend due to COViD-19. The prevalence is similar among those living alone in the younger 60-69 (4%) and 70 and over (5%) age groups. Among those living alone in the 60-69 and 70 and over age groups, 82% and 88% respectively report not having lost a friend or family member due to COVID-19. We note the non-response rates were higher among those living alone in the older age group.

Figure 4.19. COVID-19-related mortality among family and friends by participant age and living alone
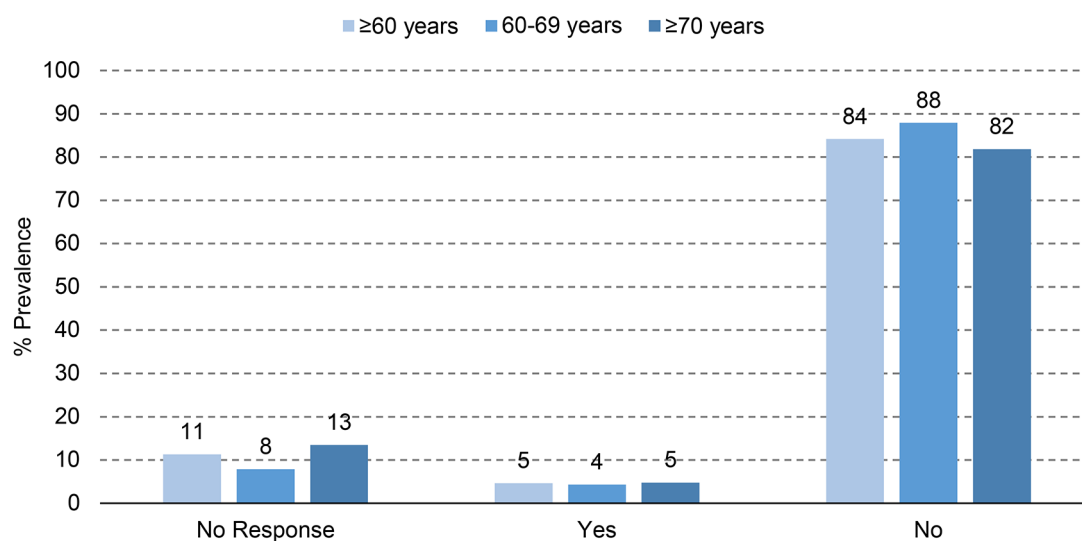
4.6.5 Mortality and relationships

Figure 4.20 shows the distribution by relationship of family and friends of older adults who have died due to COVID-19 infection, by age of the participant. In the 60 and over age group, the highest mortality rate among friends and family was among friends and neighbours, followed by relatives, parents and grandchildren. The pattern was similar among the 60-69 and 70 and older age groups. Very low numbers reported the loss of a parent or grandchild and none reported loss of a spouse/partner, child or carer in any age group.

Figure 4.20. COVID-19-related mortality by relationship to participant
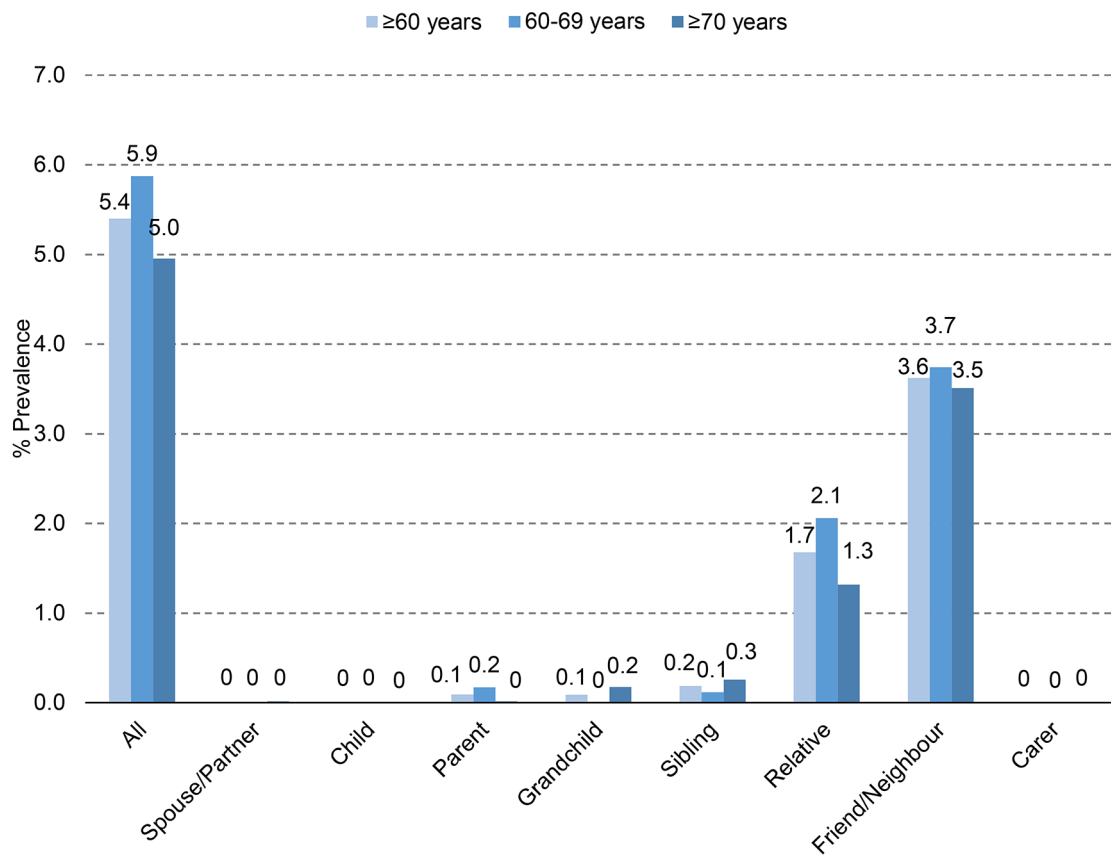
4.7 Conclusion

In this report we show that the combined prevalence of a positive PCR test (0.2%), or doctor-suspected (0.4%) and self-suspected cases (4%) of COVID-19 among adults aged 60 and over is 5%. This compares to 1-2% from HSE and CSO data in this age group who had tested positive by PCR test for the virus by 30 September 2020. (8,9) The real number of individuals infected is however likely to be 2-3-times higher based on seroprevalence studies, which measure antibodies to the virus that causes COVID-19. (10) While a positive PCR test can only reveal if you have the virus at the time of testing, antibody testing reveals if you have contracted the virus in the past. To complement the prevalence data in this report, TILDA is conducting an antibody seroprevalence study on all consenting participants in early 2021.

We also report that 5%, or 1 in 20, of adults aged 60 and over have lost a family member or friend to COVID-19 infection during the pandemic. This is a significant number of adults in this age group who have experienced loss and bereavement at a most difficult time. This may reflect the higher mortality rates among older adults due to COVID-19, affecting the contemporaries of the participants in the TILDA cohort. The impact of this loss on the mental and physical health of older people has been compounded by the restrictions placed on older adults due to 'cocooning' or 'shielding', particularly for those aged 70 and older. This is explored further in the chapter on the impact of the COVID-19 pandemic on mental and physical health.

Related to this is the concern expressed by older adults about the COVID-19 pandemic in general. The majority of older adults chose scores of nine or ten, indicating that they were 'most concerned' about the COVID-19 pandemic in general. The older adults who were most concerned about the COVID-19 pandemic are aged 70 and over (53%), live alone aged 70 and over (54%), are female (52%), attained primary level educated (56%) and live in rural areas (51%).

In terms of symptoms reported by older adults during the COVID-19 pandemic, the most prevalent were muscle and joint pain (17%), cough (9%), shortness of breath (6%), sore throat (5%), diarrhoea (4%), fever (2%), loss of sense of smell or taste (2%), nausea or vomiting (1%). This is quite consistent with a French study which reported cough and shortness of breath, weakness and gastrointestinal symptoms among those most commonly reported in the 70 and over age group. (11) Cough, shortness of breath, weakness and diarrhoea were also among common symptoms reported in a systematic review and meta-analysis of symptoms among older adults. (12) Both studies however

also reported higher prevalence of fever and lower levels of muscle and joint pain than reported by the TILDA participants.

In conclusion, this chapter shows that the COVID-19 pandemic is causing great concern and is having significant impact on the older community-dwelling adult population, with 5% reporting confirmed or possible infection and a similar percentage having been bereaved by the loss of a family member or friend due to COVID-19.

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5

Loneliness during the COVID-19 pandemic

Mark Ward

Contents

Staidéar Fadaimseartha na
hÉireann um Dhul in Aois

The Irish Longitudinal
Study on Ageing

5 Loneliness during the COVID-19 pandemic

Key Findings

- COVID-19 restrictions have greatly reduced opportunities for social participation and interactions. This poses a risk of increased loneliness among older adults.

- Loneliness is associated with poorer physical and psychological wellbeing as well as premature mortality.

- One-in-ten adults aged 60 years and older feel that they often lack companionship (9%) and/or often feel isolated from others (9%), while 11% hardly ever or never feel in tune with the people around them.

- Five percent of older adults often feel left out and 7% often feel lonely, while 30% feel lonely at least some of the time.

- During the COVID-19 pandemic, average loneliness scores on the University of California, Los Angeles Loneliness scale were 4.5 from a maximum of 10. This is more than double the average score in 2018/19.

- Women and older adults who live alone were the loneliest, while those who completed third level education were least lonely.

- Despite greater restrictions on the over 70s, there was little difference in the levels of loneliness reported by older adults aged 60 to 69 or over 70 years of age.

- Loneliness is associated with poorer overall Quality of Life (QoL) as well as the domains of QoL captured by the CASP-12 QoL measurement tool (Control, Autonomy, Self-realisation, and Pleasure).

- Loneliness is associated with both self-rated physical health and self-rated mental health.

- Increased loneliness and social isolation due to COVID-19 restrictions will have negative consequences for the physical and mental wellbeing of older adults.

5.1   Introduction

Even before the COVID-19 pandemic resulted in dramatic changes to the nature and extent of social interactions in all aspects of our lives, loneliness was increasingly viewed as an important public health issue. Research on loneliness has shown that it is harmful to both physical and psychological wellbeing. (1–3) Smaller social networks are also associated with early mortality among older adults with or without limited everyday activities. (4) Indeed, there is an increasing body of research linking loneliness to excess mortality risk (5–10), with the associated mortality risk comparable to that of smoking and obesity. (11) Conversely, strong social ties have been shown to protect individuals from emotional distress, cognitive decline and physical disability. (1,12)

Concern about loneliness among older adults has been heightened by responses to the COVID-19 pandemic which have greatly curtailed opportunities for social interactions. Social distancing and similar measures in response to the pandemic have increased loneliness and social isolation among older adults. (13–15) The negative impacts of these measures on the physical and psychological wellbeing of older adults are not yet understood, but are likely to be dramatic and long-lasting. Already, a survey by McGrath, Murphy, and Richardson (16) of members of the Men's Sheds community network shows decreased wellbeing and increased loneliness as a result of COVID-19 restrictions.

TILDA has published extensive research findings on loneliness previously, including a report on loneliness and social isolation in November 2019, six months before the COVID-19 pandemic in Ireland (17), and another early in the pandemic in July 2020. These reports show clearly the negative consequences of loneliness for physical and mental wellbeing, and for older adults' quality of life. They also demonstrate the importance of maintaining regular social interactions whether through socialising, participation in social activities or volunteering. Opportunities for many if not all of these activities have been largely denied due to COVID-19 restrictions. It is essential that the effect of COVID-19 restrictions on loneliness and the wellbeing of older adults is described and understood, particularly as we prepare to address the medium and longer-term impact on people's lives.

This Chapter begins with a description of the UCLA loneliness scale (18) used to measure loneliness in the TILDA COVID-19 survey. The next section describes levels of loneliness according to a number of important sociodemographic characteristics. We then describe the association between loneliness and quality of life, self-rated physical health and mental health. The Chapter concludes with a brief discussion of the findings.

5.2   Measuring loneliness

Loneliness is the subjective assessment of an individual's satisfaction with the quality of their social relationships; while most often considered the psychological embodiment of social isolation (8), it can also be present among highly socially-integrated individuals. (19)

TILDA measures emotional (subjective) loneliness using a modified version of the University of California Los Angeles (UCLA) Loneliness scale. (18) This measurement tool consists of five items:

How often do you feel you lack companionship?

How often do you feel left out?

How often do you feel isolated from others?

How often do you feel in tune with the people around you?

How often do you feel lonely?

Each question has three response options (hardly ever or never = 0, some of the time = 1, often = 2). Responses to the five items were summed, resulting in an overall score ranging from 0 (not lonely) to 10 (extremely lonely).

5.3   Results

5.3.1   Individual indicators of loneliness

Table 5.1 shows the responses to each of the five questions included in the UCLA loneliness scale. One-in-ten adults aged 60 years and older feel that they often lack companionship (9%) and/or often feel isolated from others (9%), while 11% hardly ever or never feel in tune with the people around them. Five percent of participants often feel left out and 24% of them feel this way some of the time. Finally, 7% of older adults often feel lonely while 30% feel lonely at least some of the time.

Table 5.1. Responses to the five-items in the UCLA loneliness scale

	Hardly ever or never		Some of the time		Often		N
	%	95% CI	%	95% CI	%	95% CI	
How often do you feel you lack companionship	55	[53-58]	35	[33-38]	9	[8-10]	3240
How often do you feel left out?	71	[69-73]	24	[22-26]	5	[4-6]	3197
How often do you feel isolated from others?	59	[57-61]	32	[30-34]	9	[8-10]	3210
How often do you feel in tune with the people around you?	11	[10-13]	36	[34-38]	53	[51-55]	3197
How often do you feel lonely?	63	[61-65]	30	[28-32]	7	[6-8]	3235

5.3.2   Distribution of UCLA loneliness scores

To illustrate the sizeable increase in loneliness scores since the start of the COVID-19 pandemic, Figure 5.1 shows the distribution of scores in 2018/2019 and those reported since March 2020. As noted earlier, higher scores, up to a maximum of 10, reflect greater loneliness. The average loneliness score is 4.5 and the median is 4.0. There has been a notable change in the distribution of loneliness scores since TILDA last reported on this topic in November 2019, when the average score was 2.1 and the median was 1.0 (13, p.8). The shape of the distribution has also changed since 2019, where the distribution of UCLA loneliness scores was heavily skewed, with most participants reporting very low loneliness scores. The distribution has shifted to the right during the COVID-19 pandemic, meaning that loneliness scores have increased between during that time.

Figure 5.1. Distribution of UCLA loneliness scale among the over 60s in 2018/2019 (grey) and during the COVID-19 pandemic (blue)
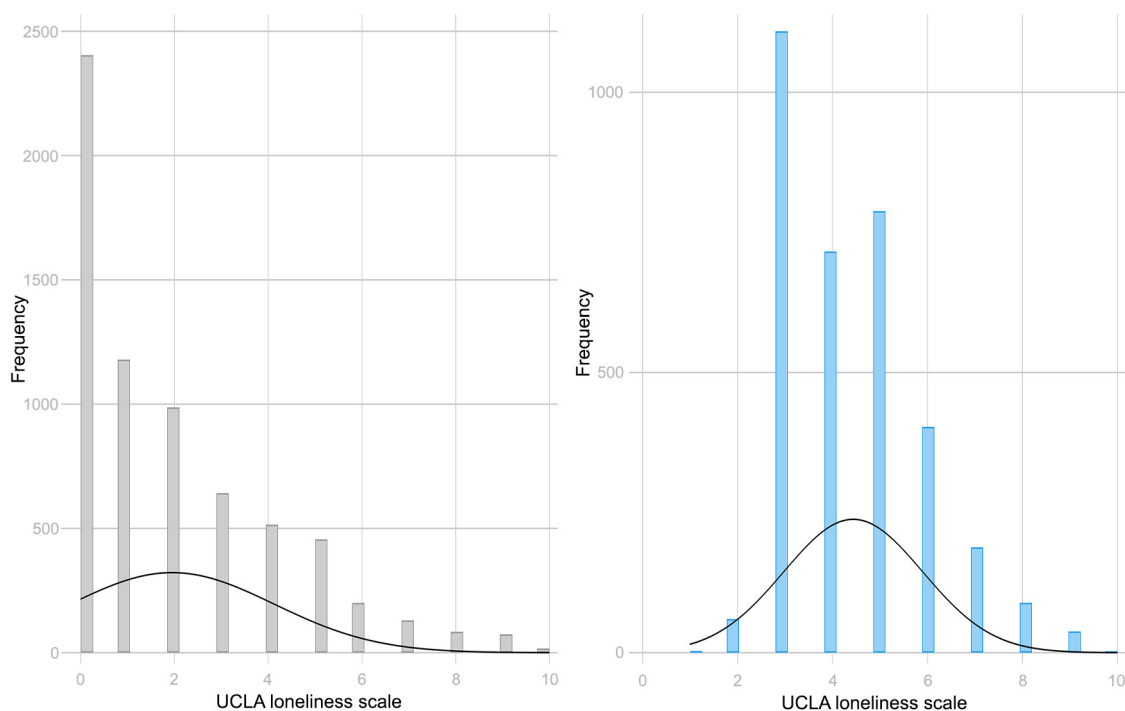
The average loneliness scores of different sociodemographic groups are presented in Table 5.2. Loneliness is significantly higher among women. Older adults who left school by the end of their primary education are significantly lonelier on average than those who had completed third level education. Older adults who live alone are also lonelier than those who lived with at least one other person. There is no difference in levels of loneliness among different age groups or between those adults who live in rural or urban areas.

Table 5.2. Average UCLA loneliness scale by gender, age group, education level, household status, and location

	Mean (95% CI)	N
Gender		
Male	4.32 (4.23, 4.42)	1,410
Female	4.63 (4.54, 4.73)	1,700
Age Groups		
60 to 69 years	4.47 (4.37, 4.58)	1,471
≥70 years	4.50 (4.42, 4.58)	1,639
Education		
Primary/none	4.58 (4.44, 4.72)	539
Secondary	4.47 (4.38, 4.56)	1,241
Third/higher	4.34 (4.26, 4.43)	1,330
Household Status		
Lives alone	4.75 (4.62, 4.89)	818
Lives with other(s)	4.38 (4.30, 4.46)	2,292
Location		
Urban	4.52 (4.43, 4.61)	1,740
Rural	4.44 (4.34, 4.54)	1,370
Total	4.49 (4.42,4.55)	3,110

As expected, both men and women who live alone experience greater loneliness than those who live with at least one other person (Figure 5.2). Comparing men and women, we find that women who live with others had a higher average UCLA loneliness score than men who live with others.

Figure 5.2. Average UCLA loneliness scores by gender and household status
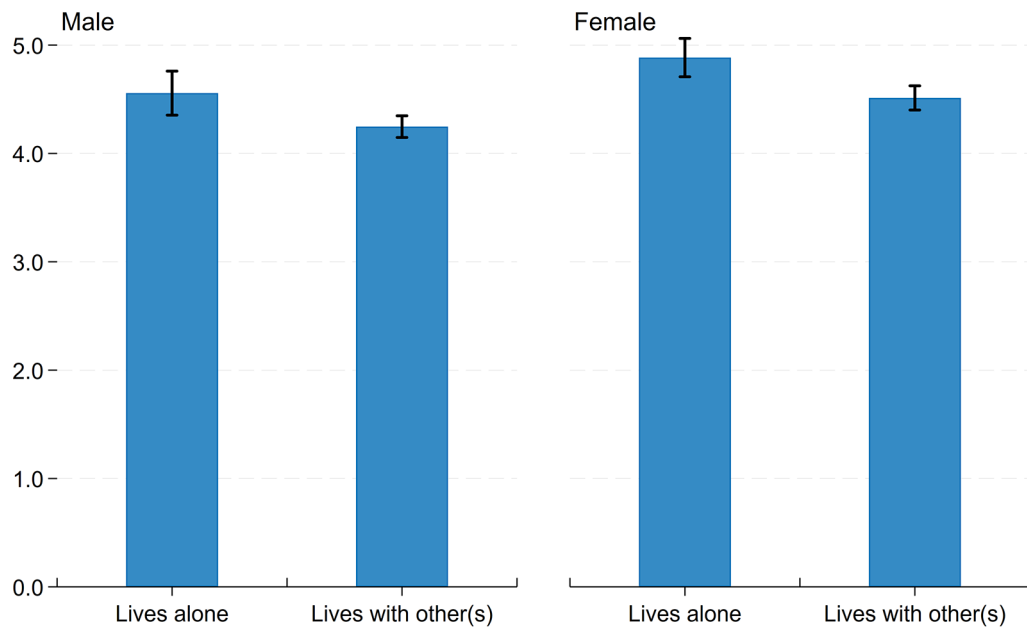
Figure 5.3 shows the average loneliness score of participants aged 60 to 69 and over 70 years, by their household situation. Again, we find that loneliness was higher among those who lived alone but loneliness levels were similar in both age groups.

Figure 5.3. Average UCLA loneliness scores by household status and age group
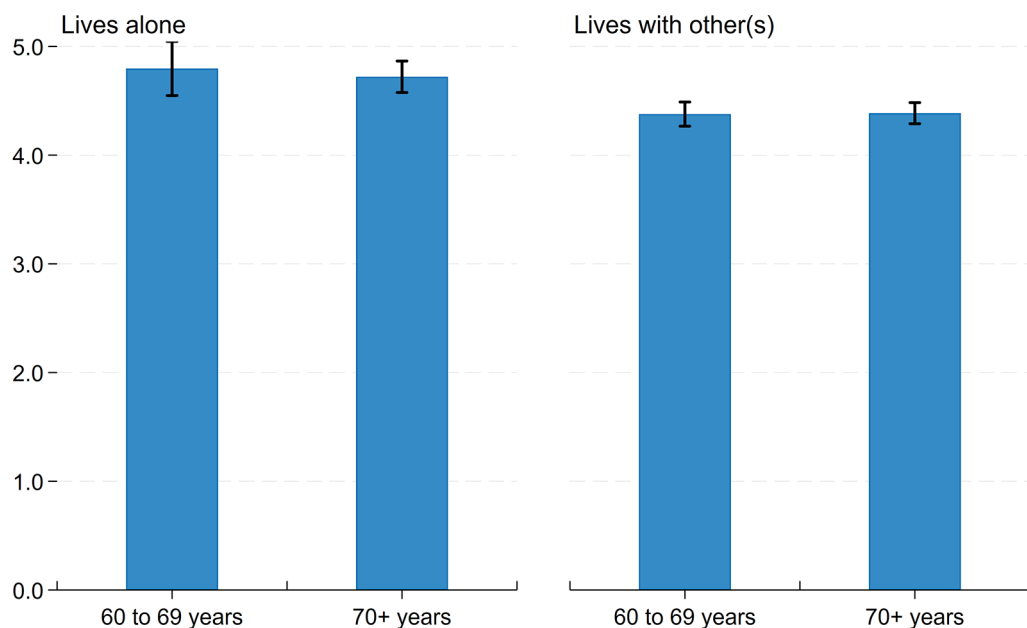
5.3.3 Loneliness and quality of life

Quality of life (QoL) was measured at each wave of data collection in TILDA using the previously validated Control, Autonomy, Self-realisation and Pleasure Scale (CASP-12) measurement tool (21–23) which captures information on four domains of the QoL of older adults (Table 5.3). The items included in CASP-12 are statements such as: I can do the things that I want to do, I look forward to each day, and I feel that life is full of opportunities. Participants are asked to indicate how often (often, sometimes, not often, or never) they feel each statement applies to their life. Each item is scored from 0 to 3 and summed to give an overall score (range 0 to 36), with higher scores denoting better QoL.

Table 5.3. CASP-12 quality of life domains

	CASP-12 Quality of Life domains
Control	The ability to actively participate in one's environment.
Autonomy	The right of the individual to be free from the unwanted interference of others.
Self-realisation	The fulfilment of one's potential.
Pleasure	The sense of happiness or enjoyment derived from engaging with life.

A correlation provides us with a measurement of the strength of the relationship between two variables, loneliness and CASP-12 quality of life domains. The strength of a correlation is measured on a range of -1 to +1. A value of 0 indicates that there is no relationship between the two variables, 1 indicates a perfect positive correlation, and -1 indicates a perfect negative correlation.

As shown in Table 5.4, loneliness was negatively correlated with each domain captured in the CASP-12 measure of QoL. The strongest correlation was between loneliness and the control domain with higher loneliness associated with lower control. The second strongest correlation was between the pleasure domain and loneliness, followed by self-realisation, and lastly the autonomy domain.

There was also a strong negative correlation between loneliness and overall QoL with loneliness associated with significantly lower QoL.

Table 5.4. Correlation between loneliness and the quality of life domains and overall quality life score

CASP-12 Quality of Life domains	Pearson's correlation	R^2	P value
Control	-0.46	21.2	<0.001
Autonomy	-0.26	6.8	<0.001
Self-realisation	-0.30	9.3	<0.001
Pleasure	-0.35	12.4	<0.001
Overall QoL	-0.46	21.5	<0.001

5.3.4 Loneliness and self-rated physical and mental health

As part of the TILDA COVID-19 SCQ, participants were asked to rate both their physical health and mental health on a 5-point Likert scale ranging from 1 = excellent to 5 = poor. In this final section of this Chapter, we examine the relationship between loneliness and both self-rated physical and mental health.

Overall, 14% of adults aged 60 years and older rate their physical health as excellent, 37% as very good, 33% as good, 14% as fair and 2% as poor. Figure 5.4 clearly shows a strong linear association between loneliness and self-rated physical health, with lower loneliness associated with better self-rated health. The gradient is particularly clear among the over 70s, with a difference of 1.6 in UCLA loneliness score between those who rate their health as excellent and those who rate it as poor (5.6 vs. 4.0).

Figure 5.4. Average UCLA loneliness score by self-rated physical health and age group
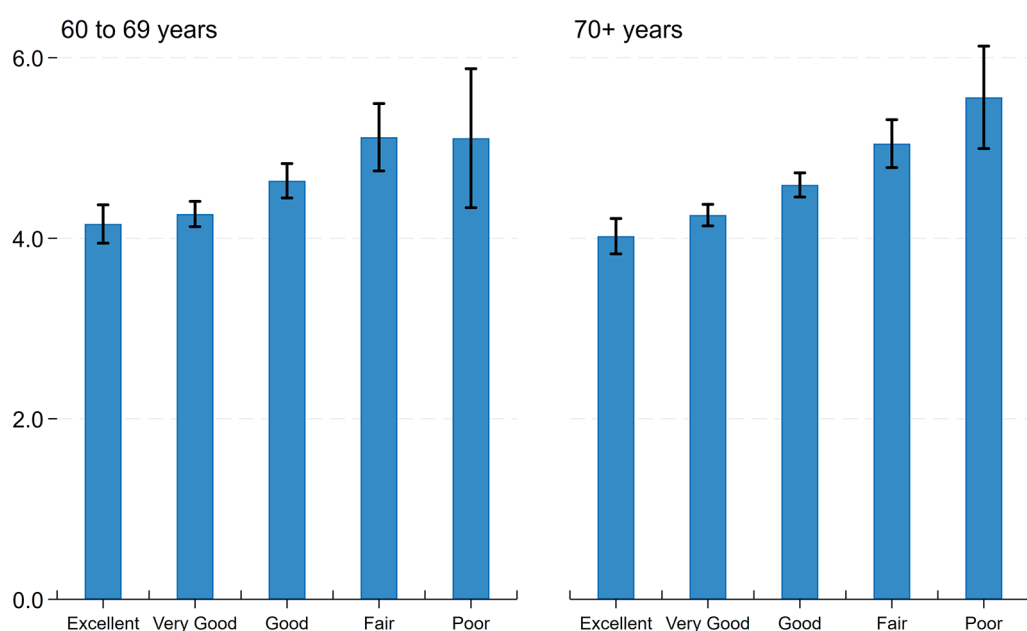
As previously discussed, UCLA loneliness scores are higher among older adults who live alone. Figure 5.5 shows that the association between loneliness and self-rated physical health is similar among those who live alone and those who live with others. However, the gradient is more pronounced among those who live with others.

Figure 5.5. Average UCLA loneliness score by self-rated physical health and household status
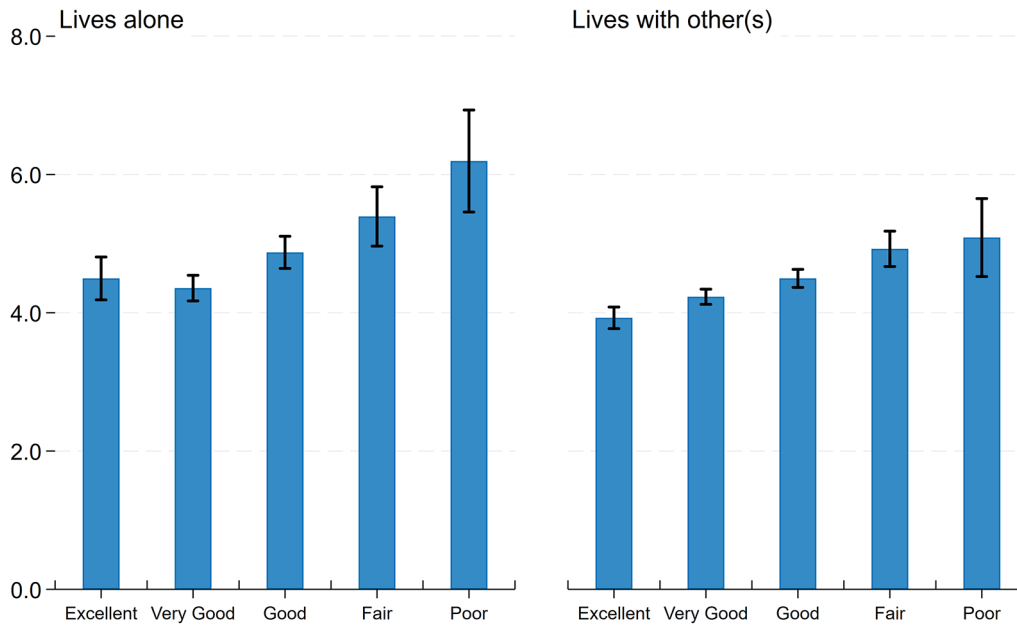
Turning to self-rated mental health, we find overall that 12% of adults aged 60 years and older rate their mental health as excellent, 31% as very good, 37% as good, 17% as fair and 3% as poor. As with self-rated physical health, lower levels of loneliness are associated with better self-rated mental health. As demonstrated in Figure 5.6, the pattern of this association was similar among participants aged 60 to 69 and those over 70.

Figure 5.6 Average UCLA loneliness score by self-rated mental health and age group
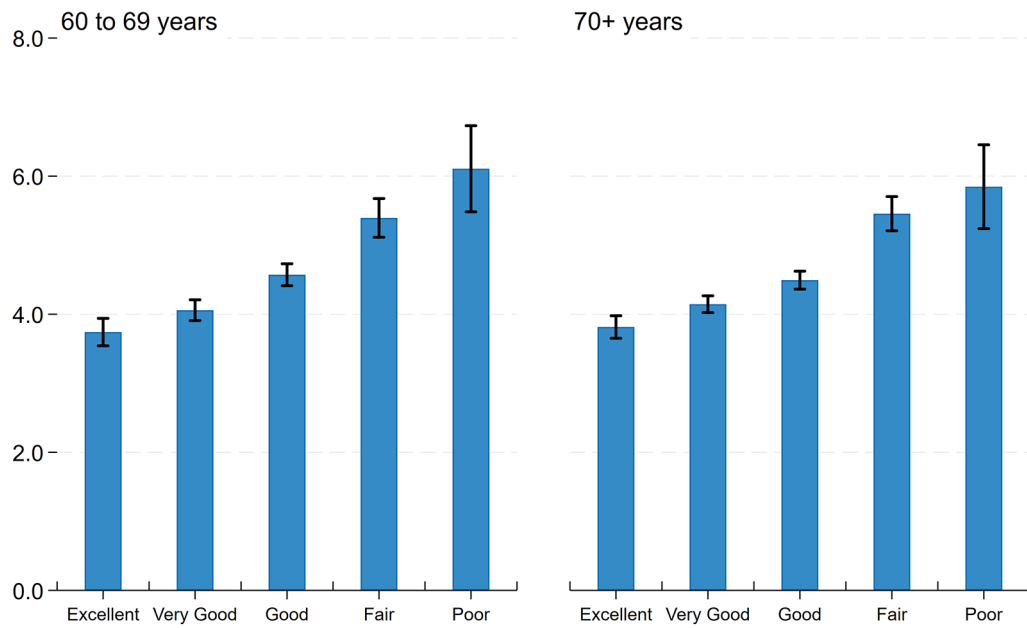
Finally, Figure 5.7 shows the association between loneliness and self-rated mental health, for older adults who live alone and those who live with at least one other person. The association is clear among both groups, with loneliness associated with poorer self-rated mental health.

Figure 5.7. Average UCLA loneliness score by self-rated mental health and household status
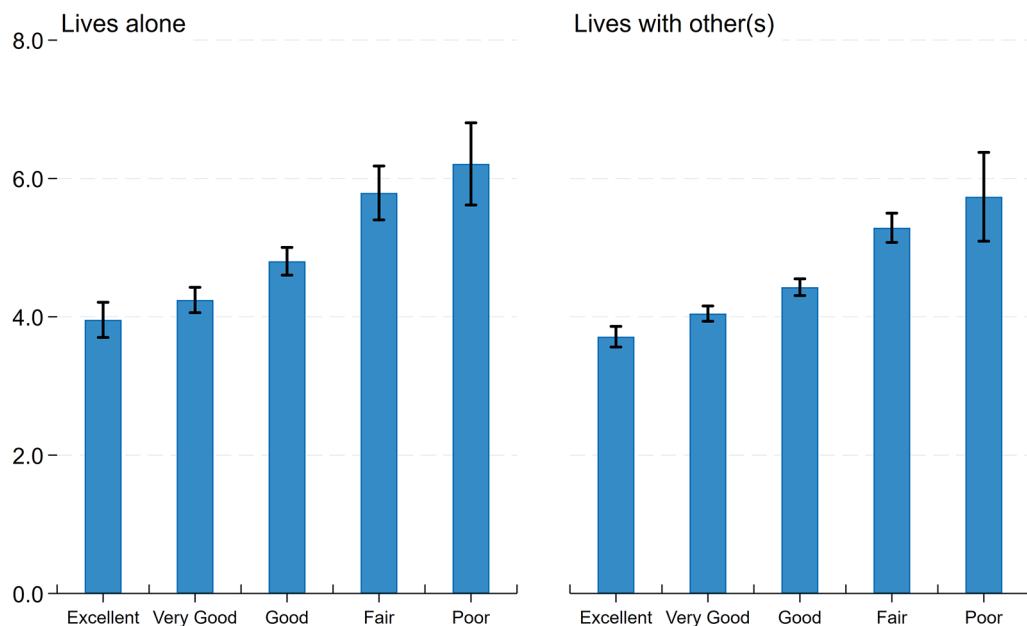
5.4   Discussion

There is now a large body of research showing the negative impacts of loneliness on both physical and psychological wellbeing (1,2) and more recently, excess mortality risk. (8) This, coupled with changing demographics that see an increasing number of older adults living alone, has led to loneliness becoming an important public health issue.

We know many of the things that protect against loneliness – living with others, strong family ties, social participation and interactions, volunteering, strong community ties and so on. Many of the opportunities to maintain strong social ties through these activities have been denied due to restrictions put in place in response to the COVID-19 pandemic. Many of these restrictions have been particularly onerous for people aged 70 years and older. This group has been required to self-isolate at home for long periods of time. This has severely curtailed interactions with family and friends and has impacted every aspect of their lives (including food shopping, physical activity, self-care and social connections). The consequences of these upheavals will be wide-ranging and long-lasting. It is critical that these consequences are identified as quickly as possible so that damaging repercussions can be mitigated and the wellbeing of older adults fully restored.

In this Chapter, we have described levels of loneliness among older adults during the COVID-19 pandemic. We have also shown how loneliness is associated with poorer quality of life and self-rated physical and mental wellbeing.

Using the UCLA loneliness scale, which is included by TILDA in each round of data collection, we found that the average loneliness score among older adults had more than doubled since the start of the COVID-19 pandemic. This change does not appear to be limited to any one group or subsection of society but rather seems in evidence across the population.

Somewhat surprisingly given the extra restrictions imposed on the over 70s, this group did not differ in their levels of loneliness compared to those aged 60 to 69. This suggests that levels of loneliness among the 60 to 69 age group may have been affected in a way similar to those over 70, and that the over 70s were very resilient in the face of the changes they were asked to make to their everyday activities and social interactions. We hope that, using TILDA data collected over ten years, we can identify some of the factors that have protected older adults from the most potentially damaging consequences of the restrictions.

A consistent finding in TILDA's research on loneliness among older adults is that loneliness is associated with poorer quality of life. (17) Quality of life is an important feature of successful ageing, as it provides us with an holistic view of older adults' lives and does not focus on physical health alone. (23) Here, again, we found that loneliness was associated with poorer quality of life during the COVID-19 pandemic. As well as to overall quality of life as measured by the CASP-12 tool, we also found that loneliness was most strongly related to the control domain of quality of life. Control refers to an individual's ability actively to participate in their environment. (20) This sense of control over one's environment has been denied older adults, as where, how, and with whom they may interact has been severely curtailed and in many instances made impossible. This has negatively impacted the quality of life of older adults, an important marker of successful ageing.

As well as quality of life, we have also shown in this Chapter that loneliness is associated with poorer self-rated physical and mental health, thus highlighting the potential long-term damage to wellbeing that increased loneliness may cause. This may have important consequences for the health of older adults and the healthcare system as we deal with the medium and longer-term consequences of the pandemic. Again, TILDA is ideally placed to provide the evidence base to support this work.

Finally, the findings reported here must be viewed in the context of the central role that older adults play in the wellbeing of the population and the contribution they make to our society, as family, friends, neighbours, carers, workers and volunteers. These contributions have been upended during the COVID-19 pandemic and we owe it to society to ensure that we understand the impact of the COVID-19 restrictions and provide a roadmap for our recovery.

In conclusion, the findings reported here are of increased importance in the wake of COVID-19 restrictions, including social distancing and cocooning. Loneliness and social isolation will have been a feature of the pandemic and this will have negative consequences for the physical and mental health of older adults. Our findings provide an evidence base for healthcare professionals to consider loneliness during clinical assessments of their patients. Interventions based on these assessments may see benefit from social prescribing, whereby clinical staff refer their patients to non-clinical community groups and services. This provides a practical example of how the social, as well as physical, needs of older adults may be met.

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6

Physical activity, sedentary behaviour and mental health

Céline De Looze and Cillian McDowell

Contents

The Irish Longitudinal Study on Ageing

6 Physical activity, sedentary behaviour and mental health

Key Findings

- Almost a quarter (22%) of older adults in Ireland did not meet mimimum recommended levels of physical activity during the COVID-19 pandemic; 43% were minimally active; a third (34%) report engaging in "health enhancing" levels of physical activity.

- Physical activity levels differed by age: Inactive (60-69 years: 19%; 70+ years: 26%); Minimally active (60-69: 41%; 70+: 47%); Active (60-69: 40%; 70+: 27%)

- Women (25%), older adults aged 70+ (26%), and those with primary education or none (27%) are more likely to be physically inactive.

- Most older adults exercise at home about the same amount of time during the COVID-19 pandemic as before the pandemic; 17% increased their exercise at home, while 16% decreased it.

- A third (36%) walk as often during the COVID-19 pandemic as before the pandemic; a quarter (25%) walk less often and a quarter (27%) walk more often.

- A large proportion (45%) of older adults increased DIY at home or gardening.

- A substantial proportion (37%) watch TV more often.

- 37% of older adults report low levels of life satisfaction.

- 21% report potentially clinically meaningful levels of depressive symptoms.

- 29% report high levels of stress and 11% have moderate-to-severe anxiety levels.

- Adults aged 60-69, those who have a third level of education or higher and those who live in urban areas are more likely to be the least satisfied with their life.

- Women, adults with a primary level of education and those who live alone are more likely to report the highest levels of stress, anxiety and depressive symptoms.

- Adults who live in urban areas also more likely to have depressive symptoms.

- Low levels of physical activity are associated with lower levels of life satisfaction, higher levels of stress, anxiety and depressive symptoms.

- Strategies to address the high levels of poor mental health among older adults in Ireland throughout the COVID-19 pandemic, including the promotion and facilitation of physical activity, should be developed as a matter of urgency.

6.1 Introduction

The promotion and protection of good mental health in old age is becoming a major societal concern. Approximately 9% and 24% of TILDA participants had potentially clinically meaningful levels of depression and anxiety symptoms, respectively. (1) These mental health problems need not be an inevitable part of the ageing process; however, it is possible that they have been amplified by the COVID-19 pandemic which has profoundly impacted daily life. Early evidence from the UK has shown that mental health had deteriorated compared with pre-COVID-19 trends among younger but not older adults; however, it is likely that different subpopulations among older adults have had different experiences. (2)

The physical health benefits of being physically active, including protection against cardiovascular diseases, cancers and diabetes, and reduced mortality risk, are well established. (3) The mental health benefits are also well known. Previous evidence from TILDA has shown that participants who are physically active are less likely to develop mental health issues such as depression or anxiety. (4,5) International data from throughout COVID-19 has suggested that people are spending less time in physical activity and more time in sedentary behaviours, and that these changes are associated with a range poorer mental health outcomes. (6) Evidence from Sport Ireland showed a strong decline in sport participation and slight increase in recreational walking among adults aged ≥55 years. (7) Given the emphasis placed on "cocooning" in the COVID-19 containment strategies, it seems likely that older adults in Ireland may have also reduced their activity and increased their sedentary time.

The purpose of this chapter is to explore physical activity, sedentary behaviour, and mental health in over 60's in Ireland during the COVID-19 pandemic. This chapter is split into two primary sections. The first section describes physical activity and sedentary behaviour using the short-form International Physical Activity Questionnaire and questions on perceived changes in participation in specific physical activities and sedentary behaviours compared to before the outbreak of COVID-19. We then examine differences in physical activity and sedentary behaviour according to a number of sociodemographic characteristics. The second section describes mental health in the same population and according to the same sociodemographic characteristics. We also examine the relationships between mental health and physical activity.

6.2 Physical activity and sedentary behaviour

6.2.1 Physical activity

Physical activity consists of various activities like active transport, gardening, and exercise. It can range from light intensity (for example, a gentle stroll) to moderate intensity (for example an activity that increases your breathing rate to the point that it would be difficult to sing a song, but you could still hold a conversation) and high intensity (for example, where your breathing has increased to the point that it would be difficult to hold a conversation).

TILDA assesses physical activity using the above criteria derived from short-form version of the International Physical Activity Questionnaire. (8) This questionnaire asks participants about how much walking, moderate and vigorous intensity physical activity they did in the past seven days. Responses to these questions are summed and divided into three categories: Low (i.e., not meeting minimum recommended levels of physical activity); Moderate (i.e., minimally active); and High (i.e., engaged in "health enhancing physical activity"). Most participants were in the Moderate category (43%), followed by the High (34%) and Low (22%) categories. This differs from the previous wave of TILDA (i.e., Wave 5) where 37% were in the Moderate category, 37% were in the Low category, and 26% were in the High category. This indicates that there has been a slight decrease in the number of people engaging in health-enhancing physical activity but a slight increase in the number of people who are minimally active.

Participants also report perceived changes in participation in specific physical activities before and after the outbreak. These activities include exercising at home, walking outside for more than 20 minutes, and doing garden work or home repairs. Each of these questions has four response options (*not at all* = 0; *less often* = 1; *about the same* = 2; *more often* = 3). Table 6.1 shows the proportion of participants in each of these categories. Most participants report doing about the same amount of exercise at home compared to before the pandemic (47%), while similar proportions report increases (17%) and decreases (16%) in their exercise. A similar pattern is seen for walking. However, a large proportion of participants report increases in home DIY/gardening (45%) while few report decreases (7%) or none at all (13%).

Table 6.1. Perceived changes in specific physical activity types since the outbreak of the COVID-19 pandemic

	Not at all		Less often		About the same		More often	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI
Exercise at home	20	[18-21]	16	[15-18]	47	[45-49]	17	[16-19]
Walking	12	[11-14]	25	[23-27]	36	[34-38]	27	[25-29]
Home DIY/gardening	13	[11-14]	7	[6-9]	35	[33-37]	45	[43-48]

6.2.2 Sedentary behaviour

Perceived changes in participation in specific sedentary behaviours before and after the outbreak of COVID-19 are also assessed. These activities include doing hobbies, crafts, or puzzles, watching TV, Netflix, stream movies, or shows, reading books, magazines, or newspapers (in print or online), and meeting with social groups on Zoom or other online video conference sites. As above, each of these questions has four response options (*not at all* = 0; *less often* = 1; *about the same* = 2; *more often* = 3). Table 6.2 shows the proportion of participants in each of these categories. Most participants do about the same for each of the activities, although a substantial proportion of participants report watching TV more often.

Table 6.2. Perceived changes in specific sedentary behaviours since the outbreak of the COVID-19 pandemic

	Not at all		Less often		About the same		More often	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI
Hobbies	26	[24-28]	11	[10-12]	39	[37-41]	24	[22-26]
TV	4	[3-5]	6	[5-7]	54	[51-56]	37	[35-39]
Reading	7	[6-9]	5	[4-6]	52	[50-54]	35	[33-37]
Online socialising	63	[61-65]	6	[5-7]	10	[9-11]	22	[20-24]

6.2.3 Sociodemographic characteristics by physical activity

Table 5.3 shows the percentage of adults aged 60 years and older in each of the three physical activity groups (Low, Moderate, and High) according to their sociodemographic characteristics. Participants aged 60-69 years are more likely to be in the High physical activity category and less likely to be in the Low category. *Men* are less likely to be in the Low and Moderate categories and substantially more likely to be in the High category.

Participants with *third level education* are less likely to be in the Low category and more likely to be in the High category compared to those with primary level education. Participants living alone are more likely to be in the Moderate group but less likely to be in the High group compared to those living with others. Finally, participants in *rural* locations are less likely to be in the Moderate group but substantially more likely to be in the High group compared to those in urban locations.

Table 6.3. Physical activity by key sociodemographic characteristics

	Low		Moderate		High	
	%	**95% CI**	**%**	**95% CI**	**%**	**95% CI**
Age Groups						
60-69 years	19	[17-22]	41	[38-45]	40	[37-43]
70+ years	26	[23-29]	47	[44-50]	27	[24-30]
Gender						
Male	19	[16-21]	36	[33-39]	45	[42-48]
Female	25	[22-28]	49	[46-52]	26	[24-29]
Education						
Primary/none	27	[23-32]	45	[40-50]	28	[23-32]
Secondary	22	[19-25]	43	[40-46]	35	[32-38]
Third/higher	16	[13-19]	42	[39-46]	42	[38-45]
Living status						
Lives alone	21	[17-25]	51	[46-55]	29	[25-33]
Lives with other(s)	23	[21-25]	41	[39-44]	36	[34-39]
Location						
Urban	24	[22-27]	47	[44-49]	29	[27-32]
Rural	20	[17-23]	39	[36-42]	41	[38-44]

6.3 Mental health

6.3.1 Mental health measures

TILDA uses several measures to assess an individual's mental health. In this report, we include measures of life satisfaction, perceived stress, anxiety and symptoms of depression.

Self-rated life satisfaction. The participant is asked to rate how satisfied they are with their life from 1 to 10 (1 = *Not at all satisfied*; 10 = *Completely satisfied*). The higher the score, the more satisfied the participant is with their life. Average life satisfaction during the COVID-19 pandemic is moderate (mean=7.7).

Perceived stress. Perceived stress is assessed using a four-item version of the Perceived Stress Scale (PSS-4). (9) The PSS-4 includes four questions about how the participant felt during the COVID-19 pandemic:

- How often have you felt that you were unable to control the important things in your life?
- How often have you felt confident about your ability to handle your personal problems?
- How often have you felt that things were going your way?
- How often have you felt difficulties were piling up so high that you could not overcome them?

The participant is asked to answer each question, using a five-point scale, ranging from *Never* (0) to *Very Often* (4). Responses to the four items are summed to assess global stress perception, with a maximum score of 16. The higher the score, the higher the levels of perceived stress. Perceived stress levels during the COVID-19 pandemic are on average moderate (mean=4.7). Perceived stress levels in the previous wave of TILDA (i.e., Wave 5) was on average low-to-moderate (mean=3.9) for the same cohort of participants, which indicates that perceived stress increased during the COVID-19 pandemic.

Anxiety. Anxiety is measured using the Generalised Anxiety Disorder Assessment (GAD-7). (10) This measurement tool is composed of 7 items which assess how worried, tense or anxious an individual felt over the last week:

- Feeling nervous, anxious or on edge
- Not being able to stop or control worrying
- Worrying too much about different things
- Trouble relaxing
- Being so restless that it is hard to sit still
- Becoming easily annoyed or irritable
- Feeling afraid as it something awful might happen

The participant is asked to rate each of the seven items using a four-option response (0=*Not at all*; 1=*several days*; 2=*More than half the days*; 3=*nearly every day*). Responses to the seven items are summed to a maximum score of 21. The higher the score, the higher the anxiety levels. On average, anxiety levels during the COVID-19 pandemic are low (mean=3.1).

Depression. Symptoms of depression are measured using a short version of the Center for Epidemiologic Studies Depression Scale (CESD). (11) The participant is asked how often they experienced a variety of depressive symptoms during the COVID-19 pandemic. The short version of the CESD scale consists of 8 items:

- I felt depressed

- I felt that everything I did was an effort

- My sleep was restless

- I was happy

- I felt lonely

- I enjoyed life

- I felt sad

- I could not get "going"

Each item has four response options (0= *Rarely or none of the time*; 1= *Some or a little of the time*; 2= *Occasionally or a moderate amount of time*; and 3= *All of the time*). Responses to the eight items are summed to a maximum score of 24. The higher the score, the higher the depressive symptoms. During the COVD-19 pandemic, participants report 5.3 symptoms on average. Twenty one percent had a score of 9 or above, which suggests that almost a quarter of the participants may present clinically significant depressive symptoms. (12) Depressive symptoms were 3.2 on average in the previous wave of TILDA (i.e. Wave 5) for the same cohort of participants and 8% presented clinically significant depressive symptoms. This indicates substantial increase in depressive symptoms during the COVID-19 pandemic.

We describe in the next section the distribution of each mental health measure according to the socio-demographic characteristics of participants and their level of physical activity.

6.3.2 Sociodemographic characteristics and physical activity by mental health measures

6.3.2.1 Self-rated life satisfaction

Figure 6.1 shows the distribution of life satisfaction scores. Given the skewed distribution of life satisfaction scores, we present the scores into tertiles (three groups). The first of these three groups includes the least satisfied participants (37%) who have a score below seven on the life satisfaction scale. The middle group (42%) score eight or nine, while the most satisfied group (21%) score ten.

Figure 6.1. Distribution of life satisfaction scores
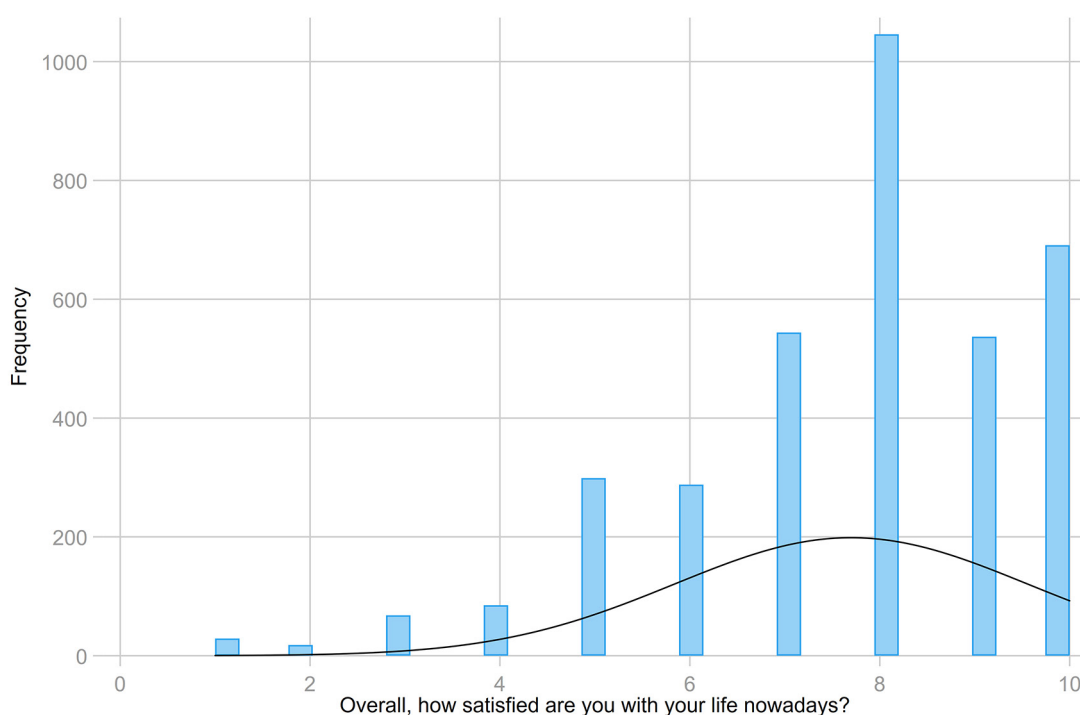
As shown in Table 6.4, similar levels of self-rated life satisfaction are reported by men and women. Participants aged 60-69 years are more likely to be the least satisfied with their life (36%). There is also a clear education gradient. Participants who completed a third level of education (15%) are significantly less likely to be the most satisfied with their life compared to those with a primary level of education (27%). There is no statistically difference in self-rated life satisfaction according to whether older adults live alone or with others. Participants who live in urban areas (40%) are significantly more likely than those from rural areas (32%) to be in the least satisfied group. Finally, participants with low level of physical activity are more likely to be the least satisfied (46%).

Table 6.4. Self-rated life satisfaction by key sociodemographic characteristics and physical activity

	Least satisfied		Moderately satisfied		Most satisfied	
	%	95% CI	%	95% CI	%	95% CI
Gender						
Male	35	[32-38]	45	[42-48]	20	[18-23]
Female	39	[36-42]	40	[37-43]	22	[19-24]
Age group						
60-69 years	36	[33-39]	46	[43-49]	18	[15-20]
70+ years	38	[35-40]	38	[35-41]	24	[22-27]
Education						
Primary/none	38	[34-43]	35	[31-39]	27	[23-31]
Secondary	35	[33-38]	46	[43-49]	19	[16-21]
Third/higher	38	[35-41]	48	[45-50]	15	[13-17]
Living status						
Lives alone	38	[34-42]	38	[34-42]	24	[20-27]
Lives with other(s)	36	[34-39]	44	[41-46]	20	[18-22]
Location						
Urban	40	[38-43]	42	[39-45]	18	[16-20]
Rural	32	[29-35]	42	[39-45]	26	[23-29]
Physical activity						
Low	46	[41-51]	35	[30-40]	19	[15-23]
Moderate	37	[34-40]	42	[39-46]	21	[18-24]
High	29	[25-32]	52	[48-56]	19	[17-23]

6.3.2.2 Perceived stress

Similar to the life satisfaction scale, the distribution of perceived stress scores is skewed. Therefore, we present the scores into tertiles (three groups). The first group includes participants who report the lowest levels of stress (34%), ranging from zero to three. The middle group (36%) report score between four and six, while the group with the highest levels of stress (29%) score between seven and sixteen.

Table 6.5 shows the distribution of the three groups of stress according to the socio-demographic characteristics and physical activity of participants during the COVID-19 pandemic. Women are significantly more likely to report high levels of stress compared to

men. For example, 31% of women report the highest levels of stress compared to 26% of men. There is no difference in stress levels between age groups. Older adults with lower level of education are also significantly more likely than those with higher level of education to report high stress levels. 35% of participants who have a primary level of education or none are more likely to be in the group with the highest levels of stress compared to 22% of those who completed a third level of education. Older adults who live alone (31%) are significantly more likely than those who live with others (28%) to report the highest levels of stress. Similar levels of stress are reported by rural and urban participants. Finally, participants with low level of activity are more likely to report the highest levels of stress (36%).

Table 6.5. Stress by key sociodemographic characteristics and physical activity

	Least stressed		Moderately stressed		Most stressed	
	%	95% CI	%	95% CI	%	95% CI
Gender						
Male	37	[34-40]	37	[34-40]	26	[23-29]
Female	32	[30-35]	37	[34-39]	31	[28-34]
Age group						
60-69 years	36	[33-39]	46	[43-49]	18	[15-20]
70+ years	38	[35-40]	38	[35-41]	24	[22-27]
Education						
Primary/none	31	[27-35]	35	[30-39]	35	[31-39]
Secondary	37	[34-40]	37	[35-40]	26	[24-29]
Third/higher	38	[35-40]	40	[37-43]	22	[20-25]
Living status						
Lives alone	38	[34-42]	32	[28-36]	31	[27-35]
Lives with other(s)	33	[31-36]	39	[36-41]	28	[26-30]
Location						
Urban	34	[31-37]	38	[35-40]	29	[26-31]
Rural	36	[32-39]	36	[33-39]	29	[26-32]
Physical activity						
Low	27	[23-32]	37	[32-42]	36	[31-41]
Moderate	34	[30-37]	39	[35-42]	28	[25-31]
High	43	[39-47]	36	[33-40]	21	[18-24]

6.3.2.3 Anxiety

Anxiety levels range from 0 to 21. They can be divided into four categories according to established criteria (13): minimal (between 0 and 4; 73%), mild (between 5 and 9; 16%), moderate (between 10 and 14; 8%) and severe (15 or more; 3%).

Table 6.6 shows the distribution of the four levels of anxiety according to the socio-demographic characteristics and physical activity of participants during the COVID-19 pandemic. Similarly to the stress scale, women are significantly more likely to report higher levels of anxiety than men. For example, 10% of women report moderate levels of stress compared to 5% of men. There was no difference in anxiety levels according to age groups. Older adults with lower level of education are significantly more likely than those with higher level of education to report high levels of anxiety. 4% of participants with primary education or none are in the group with severe levels of anxiety compared to 2% of those who completed a third level of education. Older adults who live alone were significantly more likely to report severe levels of anxiety (5%, 95%CI: 3-7) compared to those who live with others (2%. There is no significant difference in anxiety levels according to whether participants live in urban or rural areas. Finally, older adults who reported low level of physical activity were more likely to be in the group with severe levels of anxiety (3%) and less likely to be in the group with minimal levels of anxiety (70%) compared to those with high level of physical activity (78%).

Table 6.6. Anxiety by key sociodemographic characteristics and physical activity

	Minimal levels of anxiety		Mild levels of anxiety		Moderate levels of anxiety		Severe levels of anxiety	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI
Gender								
Male	79	[76-81]	14	[12-16]	5	[4-7]	2	[2-4]
Female	67	[64-70]	19	[17-21]	10	[9-13]	3	[2-5]
Age group								
60-69 years	72	[69-75]	16	[14-18]	9	[7-11]	3	[2-5]
70+ years	74	[71-76]	17	[15-19]	7	[6-9]	3	[2-4]
Education								
Primary/none	72	[67-76]	15	[12-19]	9	[7-12]	4	[3-7]
Secondary	73	[70-75]	17	[15-19]	8	[7-10]	2	[2-3]
Third/higher	76	[73-78]	18	[16-20]	5	[4-6]	2	[1-3]
Living status								
Lives alone	73	[69-77]	14	[12-17]	8	[6-11]	5	[3-7]
Lives with other(s)	73	[70-75]	17	[15-19]	8	[7-9]	2	[2-3]
Location								
Urban	72	[69-75]	17	[15-19]	9	[7-11]	2	[2-4]
Rural	74	[71-77]	16	[13-19]	7	[5-9]	4	[2-5]
Physical activity								
Low	70	[65-74]	18	[15-22]	9	[6-13]	3	[2-6]
Moderate	73	[69-76]	18	[15-21]	7	[5-9]	3	[2-4]
High	78	[75-81]	13	[11-16]	6	[4-8]	2	[1-4]

6.3.2.4 Depression

Levels of depression range from 0 to 24. Typically, a score of 9 or above indicates clinically significant depressive symptoms. (12) 79% have a score below 9 and 21% scored 9 or above.

Table 6.7 shows the distribution of depression levels according to the socio- demographic characteristics and physical activity of participants during the COVID-19 pandemic. Women are significantly more likely to report higher levels of depression symptoms than men. For example, 26% of women are in the group with clinically significant depressive symptoms compared to 16% of men. There was no difference in depression levels

according to age groups. Participants with primary education or none (24% are significantly more likely to be in the group with depressive symptoms than those who completed a third level of education or higher (17%). Participants who live alone (27%) are more likely than participants who live with others (19%) to report higher levels of depression symptoms. Urban participants (23%) are also more likely than rural participants (18%) to have clinically significant symptoms of depression. Finally, older adults who reported low level of physical activity are more likely to be in the group with depressive symptoms (27%).

Table 6.7. Depression by key sociodemographic characteristics and physical activity

	Not depressed		Depressed	
	%	95% CI	%	95% CI
Gender				
Male	84	[82-87]	16	[13-18]
Female	74	[71-77]	26	[23-29]
Age group				
60-69 years	80	[78-83]	20	[17-22]
70+ years	78	[75-80]	22	[20-25]
Education				
Primary/none	76	[72-80]	24	[20-28]
Secondary	79	[76-81]	21	[19-24]
Third/higher	83	[81-86]	17	[14-19]
Living status				
Lives alone	73	[69-77]	27	[23-31]
Lives with other(s)	81	[79-83]	19	[17-21]
Location				
Urban	77	[74-79]	23	[21-26]
Rural	82	[79-85]	18	[15-21]
Physical activity				
Low	73	[68-77]	27	[23-32]
Moderate	79	[75-82]	21	[18-25]
High	86	[83-88]	14	[12-17]

6.4 Discussion

This report highlights the low levels of physical activity among older adults in Ireland during the COVID-19 pandemic, particularly among adults aged 70 years and over, women, and those with a primary level education. There are some changes in participation in specific physical activities compared to pre-pandemic levels: equal proportions of participants report increases in exercise and walking, but substantially more report increases than decreases in home DIY and gardening. A substantial proportion of participants however report increased engagement in each of the specific sedentary behaviours assessed, with few reporting decreases in these behaviours.

Worryingly, almost one quarter of older adults report levels of depressive symptoms that are potentially clinically meaningful. This is substantially higher than has been found in previous waves of TILDA. For example, in Wave 5 in 2018, 8% of the same cohort of participants had potentially clinically meaningful levels of depressive symptoms. It seems likely that this increase in depressive symptoms is at least in part due to the COVID-19 pandemic. Efforts to control the spread of the virus while maintaining and promoting mental health need to be strengthened as a matter of urgency.

Prevalence of depression is highest among women, those with a primary level education, those living alone and those living in urban areas. These factors, with the exception of area of living, are also associated with having severe levels of anxiety and higher levels of stress. Public health should pay particular attention to supporting these subgroups. Lowest scores of life satisfaction are more prevalent among participants aged 60-69 years, with a third level education, and living in urban areas. It is possible that these subgroups are more affected by lifestyle changes resulting from the COVID-19 pandemic. Given that individuals with lowest levels of life satisfaction are also more likely to report higher levels of stress and anxiety and have depressive symptoms, public health should also consider the longer-term impact of the COVID-19 pandemic.

Finally, participants with low physical activity are also the most likely to be in the highest group for depression, anxiety, and stress, and the lowest group for life satisfaction. Although these findings are cross-sectional, they support international data from throughout the COVID-19 pandemic that has shown that decreases in physical activity are associated with a range of poorer mental health outcomes. (6) Moreover, previous research from TILDA and internationally has highlighted the important role that physical activity may play in protecting against, and treating, depression and anxiety. (4 ,5,14) Increasing activity among older adults not meeting minimum recommended physical

activity levels will likely yield positive mental and physical health benefits. Indeed, some efforts to promote participation in physical activity throughout the pandemic have been made, such as the national Get Up Get Dressed Get Moving campaign; however, more work is needed and public health should target efforts on older adults not meeting minimum recommended levels of physical activity.

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7

Use of healthcare services, medications, and health supplements

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Rose Anne Kenny and Mark Ward

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Staidéar Fadaimseartha na
hÉireann um Dhul in Aois

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7

Use of healthcare services, medications, and health supplements

Key Findings

- Restrictions due the COVID-19 pandemic have had a dramatic effect on non-COVID-19 related healthcare services in Ireland. This has resulted in an array of healthcare needs being unmet. As older adults have greater healthcare needs, they are likely to be the most affected by this.

- Nearly one-third of adults aged 60 years and older (30%) delayed or did not get medical care that they needed.

- The most common reasons for delaying or cancelling healthcare appointments were: deciding that the appointment could wait (39%), the clinic/hospital/doctor's office cancelling the appointment (25%), the appointment being rescheduled (21%), being unable to get an appointment when needed (21%), being afraid to attend an appointment (18%), other unspecified reason (6%), and being unable to afford the appointment (3%).

- Forty three percent of participants delayed dental care, followed by delayed appointment with a GP (31%), an optician (19%), other services (12%), and minor surgery (10%).

- Not being able to get an appointment (57%) was the primary reason for delaying dental care.

- Among those who delayed a GP appointment, being afraid to go to the appointment was the primary reason (53%).

- Many adults aged 60 and older attended online or telephone consultations with healthcare services. Forty-six percent of older people availed of a telephone or online appointment with a GP, 39% with a pharmacist, 21% with a hospital doctor and 10% with another health professional.

- A large majority of older adults could access hygiene products (gloves; hand sanitiser; masks; and soap) when needed. Among those who reported difficulty in purchasing these products, the main reason given was that they were not available in retail outlets.

- The pandemic had little impact on the use of prescribed medications, with a large majority of older adults (94%) continuing to take the same medications as before the beginning of the pandemic.

- Almost one in seven (14.5%) adults aged 60 years and older have started taking Vitamin D supplements since March 2020. This is in addition to the 9% of TILDA participants who took supplements before the pandemic.

- This chapter provides valuable information on healthcare utilisation in the older population in Ireland, including the effect of the pandemic on the delivery of services and the challenges faced by older people in accessing these services. Furthermore, the findings provide an important baseline for identifying and evaluating the long-term impact of COVID-19 on health outcomes, which may be of particular importance for older people with pre-existing conditions.

7.1 Introduction

This chapter examines the impact of the COVID-19 pandemic on healthcare utilisation among adults aged 60 years and older in Ireland. Non-COVID-19 related health services have been severely curtailed since the beginning of the pandemic, with many elective and routine appointments and services postponed or cancelled. It is important that the extent of this unmet need is detailed so that service providers can plan accordingly. It is also important for policymakers to understand the impact of COVID-19-related restrictions on the health and wellbeing of older adults in order accurately to plan immediate and future service needs.

We know from existing research that delayed access to healthcare has a negative effect on many health outcomes and on mortality. (1, 2) In Ireland, research conducted by TILDA at the beginning of the COVID-19 pandemic provides a comprehensive picture of healthcare utilisation in Ireland among those aged 50 years or older. (3) Healthcare utilisation tends to increase with age; for example, the proportion of those aged 70 years or older using home care services and public health nurse services is higher than the proportion aged 50 and over. (3) Frailty is also associated with higher healthcare utilisation in Ireland. (4) There is however limited evidence on the impact of the pandemic on non-COVID-19 healthcare utilisation in Ireland. (5) One national online survey reported that 32% of respondents had postponed medical treatment during the pandemic. (6) A day hospital study meanwhile showed the extent of unmet health need because of the pandemic in frailer outpatients. (7)

Globally, there has been a similar decline in healthcare utilisation. Preliminary findings from a systematic review of 81 studies across 20 countries reported an average decline of 37% in healthcare utilisation. (8) More specifically, studies of populations aged 50 years or older outline how the reduction in healthcare utilisation is likely driven by several factors, including appointments being cancelled by the service provider, patients being unable to get access to an appointment and patients themselves cancelling appointments. (9, 10) The English Longitudinal Study of Ageing (ELSA) COVID-19 sub-study found that 14% of participants, aged 50 years and over, who required health services did not try to access them during the studied period, while approximately 20% of people with multimorbidities who needed health services were unable to access them. (9) Preliminary findings from a German study of over 2 million patients aged 65 years or over found that hospital admissions decreased significantly from February to May 2020, ranging from a 28% to a 50% decrease, when compared to 2019 figures for the same months. (11) It is likely that similar patterns are present in Ireland.

The aim of this chapter is to examine the impact of the COVID-19 pandemic on healthcare utilisation in those aged 60 years or older in Ireland. It provides an overview of healthcare utilisation in this population as a whole, and for adults aged 60-69 and adults aged 70 years or over. Differences in health service utilisation related to age and other sociodemographic factors such as gender, educational attainment and location are also reported.

7.2   Methods

The TILDA COVID-19 SCQ included a detailed section on the level of unmet need among adults aged 60 years and older. Participants were asked: "Since the outbreak of the COVID-19 pandemic in March 2020, was there any time when you needed medical (including dental) care, but delayed it, or did not get it at all?" Participants who did delay or cancel medical care were asked to detail the reason for the delay or cancellation. The possible responses to this question were: I could not afford it; I could not get an appointment; the clinic/hospital/doctor's office cancelled; the clinic/hospital/doctor's office rescheduled; I decided it could wait; I was afraid to go

As well as the overall level of unmet need, information was collected about the type of care that was delayed or cancelled. The healthcare services included were: major surgery (requiring a hospital stay of one or more nights); public health or community nurse; minor surgery as an outpatient or day case; occupational therapy; general practitioner (GP); physiotherapy; prescription renewal; psychological/counselling; medications; hearing assessments; dental care; respite care; optician.

Participants also provided information on access to recommended hygiene products. Participants specifically detailed access to soap, hand sanitiser, protective face masks and protective gloves. Where difficulty in accessing these products was reported, information was sought on whether this was due to cost, availability, or an inability to access in shops. As some healthcare services, including GP appointments, currently offer consultations online or by telephone, we also document the extent of such remote consultations among older adults. Finally, the questionnaire included questions to capture changes in the use of prescribed medications and health supplements. Participants who changed prescribed medications since the beginning of the pandemic were then asked about the reason was for this change. The response categories were: doctor's advice; pharmacist's advice; could not afford the medication; could not get medication from the pharmacy; personal decision. Finally, participants reported whether they had commenced taking certain health supplements. The following supplements were included: multi-vitamins; zinc; iron; vitamin D; any B vitamins; folic acid; fish oil.

7.3 Results

7.3.1 Delays in medical care

Table 7.1 shows the percentage of adults who delayed getting medical care since the outbreak of the pandemic, grouped by sociodemographic characteristics. Overall, 30% of older people aged 60 and over delayed or did not get the medical care they required. The percentage who delayed or did not get medical care varied by gender and level of education, with women and those with a higher level of education more likely to delay getting medical care. There are no differences between adults aged 60-69 and those over 70 years, or between those living urban or rural locations.

Table 7.1. Proportion of older adults delaying medical care by gender, age, education level and location

	No		Yes		N
	%	95% CI	%	95% CI	
Gender					
Male	73	[70-75]	27	[25-30]	1413
Female	68	[65-70]	32	[30-35]	1704
Age group					
<70 years	73	[70-76]	27	[24-30]	1478
70+ years	67	[64-70]	33	[30-36]	1639
Education					
Primary/none	69	[65-73]	31	[27-35]	530
Secondary	73	[70-75]	27	[25-30]	1224
Third/higher	66	[63-69]	34	[31-37]	1363
Location					
Urban	69	[67-72]	31	[28-33]	1726
Rural	71	[68-74]	29	[26-32]	1391
Total	70	[68-72]	30	[28-32]	3117

Among participants who delayed getting medical care, the most common reasons were deciding that the appointment could wait (39%); followed by the clinic/hospital/ doctor's office cancelling the appointment (25%); the appointment being rescheduled (21%); not being able to get an appointment when needed (21%); being afraid to attend an appointment (18%); other unspecified reason (6%); and not being able to afford the appointment (3%). As shown in Figures 7.1 and 7.2, a greater proportion of men (27%)

and adults aged 60-69 years (27%) could not get an appointment compared to women (16%) and adults aged 70 and over (16%).

Figure 7.1. Percentage of participants being unable to get an appointment by gender
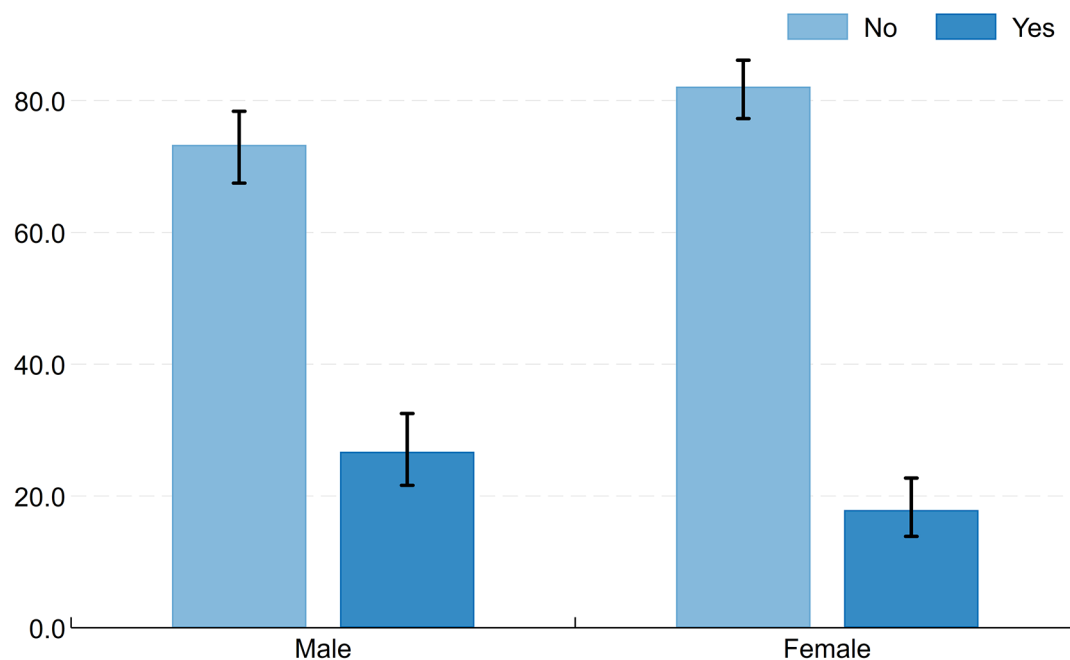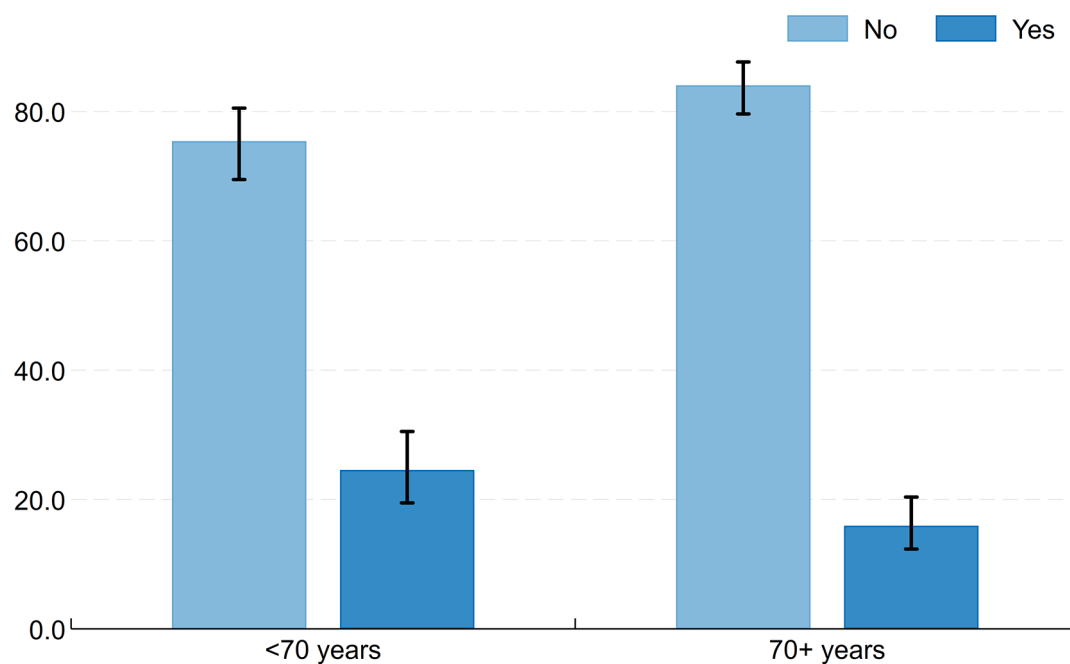

Figure 7.2. Percentage of participants being unable to get an appointment by age

As shown in Figure 7.3, dental care is the service that older people were most likely to delay, with nearly half (43%) of participants delaying this service. This is followed by GP appointments (31%), optician appointments (19%), other services (12%) and delays in minor surgery (10%).

Figure 7.3. Type of medical appointments delayed
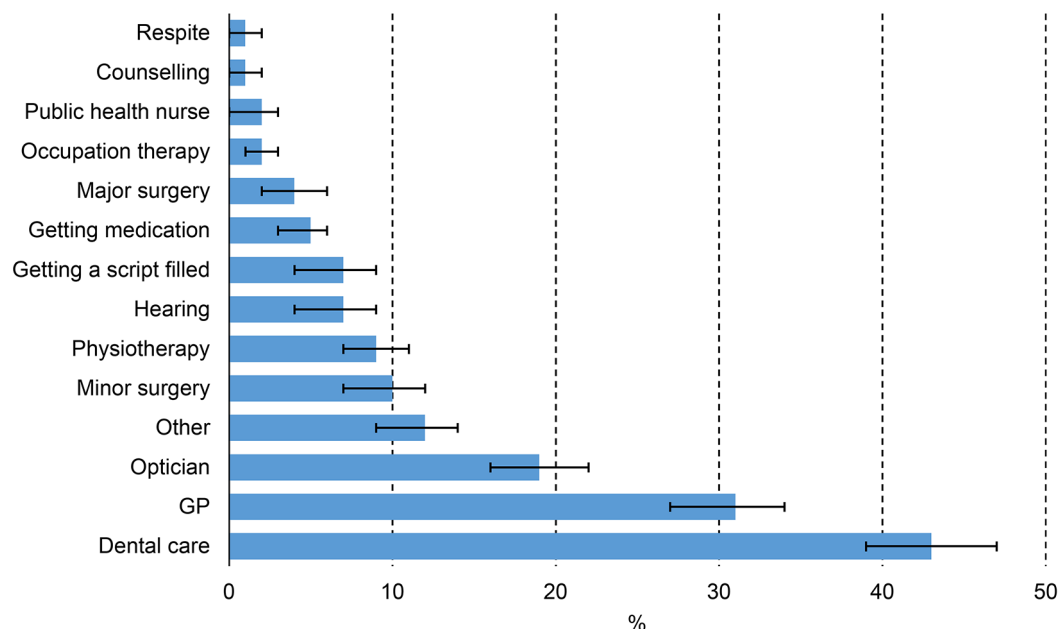
A higher percentage of adults aged 60-69 (54%) compared to adults 70 and older (34%), and a higher percentage of adults with third level (56%), compared to secondary (46%) and primary (33%) education, delayed dental care. There was no significant difference for gender and urban versus rural location in delayed dental care. Groups who delayed other types of care such as GP, optician and minor surgery did not differ in demographics.

Not being able to get an appointment (57%) was the primary reason for delaying dental care, followed by being afraid to go (54%), deciding it could wait (53%) and cancellation (44%). By contrast, of those who delayed a GP appointment, being afraid to go was the primary reason given (53%), followed by deciding that the appointment could wait (40%), not being able to get an appointment (38%), other unspecified reason (37%) and cancellation (25%).

7.3.3 Telephone and online consultations

As shown in Table 7.2, 46% of participants availed of a telephone or online appointment with a GP, 39% with a pharmacist, 21% with a hospital doctor and 10% with another health professional. More women than men availed of an appointment with a pharmacist online/by phone, but otherwise gender was not associated with patterns of access or behaviours. Differences between age groups are seen for those who availed of an appointment with a GP, pharmacist and doctor online/over the phone, with a greater proportion of adults aged 70 and over availing of an appointment with a GP and hospital doctor. By contrast, more adults aged between 60 and 69 years availed of an online or telephone appointment with a pharmacist. Finally, differences between adults living in an urban versus rural location were apparent for all online/over the phone appointments, with a greater proportion of urban dwelling adults availing of these services.

Table 7.2. Rate of online or telephone appointments by gender, age, education and location

	Online GP % (95% CI)	Online Pharmacist % (95% CI)	Online Doctor % (95% CI)	Online Other % (95% CI)
Gender				
Male	44 [40-47]	36 [32-39]	20 [17-24]	10 [8-13]
Female	47 [44-51]	43 [39-46]	22 [18-25]	10 [7-12]
Age Groups				
60 to 69 years	41 [37-44]	32 [29-36]	18 [15-22]	9 [7-12]
≥70 years	51 [47-54]	45 [42-49]	24 [21-27]	11 [9-13]
Education				
Primary/none	45 [40-50]	41 [36-46]	25 [20-30]	5 [3-8]
Secondary	47 [44-50]	40 [36-43]	20 [17-23]	11% [9-14]
Third/higher	43 [40-47]	35 [32-38]	16 [14-19]	15 [12-18]
Location				
Urban	49 [46-55]	42 [38-45]	24 [21-28]	12 [10-15]
Rural	41 [37-44]	36 [32-40]	16 [14-20]	7 [8-12]
Total	46 [43-48]	39 [37-42]	21 [19-23]	10 [8-12]

7.3.4 Access to personal protective items

As shown in Table 7.3, most older adults could access these personal protective items, with a low percentage reporting inability to access sanitiser (14%), masks (12%), gloves (9%) and soap (6%). Among those who could not access these items, the most common reason was lack of availability in stores: gloves (67%), hand sanitiser (83%), masks (73%) and soap (88%).

Table 7.3. Rate of purchasing personal protective products

	No		Yes		Did not need		N
	%	95% CI	%	95% CI	%	95% CI	
Gloves	77	[75-79]	9	[8-10]	14	[13-16]	2951
Sanitiser	74	[72-76]	14	[13-16]	11	[10-13]	3051
Masks	76	[74-78]	12	[11-14]	11	[10-13]	2993
Soap	79	[77-81]	6	[5-7]	15	[14-17]	2936

7.3.5 Medication and supplement use

Participants were asked whether they had started or stopped taking prescribed medication since the outbreak of the COVID-19 pandemic. As shown in Table 7.4, the majority of older people report taking the same medications as before the pandemic, with only 5% starting a newly prescribed medication, while 1% stopped taking a prescribed medication. Those who commenced a new medication were more likely to be aged between 60-69 compared to those aged 70 and over; educated to third level compared to both secondary and primary level; and living in an urban location compared to a rural location.

Table 7.4. Changes in medication use by gender, age, education and location

	No, I am taking the same medications		Yes, I have stopped taking a prescription medication		Yes, I have started taking a new prescribed medication		N
	%	95% CI	%	95% CI	%	95% CI	
Gender							
Male	97	[95-98]	1	[0-2]	2	[2-4]	1259
Female	93	[91-95]	1	[0-2]	6	[4-8]	1581
Age group							
<70 years	94	[92-96]	1	[1-2]	4	[3-6]	1250
70+ years	95	[93-96]	1	[0-1]	5	[4-6]	1603
Education							
Primary/none	95	[92-97]	1	[0-2]	5	[3-7]	521
Secondary	95	[93-96]	1	[0-2]	4	[3-6]	1113
Third/higher	93	[91-94]	2	[1-3]	6	[4-7]	1219
Location							
Urban	93	[91-94]	1	[1-2]	6	[5-8]	1594
Rural	97	[95-98]	1	[0-2]	2	[2-4]	1259
Total	94	[93-95]	1	[1-2]	5	[4-6]	2853

Finally, the most frequent supplement taken was vitamin D (14%), followed by vitamin C (11%), multivitamins (8%), fish oil (8%), zinc (4%), iron (2%) and folic acid (1%). More women than men took vitamin D (17% vs. 11%), vitamin C (13% vs. 8%), and multivitamins.

Recent observational studies and randomised controlled trials have shown an association between vitamin D deficiency and the severity of COVID-19 symptoms. These studies also suggest that vitamin D may play a role in prevention of COVID-19 as well as the severity of the response to COVID. (12) Given the potential importance of Vitamin D, TILDA recently published a brief research report on Vitamin D supplement use during the pandemic (13) and we have reproduced some of this analysis here. The proportion of people taking vitamin D increases with the level of educational attainment; 20% of those with third level education report taking this vitamin, compared to 12% with secondary education and 12% with primary. No other differences related to sociodemographic characteristics were evident.

Almost one in seven (14.5%) adults aged 60 years and older commenced taking vitamin D supplements since March 2020. This is in addition to the 9% of TILDA participants who took the supplement prior to the pandemic. (11)

Women (17.3%) were more likely than men (11.1%) to have commenced taking vitamin D since the pandemic. Vitamin D supplement use was also higher in women prior to March; 15% of women and 4% of men were taking vitamin D in the 2018/19 wave of data collection.

Figure 7.4 shows the percentage of older adults who began taking vitamin D supplements by gender and age. While there was no difference in terms of age, women in both age groups were more likely than men to have started taking vitamin D supplements.

Figure 7.4 Percentage of adults who began taking vitamin D supplements by gender and age group
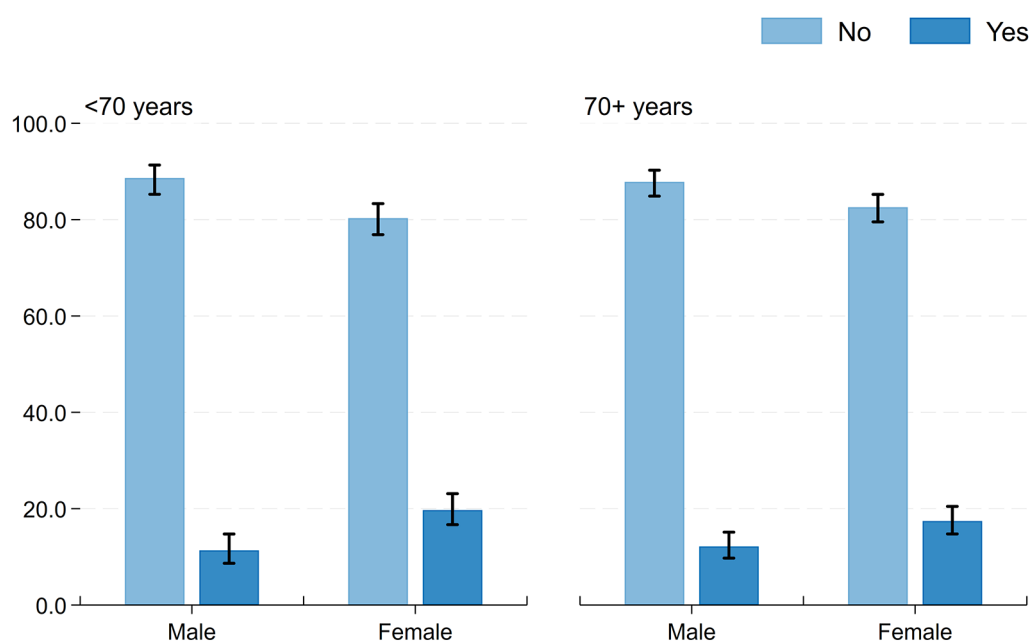
As shown in Figure 7.5, older adults who had completed third level education were more likely to commence vitamin D supplements: 20% compared with 15% (secondary level) and 12% (primary level education or less).

Figure 7.5. Percentage of adults who commenced vitamin D supplements since the pandemic by education level
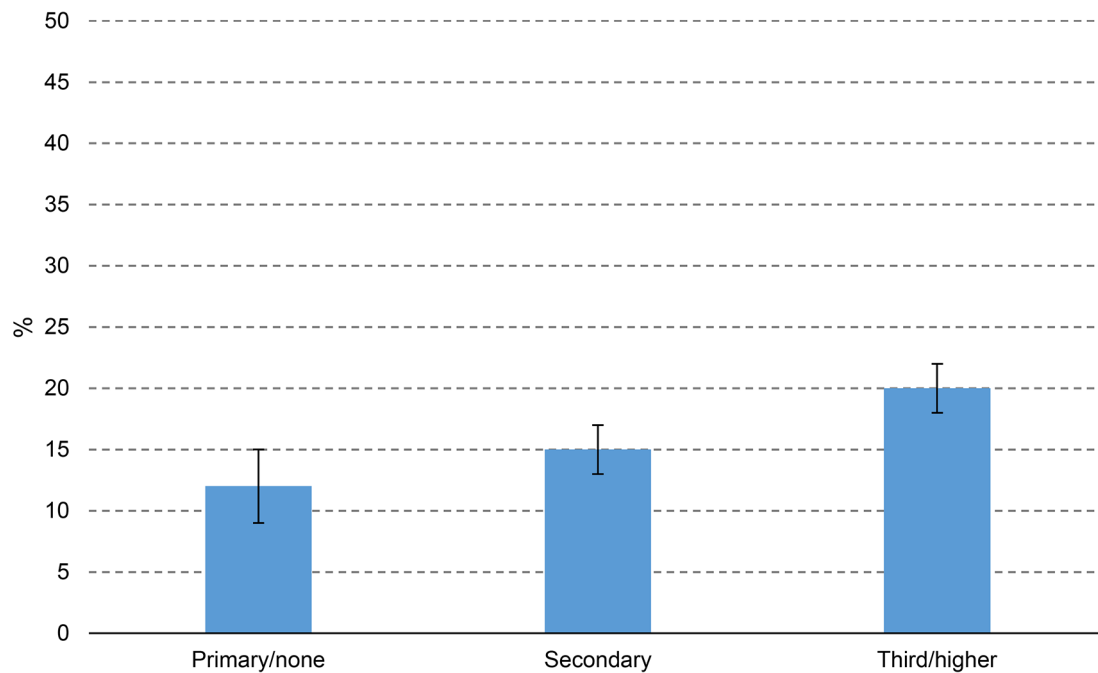
7.4 Discussion

Findings from this chapter highlight the impact of COVID-19 on utilisation of non-COVID-19-related healthcare services in people aged 60 years and older in Ireland.

Consistent with global trends, nearly one third of older people in the current study have been delaying medical care since the outbreak of the pandemic, with dental, GP and optician services being most commonly delayed. Recent TILDA research on healthcare utilisation in the twelve -month period prior to the March 2020 reported that GP care (93%) was the most commonly utilised primary healthcare service and that optician care was the most commonly used allied health service (15%). (3) These are the services which show the largest decline in use during the pandemic. The primary reasons given for delaying access to these services or for not getting an appointment was a decision that the appointment could wait; the appointment being cancelled or rescheduled by the clinic/ hospital/doctor's office; and not being able to get an appointment.

The pandemic has caused a shift in how healthcare services are delivered, with attention now focused on new models of care that avoid face-to-face contact such as tele and online consultations. (13) This chapter highlights the increase in use of online consultations

during the pandemic, with a significant majority of those over 60 reporting having a telephone or online consultation with their GP and/or pharmacist. A higher proportion of those aged 70 years and older availed of an online/telephone GP appointment, a finding that is consistent with prior reports on patterns of face-to-face GP consultations.

As discussed, recent evidence has shown the important link between vitamin D deficiency and the severity of COVID-19 symptoms. Furthermore, the evidence demonstrates the immuno-regulatory properties of vitamin D, in particular its role in regulating and supressing the inflammatory response to viral infections such as COVID-19. (12, 13) This evidence is of considerable importance given the high prevalence of vitamin D insufficiency in the older population, which is over 60% in winter and over 80% in those 80 years and older. An additional 14.5% of adults aged 60 and older started taking Vitamin D since the pandemic began. (13) Both prior and new supplement use was more common for women.

In conclusion, this chapter provides valuable information on the utilisation of healthcare services in older adults aged over 60 in Ireland during the pandemic, and on effect of the pandemic on the mode of delivery of services and the challenges faced by older people in accessing them. The findings provide an important baseline for research on the long-term impact of COVID-19 on health services and mental and physical health outcomes, which may be of particular importance for people with pre-existing comorbidity. Prospective studies should therefore investigate the long-term effects of the COVID-19 pandemic on health and patient-related outcomes among older persons in Ireland.

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8 Changes to caregiving roles

Christine McGarrigle

Contents

8 Changes to caregiving roles

Key Findings

- During the COVID-19 pandemic 15% of the population aged 60 and older report that they cared for someone, more than double the proportion (6%) who report caring in 2018.

- A similar proportion of women (19%) and men (16%) are carers, increased from 7% of women and 5% of men in 2018.

- The average age of carers is 69 for women and 71 for men.

- Carers are more likely to be married, and women who are carers are more likely to have a tertiary education.

- Women who live in Dublin are more likely to report they had cared for someone during the pandemic (23%) compared to women (15%), and men (12%) who live in a rural area.

- More than 50 hours of care per week is provided by 27% of women and 25% of men who are carers aged 60-69 years and 36% of women and 41% of men who are carers aged 70 years and older.

- 43% of women and 48% of men carers aged 60-69 years report that the main recipient of care was their spouse.

- Carers aged 60-69 years also provided care for other family members: among, carers 14% of women and 15% of men report that they provide care for parents, 12% of women and 6% of men report they provide care for other relatives, 14% of women and 8% of men report they provide care for children and 10% of women and 12% of men report they provide care for grandchildren 6% of women and 10% of men also provide care for friends and neighbours.

- Among carers aged 70 years and older, the main recipient was their spouse (71% of women and 88% of men)

- Women aged 70 years and older who provided care during the pandemic also provided care to children (10%) and grandchildren (14%).

- 4% aged 60 years and older stopped caring since 2018, 2% have continued caring since 2018 and 13% of adults aged 60 years and older who report caring during the COVID-19 pandemic are new carers.

- Women aged 70 years and older who continued as carers during the pandemic have a higher purpose in life than women who report either no caring or who became a new carer during the COVID-19 pandemic in the same age group.

- Men aged 70 years and older who became a new carer during the COVID-19 pandemic report lower quality of life, higher depressive symptoms and higher perceived stress compared to non-carers.

- •ecoming a new carer was associated with worse self-rated mental health than non-carers for men aged 60-69 years and 70 years and older.

- Women aged 70 years and older who became new carers during the pandemic had increased depressive symptoms and higher anxiety compared to those who were not carers in the same age group.

- Many of the older population took on new caring roles during the COVID-19 pandemic. To enable family caring to continue, state-provided home support must also be available to facilitate and support carers.

8.1 Introduction

Previous TILDA reports have documented the use of social and community care services by the older population in Ireland by frailty and disability status. (1, 2) While community-based care can facilitate ageing in place, and has the potential to delay admission to a nursing home and improve quality of life (3), the majority of caring provided to older adults is unpaid, informal care by a family member. (4) Generally, family caring was associated with positive health outcomes for the carer, but this depended on the intensity of caring. Compared to non-carers, women providing comparatively low-intensity caring (up to 49 hours per week) reported better self-rated health and wellbeing (higher quality of life score), lower depressive symptoms and higher functional mobility, while lower depressive symptoms were seen in men reporting any caring. (4) Where an excess of care hours was provided, this was associated with higher depressive symptoms, lower quality of life, more chronic pain, lower functional mobility and increased hypertension. (4)

This supports previous research which showed that carers are healthier and demonstrate better mood than non-carers (5-7), with similar findings associated with grandchild care. (8) There is strong evidence supporting the health benefits of remaining physically and socially active, which caring at lower numbers of hours may facilitate. These benefits were mainly seen for women, as were the detrimental effects of caring at high intensity, for both physical health and wellbeing including lower quality of life and higher depressive symptoms. (4)

The initial public health response to the COVID-19 pandemic in Ireland recommended that older people aged 70 years and older remain at home, and physically isolate from those outside their household as much as possible. There was little consideration given to the impact this would have on the older population who were in receipt of informal care from family members, and who were themselves providers of informal care to their family and friends. This is likely to have had an impact on both the provision and receipt of care by the older population, as maintaining these activities is a challenge in the context of lockdown and physical distancing; there may consequently have been changes in the patterns of care giving during the pandemic. As carrying out such roles fulfils an important need for those receiving care, and potentially provides important physical and mental health benefits for the older person giving care, stopping may have negative consequences for both care recipients and carers. We examine whether there have been changes in family caring by the older population, and associated wellbeing and mental health outcomes.

This chapter is structured in three sections. The first describes caring during the pandemic; the second section describes how this has changed since Wave 5; and the third section examines wellbeing and mental health outcomes by caring status.

8.2   Caring during the COVID-19 pandemic

Participants were asked 'Did you look after anyone during the COVID-19 pandemic (including your partner or other people in your household)? By "look after" we mean the active provision of care?' They were also asked what their relationship to the person was, and for how many hours on average per week.

8.2.1   Sociodemographic characteristics associated with caring

Overall, 15% report they had cared for someone during the pandemic, 14% of men and 16% of women, and this was similar in those aged 60-69 and 70 years and older. The average age of carers is 69 years for women and 71 years for men.

This varies according to education, with men who had a primary education more likely to report caring during the COVID-19 pandemic (18%) than men who had secondary (13%) or third level education (10%) (Figure 8.1). Reported caring did not vary by educational attainment for women, although a higher proportion of women with a third level education reported caring (21%) than both third level and secondary-educated men.

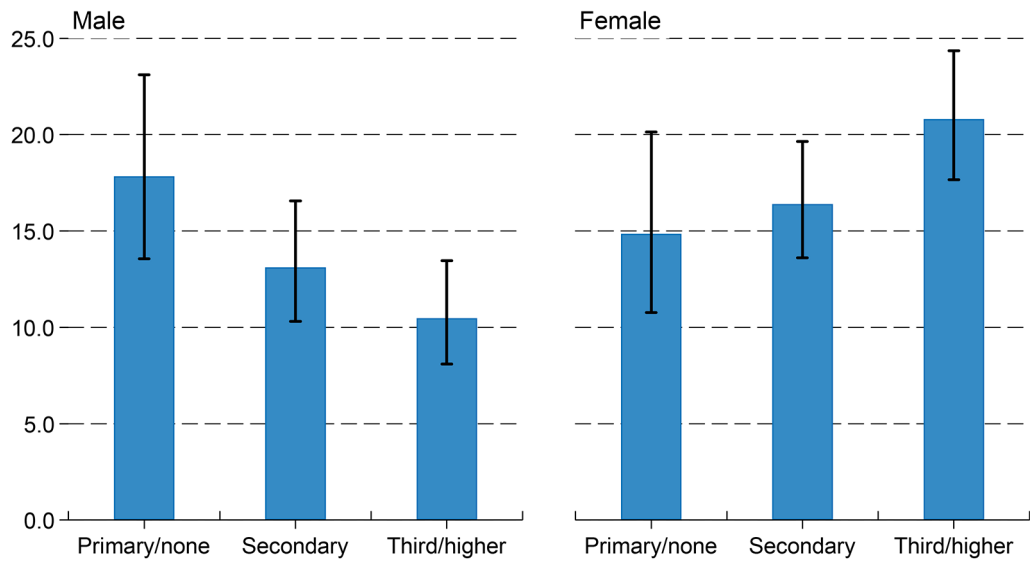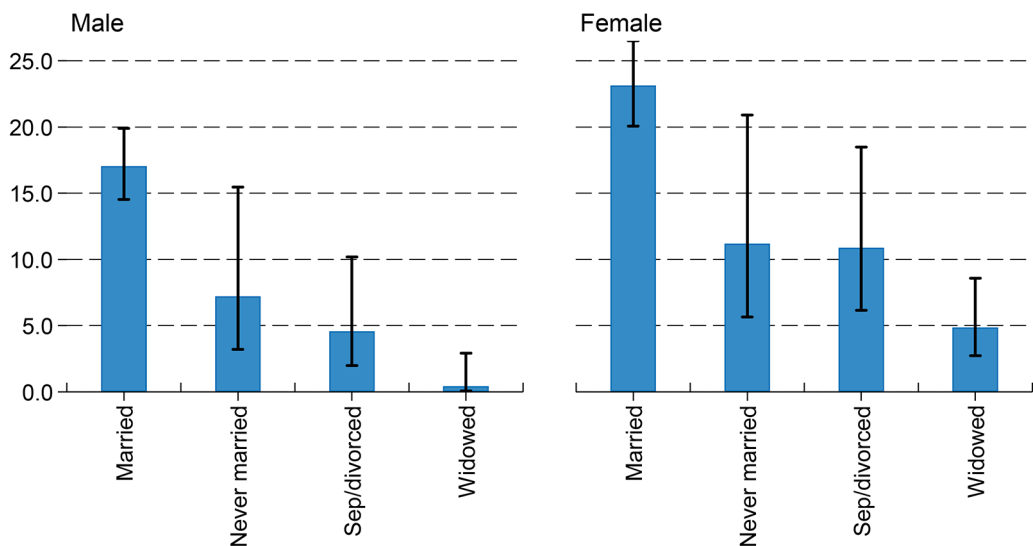*Figure 8.1. Proportion caring by educational attainment and sex*

Figure 8.2 shows that married men (17%) and women (23%) were more likely to report caring during the COVID-19 pandemic than those who were single, separated or divorced, or widowed.

Figure 8.2. Proportion caring by marital status and sex

Caring during the COVID-19 pandemic differed by area of residence. Women who lived in Dublin were more likely to report they had cared for someone during the pandemic (23%) compared to women (15%) and men (12%) who lived in a rural area (Figure 8.3). The proportion of men caring was similar for men in Dublin (16%) and in another town or city (18%).

Figure 8.3. Proportion caring by area of residence and sex
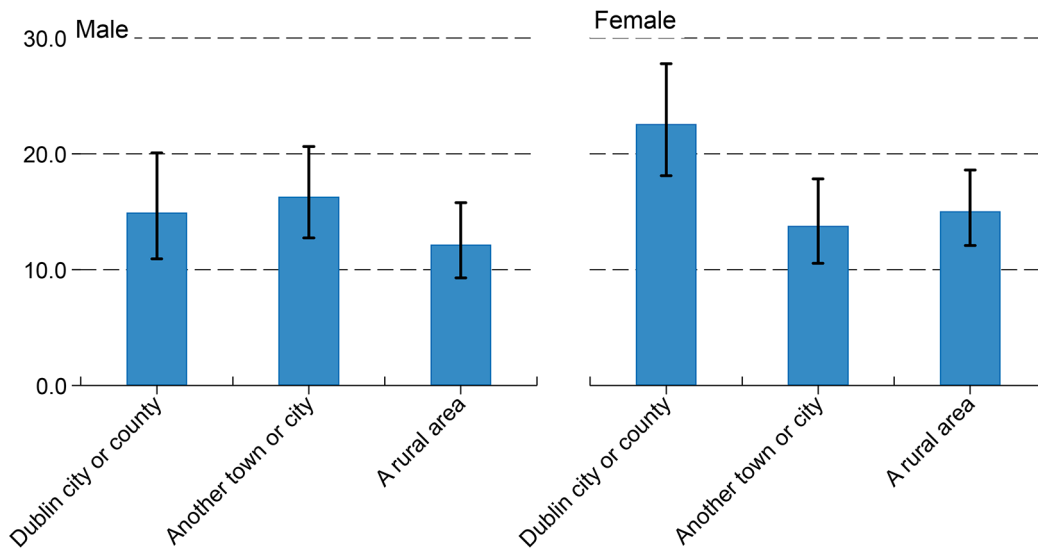
8.2.2 Sociodemographic characteristics associated with hours of caring

The average number of hours of care given in the last week was 53 hours. Figure 8.4 shows that most people providing care did so for between 1 and 49 hours in the past week. More than 50 hours of caring was also common however, particularly in the older age group. 26% of adults aged 60-69 years who provided care during the pandemic (25% of men and 27% of women) provided 50 or more hours in the last week. This proportion increased among adults aged 70 years and older who provided care during the pandemic, with 38% (41% of men and 36% of women) providing 50 or more hours in the last week (Figure 8.4).

Figure 8.4. Distribution of hours of caring for those who report caring by age group and sex
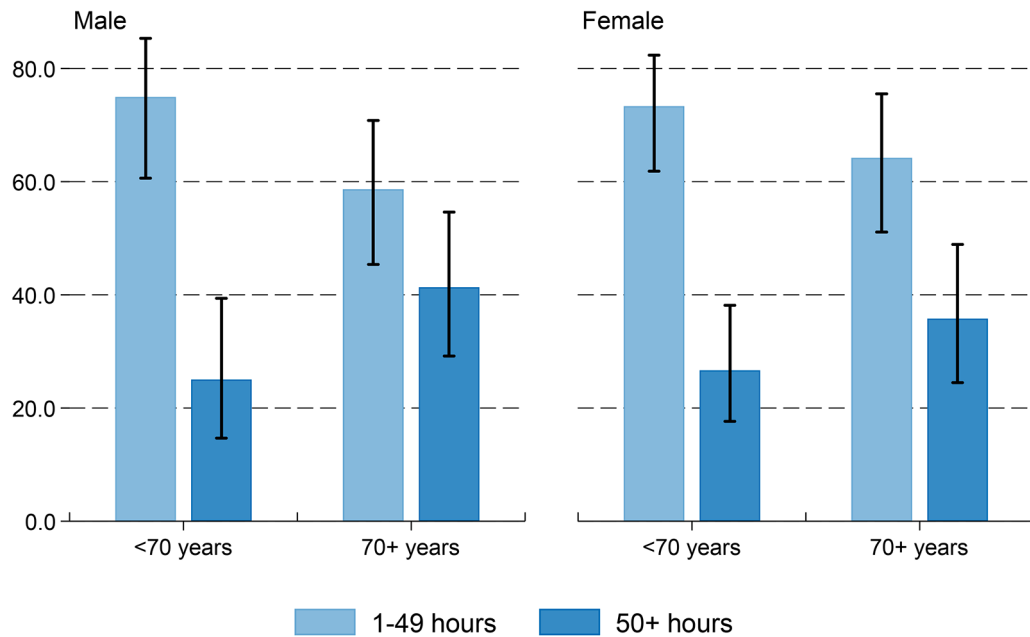

8.2.3 Relationship of carer to care recipient

We asked carers whom they provided care for, and Figure 8.5 shows that, for most carers, care was given to their spouse. The proportion of carers who provided care for their spouse increased from 48% of men and 43% of women aged 60 to 69 years to 88% of men and 71% of women aged 70 years and older.

Other family caring by those aged 60-69 years was provided for parents (15% of men, 14% of women) and other relatives (6% of men and 12% of women). Perhaps as expected, care was also provided by those aged 60-69 years for children (8% of men, 14% of women) and grandchildren (12% of men, 10% of women). Further, care was also provided for friends and neighbours and represented 10% of care provided from men and 6% of care from women aged 60-69 years.

A substantial proportion of care provided by women aged 70 years and older during the pandemic was also provided to children (10%) and grandchildren (14%).

*Figure 8.5. Relationship of care recipient to carer by age group and sex*
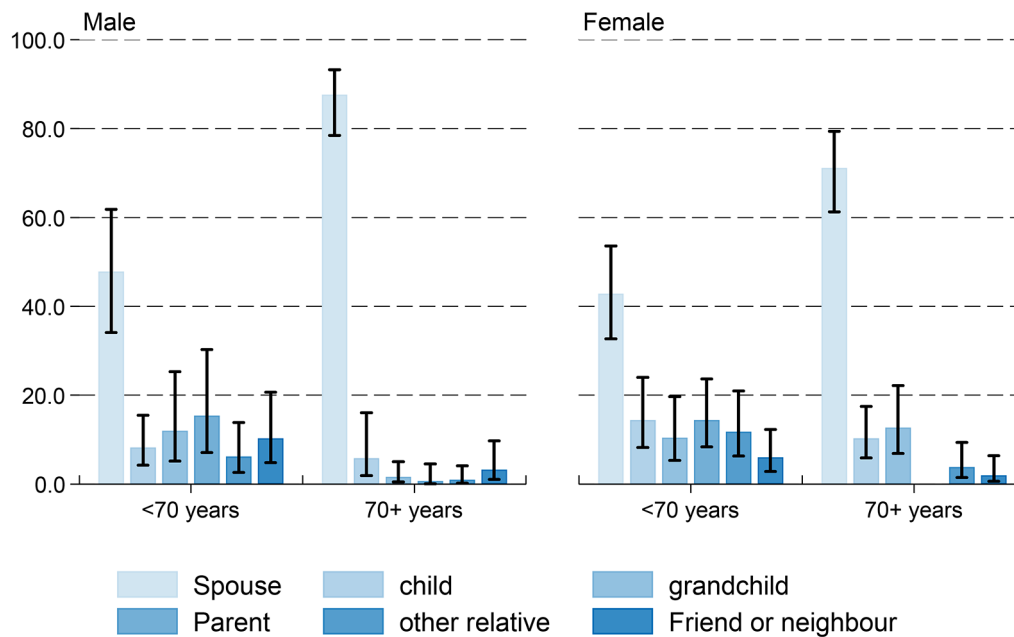
8.3   Change in caring status since Wave 5

Change in hours of caring was estimated by comparing reported caring hours during the COVID-19 pandemic with caring hours reported in the last TILDA wave in 2018 (Wave 5). Change in caring hours was grouped into four categories; No caring; No caring - Stopped since Wave 5; Continued to care; and New carer, defined as someone who reports caring during the COVID-19 pandemic who had previously not reported providing care in Wave 5.

### 8.3.1 Change in caring during the COVID-19 pandemic for carers from Wave 5

The proportion of the older population aged 60 years and over who report caring during the COVID-19 pandemic increased from 5% of men in Wave 5 to 14% during the pandemic and from 7% of women in Wave 5 to 17% during the pandemic. Overall, 84% of adults aged 60 years and older report no caring during the pandemic (4% were carers in Wave 5 but stopped being a carer), 2% continue to be a carer and 13% are new carers (Figure 8.4). The proportion of new carers is similar for men (12%) and women (14%) (Figure 8.6).

Figure 8.6. Change in caring hours for carers since Wave 5 by age group and sex
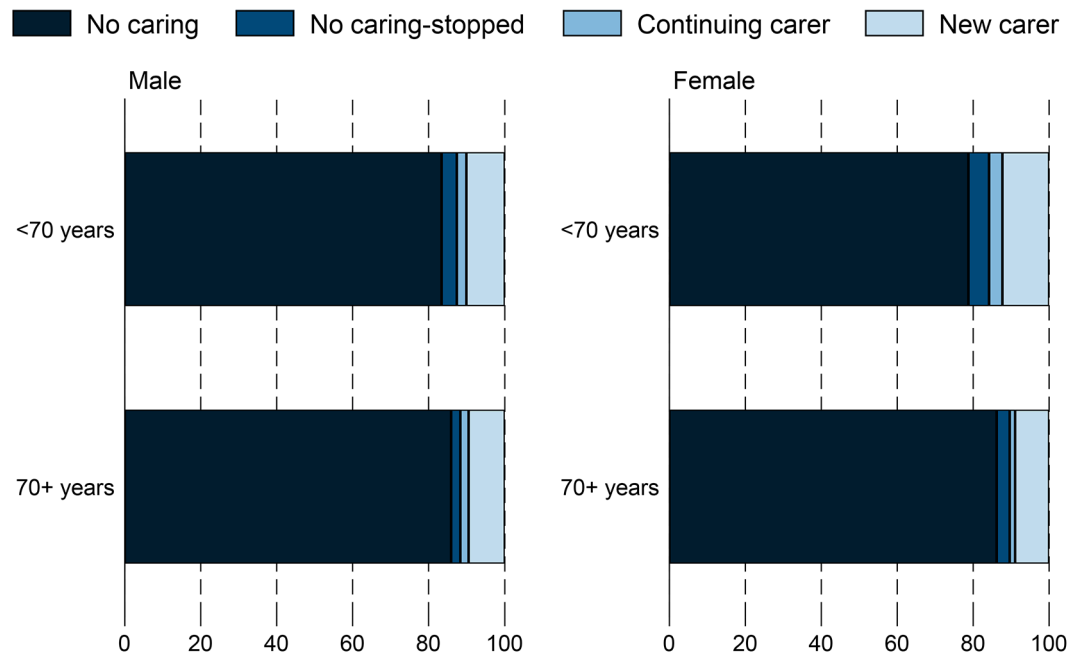
The proportion of carers who stopped caring during the COVID-19 pandemic was largest for men living in a rural area. Figure 8.7 shows that, overall, 4% of men living in a rural area stopped caring since Wave 5, while the proportion of men who stopped caring who lived in an urban area was 3%; 1% in a rural area report continuing caring, compared to 3% living in an urban area. A similar proportion report new caring however in both rural (11%) and urban (12%) areas. No differences in change of caring status by region of residence were seen in women. Four percent resident in rural areas and 5% of carers resident in urban stopped caring; 2% of women in rural and 3% in urban areas continued caring, while 13% of rural and 15% of urban women residents were new carers during the COVID-19 pandemic.

Figure 8.7. Change in caring hours since Wave 5 by area of residence and sex
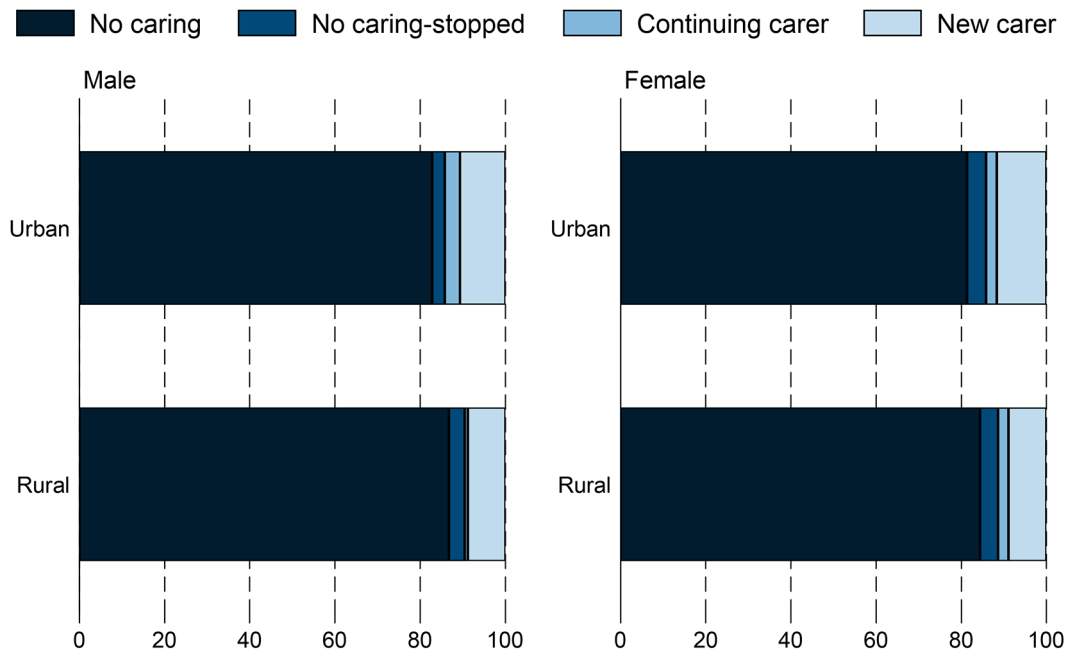
8.4   Wellbeing and mental health by caring status

A number of measures of wellbeing and mental health were collected in the COVID-19 SCQ. These measures are described in this section and examined by caring status. We present wellbeing and mental health measures for those who report no caring (combining those who didn't report caring previously and those who stopped caring since Wave 5), for continued caring and for new carers.

8.4.1 Quality of life by caring status

Quality of life is measured in TILDA using the 12-item self-report measurement, CASP-12. The scale covers the four domains (Control, Autonomy, Self-realisation, Pleasure) considered to encompass quality of life. Each item is summed to give an overall score (range 0 to 36), with higher scores indicating better quality of life.

Both men and women aged 70 years and older report a lower quality of life than those aged 60-69 years (26.2 CASP-12 score for 70 years and older compared to 27.4 for those aged 60-69 years). When new carers were compared with those who report no caring, men aged 70 years and older who reported being a new carer during the COVID-19 pandemic had a small but significantly lower quality of life score (24.7) than men who

did not report caring (26.9) (Figure 8.8). Men who continued to be a carer also had lower quality of life scores than those who reported no caring in this age group (24.6). These differences were not seen in women aged 70 years and older, with similar quality of life scores seen in each group: women who became a new carer (25.6), existing carers (27.7), and women who did not report caring (26.1).

*Figure 8.8. Quality of life (CASP-12) by caring status, age group and sex*
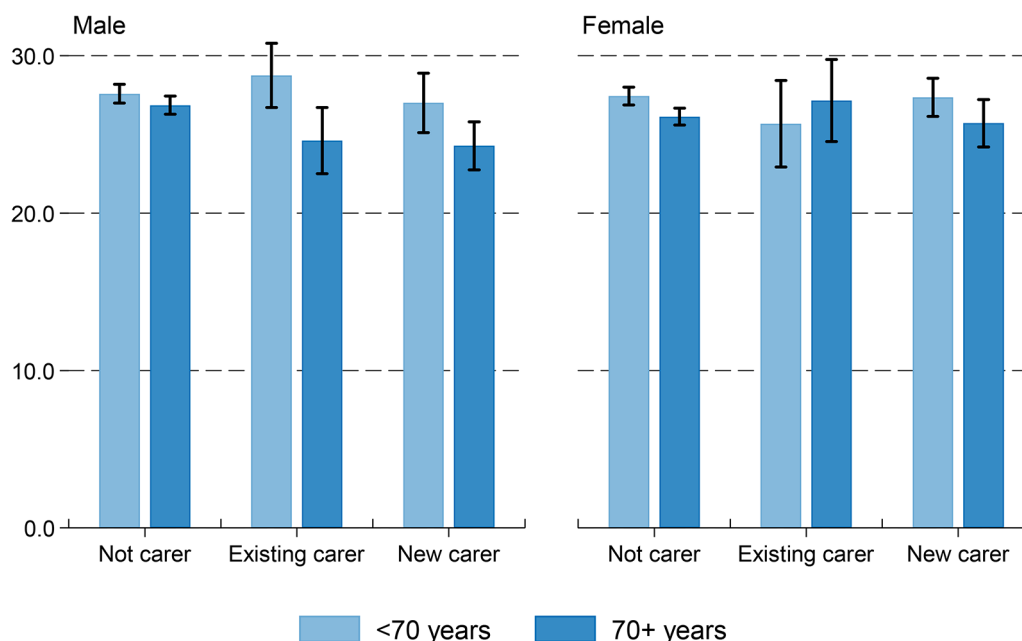
8.4.2 Purpose in life by caring status

Purpose in life was measured using Rhyff's scale. It is a 7-item scale scoring from 0-35. Higher scores indicate a person has a higher sense of purpose in life: has goals; has a sense of directedness; feels a meaning to past and present life and that life has purpose; and has aims and objectives for living.

Purpose in life score was lower in those aged 70 years and older, and this difference was seen in men, regardless of caring status. Figure 8.9 shows that this varied for women; women aged 70 years and older who continued to be a carer had a higher purpose in life than women in the same age group who did not report caring (25.6 PIL score compared to 22.1 for women who reported no caring and 22.3 for new carers). These differences were not seen for men or those aged less than 70 years.

*Figure 8.9. Purpose in Life by caring status, age group and sex*
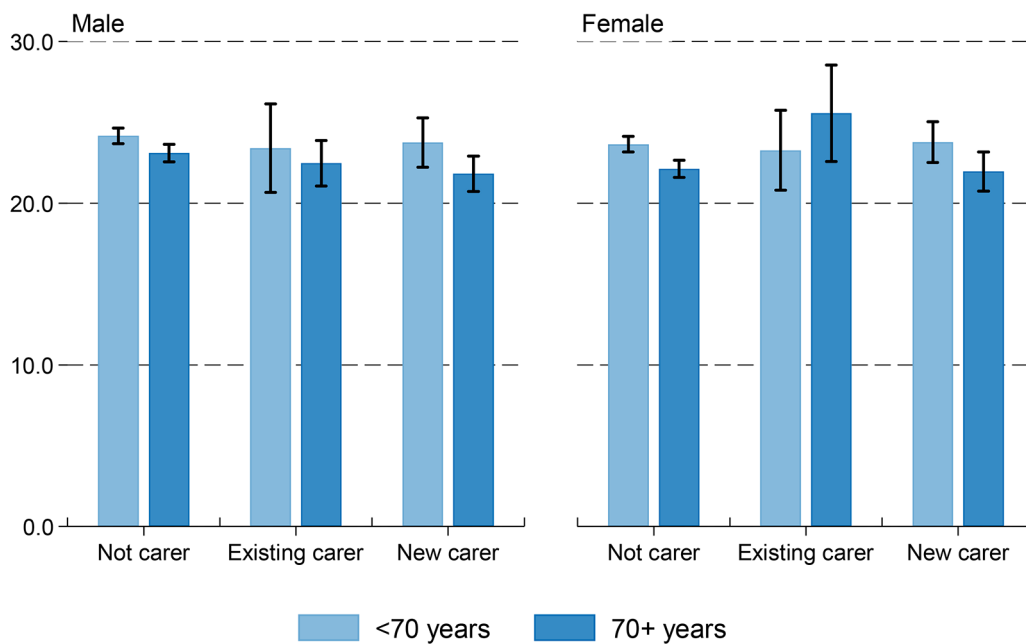
8.4.3 Depressive symptoms by caring status

Depressive symptoms were measured using the Centre for Epidemiological Studies Scale for Depression (CES-D8), an 8-item scale. This scale measures the frequency that participants have experienced a variety of depressive symptoms in the past week. The responses are summed to give a total score ranging 0-24, with higher scores indicating more depressive symptoms.

Men aged 70 years and older who report new caring during the COVID-19 pandemic have higher depressive symptoms (6.4 CES-D score) than men who do not report caring (4.7) or existing carers (5.7) (Figure 8.10). A similar increase in depressive symptoms was seen in women aged 70 years and older, with new carers having higher depressive symptoms (6.6) than women who were existing carers (5.3) or non-carers (5.8). There was no difference in depressive symptoms in men or women aged under 70 years by caring status.

Figure 8.10. Depressive symptoms (CES-D) by caring status, age group and sex
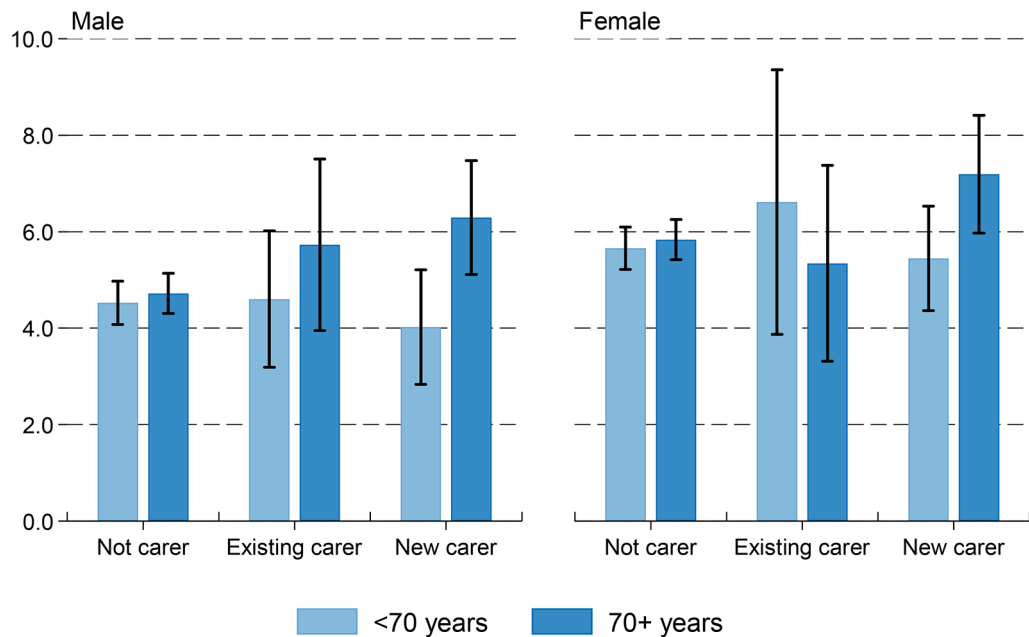
8.4.4 Perceived stress by caring status

The Perceived Stress Scale (PSS) is used for measuring the perception of stress. It is a measure of the degree to which situations in one's life are appraised as stressful. The questions in the PSS ask about feelings and thoughts during the last month. In each case, participants are asked how often they felt a certain way. The scale scores from 0-16, a higher score indicating more perceived stress.

Overall, perceived stress was relatively low, with an average score of 4.5 for men and 4.9 for women. Men aged 70 years and older who reported becoming a new carer had a higher perceived stress score (5.4) than men in the same age group who did not report caring (4.5) or existing carers (5.1). These differences were not seen for men aged 60-69 years or in women of either age group (Figure 8.11).

*Figure 8.11. Perceived Stress by caring status, age group and sex*
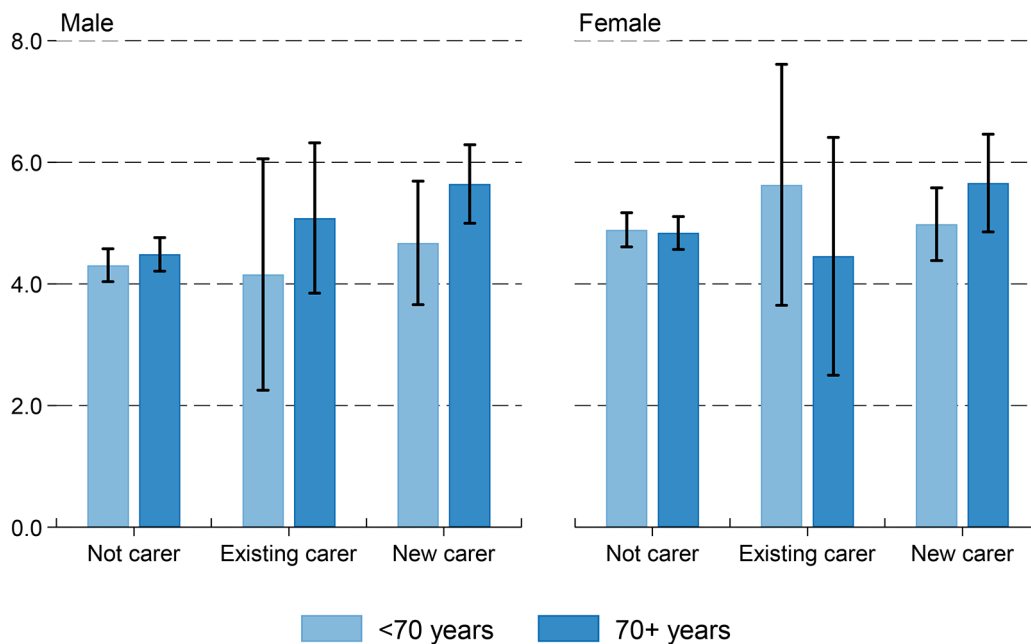
8.4.5 Generalised anxiety by caring status

Anxiety was measured using the Generalised Anxiety Disorder (GAD7) screening questionnaire. This is a 7-item measure that scores from 0-21, with higher scores indicating higher anxiety, and a score above 5 indicating mild to moderate anxiety.

Overall, anxiety was relatively low in the population aged 60 years and older, with an average score of 3.2 (sd 4.5). Figure 8.12 shows that women aged 70 years and older reporting new caring during the COVID-19 pandemic had higher anxiety scores than those who reported no caring: 4.4 GAD7 score compared to 3.3 in women who didn't care, and 4.8 in women who were existing carers, while there was no difference in anxiety scores in those aged 60-69 by caring status, or in men of either age group.

Figure 8.12. Generalised anxiety (GAD7) by caring status, age group and sex
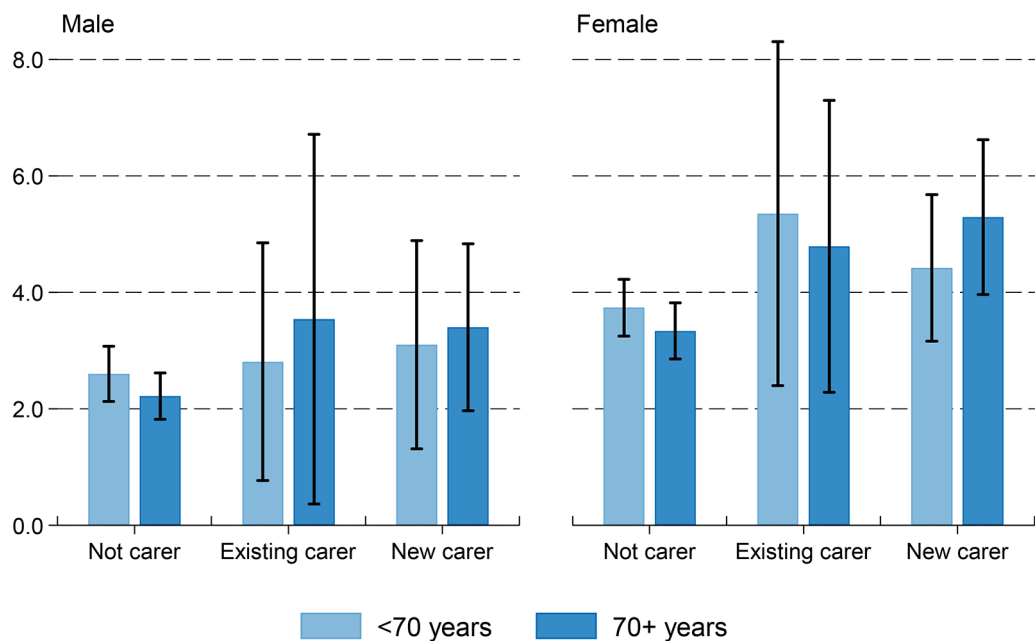
8.4.6 Self-rated mental health in carers

TILDA also asks participants to rate their mental health; options were: Excellent, very good, good, fair or poor. Most participants rate their mental health as Excellent/very good or good (81%) with 19% rating their health as fair or poor. This varied by sex and caring status. Figure 8.13 shows that a higher proportion of women (23%) reported their mental health as fair or poor than men (15%), and this was similar by caring status. Men who reporting becoming a new carer during the pandemic were however more likely to report their mental health as fair or poor (23%) compared to men who reported no caring (14%). These differences were not seen in women.

Figure 8.13. Self-rated mental health by caring status and sex
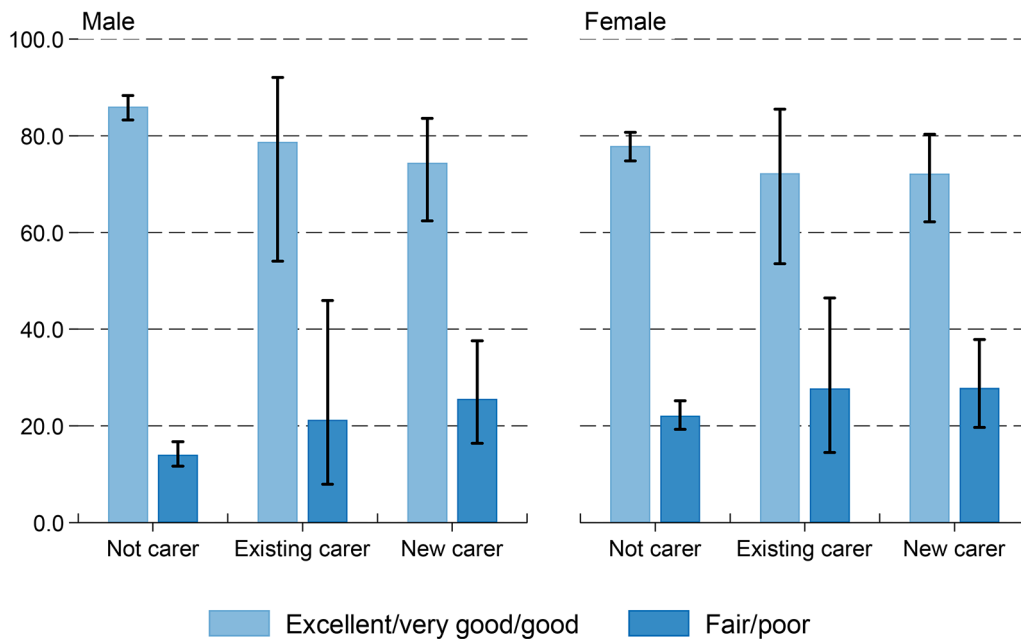
8.5   Discussion

We found that 15% of the older population report caring for someone during the COVID-19 pandemic. Overall, there have been important changes in the proportion of care that older people are providing, and, while one in four carers at Wave 5 (2018) report that they have stopped caring since the pandemic, a large proportion of those providing care are new carers (68% of men and 66% of women who report caring). As before the pandemic, a large proportion of care is provided for the family, although the proportion provided to children and grandchildren has decreased by 11% compared to prior to the pandemic (4). While most carers are caring for their spouse or another relative, 5% also report caring for someone outside of their family, either a friend or neighbour. Sociodemographic characteristics (marital status, educational attainment and area of residence) were related to prevalence of, and changes to, caring during the pandemic.

We find that continuing to be a carer is associated with higher purpose in life in women aged 70 years and older. This agrees with existing research that has also found that low-intensity caring is associated with better mental and physical health; research also shows there are a variety of positive gains from providing care and support for loved ones. (8, 9) We also however find some evidence that becoming a new carer was associated with poorer wellbeing and mental health outcomes in those aged 70 years and over, particularly

for men. A large proportion of older adults who report caring during the pandemic have taken on new duties for which they may be ill-equipped and unsupported. It is likely that the withdrawal of home supports provided by state or private firms, in addition to other family members (children or other relatives) no longer being able to travel and support their older family members due to travel and visiting restrictions during the pandemic, has contributed to increased caring within the home by the older population and to the expanded need for support.

A substantial proportion of those aged 70 years and older who are providing care are doing so at levels of high intensity, and this proportion has increased from previous years. Both our previous research and international research has found that higher levels of caring hours have been associated with poorer mental health and wellbeing outcomes. (4, 7, 10, 11)

Continued support is needed for family carers. The pandemic was unprecedented and could not have been adequately planned for; however, removing the availability of both formal and informal family care for older people through restricted movements and reducing contacts, and thus transferring that responsibility onto their older family household members, may have impacted badly on older people's wellbeing and mental health; and these negative effects were seen particularly in men. This may have added to the already increased burdens on wellbeing and mental health associated with loneliness and worry within this population in Ireland during the COVID-19 pandemic.

In conclusion, this chapter provides further evidence of the continued contribution of the older population to family caring. While becoming a new carer during the pandemic was associated with poor wellbeing and mental health outcomes in those aged 70 years and older, our previous findings suggest interventions to increase social inclusion of family carers and enhance home support through formal care mechanisms should reduce these negative effects on the wellbeing and health of carers. Investigating the impact of the pandemic and the role of changes in care provision, with the corresponding reduction in more rewarding grandchild care and other volunteering and social participation, on broader health and well-being outcomes for older people, is an important further investigation. It will provide an evidence base for policymakers to inform what areas should be prioritised to enable the older population to resume their positive and essential roles in our society.

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