



tilda

Staidéar Fadaimseartha na
hÉireann um Dhul in Aois

The Irish Longitudinal
Study on Ageing

Creative activity in the ageing population:

Findings from Wave 6 of The Irish
Longitudinal Study on Ageing



Cover picture: ‘Knitted Together’ are Grandmother, Monica Dunne and Grandchildren (Lucy age 9 & Billy Hayes age 5) as they launch the Kilkenny County Council Arts Office’s 2022 ‘Knitted Together’ project, which sees 100’s participants crocheting and knitting together creating bespoke blankets. The intergenerational aspect of the project ensures the sharing of skills and nurtures mutual respect. Further information: www.kilkennyartsoffice.ie

Credit photographer: Patrick Browne

Ladies with the blankets

Pictured: the Knitted Together Summer Social as part of Kilkenny County Council Arts Offices Knitted Together Project. Further information: www.kilkennyartsoffice.ie

Credit photographer: Dylan Vaughan

Image of lady knitting

Pictured: the Knitted Together Summer Social as part of Kilkenny County Council Arts Offices Knitted Together Project. Further information: www.kilkennyartsoffice.ie

Credit photographer: Dylan Vaughan

Three ladies with lady and a lanyard

Pictured: the Knitted Together Summer Social as part of Kilkenny County Council Arts Offices Knitted Together Project. Further information: www.kilkennyartsoffice.ie

Credit photographer: Dylan Vaughan

Image of lady with two children pulling a knitted scarf

Pictured: ‘Knitted Together’ are Grandmother, Monica Dunne and Grandchildren (Lucy age 9 & Billy Hayes age 5) as they launch the Kilkenny County Council Arts Office’s 2022 ‘Knitted Together’ project, which sees 100’s participants crocheting and knitting together creating bespoke blankets. The intergenerational aspect of the project ensures the sharing of skills and nurtures mutual respect. Further information: www.kilkennyartsoffice.ie

Credit photographer: Patrick Browne

All images of the men (except the man with the doctor at the end of the report and man standing at a podium with Meath County Council)

Pictured: Men from the Fen & Graiguenamanagh Men’s sheds. The men have created bespoke stools as part of the Kilkenny County Council Arts Offices Knitted Together Project. Further information: www.kilkennyartsoffice.ie

Credit photographer: Dylan Vaughan

Creative Activity in the Ageing Population:

Findings from Wave 6 of The Irish Longitudinal Study on Ageing

**Niamh Hennelly, Mark Ward, Siobhan Scarlett, Ann Hever, Deirdre O'Connor,
Christine McGarrigle, and Rose Anne Kenny**

The Irish Longitudinal Study on Ageing

On behalf of the TILDA team

June 2023

Copyright © The Irish Longitudinal Study on Ageing 2023

The Irish Longitudinal Study on Ageing
Trinity College Dublin
Dublin 2
Tel: +353 1 896 2509
Email: tilda@tcd.ie
Website: www.tilda.ie
ISBN: 978-1-907894-37-4
<https://www.doi.org/10.38018/TildaRe.2021-04>



Acknowledgements

We would like to acknowledge the collaboration and vision of Creative Ireland who commissioned and supported this report together with the funders of the TILDA, the Department of Health, the Health Research Board, The Atlantic Philanthropies, Science Foundation Ireland, and the National Institutes of Health and National Institute on Aging.

We would also like to state that any views expressed in this report are not necessarily those of any of the funders.

We would also like to thank the TILDA participants without whom this research would not be possible.



Contents

| | |
|---|----------|
| List of tables | 1 |
| List of figures | 2 |
| Executive summary | 3 |
| <hr/> | |
| 1: Introduction | 5 |
| 1.1 Aims | 7 |
| <hr/> | |
| Chapter 2: Methodology | 8 |
| 2.1 Data | 9 |
| 2.2 Study sample | 9 |
| 2.3 Participation in arts, creative and cultural activities | 9 |
| 2.4 Demographic characteristics | 12 |
| 2.5 Creative activity score | 12 |
| 2.6 Physical health | 13 |
| 2.6.1 Self-rated physical health, vision, and hearing | 13 |
| 2.6.2 Disability | 13 |
| 2.6.3 Chronic conditions | 13 |
| 2.6.4 Self-rated pain | 13 |
| 2.7 Quality of life | 13 |
| 2.8 Loneliness | 13 |
| 2.9 Mental health | 13 |
| 2.9.1 Depression | 14 |
| 2.9.2 Stress | 14 |
| 2.9.3 Worry | 14 |
| 2.10 Behavioural health | 14 |
| 2.10.1 Smoking | 14 |
| 2.10.2 Physical activity | 14 |
| 2.11 Statistical analysis | 14 |

Contents

| | | |
|-------------------|---|-----------|
| Chapter 3: | Older adults' participation in arts, creative and cultural activities | 15 |
| 3.1 | Participation in arts, creative and cultural activities by demographic characteristics | 16 |
| 3.2 | Participation in arts, creative and cultural activities by location | 18 |
| 3.3 | Association between participation in arts, creative and cultural activities, and demographic characteristics | 20 |
| 3.4 | Barriers to participating in arts, creative and cultural activities | 21 |
| 3.5 | Active and passive engagement with arts, creative and cultural activities | 23 |
| 3.6 | Type of arts, creative and cultural activities | 24 |
| 3.7 | Frequency of participating in arts, creative and cultural activities | 26 |
| 3.8 | Location of arts, creative and cultural activities | 26 |
| 3.9 | Participation companions | 27 |
| 3.10 | Reasons for participation in arts, creative and cultural activities | 29 |
| 3.11 | Participation in arts, creative and cultural activities across the life-course | 30 |
| Chapter 4: | Older adults' participation in arts, creative and cultural activities, and health outcomes | 31 |
| 4.1 | Association between participation in arts, creative and cultural activities, and physical health | 32 |
| 4.2 | Association between participation in arts, creative and cultural activities and quality of life, loneliness and mental health | 34 |
| 4.3 | Association between participation in arts, creative and cultural activities, and behavioural health | 35 |
| Chapter 5: | Exploration of the long-term associations between participation in arts, creative and cultural activities, and self-rated health and quality of life | 36 |
| 5.1 | Self-rated health | 39 |
| 5.2 | Quality of life | 39 |
| Chapter 6: | Conclusion | 41 |
| 6.1 | Participation rates in arts, creative and cultural activities at Wave 6 | 42 |
| 6.2 | Impact on quality of life and mental health | 42 |
| References | | 43 |
| Appendix | | 45 |

List of Tables

| | | |
|-----------|--|----|
| Table 2.1 | Demographic profile of sample | 12 |
| Table 3.1 | Multinomial logistic regression model showing association between participation in arts, creative and cultural activities, and demographic characteristics | 20 |
| Table 4.1 | Multinomial logistic regression showing the association between participation in arts, creative and cultural activities, and self-rated health | 32 |
| Table 4.2 | Logistic regression showing the association between participation in arts, creative and cultural activities, and self-rated vision | 32 |
| Table 4.3 | Logistic regression showing the association between participation in arts, creative and cultural activities, and self-rated hearing | 33 |
| Table 4.4 | Logistic regression showing the association between participation in arts, creative and cultural activities, and disability | 33 |
| Table 4.5 | Logistic regression showing the association between participation in arts, creative and cultural activities, and chronic conditions | 33 |
| Table 4.6 | Logistic regression showing the association between participation in arts, creative and cultural activities, and chronic pain | 34 |
| Table 4.7 | Regressions showing independent associations between participation in arts, creative and cultural activities, and mental health | 34 |
| Table 4.8 | Multinomial logistic regression showing associations between participation in arts, creative and cultural activities, and smoking | 35 |
| Table 4.9 | Multinomial logistic regression showing associations between participation in arts, creative and cultural activities, and smoking | 35 |
| Table 5.1 | Fixed-effects model showing long-term associations between participating in arts, creative and cultural activities, and self-rated health | 39 |
| Table 5.2 | Fixed-effects model showing long-term associations between participating in arts, creative and cultural activities, and quality of life | 39 |

List of Figures

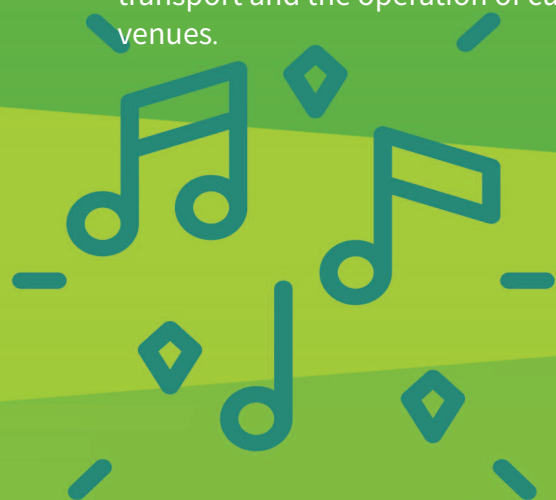
| | | |
|-------------|---|----|
| Figure 3.1 | Participation in arts, creative and cultural activities | 16 |
| Figure 3.2 | Participation in arts, creative and cultural activities by gender | 17 |
| Figure 3.3 | Participation in arts, creative and cultural activities by age group | 17 |
| Figure 3.4 | Participation in arts, creative and cultural activities by education level | 18 |
| Figure 3.5 | Participation in arts, creative and cultural activities by location | 18 |
| Figure 3.6 | Participation in arts, creative and cultural activities by county | 19 |
| Figure 3.7 | Barriers to participation in arts, creative and cultural activities | 21 |
| Figure 3.8 | Barriers to participation in arts, creative and cultural activities by gender | 22 |
| Figure 3.9 | The % who report there are no activities in their area, by household location - according to where they live | 22 |
| Figure 3.10 | Active and passive engagement in arts, creative and cultural activities | 23 |
| Figure 3.11 | Active and passive engagement in arts, creative and cultural activities by gender | 24 |
| Figure 3.12 | Type of arts, creative and cultural activities | 25 |
| Figure 3.13 | Type of arts, creative and cultural activities by gender | 25 |
| Figure 3.14 | Frequency of participation in arts, creative and cultural activities | 26 |
| Figure 3.15 | Location of arts, creative and cultural activities | 27 |
| Figure 3.16 | Participation companions in arts, creative and cultural activities | 28 |
| Figure 3.17 | Participation companions in arts, creative and cultural activities by gender | 28 |
| Figure 3.18 | Reasons for participation in arts, creative and cultural activities | 29 |
| Figure 3.19 | Participation in arts, creative and cultural activities across the life-course | 30 |
| Figure 5.1 | Creative activity score by wave | 37 |
| Figure 5.2 | Creative activity score by tertiles for Wave 1, Wave 3, and Wave 6 | 37 |
| Figure 5.3 | Mean CASP-12 quality of life score by wave | 38 |
| Figure 5.4 | Self-rated health by wave | 38 |
| Figure 5.5 | Long-term associations between participating in arts, creative and cultural activities, and quality of life by wave | 40 |




Executive Summary

The following report provides a comprehensive analysis of the participation of older adults in arts, creative, and cultural activities in Ireland using data from Wave 6 of the Irish Longitudinal Study on Ageing (TILDA), a nationally representative study of older adults living in Ireland. The report examines the associations between participation in these activities and physical, mental, and behavioural health outcomes, as well as the long-term benefits of participation. It builds on a previous TILDA report, 'Creative Activity in the Ageing Population' (1), by exploring engagement, motivations, and barriers to participation and the long-term relationship between participation, health, and quality of life. Data were collected between March 2021 and January 2022 during the COVID-19 pandemic when a number of public health measures were in place in Ireland that imposed restrictions on social gatherings, events, transport and the operation of cultural venues.

Key findings

- Participation in arts, creative and cultural activities is associated with higher quality of life and lower levels of depression, stress, worry and loneliness
- Older adults who have previously participated but no longer do, report lower levels of quality of life and higher levels of depression and loneliness compared to those who currently participate
- Older adults who have never participated report lower quality of life and higher levels of stress and worry compared to those who currently participate
- There are long-term associations between higher quality of life and participation
- Women are more likely to participate in arts, creative and cultural activities than men, with 62% of women current or past participants compared to 46% of men
- Higher education attainment is associated with participation. Older adults with third level education are over five times more likely to participate compared to those with primary level education
- Participation rates are highest in Dublin city and county and lower in more rural counties such as counties Kerry, Cavan, Monaghan, and Westmeath
- The most popular type of arts, creative and cultural activity was listening to, playing or teaching music, with 52% of participants engaging in this activity
- The strongest motivation for participation was interest in the activity, followed by enjoyment/fun and then social aspects/benefits
- The most frequent location for participation was a private home followed by community centres





Overall, this report provides valuable insights into the participation of older adults in arts, creative, and cultural activities in Ireland and the potential benefits for their health and wellbeing. It highlights the need for continued support and investment in programmes and initiatives that promote engagement in these activities among older adults. It found that those who participate in these activities experience higher quality of life and lower depression, stress, worry and loneliness compared to older adults who do not. It also provides insights into the frequency and location of participation, as well as the reasons for participation. The data contained in this report may be useful in designing policies and programmes to support greater participation amongst men, older adults with different levels of education attainment, and those living in more rural areas. These findings show the importance of participation on the quality of life and mental wellbeing in older adults, and the importance of supporting older adults to remain engaged with arts, creative and cultural activities.



Introduction

1



Chapter 1 Introduction

Across the life-course, engagement with arts, creative and cultural activities is considered particularly important to a persons' wellbeing. These activities provide older adults with the opportunity to express themselves, to socialise with others, and to find purpose in such activities. There is evidence that engagement with arts, creative and cultural activities is important to supporting the health and wellbeing of younger (2), as well as older adults (1, 3). In this report, we describe participation in arts, creative and cultural activities among older adults in Ireland. To do so, we use data from Wave 6 (2021) of the Irish Longitudinal Study on Ageing (TILDA), a nationally representative study of community-dwelling older adults.

Data collection took place between March 2021 and January 2022, during a time of COVID-19 related public health measures and restrictions. Ireland implemented five levels of restrictions that imposed rules on social gatherings, events, public transport, and indoor cultural venues. Most of this period was spent between mid to full lockdown (levels 3 to 5), with easing to level 2 during the summer months. This impacted arts, creative and cultural activities, with events and gatherings restricted across all levels.

A previous report, using information from Wave 5 (2018) of TILDA, found that older adults who participated in arts, creative and cultural activities reported a higher quality of life and were less likely to be depressed, lonely or stressed compared to those who did not participate (1). A systematic review of studies internationally on arts and creativity in later life reported similar findings with participation being important in the promotion of good health and the prevention or mitigation of ill-health (3). Research from the English Longitudinal Study of Ageing (ELSA) found that numerous types of cultural engagement are associated with a slower decline in cognition (4), a lower risk of dying (5), a lower risk of developing depression (6), lower odds of loneliness (7), and in some instances enhanced or greater well-being (8). One Irish study found that older set dancers were more likely to report better balance, functional capacity and quality of life (9), while another study found that a dance programme for older adults enhanced participants perceived physical abilities, emotional and psychological wellbeing (10). While these findings suggest that participation may benefit health, there is also evidence that poor health may negatively impact participation rates. A study of older adults (65 years and over), who had been admitted to an acute hospital in Ireland, found that their attendance at art events and participation in cultural activities had dropped in the 12 months prior to their admission to hospital (11).

Established in 2017, Creative Ireland is an all-of-government culture and wellbeing programme committed to providing everyone the opportunity to realise their full creative potential. To achieve this goal, Creative Ireland partner with local and national organisations to provide opportunities for individuals and communities to engage in creative activities. As part of their programme of work, Creative Ireland support several programmes targeted specifically at older adults (12). These programmes include the Creativity in Older Age Scheme; several Age Friendly Ireland Programmes organised through local authorities; community choirs for older adults; and other local programmes, such as Hearth (a Mayo based arts programme for older adults); The Creative Life Centre (St James's Hospital, Dublin); and Arts for Health West Cork (13). In Ireland, there is also an annual arts and creativity festival for older adults, called Bealtaine. An evaluation of Bealtaine found that the majority of participants reported improved quality of life and mentioned physical, psychological, and social benefits from engaging with the festival (14). Some arts programmes for older adults are run in healthcare settings such as the Artist in Residence in a Care Setting Initiative (ARCS) (15) and the Creative Exchanges programme which provides training courses on the arts for co-ordinators in care settings (16). In addition, other studies have examined arts-based interventions for older adults after hospitalisation (17), music programmes for people with dementia in hospital (18), as well as the perceptions of healthcare staff on the effectiveness of music-based therapy for older adults in healthcare settings (19).

An operational definition of the arts is difficult to agree (2). The concept is broad, far reaching, and involves a wide range of different artistic, creative, and cultural endeavours, both active and passive. Participants were provided with the following definition of arts, creative and cultural activities: *music, visual art, photography, creative writing, poetry, dance, film, drama, craftwork, singing, pottery, visits to museums/gallery's/heritage sites, etc.* Active and passive participation were defined as: *active participation can involve making, doing, creating, playing, dancing, writing. Passive participation can involve watching, looking at, listening to.* There is a limited amount of research about older adults' experiences of creativity in Ireland, particularly outside of healthcare settings. This publication reports findings from Wave 6 (2021) of TILDA which includes an additional ten questions focused on older adults' participation in arts, creative and cultural activities. This additional data are vital to understanding in more detail the experiences of older adults, and in providing valuable information to support policies, programmes and initiatives in relation to creativity in later life.



1.1 Aims

- To describe the participation of older adults in arts, creative and cultural activities in Ireland.
- To examine the association between participation in arts, creative and cultural activities and the physical, mental and behavioural health of older adults in Ireland.
- To explore the long-term benefits of participation in arts, creative and cultural activities, and self-rated health and quality of life of older adults in Ireland.

Methodology

2



Chapter 2: Methodology

2.1 Data

TILDA is a longitudinal study of community dwelling adults aged 50 years and over in Ireland. The first wave of TILDA was collected in 2009/2010. TILDA has a two-stage sampling design, firstly geographic clusters were chosen, then households from within those clusters were chosen randomly using the Geodirectory in Ireland (20). Wave 6 data included in this report were collected between March 2021 and January 2022. Restrictions resulting from the COVID-19 pandemic meant that Wave 6 was conducted via computer-assisted telephone interviews (CATI) by trained interviewers, instead of face to face interviews. A self-completion questionnaire (SCQ) that contained questions on participation in arts, creative and cultural activities was posted out to participants to complete in their own time.

2.2 Study sample

The study sample for Chapters 3 and 4 is based on participants who returned the SCQ (n=3,299). At the time, the cohort had not been refreshed for those aged 50 to 60, so the study sample for Chapters 3 and 4 is aged 60 and over. The study sample used in Chapter 5 includes participants from all six waves of TILDA aged 50 and over who completed SCQs in Wave 1 (n=7,543). The sample size varies across waves due to attrition and missing responses.

2.3 Participation in arts, creative and cultural activities

In Wave 6 of TILDA an additional ten questions were added to the SCQ to assess active and passive participation in arts, creative and cultural activities and were drawn up in consultation with Creative Ireland. Participants were given first given a definition of arts, creative and cultural activities as *'music, visual art, photography, creative writing, poetry, dance, film, drama, craftwork, visits to museums, galleries or heritage sites, singing, pottery, etc.'* Active and passive participation were then defined as *'active participation can involve making, creating, playing, moving/dancing, writing, etc. passive participation can involve watching, looking at, listening to, etc.'*

Participants are then asked the following ten questions:

1. Do you participate in any arts / creative / cultural activities?

- ☐ No, I have never participated
- ☐ No, but I have previously participated
- ☐ Yes

2. If you stated that you never or previously participated in arts, creative or cultural activities, what were your reasons for not participating or stopping your participation?

- ☐ Accessibility issue
- ☐ Cost
- ☐ Lack of experience
- ☐ Time/day/duration didn't suit
- ☐ Not enough time
- ☐ Other, please specify
- ☐ Cognitive issue
- ☐ Lack of transport to venues
- ☐ Lack of confidence
- ☐ I'm not interested
- ☐ Nothing available in my area

3. If you currently participate in arts, creative or cultural activities, what kind of participation is this?

- ☐ Passive (i.e., watching, looking at, listening)
- ☐ Active (i.e., making, doing, creating, playing, moving/dancing, writing)

4. Which arts, creative or cultural activities do you participate in?

- ☐ Playing/ listening to/ teaching music
- ☐ Photography
- ☐ Writing/reading poetry
- ☐ Film
- ☐ Drama/theatre
- ☐ Singing
- ☐ Other (please specify)
- ☐ Visual Art (painting, drawing, collage, textile, etc)
- ☐ Literature/ creative writing/Reading
- ☐ Dance
- ☐ Craftwork (needlework, knitting, crochet, embroidery, cross-stitch etc)
- ☐ Visiting museums, galleries, or heritage sites
- ☐ Pottery

5. How often do you participate in arts, creative or cultural activities?

- ☐ Daily/ almost daily
- ☐ Once a week or more
- ☐ Twice a month or more
- ☐ About once a month
- ☐ Every few months
- ☐ About once or twice a year
- ☐ Less than once a year

6. Where do you participate in arts, creative or cultural activities?

- ☐ Arts Centre
- ☐ Theatre
- ☐ Hotel
- ☐ Museum
- ☐ Heritage Site
- ☐ Online
- ☐ Community Centre
- ☐ Cinema
- ☐ Library
- ☐ Gallery
- ☐ Private home (own or other)
- ☐ Other, please specify

7. If you do not currently participate in arts, creative or cultural activities online, would you participate if you were resourced to do so (e.g. provided with materials, equipment, training)?

- ☐ Yes
- ☐ No

8. Who do you participate with in arts, creative or cultural activities?

- ☐ On my own
- ☐ As part of an organised group
- ☐ With family/friends on a casual basis
- ☐ Other, please specify

9. Please circle a number from 1 to 10 to rate how important each of the following items are in motivating you to participate in arts, creative or cultural activities

- ☐ Enjoyment/fun
- ☐ Social aspects/benefits
- ☐ Discovery/to learn a new skill
- ☐ Autonomy/feeling of independence
- ☐ Interest in the activity
- ☐ Passion for the arts, creative and cultural activities
- ☐ Venue familiarity (accustomed to attending/feel welcome)
- ☐ Word of mouth-activity was recommended to you
- ☐ Having a routine/structured activity to engage in
- ☐ Employment opportunities

10. During which periods in your life have you participated in arts, creative or cultural activities?

- ☐ Young (up to 14 years)
- ☐ Young adult (15-24)
- ☐ Adult (25-44 years)
- ☐ Mid-life (45-64 years)
- ☐ Older adult (65+ years)

2.4 Demographic characteristics

The socio-demographic indicators included in this report shown in Table 2.1. These are gender (male or female), education level (primary/none, second or third/higher level), age (both continuous and categorised into those aged 60-69 or 70 and over), location of residence (Dublin city or county, another town or city or a rural area), and employment status (employed, retired, other (looking after home or family/unemployed/permanently sick or disabled/in education or training)).

Table 2.1 Demographic profile of sample

| | |
|-------------------------------------|-------------|
| Age, mean (SD) | 71.6 (7.5) |
| Age Group, % (n) | |
| 60-69 | 44% (1,461) |
| 70+ | 56% (1,838) |
| Gender, % (n) | |
| Male | 48% (1,411) |
| Female | 52% (1,888) |
| Education Level, % (n) | |
| Primary/none | 21% (509) |
| Secondary | 47% (1,335) |
| Third/higher | 32% (1,455) |
| Location of residence, % (n) | |
| Dublin city or county | 27% (859) |
| Another town or city | 30% (917) |
| A rural area | 43% (1,523) |
| Employment status, % (n) | |
| Employed | 20% (690) |
| Retired | 64% (2,134) |
| Other | 16% (473) |

2.5 Creative activity score

While the new set of questions in Wave 6 asks specifically about participation in arts, creative and cultural activities, in order to compare participation in arts, creative and cultural activities across all waves, a composite measure was created. This is the same composite measure, called the creative activity score, as used in a previous TILDA report on arts, creative and cultural activities (1). In the SCQ participants are asked about how often they participate in a variety of different arts, creative and cultural activities including:

- Go out to films, plays and concerts
- Reading books or magazines for pleasure
- Listening to music, radio
- Spending time on hobbies or creative activities

A creative activity score was created by summing up the frequency participants were engaged with an activity. If they said they never participated they received a score of zero, while those who participated 'daily/almost daily' received a score of seven. The total score can range between zero to 28, a higher score indicating higher levels of participation in arts, creative and cultural activities. Next, this score is split into tertiles, reporting low, moderate, and high activity.

2.6 Physical health

2.6.1 Self-rated physical health, vision, and hearing

As part of the CATI, participants are asked to rate their physical health, vision, and hearing. They could choose excellent, very good, good, fair, or poor. For the analysis these are grouped into two categories: either excellent/very good/good, or fair/poor.

2.6.2 Disability

Disability is defined as reporting at least one difficulty with activities of daily living (ADLs) or instrumental activities of daily living (IADLs). ADLs refer to needing support with walking across a room, dressing, bathing, eating, getting in and out of bed, and using the toilet. IADLs refer to needing support with preparing meals, shopping for groceries, making telephone calls, taking medications, and managing money.

2.6.3 Chronic conditions

Participants are asked if they have been diagnosed by a doctor with any chronic condition. Participants were recorded as having either none or 1 or more of the following conditions chronic conditions:

- | | |
|-----------------|-----------------------|
| ■ Angina | ■ High Blood Pressure |
| ■ Asthma | ■ High Cholesterol |
| ■ Arthritis | ■ Hip Fracture |
| ■ Cancer | ■ Lung Disease |
| ■ Cataracts | ■ Osteoporosis |
| ■ Diabetes | ■ Parkinson's Disease |
| ■ Heart Attack | ■ Stroke |
| ■ Heart Failure | ■ Ulcer |

2.6.4 Self-rated pain

Participants are asked if they experience any pain, and if they do to rate this pain as mild, moderate or severe. These answers are then categorised into a binary variable of none/mild or moderate/severe pain.

2.7 Quality of life

For quality of life a 12-item version of the CASP tool is used (CASP-12) (21). Participants are asked 12 questions about quality of life, and these are scored on a four-part Likert scale. Responses are summed together for an overall quality of life score; scores range from 0 to 36 with a higher score indicating greater quality of life.

2.8 Loneliness

Loneliness is measured using the University of California-Los Angeles (UCLA) Loneliness Scale (22). Participants are asked five questions around loneliness with responses scaled on a three-point Likert scale. These scores are summed together for an overall loneliness score, with a range from 0-10, a higher score indicates higher levels of loneliness.

2.9 Mental health

To assess mental health several different indicators are used, namely depression, stress, and worry.

2.9.1 Depression

Reporting of depressive symptoms is measured using an eight-item modified version of the Center for Epidemiological Depression Studies (CESD-8) Scale (23). Participants rate their responses on a three-point Likert scale. Responses are summed together for an overall score, ranging from 0-24. A higher score indicates the presence of more symptoms of depression.

2.9.2 Stress

Stress is measured using the Perceived Stress Scale (PSS-4) (24). Participants are asked four questions, grading each response on a five-point Likert scale. Responses are summed together for an overall score ranging from 0-16. A higher score indicates higher levels of stress.

2.9.3 Worry

Worry is measured using the Penn State Worry questionnaire (25). Participants are asked eight questions, grading each response on a five-point Likert scale. These are summed together for an overall score ranging from 8-40. A higher score indicates stronger feelings of worry.

2.10 Behavioural health

For behavioural health two different indicators are used smoking and physical activity.

2.10.1 Smoking

Smoking status is self-reported with participants grouped as either current smokers or past/non-smokers.

2.10.2 Physical activity

Physical activity is assessed using the Short Form International Physical Activity Questionnaire (IPAQ) (26, 27). Participants are asked about the amount of time spent walking or in another type of moderate or vigorous activity and the frequency of this activity (the number of days). This is then weighted according to the intensity of the activity, and the time spent engaged in this activity is calculated as MET-minutes (Metabolic Equivalent of Task: which uses estimates of the metabolic rate to measure energy expenditure) (20). This is then categorised as low, moderate, or high.

■ High Activity:

- ≥1500 MET-minutes with 3 or more days of vigorous activity or
- ≥3000 MET-minutes of combined activity for 7 days

■ Moderate Activity:

- ≥20 minutes vigorous activity for more than 3 days or
- ≥30 minutes combined walking and moderate activity for at least five days or
- ≥600 metabolic minutes of any combination of activity for at least five days

■ Low Activity:

- None of the criteria for either high or moderate activity

2.11 Statistical analysis

Survey weights are applied to the data to ensure that the sample is nationally representative of adults aged 60+ (20, 28). Descriptive statistics are presented with 95% confidence intervals (CI). This can be interpreted as a 95% chance that the sampled confidence interval includes the true population value. For chapters 3-4, to explore associations between participation in arts, creative and cultural activities and socio-demographic, health and wellbeing factors, linear regressions and multinomial logistic regression analyses were conducted (29). For the analysis in Chapter 5, multilevel fixed effects models were used (30). These models account for individual level heterogeneity (i.e. differences within individuals over time) as the same individual is observed over six waves of data collection from 2009-2021 (31). For the analysis on self-rated health and quality of life in Chapter 5, the following indicators are including in both regressions: chronic conditions, age, age², gender, education, and location as well as an interaction term between the waves and the creative activity tertiles. All analyses were conducted in Stata 15.1 (32).

Older adults' participation in arts, creative and cultural activities

3



Chapter 3: Older adults' participation in arts, creative and cultural activities

This chapter presents findings on the socio-demographic characteristics of older adults who take part in creative activities.

3.1 Participation in arts, creative and cultural activities by demographic characteristics

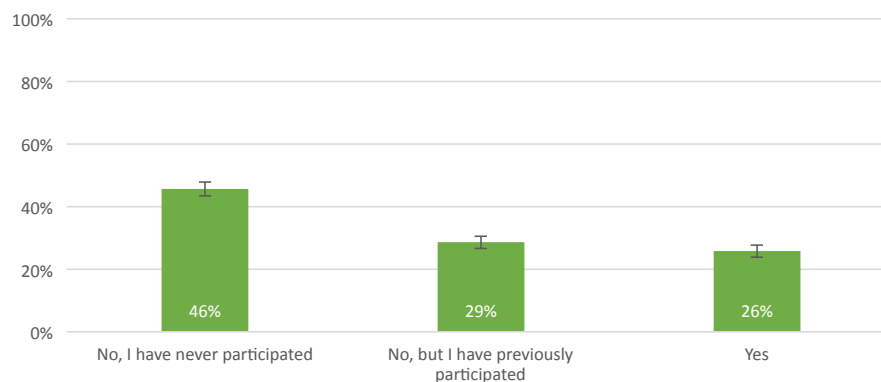
This section examines participation rates in arts, creative and cultural activities. Participants were given the following definition of arts, creative and cultural activities: *'these include music, visual art, photography, creative writing, poetry, dance, film, drama, craftwork, singing, pottery, visits to museums/galleries/heritage sites, etc.'*

Participants are then asked: "Do you participate in any arts, creative or cultural activities?"

- No, I have never participated
- No, but I have previously participated
- Yes

Figure 3.1 shows that 46% of participants have never participated in any arts, creative and cultural activities, 29% had participated previously, and 26% currently participate.

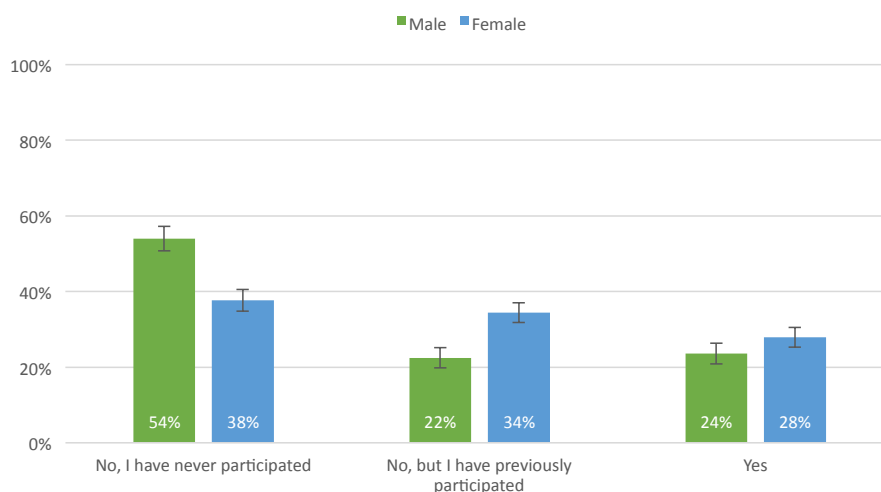
Figure 3.1 Participation in arts, creative and cultural activities



*Note: The data in this figure includes the entire study sample of 3,299 (n=3,080: missing=219).

Figure 3.2 presents participation rates by gender. Fifty-four percent of men had never participated compared to 38% of women; 22% of men had previously participated compared to 34% of women; and 24% of men and 28% of women report that they currently participate.

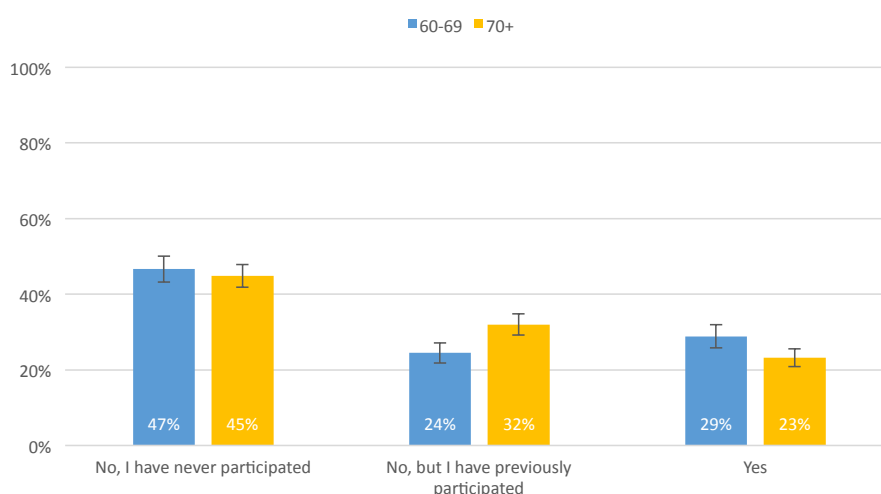
Figure 3.2 Participation in arts, creative and cultural activities by gender



*Note: The data in this figure includes the entire study sample of 3,299 (n=3,080: missing=219).

Figure 3.3 presents participation by age group. Of those aged 60-69, 47% had never participated compared to 45% of those aged 70+. Twenty-four percent of those aged 60-69, had previously participated compared to 32% of those aged 70+. Twenty-nine percent of those aged 60-69 currently participate compared to 23% of those aged 70+. The only difference between the age groups that participants aged 70+ were significantly more likely than younger participants to report that they had previously participated but no longer do.

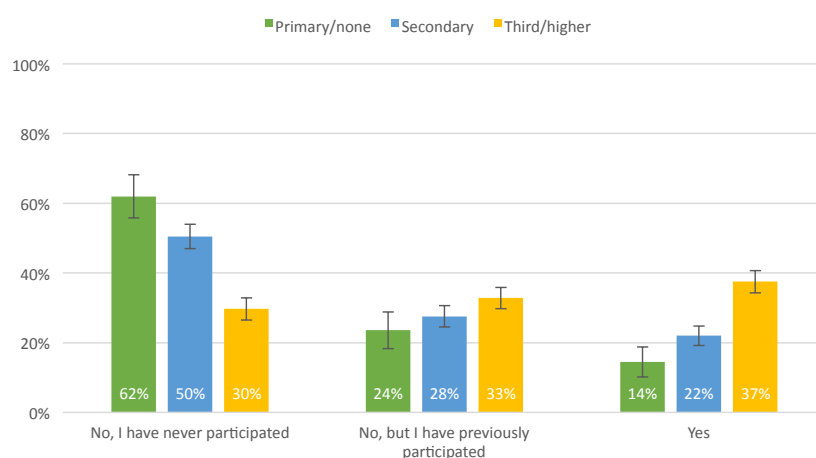
Figure 3.3 Participation in arts, creative and cultural activities by age group



*Note: The data in this figure includes the entire study sample of 3,299 (n=3,080: missing=219).

Figure 3.4 presents participation by education level. There are significant differences in participation rates between the three groups, with those with third level education reporting the highest levels of participation. Sixty-two percent of those with primary level education reported that they never participated in arts, creative and cultural activities, compared to 50% of those with second level education and 30% of those with third level education. Twenty-four percent of those with primary level education had previously participated, compared to 28% of those with second level education and 33% of those with third level education. Fourteen percent of those with primary level education, 22% of those with second level education and 37% of those with third level education reported that they currently participate. The differences between primary and third level education were statistically significant for each group.

Figure 3.4 Participation in arts, creative and cultural activities by education level

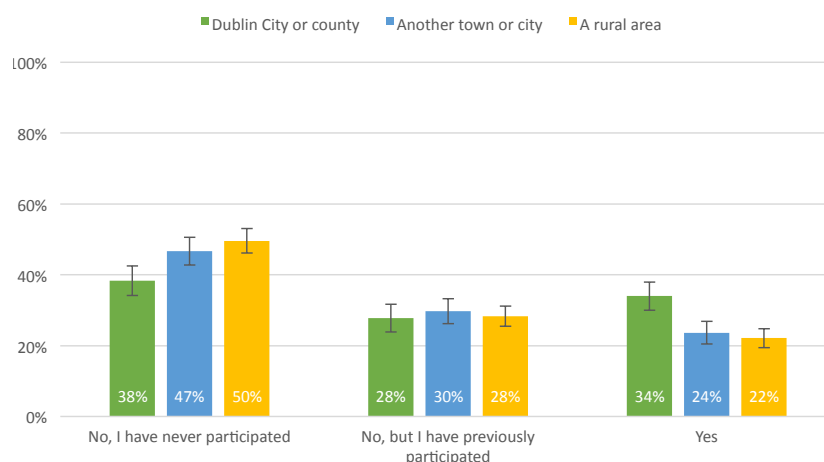


*Note: The data in this figure includes the entire study sample of 3,299 (n=3,080: missing=219).

3.2 Participation in arts, creative and cultural activities by location

Figure 3.5 presents participation by location. Participation rates are significantly higher in Dublin city or county. Thirty-eight percent of those living in Dublin city or county report that they had never participated compared to 47% of those living in another town or city and 50% of those living in a rural area. Twenty-eight percent of those living in Dublin city or county report that they had previously participated compared to 30% of those living in another town or city and 28% of those living in a rural area. Thirty-four percent of those living in Dublin city or county report that they currently participate compared to 24% of those living in another town or city and 22% of those living in a rural area. Of those who report they are currently participating, the differences between Dublin city or county and those in another town or city and in a rural area are statistically significant.

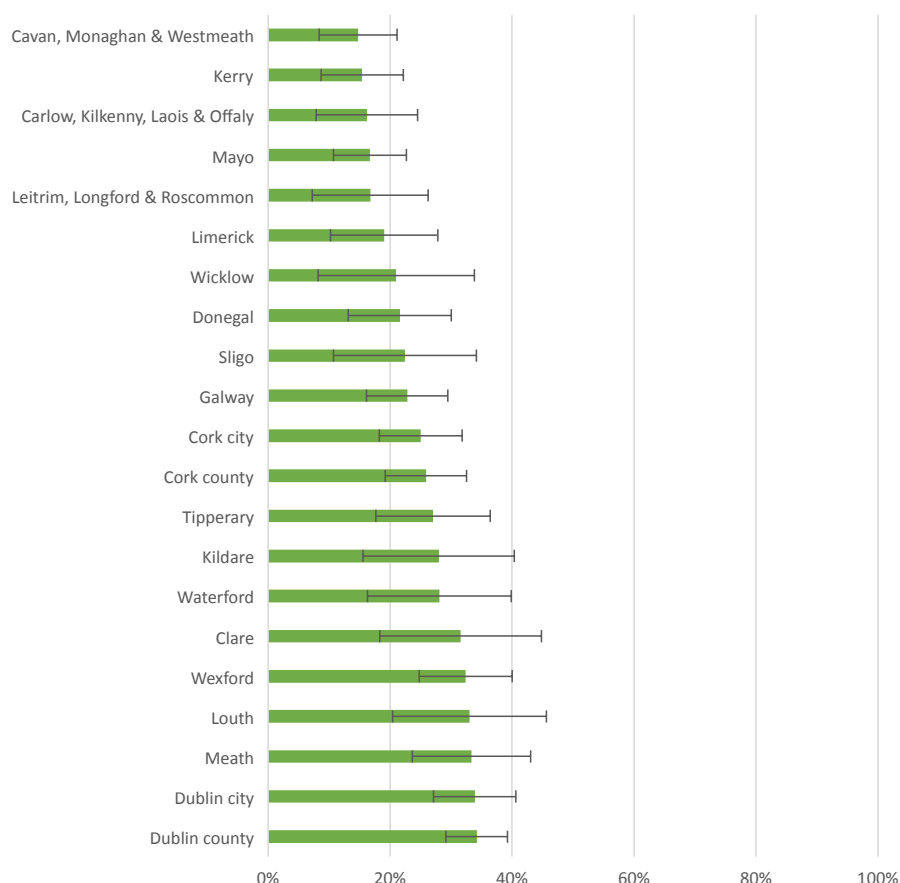
Figure 3.5 Participation in arts, creative and cultural activities by location



*Note: The data in this figure includes the entire study sample of 3,299 (n=3,080: missing=219).

Figure 3.6 presents participation by county, i.e., the percentage of TILDA participants residing in each county who reported that they currently participate in arts, creative and cultural activities. The highest participation rates were reported in Co. Dublin and Dublin city at 34% each and the lowest was across counties Cavan, Monaghan and Westmeath and Co. Kerry at 15%, these differences are statistically significant.

Figure 3.6 Participation in arts, creative and cultural activities by county



*Note: (i) Due to small sample sizes, the participation rates for several counties were summed together. The figure quoted refers to the average participation rate across the respective counties. (ii) The data in this figure only includes those who said yes to the first question on participation (see Figure 3.1, n=920).

Finally, participants who had selected that they were currently participating, were asked: *“If you do not currently participate in arts, creative or cultural activities online, would you participate if you were resourced to do so (e.g., provided with materials, equipment, training)?”*

- Yes
- No

Fifty-seven percent report that they would do so if the opportunity presented itself. However, please note that there was a large volume of missing responses for this question (n=333, missing n=587).

3.3 Association between participation in arts, creative and cultural activities, and demographic characteristics

Table 3.1 shows the results of a multinomial logistic regression with estimates of the strength of association between participation in arts, creative and cultural activities and gender, age, education level, location, and employment status. The Relative Risk Ratio (RRR) provides the likelihood of an outcome (participating, not participating) among one group compared to the likelihood of the reference outcome.

The table has two groups; those who had previously participated, and those who currently participate in arts, creative and cultural activities. Both results are compared to the reference category of having never participated. Gender, age, and education all have statistically significant associations for those who had previously participated. This group are 2.30 times more likely to be women than men, 1.48 times more likely to be aged 70+ than aged 60-69, and 1.54 times and 3.52 times more likely, respectively, to have second or third level education compared to having primary level education, and 1.5 times more likely to be retired. For those who currently participate, they are 1.82 times more likely to be female than male, 1.93 times and 5.67 times more likely respectively to have second or third level education than primary level education. They are also less likely to live in another town or city (0.57 times) or in a rural area (0.57 times) than in Dublin city or county and 1.39 times more likely to be retired.

Table 3.1 Multinomial logistic regression showing association between participation in arts, creative and cultural activities, and demographic characteristics

| No, I have never participated | | No, I have never participated | |
|--|---------------------|-------------------------------|---------------------|
| Ref | | Ref | |
| No, but I have previously participated | | Yes | |
| RRR (95 % CI) | | RRR (95 % CI) | |
| Gender | | Gender | |
| Male | Ref | Male | Ref |
| Female | 2.30*** (1.85,2.87) | Female | 1.82*** (1.43,2.32) |
| Age group | | Age group | |
| 60-69 | Ref | 60-69 | Ref |
| 70+ | 1.48** (1.17,1.88) | 70+ | 1.00 (0.77,1.30) |
| Education level | | Education level | |
| Primary/none | Ref | Primary/none | Ref |
| Second | 1.54* (1.07,2.22) | Second | 1.93** (1.27,2.94) |
| Third/higher | 3.52*** (2.42,5.12) | Third/higher | 5.67*** (3.73,8.62) |
| Location | | Location | |
| Dublin city or county | Ref | Dublin city or county | Ref |
| Another town or city | 0.86 (0.64,1.16) | Another town or city | 0.57*** (0.43,0.77) |
| A rural area | 0.88 (0.66,1.16) | A rural area | 0.57*** (0.43,0.75) |
| Employment status | | Employment status | |
| Employed | Ref | Employed | Ref |
| Retired | 1.50** (1.12,2.01) | Retired | 1.39* (1.01,1.89) |
| Other | 1.12 (0.75,1.66) | Other | 1.06 (0.68,1.66) |

Note: (i) RRR=Relative Risk Ratio; 95% confidence intervals in brackets

(ii) Levels of significance: * p < 0.05, ** p < 0.01, *** p < 0.001

(iii) Sample size (n=3,118).

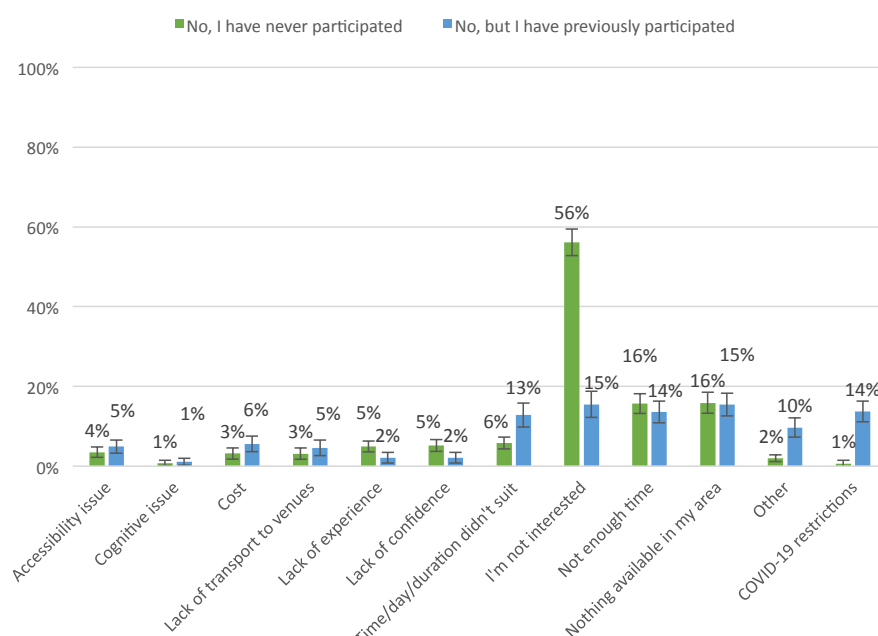
3.4 Barriers to participating in arts, creative and cultural activities

Participants who do not currently participate in arts, creative or cultural activities were asked the reason(s) why they do not participate. Participants are specifically asked: *'If you stated that you never or previously participated in arts, creative or cultural activities, what were your reasons for not participating or stopping your participation?'*

- Accessibility issue
- Cost
- Lack of experience
- Time/day/duration didn't suit
- Not enough time
- Other, please specify
- Cognitive issue
- Lack of transport to venues
- Lack of confidence
- I'm not interested
- Nothing available in my area

Among the qualitative answers provided in the 'other' category, COVID-19 related restrictions were/are frequently reported as a barrier to participation and is therefore included here as its own category. Figure 3.7 presents the findings for both those who never participate and those who previously participated in arts, creative or cultural activities. For the most part, each group report similar barriers. One statistically significant difference was that 56% of those who had never participated report that they are not interested in participating in arts, creative and cultural activities compared to 15% of those who had previously participated. On the other hand, a statistically significantly higher percentage of those who had previously participated report that the day/time/duration didn't suit (13%), compared to those who had never participated (6%). Equally, a higher percentage (statistically significant) of those who had previously participated report an 'other' barrier (10%) compared to those who had never participated (2%), this group also had a higher percentage (statistically significant) who list COVID-19 as a barrier (14%), than those who had never participated (1%). In terms of the 'other' barriers participants referenced reasons such as ill health, age, and caring responsibilities.

Figure 3.7 Barriers to participation in arts, creative and cultural activities

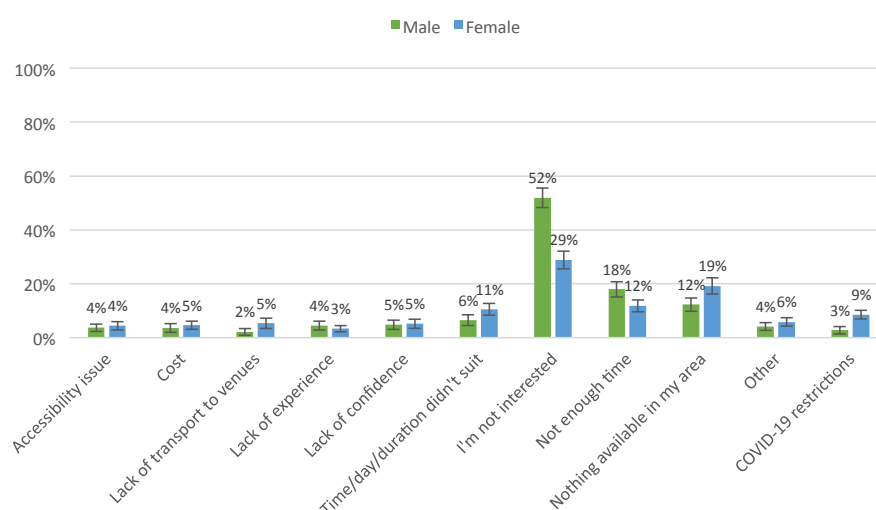


*Notes: (i) These are not cumulative scores as participants could select more than one barrier or none at all.

(ii) The data in this figure only includes those who said no, I have never participated or no, but I have previously participated to the first question on participation (see Figure 3.1) (n = 2,160).

Figure 3.8 presents barriers by gender. There are very few differences in the barriers selected by men and women, except that a significantly higher percentage of men (52%) report lack of interest as a barrier compared to women (29%). In addition, a significantly higher percentage of women (9%) cited COVID-19 restrictions as a barrier compared to men (3%).

Figure 3.8. Barriers to participation in arts, creative and cultural activities by gender



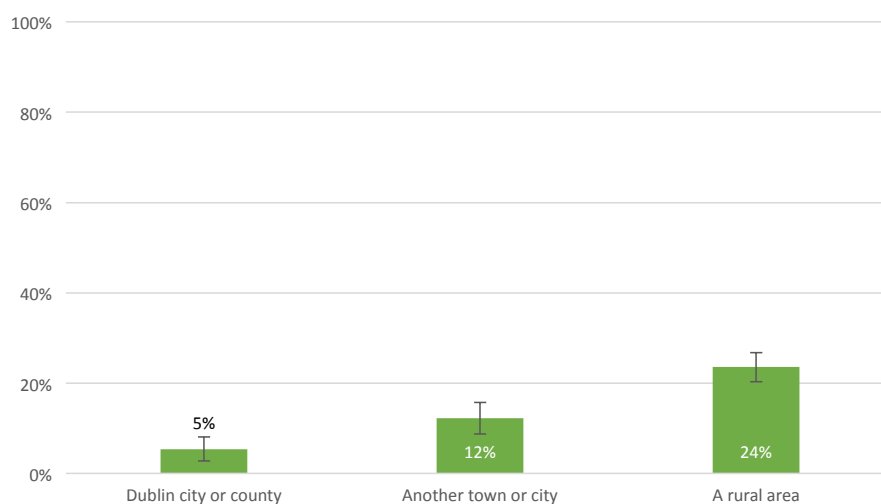
*Notes: (i) These are not cumulative scores as participants could select more than one barrier.

(ii) Data on cognitive impairment as a barrier is not included here due to small sample size.

(iii) The data in this figure only includes those who said no, I have never participated or no, but I have previously participated to the first question on participation (see Figure 3.1) (n= 2,160).

To further explore the relationship between location and participation, Figure 3.9 breaks down one of the barriers by location. In total 15% of participants (n=399) report that there is nothing available in their area. When broken into location, five percent of those living in Dublin city or county cite this as a barrier, compared to 12% of those living in another town or city and 24% of those living in a rural area. There were statistically significant differences between the three groups, meaning that those living outside Dublin city or county were more likely to report this as a barrier.

Figure 3.9 The % who report there are no activities in their area, by household location / according to here they live



*Notes: The data in this figure only includes those who said no, I have never participated or no, but I have previously participated to the first question on participation (see Figure 3.1) and selected 'nothing available in my area' as a barrier (n=399).

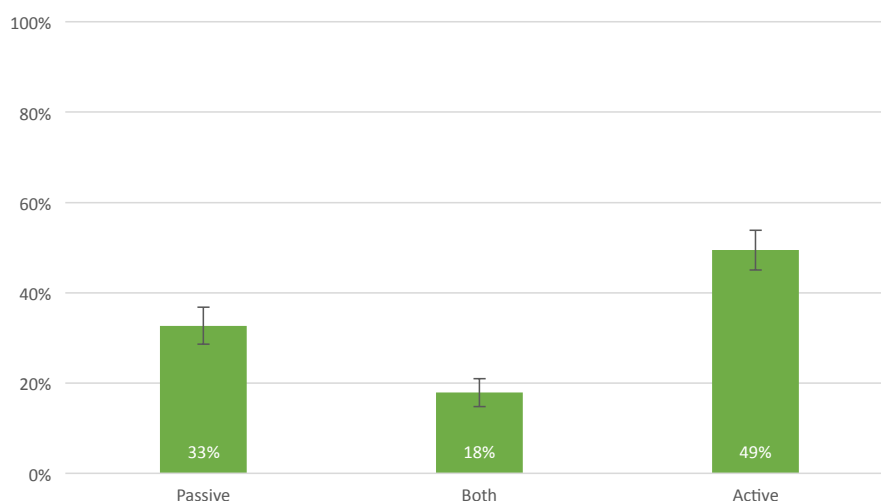
3.5 Active and passive engagement with arts, creative and cultural activities

Those who currently participate in arts, creative and cultural activities (see Figure 3.1) are asked: *'If you currently participate in arts, creative or cultural activities, what kind of participation is this?'*

- Passive (i.e., watching, looking at, listening)
- Active (i.e., making, doing, creating, playing, moving/dancing, writing)

Thirty-three percent of participants said they watch, look, or listen, while 49% said they are actively engaged with the activity such as making, doing, creating, playing, moving, dancing, or writing (Figure 3.10). Eighteen percent of participants said that they engaged both passively and actively with arts, creative and cultural activities.

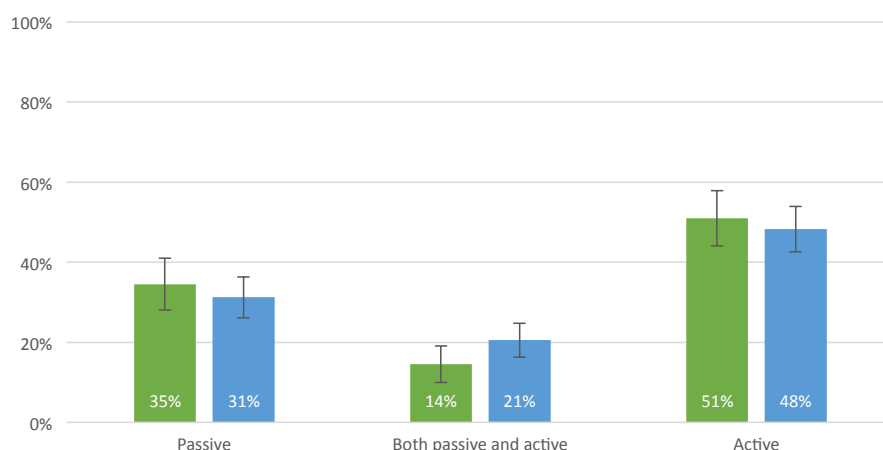
Figure 3.10 Active and passive engagement in arts, creative and cultural activities



*Notes: The data in this figure only includes those who said yes to the first question on participation (see Figure 3.1) (n=825: missing=95).

Figure 3.11 shows that there is a small difference between genders with a higher percentage of men (35%) reporting that they are passive participants and a higher percentage of women reporting that they are both an active and passive participant (21%). However, these differences are not statistically significant.

Figure 3.11 Active and passive engagement in arts, creative and cultural activities by gender



*Notes: The data in this figure only includes those who said yes to the first question on participation (see Figure 3.1) (n=825: missing=95).

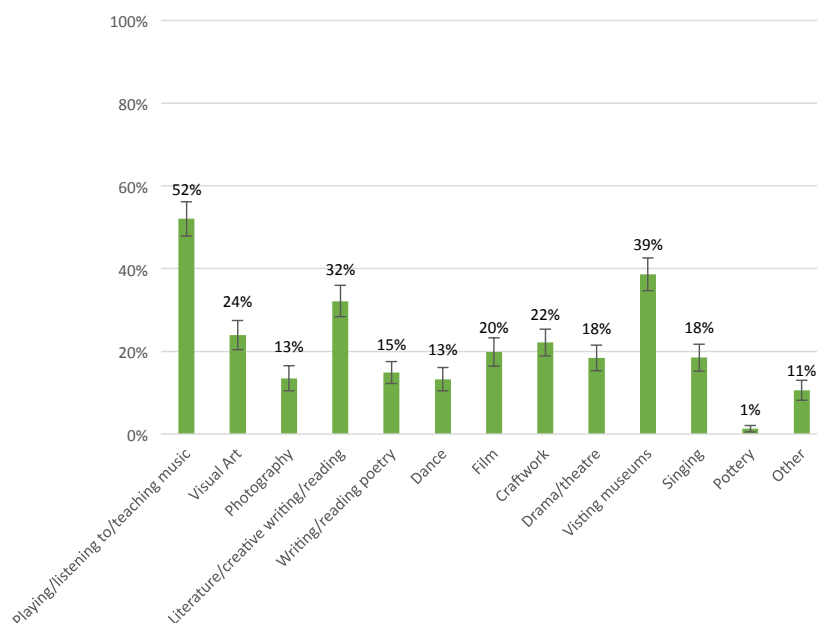
3.6 Type of arts, creative and cultural activities

Those who currently participate in arts, creative and cultural activities (see Figure 3.1) are asked: 'Which arts, creative or cultural activities do you participate in?'

- | | |
|---|---|
| ■ Playing/ listening to/ teaching music | ■ Visual Art (painting, drawing, collage, textile, etc) |
| ■ Photography | ■ Literature/ creative writing/Reading |
| ■ Writing/reading poetry | ■ Dance |
| ■ Film | ■ Craftwork (needlework, knitting, crochet, embroidery, cross-stitch etc) |
| ■ Drama/theatre | ■ Visiting museums, galleries, or heritage sites |
| ■ Singing | ■ Pottery |
| ■ Other (please specify) | |

Over half of participants report that they played, listened to, or taught music, while 39% report that they visit museums, galleries, or heritage sites. The lowest percentage (1%) report participating in pottery (Figure 3.12).

Figure 3.12 Type of arts, creative and cultural activities

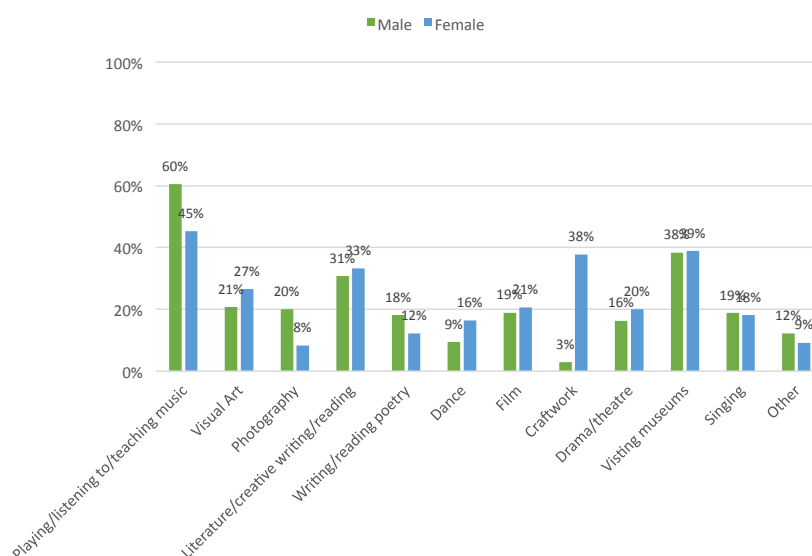


*Note: (i) Participants could select more than one activity.

(ii) The data in this figure only includes those who said yes to the first question on participation (see Figure 3.1) (n=906: missing=14).

Figure 3.13 breaks down the type of arts, creative and cultural activities by gender. The difference between gender is most profound in craftwork where 38% of women who participate in arts, creative and cultural activities participate in craftwork compared to 3% of men. There is also a statistically significant difference in photography, with a higher percentage of men (20%) participating than women (8%).

Figure 3.13 Type of arts, creative and cultural activities by gender



*Notes: (i) These are not cumulative scores as participants could select more than one activity.

(ii) Data on pottery by gender is not included here due to a small sample size.

(iii) The data in this figure only includes those who said yes to the first question on participation (see Figure 3.1) (n=906: missing=14).

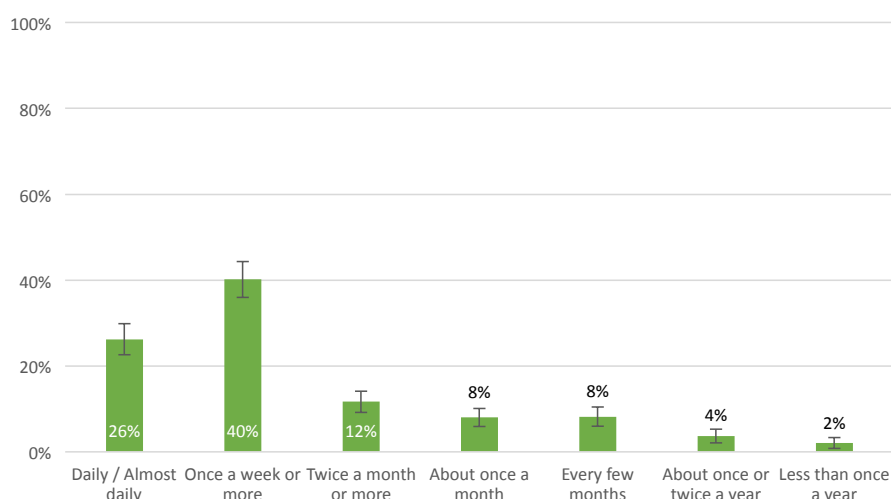
3.7 Frequency of participating in arts, creative and cultural activities

Participants are asked: 'How often do you participate in arts, creative or cultural activities?'

- Daily/ almost daily
- Once a week or more
- Twice a month or more
- About once a month
- Every few months
- About once or twice a year
- Less than once a year

Forty percent participated once a week or more, 26% participated daily or almost daily, 12% participated twice a month or more, 8% about once a month, 8% every few months, 4% about once or twice a year and 2% less than once a year (Figure 3.14).

Figure 3.14 Frequency of participation in arts, creative and cultural activities



*Note: The data in this figure only includes those who said yes to the first question on participation (see Figure 3.1) (n=891; missing=29).

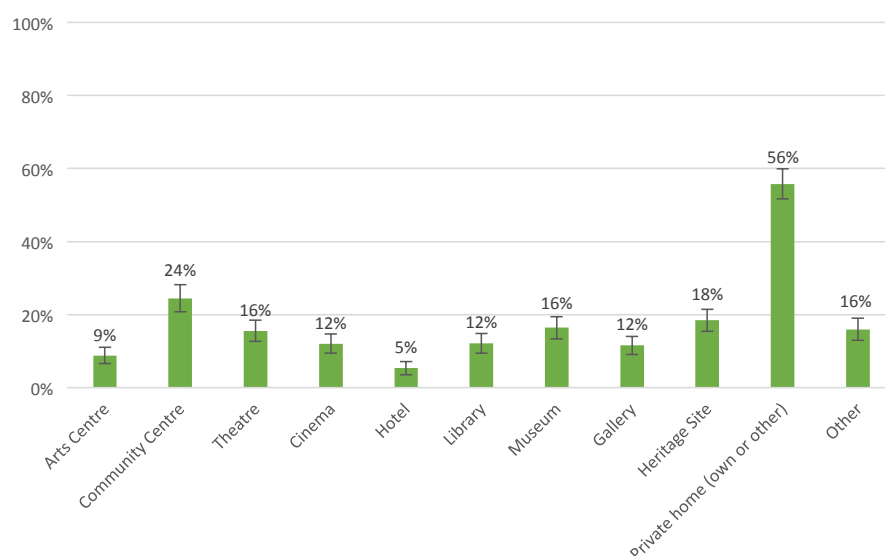
3.8 Location of arts, creative and cultural activities

Participants are asked: 'Where do you participate in arts, creative or cultural activities?'

- Arts Centre
- Theatre
- Hotel
- Museum
- Heritage Site
- Online
- Community Centre
- Cinema
- Library
- Gallery
- Private home (own or other)
- Other, please specify

The most popular location (56%) is the participant's private home (or that of someone else). The second most popular (24%) are community centres. The least common location are hotels (5%) (Figure 3.15).

Figure 3.15 Location of arts, creative and cultural activities



*Note: (i) These are not cumulative scores as participants could select more than one location.

(ii) The data in this figure only includes those who said yes to the first question on participation (see Figure 3.1) (n=873; missing=47).

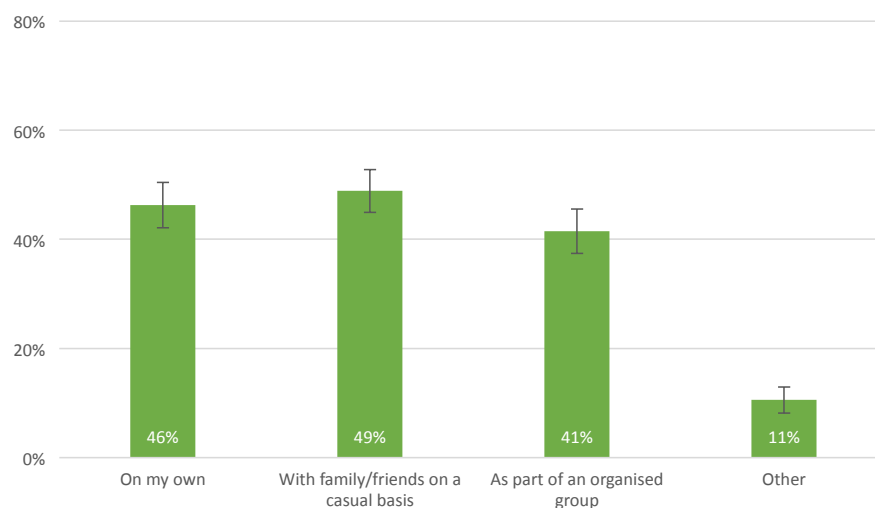
3.9 Participation companions

Participants are asked: 'Who do you participate with in arts, creative or cultural activities?'

- On my own
- As part of an organised group
- With family/friends on a casual basis
- Other, please specify

Almost half (46%) of participants said they participate on their own, 49% with family and friends, 41% as part of a group and 11% report 'other' (Figure 3.16). Under 'other' participants listed various types of groups or clubs such as book clubs, active retirement groups, choirs and G.A.A. clubs.

Figure 3.16 Participation companions in arts, creative and cultural activities

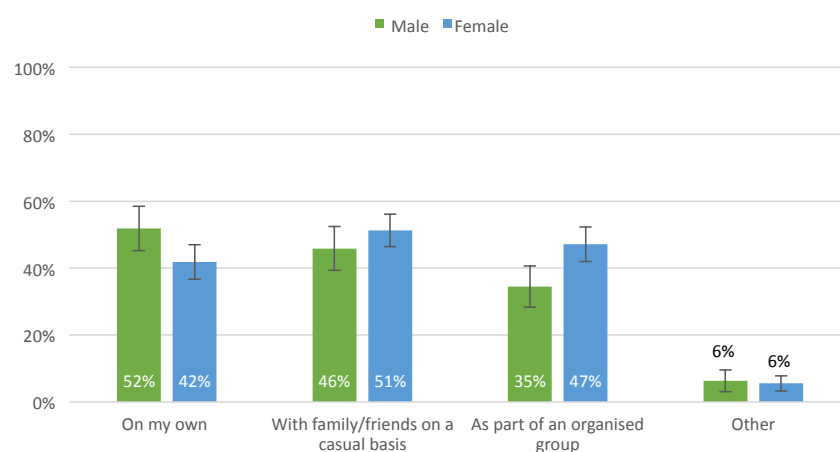


*Note: (i) Participants could select more than one option.

(ii) The data in this figure only includes those who said yes to the first question on participation (see Figure 3.1) (n=888; missing=32).

Figure 3.17 examines participation companions by gender. Here we see that a similar percentage of men and women report that they participate on their own or with family and friends. While a significantly higher percentage of women (47%) report that they participate as part of an organised group compared to men (35%).

Figure 3.17 Participation companions in arts, creative and cultural activities by gender



*Note: (i) Participants could select more than one option.

(ii) The data in this figure only includes those who said yes to the first question on participation (see Figure 3.1) (n=888; missing=32).

3.10 Reasons for participation in arts, creative and cultural activities

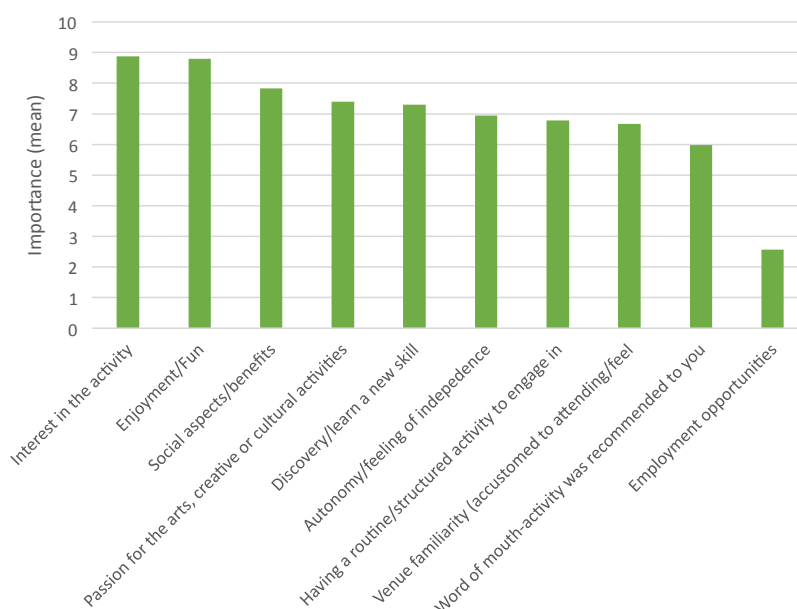
Participants are asked: 'Please circle a number from 1 to 10 to rate how important each of the following items are in motivating you to participate in arts, creative or cultural activities.' These could be rated from 1, not important, to 10, very important.

The items were:

- Enjoyment/fun
- Social aspects/benefits
- Discovery/to learn a new skill
- Autonomy/feeling of independence
- Interest in the activity
- Passion for the arts, creative and cultural activities
- Venue familiarity (accustomed to attending/feel welcome)
- Word of mouth-activity was recommended to you
- Having a routine/structured activity to engage in
- Employment opportunities

Figure 3.18 presents the mean rating for each reason. Interest in the activity has the highest rating of importance (8.9), followed by enjoyment/fun (8.8) and social aspects/benefits (7.8). The reason with the lowest level of importance is employment opportunities (2.6).

Figure 3.18 Reasons for participation in arts, creative and cultural activities



*Note: (i) Participants could select more than one option.

(ii) The data in this figure only includes those who said yes to the first question on participation (see Figure 3.1) (n=920, missing data differs on each reason).

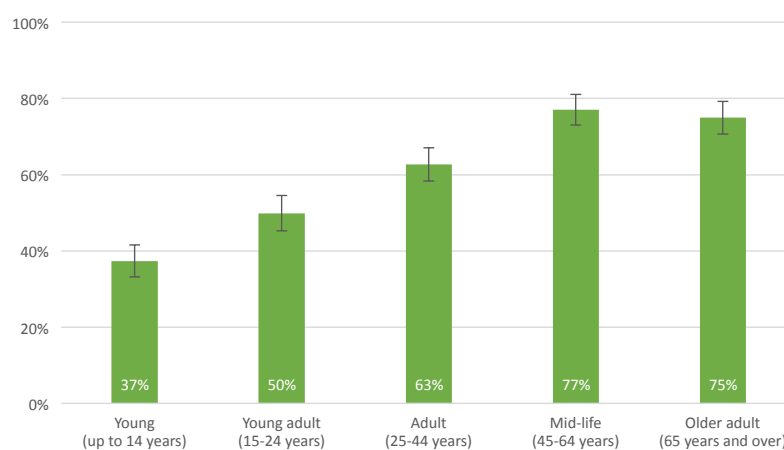
3.11 Participation in arts, creative and cultural activities across the lifecourse

Participants are asked: “During which periods in your life have you participated in arts, creative or cultural activities?”

- Young (up to 14 years)
- Young adult (15-24)
- Adult (25-44 years)
- Mid-life (45-64 years)
- Older adult (65+ years)

Figure 3.19 presents participation rates in arts, creative and cultural activities across the lifecourse for participants aged 65 years and over. Mid-life is the stage of life that the highest percentage of participants (77%) report participating in arts, creative and cultural activities.

Figure 3.19 P Participation in arts, creative and cultural activities across the life-course



*Note: (i) Participants could select more than one option

(ii) This figure refers to participants who said yes to participation (see Figure 3.1) and are aged 65 years and over (n=729; missing=16).

Older adults' participation in arts, creative and cultural activities, and health outcomes

4



comhairle choimheall
meath county council

**Enhancing the quality of life
for the people of Wick**



Chapter 4: Older adults' participation in arts, creative and cultural activities, and health outcomes

Chapter four examines the relationship between physical health, mental health and behavioural health with participation in arts, creative and cultural activities.

4.1 Association between participation in arts, creative and cultural activities, and physical health

The physical health indicators examined in this chapter are: self-rated health, self-rated vision, self-rated hearing, disability, chronic conditions, and chronic pain. A more detailed description of how these indicators are measured is described in Chapter 2, and a detailed breakdown of each indicator by participation and gender is included in the Appendix. Tables 4.1 to 4.6 present a series of multinomial logistic regressions where the relationship between participation and each of the physical health indicators were/are analysed individually. These analyses also include gender, age, education level, location, and employment status, to account for impacts that these indicators might have on participation and physical health. The tables have two groups those who have never participated and those who had previously participated in arts, creative and cultural activities, with both groups being compared to those who currently participate.

Table 4.1 presents the findings for self-rated health. There was one statistically significant difference between those who currently participate and those who have previously participated in arts, creative and cultural activities. Those with fair/poor health are less likely to currently participate compared to those with excellent/very good/good health. This finding highlights how fair/poor self-rated health may be a potential barrier to participation in arts, creative and cultural activities, particularly for older adults who used to participate.

Table 4.1 Multinomial logistic regression showing the association between participation in arts, creative and cultural activities, and self-rated health

| RRR (95 % CI) | | RRR (95 % CI) | |
|--------------------------------------|------------------|---|--------------------|
| Currently participate | Ref | Currently participate | Ref |
| No, I have never participated | | No, but I have previously participated | |
| Self-Rated Health | | Self-Rated Health | |
| Excellent/Very Good/Good | Ref | Excellent/Very Good/Good | |
| Fair/Poor | 1.31 (0.89,1.92) | Fair/Poor | 1.71** (1.16,2.54) |

Notes: (i) RRR=Relative Risk Ratio; 95% confidence intervals in brackets.
(ii) Levels of significance: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table 4.2 presents the findings for self-rated vision. There was one statistically significant difference between those who currently participate and those who have never participated in arts, creative and cultural activities. Those with fair/poor vision are less likely to participate than those with excellent/very good/good vision. This finding potentially points towards poorer vision being a barrier to participation in arts, creative and cultural activities.

Table 4.2 Logistic regression showing the association between participation in arts, creative and cultural activities, and self-rated vision

| RRR (95 % CI) | | RRR (95 % CI) | |
|--------------------------------------|--------------------|---|------------------|
| Currently participate | Ref | Currently participate | Ref |
| No, I have never participated | | No, but I have previously participated | |
| Self-Rated Vision | | Self-Rated Vision | |
| Excellent/Very Good/Good | Ref | Excellent/Very Good/Good | |
| Fair/Poor | 1.95** (1.20,3.18) | Fair/Poor | 1.44 (0.87,2.38) |

Notes: (i) RRR=Relative Risk Ratio; 95% confidence intervals in brackets.
(ii) Levels of significance: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

For the other physical health variables in Tables 4.3-4.6, there are no statistically significant differences between the groups.

Table 4.3 Logistic regression showing the association between participation in arts, creative and cultural activities, and self-rated hearing

| RRR (95 % CI) | | RRR (95 % CI) | |
|--------------------------------------|------------------|---|------------------|
| Currently participate | Ref | Currently participate | Ref |
| No, I have never participated | | No, but I have previously participated | |
| Self-Rated Hearing | | Self-Rated Hearing | |
| Excellent/Very Good/Good | Ref | Excellent/Very Good/Good | |
| Fair/Poor | 0.91 (0.69,1.20) | Fair/Poor | 1.02 (0.76,1.38) |

Notes: (i) RRR=Relative Risk Ratio; 95% confidence intervals in brackets.
(ii) Levels of significance: * p < 0.05, ** p < 0.01, *** p < 0.001.

Table 4.4 Logistic regression showing the association between participation in arts, creative and cultural activities, and disability

| RRR (95 % CI) | | RRR (95 % CI) | |
|--------------------------------------|------------------|---|------------------|
| Currently participate | Ref | Currently participate | Ref |
| No, I have never participated | | No, but I have previously participated | |
| Disability | | Disability | |
| No Disability | Ref | No Disability | |
| Disability | 0.91 (0.62,1.32) | Disability | 1.17 (0.81,1.68) |

Notes: (i) RRR=Relative Risk Ratio; 95% confidence intervals in brackets.
(ii) Levels of significance: * p < 0.05, ** p < 0.01, *** p < 0.001.

Table 4.5 Logistic regression showing the association between participation in arts, creative and cultural activities, and chronic conditions

| RRR (95 % CI) | | RRR (95 % CI) | |
|--------------------------------------|------------------|---|------------------|
| Currently participate | Ref | Currently participate | Ref |
| No, I have never participated | | No, but I have previously participated | |
| Chronic Condition | | Chronic Condition | |
| No Chronic Condition | Ref | No Chronic Condition | |
| One of more Chronic Condition | 1.00 (0.74,1.36) | One of more Chronic Condition | 1.32 (0.94,1.84) |

Notes: (i) RRR=Relative Risk Ratio; 95% confidence intervals in brackets.
(ii) Levels of significance: * p < 0.05, ** p < 0.01, *** p < 0.001.

Table 4.6 Logistic regression showing the association between participation in arts, creative and cultural activities, and chronic pain

| RRR (95 % CI) | | RRR (95 % CI) | |
|--------------------------------------|------------------|---|------------------|
| Currently participate | Ref | Currently participate | Ref |
| No, I have never participated | | No, but I have previously participated | |
| Chronic Pain | | Chronic Pain | |
| None/Mild | Ref | None/Mild | |
| Moderate/Severe | 1.10 (0.82,1.48) | Moderate/Severe | 1.18 (0.89,1.57) |

Notes: (i) RRR=Relative Risk Ratio; 95% confidence intervals in brackets.

(ii) Levels of significance: * p < 0.05, ** p < 0.01, *** p < 0.001.

4.2 Association between participation in arts, creative and cultural activities and quality of life, loneliness and mental health

This section examines the relationship between quality of life, loneliness and mental health with participation in arts, creative and cultural activities. The indicators examined are quality of life, loneliness, stress, depression and worry. More detail on how these indicators are measured is included in Chapter 2 and a detailed breakdown of these indicators by gender and participation is included in the Appendix. Table 4.7 presents a series of linear regressions which examine the individual relationships between the mental health indicators and participation. These analyses also account for gender, age, education level, location, and employment status. The table has two groups those who have never participated and those who have previously participated in arts, creative and cultural activities (those who currently participate are the reference category). Both groups report lower levels of quality of life and higher levels of stress and worry compared to those who currently participate in arts, creative and cultural activities. In addition, those who have previously participated also report higher levels of loneliness, and depression than those who currently participate.

Table 4.7 Regressions showing independent associations between participation in arts, creative and cultural activities, and mental health

| | Quality of life | Loneliness | Depression | Stress | Worry |
|------------------------------------|--------------------|------------------|------------------|-------------------|-------------------|
| | β (SE) | β (SE) | β (SE) | β (SE) | β (SE) |
| Yes | Ref | Ref | Ref | Ref | Ref |
| No, I have never participated | -0.67* (0.32) | -0.01 (0.12) | -0.06 (0.19) | 0.54** (0.16) | 1.41*** (0.39) |
| No, I have previously participated | -1.17*** (0.32) | 0.40** (0.13) | 0.60** (0.22) | 0.77*** (0.18) | 1.97*** (0.43) |

Notes: (i) β = Unstandardised Beta Coefficient, SE = Standard Error

(ii) Levels of significance: * p < 0.05, ** p < 0.01, *** p < 0.001.

4.3 Association between participation in arts, creative and cultural activities, and behavioural health

This section examines the relationship between health-related behaviours and participation in arts, creative and cultural activities. The indicators examined are smoking and physical activity. More detail on how these indicators are measured is included in Chapter 2 and a detailed breakdown of these indicators by gender and participation is included in the Appendix. Tables 4.8-4.9 presents two multinomial logistic regressions which examine the individual relationships between behavioural health and participation. These analyses also account for gender, age, education level, location, and employment status. The table has two groups those who have never participated and those who previously participated in arts, creative and cultural activities. Both results are compared to the reference category of those who currently participate. There are no statistically significant differences between the groups.

Table 4.8 Multinomial logistic regression showing associations between participation in arts, creative and cultural activities, and smoking

| Currently participate | | Currently participate | |
|-------------------------------|---------------------|--|---------------------|
| RRR (95 % CI) | | RRR (95 % CI) | |
| Ref | | Ref | |
| No, I have never participated | | No, but I have previously participated | |
| Smoking | | Smoking | |
| Non-smoker | Ref | Non-smoker | Ref |
| Current smoker | 1.04 (0.63,1.71) | Current smoker | 1.19 (0.71,2.00) |

Notes: (i) RRR=Relative Risk Ratio; 95% confidence intervals in brackets.

(ii) Levels of significance: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table 4.9 Multinomial logistic regression showing associations between participation in arts, creative and cultural activities, and smoking

| Currently participate | | Currently participate | |
|-------------------------------|---------------------|--|---------------------|
| RRR (95 % CI) | | RRR (95 % CI) | |
| Ref | | Ref | |
| No, I have never participated | | No, but I have previously participated | |
| Physical activity | | Physical activity | |
| Low | Ref | Low | Ref |
| Moderate | 0.96 (0.71,1.28) | Moderate | 0.78 (0.59,1.03) |
| High | 0.89 (0.65,1.22) | High | 0.74 (0.53,1.02) |

Notes: (i) RRR=Relative Risk Ratio; 95% confidence intervals in brackets.

(ii) Levels of significance: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

5

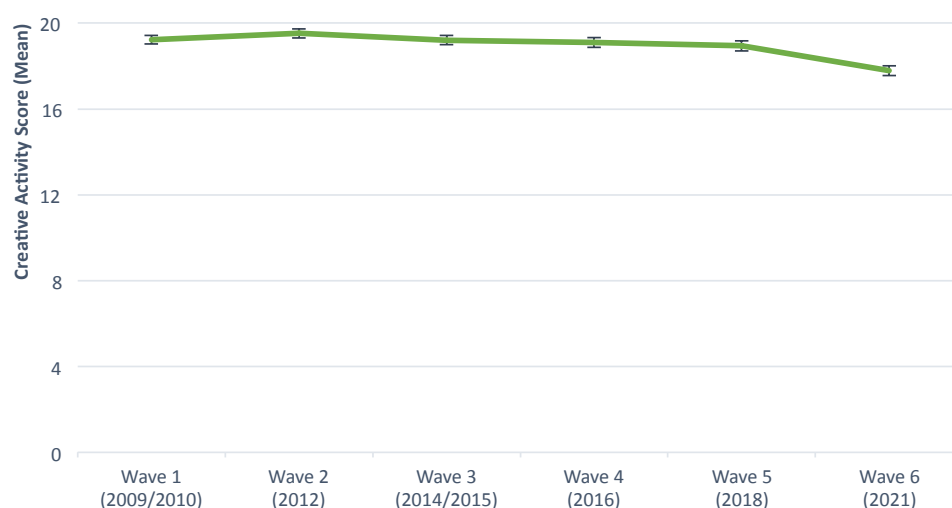
Exploration of the
long-term associations
between participation in
arts, creative and cultural
activities, and self-rated
health and quality of life



Chapter 5: Exploration of the long-term associations between participation in arts, creative and cultural activities, and self-rated health and quality of life

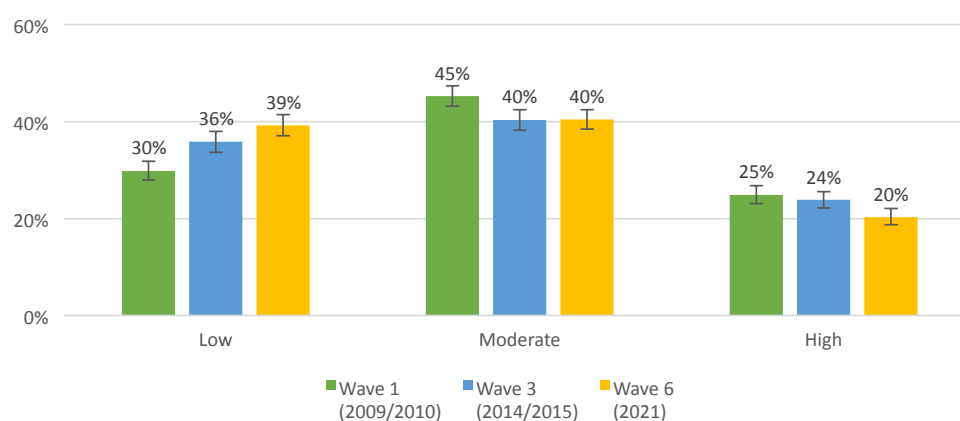
This chapter examines the long-term associations between participation in arts, creative and cultural activities and health and wellbeing. Panel data analysis was conducted for two health and wellbeing indicators: self-rated health and quality of life. Data across all six waves of TILDA were included. For this analysis, the creative activity score (outlined in Chapter 2) was used. The creative activity score is a composite score of how often TILDA participants participate in four distinct types of activities (go out to films, plays and concerts; reading books or magazines for pleasure; listening to music, radio; spending time on hobbies or creative activities). The score can range from zero to 28, with a higher score indicating higher levels of participation in arts, creative and cultural activities. Figure 5.1 presents the mean creative activity score at each wave of data collection. There is very little difference across the first five waves, however, there is a drop in participation in arts, creative and cultural activities between Wave 5 (2018) and Wave 6 (2021) from 18.9 to 17.8.

Figure 5.1 Creative activity score by wave



To provide additional insight into the creative activity score over time, Figure 7.2 presents a snapshot of the creative activity score by tertiles for three waves of TILDA (Wave 1, Wave 3 and Wave 6). Compared to Wave 1 there are a higher percentage of participants in the low and moderate categories in Wave 6, potentially pointing to the impact of COVID-19 on creative activity scores.

Figure 5.2 Creative activity score by tertiles for Wave 1, Wave 3, and Wave 6



The mean age in Wave 1 is 60.84 years old (range 50-99 years old), this increases consistently over the six waves. The mean age in Wave 6 is 72.21 years old (range 61-101 years old). Figure 5.3 presents the mean quality of life across the six waves. The score can range from 0 to 36 with a higher score representing higher quality of life. The mean quality of life score decreased over the six waves, with a mean score of 28.08 (95% CI: 27.83,28.32) in Wave 1 and a mean score of 27.1 (95% CI: 26.84,27.36) in Wave 6. This difference is statistically significant; however, many factors may impact quality of life over time.

Figure 5.3 Mean CASP-12 quality of life score by wave

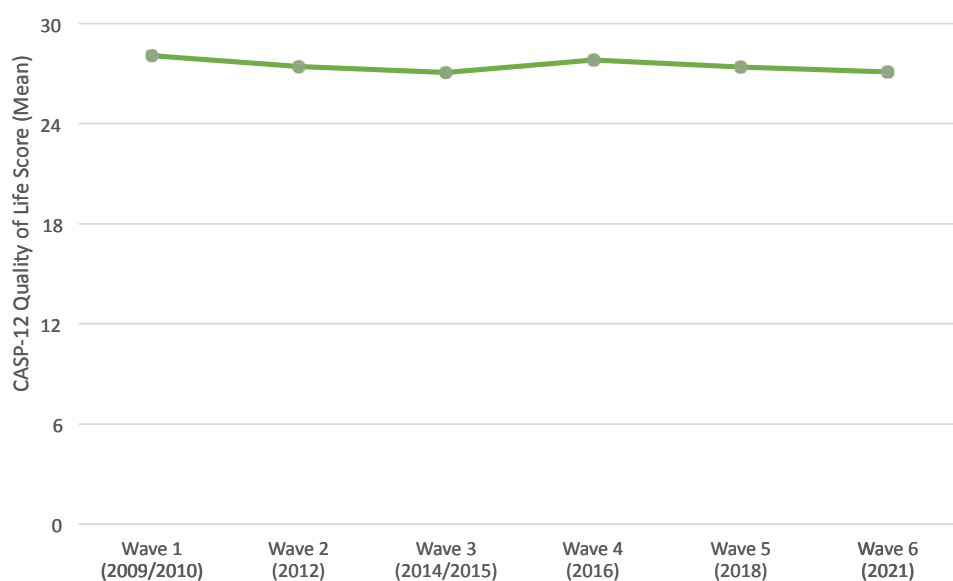
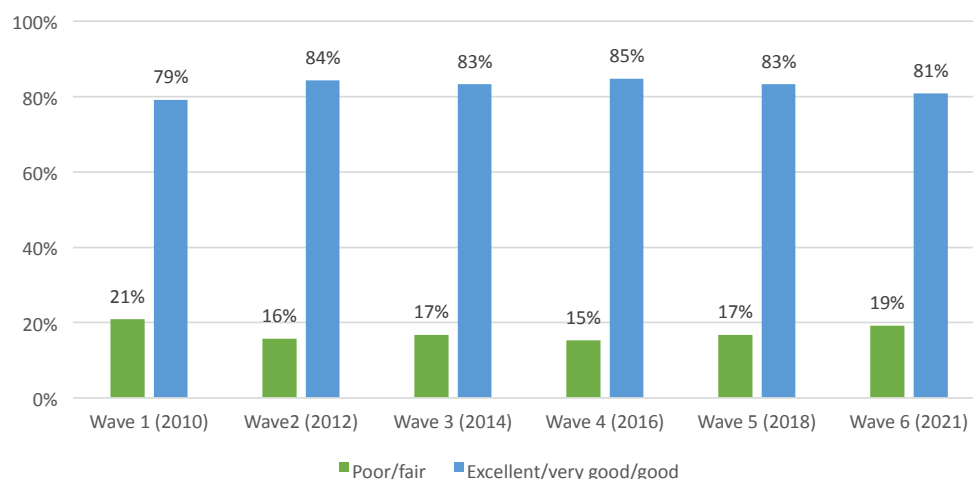


Figure 5.4 presents self-rated health over the six waves. In Wave 1, 79.16% (95% CI: 77.5, 80.73) of participants rate their health as excellent/very good/good. This figure is higher in Wave 6 at 80.86% (95% CI: 79.19, 82.42), however this is not a statistically significant difference.

Figure 5.4 Self-rated health by wave



5.1 Self-rated health

To examine the long-term association between participation in arts, creative and cultural activities and self-rated health, a fixed effects logit model is used. It examines the relationship between participation in arts, creative and cultural activities, and self-rated health. This model also controls for several other indicators including age, education and having a chronic condition (full details of the model are included in the statistical analysis section in Chapter 2). Table 5.1 presents the findings. Odds Ratios (ORs) are reported that show the odds of an outcome occurring in one group (e.g., men) to the odds of it occurring in another group (e.g., women). An OR greater than 1 means an outcome is more likely, while an OR less than 1 means it is less likely. There is no statistically significant relationship between participation in arts, creative and cultural activities, and self-rated health across the waves.

Table 5.1 Fixed-effects model showing long-term associations between participating in arts, creative and cultural activities, and self-rated health

| Self-Rated Health | OR (95% CI) |
|-------------------------|---------------------|
| Creative Activity Score | |
| Low Activity | Ref |
| Moderate Activity | 0.93 (0.69,1.24) |
| High Activity | 1.36 (0.92,1.99) |
| Wave | |
| | 3 0.91 (0.58,1.42) |
| | 4 1.10 (0.52, 2.33) |
| | 5 0.95 (0.33, 2.73) |
| | 6 0.96 (0.21, 4.34) |

Note: (i) OR=Odds Ratio; 95% confidence intervals in brackets
(ii) Levels of significance: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

5.2 Quality of life

Table 5.2 presents the findings of a fixed-effects regression model used to examine the relationship between participation in arts, creative and cultural activities, and quality of life. This model also controls for several other indicators including age, education and having a chronic condition (full details of the model are included in the statistical analysis section in Chapter 2). Table 5.2 can be interpreted as follows: participation in arts, creative and cultural activities, low compared to moderate, is associated with a higher quality of life score.

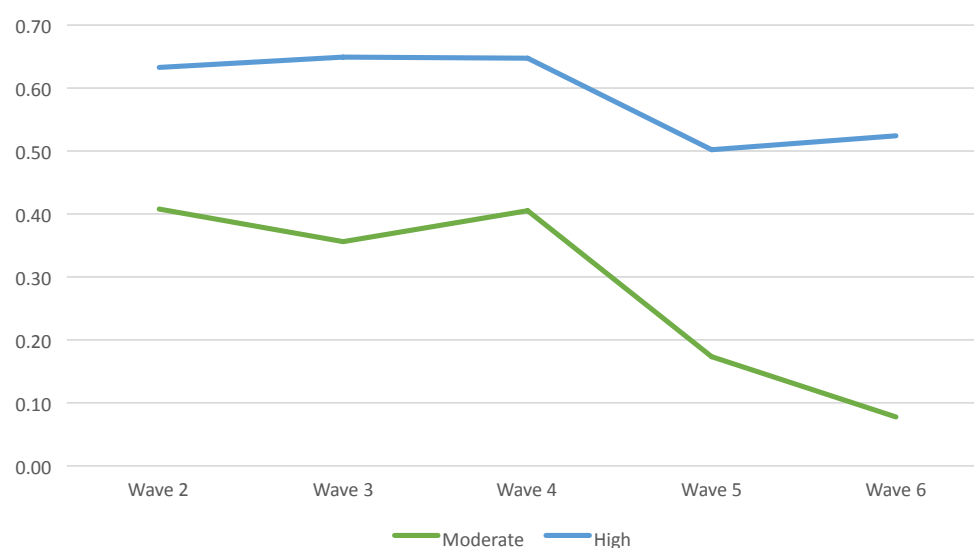
Table 5.2 Fixed-effects model showing long-term associations between participating in arts, creative and cultural activities, and quality of life

| Quality of Life | β (SE) |
|-------------------------|-----------------|
| Creative Activity Score | |
| Low Activity | Ref |
| Moderate Activity | 0.41** (0.14) |
| High Activity | 0.63*** (0.16) |
| Wave | |
| | 2 Ref |
| | 3 -0.45* (0.20) |
| | 4 0.07 (0.33) |
| | 5 0.15 (0.46) |
| | 6 0.14 (0.64) |

Notes: (i) β = Unstandardized Beta Coefficient, SE = Standard Error
(ii) Levels of significance: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table 5.2 presents the findings for change in levels of participation between Waves 2-3. Figure 5.6 presents the findings for each wave. For example, the effect is similar across the first three waves, but there is a drop off in the degree of association after Wave 4. For this reason, a sensitivity analysis is presented in the Appendix where Wave 6 is not included in the analysis. The rationale behind this is the profound impact that COVID-19 likely had on participation in arts, creative and cultural activities as well as impacting on quality of life and other well-being indicators.

Figure 5.5 Long-term associations between participating in arts, creative and cultural activities, and quality of life by wave



Conclusion

6



Chapter 6: Conclusion

This report has explored participation in arts, creative and cultural activities among older adults in Wave 6 of TILDA. This includes ten new questions added to Wave 6 of TILDA to examine in more detail the experiences of older adults in accessing and participating in arts, creative and cultural activities. In addition, it examines the relationship between participation and physical health, quality of life, loneliness, mental health and behavioural health in Wave 6 (2021) of TILDA, and the long-term associations between participation and self-rated health and quality of life across six waves.

6.1 Participation rates in arts, creative and cultural activities at Wave 6

As previously outlined, data collection took place during the COVID-19 pandemic when Ireland had implemented five levels of restrictions that impacted arts, creative and cultural activities with rules on social gatherings, events, public transport, and indoor cultural venues. Participation rates during this time shows that over a quarter (26%) of older adults currently participate in arts, creative and cultural activities, with a further 29% reporting previous participation. Women were more likely to currently participate or have previously participated than men. Those with second and third level education were more likely to currently participate or have previously participated than those with primary level education. Further, we found that those aged 70 and over are more likely to have previously participated than those in younger age groups, reflecting similar findings from a previous TILDA report that participation rates decline as participants get older (1). People living outside Dublin city and county are less likely to participate in art, creative and cultural activities.

Our findings show that interest in the activity, availability, and time constraints are some of the main barriers to participation. Of those who never participated, 56% reported lack of interest compared to 15% of those who had previously participated. Of those living in rural areas, 24% cite 'nothing available in my area' as a barrier compared to those living in Dublin (5%) and those living in another town or city (12%).

6.2 Impact on quality of life and mental health

Our findings show that participation in arts, creative and cultural activities is associated with better quality of life and lower levels of stress and worry compared to those who have never participated and those who have previously participated. Further, those who have previously participated also report higher levels of depression and loneliness and poorer self-rated health compared to those who currently participate. The findings on poorer physical health support findings from another study that found a drop in participation rates in the 12 months prior to hospitalisation (11). Other studies have also shown positive associations between participation and quality of life (8-10, 14), a lower risk of depression (6) or loneliness (7).

The longitudinal design of TILDA enabled us to look at long-term associations between participation and health and quality of life. While we did not find an association for long-term self-rated health, we do see an association with long-term quality of life. Therefore, participation in arts, creative and cultural activities has a long-term positive impact on the lives of older adults. This finding is similar to research from the English Longitudinal Study of Ageing which found that while short term arts engagement was not associated with well-being, repeated and sustained arts engagement was (8).

Participation in arts, creative and cultural activities is positively associated with quality of life and psychological health, consistent with findings from our earlier report (1). Quality of life is an important measure of the overall wellbeing of an individual. Loneliness, anxiety and depression in later life can have a profound effect on quality of life and functional status (33, 34). Previous research from TILDA has shown that 1 in 8 older people experience significant depressive symptoms at any one time, however a large proportion of these cases are undetected and under-treated (35).

Current and previous participation may have been affected by the restrictions imposed due to COVID-19 public health measures. However, there were clear discrepancies in participation in lower educational groups, older age, location, and between men and women. Addressing lower participation in these groups and identified barriers are areas for intervention. Continued support and further development of these types of activities across different communities is important to support mental health and better quality of life as we age.

References

1. Scarlett S, Hever A, Ward M, Kenny RA. Creative activity in the ageing population. Dublin: Ireland: The Irish Longitudinal Study on Ageing; 2021.
2. Fancourt D, Finn S. What is the evidence on the role of the arts in improving health and well-being? Copenhagen: WHO Regional Office for Europe; 2019.
3. McQuade L, O'Sullivan R. Arts and Creativity in Later Life: Implications for Health and Wellbeing in Older Adults. A Systematic Evidence Review. Institute of Public Health; 2021.
4. Fancourt D, Steptoe A. Cultural engagement predicts changes in cognitive function in older adults over a 10 year period: findings from the English Longitudinal Study of Ageing. *Scientific Reports*. 2018;8(1):10226.
5. Fancourt D, Steptoe A. The art of life and death: 14 year follow-up analyses of associations between arts engagement and mortality in the English Longitudinal Study of Ageing. *BMJ*. 2019;367:l6377.
6. Fancourt D, Tymoszuk U. Cultural engagement and incident depression in older adults: evidence from the English Longitudinal Study of Ageing. *British Journal of Psychiatry*. 2019;214(4):225-9.
7. Tymoszuk U, Perkins R, Fancourt D, Williamon A. Cross-sectional and longitudinal associations between receptive arts engagement and loneliness among older adults. *Social Psychiatry and Psychiatric Epidemiology*. 2020;55(7):891-900.
8. Tymoszuk U, Perkins R, Spiro N, Williamon A, Fancourt D. Longitudinal Associations Between Short-Term, Repeated, and Sustained Arts Engagement and Well-Being Outcomes in Older Adults. *The Journals of Gerontology: Series B*. 2019;75(7):1609-19.
9. Shanahan J, Coman L, Ryan F, Saunders J, O'Sullivan K, Ni Bhriain O, et al. To dance or not to dance? A comparison of balance, physical fitness and quality of life in older Irish set dancers and age-matched controls. *Public Health*. 2016;141:56-62.
10. O'Toole L, Ryder R, Connor R, Yurick L, Hegarty F, Connolly D. Impact of a Dance Programme on Health and Well-Being for Community Dwelling Adults Aged 50 Years and Over. *Physical & Occupational Therapy In Geriatrics*. 2015;33(4):303-19.
11. Moss H, Donnellan C, O'Neill D. Hospitalization and Aesthetic Health in Older Adults. *Journal of the American Medical Directors Association*. 2015;16(2):173.e11-.e16.
12. Creative Ireland. Creative Ireland Programme 2017–2022. 2017.
13. RENEW Working Group. RENEW Briefing Report 1. 2021.
14. O'Shea E, Ní Léime Á. The impact of the Bealtaine arts programme on the quality of life, wellbeing and social interaction of older people in Ireland. *Ageing and Society*. 2012;32(5):851-72.
15. McDonald B. Research on Artist in Residence in a Care Setting Initiative. *Age & Opportunity*; 2020.
16. Blood I, Easterbrook L, Robinson M, Gwyther L. Evaluation of Care Hubs of Arts and Creative Excellence Initiative. *Age & Opportunity*; 2021.
17. Clifford AM, Shanahan J, Moss H, Cleary T, Senter M, O'Hagan EM, et al. Insights from an early-stage development mixed methods study on arts-based interventions for older adults following hospitalisation. *Complementary Therapies in Medicine*. 2021;60:102745.
18. Connolly L, Moss H. Music, spirituality and dementia: Exploring joint working between pastoral care professionals and music therapists to improve person-centred care for people with dementia (Innovative Practice). *Dementia*. 2021;20(1):373-80.
19. Khan WU, Mohamad Onn Yap IA, O'Neill D, Moss H. Perceptions of music therapy for older people among healthcare professionals. *Medical Humanities*. 2016;42(1):52-6.
20. Kenny RA, Whelan BJ, Cronin H, Kamiya Y, Kearney P, O'Regan C, et al. The design of the Irish Longitudinal Study on Ageing. 2010.
21. Hyde M, Wiggins RD, Higgs P, Blane DB. A measure of quality of life in early old age: The theory, development and properties of a needs satisfaction model (CASP-19). *Aging & Mental Health*. 2003;7(3):186-94.
22. Russell DW. UCLA Loneliness Scale (Version 3): Reliability, validity, and factor structure. *Journal of personality assessment*. 1996;66(1):20-40.
23. Lewinsohn PM, Seeley JR, Roberts RE, Allen NB. Center for Epidemiologic Studies Depression Scale (CES-D) as a screening instrument for depression among community-residing older adults. *Psychol Aging*. 1997;12(2):277-87.
24. Cohen S, Kamarck T, Mermelstein R. A global measure of perceived stress. *Journal of Health and Social Behavior*. 1983;24(4):385-96.
25. Hopko DR, Stanley MA, Reas DL, Wetherell JL, Beck JG, Novy DM, et al. Assessing worry in older adults: confirmatory factor analysis of the Penn State Worry Questionnaire and psychometric properties of an abbreviated model. *Psychol Assess*. 2003;15(2):173-83.
26. Fan M., Lyu J., He P. Guidelines for data processing and analysis of the International Physical Activity Questionnaire (IPAQ) 2005 [Available from: <http://www.ipaq.ki.se>].

References

27. Craig CL, Marshall AL, Sjöström M, Bauman AE, Booth ML, Ainsworth BE, et al. International physical activity questionnaire: 12-country reliability and validity. *Med Sci Sports Exerc.* 2003;35(8):1381-95.
28. Donoghue OA, McGarrigle CA, Foley M, Fagan A, Meaney J, Kenny RA. Cohort Profile Update: The Irish Longitudinal Study on Ageing (TILDA). *Int J Epidemiol.* 2018;47(5):1398-l.
29. Jones A. *Applied Econometrics for Health Economists: A practical guide.* Second ed. Oxford: UK: Radcliffe Publishing; 2007.
30. Allison PD. *Fixed effects regression models:* SAGE publications; 2009.
31. Torres-Reyna O. *Panel data analysis fixed and random effects using Stata (v. 4.2).* Data & Statistical Services, Princeton University. 2007;112:49.
32. StataCorp. *Stata Statistical Software: Release 15.* College Station, TX: StataCorp LLC.: StataCorp; 2017.
33. Ward M, Layte R, Kenny RA. Loneliness, social isolation, and their discordance among older adults. Findings from The Irish Longitudinal Study on Ageing (TILDA) The Irish Longitudinal Study on Ageing 2019 https://tilda.tcd.ie/publications/reports/pdf/Report_Loneliness.pdf
34. Wilmer MT, Anderson K, Reynolds M. Correlates of Quality of Life in Anxiety Disorders: Review of Recent Research. *Curr Psychiatry Rep.* 2021; 23(11): 77.
35. Briggs R, Tobin K, Kenny RA, Kennelly SP. What is the prevalence of untreated depression and death ideation in older people? Data from the Irish Longitudinal Study on Aging. *Int Psychogeriatr* 2018;30(9):1393-1401

Appendix

Chapter 4

Table A.1 presents the breakdown of the physical health indicators by participation and gender.

Table A.1 Physical health indicators by participation and gender

| | Male | | | Female | | |
|---------------------------|--------------------------------------|---|------------|--------------------------------------|---|------------|
| Self-rated health | No, I have never participated | No, but I have previously participated | Yes | No, I have never participated | No, but I have previously participated | Yes |
| Excellent/Very good/Good | 87% | 83% | 87% | 82% | 82% | 91% |
| Fair/Poor | 13% | 17% | 13% | 18% | 18% | 9% |
| Self-rated vision | | | | | | |
| Excellent/Very good/Good | 90% | 92% | 94% | 89% | 92% | 95% |
| Fair/Poor | 10% | 8% | 6% | 11% | 8% | 5% |
| Self-rated hearing | | | | | | |
| Excellent/Very good/Good | 74% | 75% | 75% | 83% | 80% | 84% |
| Fair/Poor | 26% | 25% | 25% | 17% | 20% | 16% |
| Disability | | | | | | |
| No disability | 88% | 86% | 86% | 87% | 85% | 90% |
| Disability | 12% | 14% | 14% | 13% | 15% | 10% |
| Chronic condition | | | | | | |
| No chronic condition | 20% | 16% | 20% | 12% | 9% | 13% |
| Chronic condition | 80% | 84% | 80% | 88% | 91% | 87% |
| Chronic pain | | | | | | |
| No pain/ mild pain | 77% | 84% | 80% | 69% | 64% | 75% |
| Moderate/severe pain | 23% | 16% | 20% | 31% | 36% | 25% |

Appendix

Table A.2 present the mental health indicators by participation and gender.

Table A.2 Mental health indicators, by participation and gender

| | Men | | | Women | | | Total sample | |
|--------------------------------------|-------------------------------|--|-------|-------------------------------|--|-------|--------------|-------------|
| | No, I have never participated | No, but I have previously participated | Yes | No, I have never participated | No, but I have previously participated | Yes | Mean score | Sample size |
| CASP-12 Quality of Life Score (Mean) | 27.15 | 26.98 | 27.50 | 27.03 | 26.86 | 28.75 | 27.3 | 2,901 |
| UCLA Loneliness Scale (Mean) | 1.66 | 1.98 | 1.65 | 1.97 | 2.36 | 1.88 | 1.9 | 2,987 |
| Perceived Stress Scale (Mean) | 4.30 | 4.29 | 3.86 | 4.73 | 4.88 | 3.74 | 4.4 | 2,997 |
| CESD-8 Depression Score (Mean) | 2.93 | 3.13 | 3.18 | 3.55 | 4.48 | 3.46 | 3.4 | 3,069 |
| Penn State Worry Score (Mean) | 13.65 | 14.29 | 12.71 | 16.70 | 16.94 | 15.05 | 14.9 | 2,884 |

Table A.3 present the behavioural health indicators by participation and gender.

Table A.3 Behavioural health indicators, by participation and gender

| | Men | | | Women | | |
|----------------|-------------------------------|--|-----|-------------------------------|--|-----|
| | No, I have never participated | No, but I have previously participated | Yes | No, I have never participated | No, but I have previously participated | Yes |
| Smoking status | | | | | | |
| Non-Smoker | 54% | 22% | 24% | 37% | 35% | 28% |
| Smoker | 54% | 22% | 23% | 45% | 31% | 24% |
| Exercise | | | | | | |
| Low | 52% | 26% | 22% | 41% | 38% | 22% |
| Moderate | 53% | 22% | 26% | 38% | 33% | 29% |
| High | 56% | 21% | 22% | 33% | 31% | 36% |

Chapter 5

This section includes a sensitivity analysis on the analysis conducted in Chapter 7. For self-rated health and quality of life the analysis is carried out again but without including data from Wave 6 of TILDA. The reason for this sensitivity analysis is because of the significant shock that the COVID-19 pandemic had on participation in arts, creative and cultural activities and also on health and wellbeing outcomes.

Self-rated health

When Wave 6 is dropped from the analysis there is no change in the findings, there continues to be no statistically significant association between self-rated health and participation in arts, creative and cultural activities over time.

Table A.4 Fixed-effects model showing long-term associations between participating in arts, creative and cultural activities, and self-rated health

| Self-Rated Health | OR (95% CI) |
|-------------------------|---------------------|
| Creative Activity Score | |
| Low Activity | Ref |
| Moderate Activity | 0.92 (0.67,1.26) |
| High Activity | 1.26 (0.83,1.90) |
| Wave | |
| | 3 0.80 (0.49,1.30) |
| | 4 0.87 (0.38, 2.02) |
| | 5 0.69 (0.21, 2.25) |

Notes: (i) OR=Odds Ratio; 95% confidence intervals in brackets.

(ii) Levels of significance: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Quality of Life

When Wave 6 is dropped from the analysis there are some changes to the findings, with slightly lower levels of statistical significance and degree of associations, however the relationship remains. A change in participation in arts, creative and cultural activities, in Wave 2, from low to moderate is associated with a 0.33 increase in the CASP-12 quality of life score in Wave 3. A change from a low to high level of participation in arts, creative and cultural activities, in Wave 2, is associated with a 0.48 increase in quality of life in Wave 3.

Table A.5 Fixed-effects model showing long-term associations between participating in arts, creative and cultural activities, and quality of life

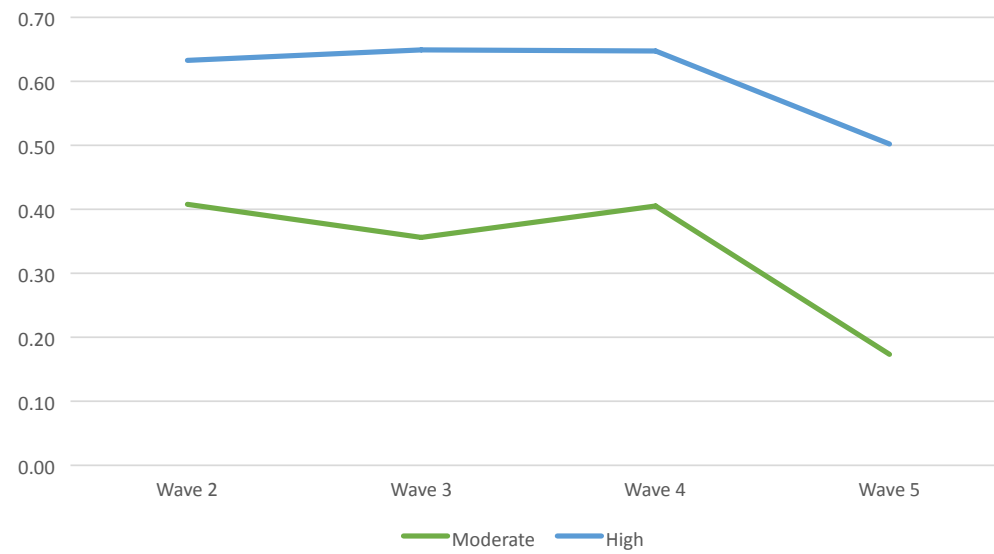
| Quality of Life | β (SE) |
|-------------------|-----------------|
| Creative Activity | |
| Low | Ref |
| Moderate | 0.33* (0.14) |
| High | 0.48** (0.16) |
| Wave | |
| | 2 Ref |
| | 3 -0.49* (0.21) |
| | 4 0.06 (0.36) |
| | 5 0.17 (0.50) |

Notes: (i) β = Unstandardized Beta Coefficient, SE = Standard Error

(ii) Levels of significance: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Figure A.1 presents the findings for each wave. For example, the effect is similar across the first three waves, but there is a drop off in the degree of association after Wave 4.

Figure A.1 Fixed-effects model showing long-term associations between participating in arts, creative and cultural activities, and quality of life





tilda

Staidéar Fadaimseartha na
hÉireann um Dhul in Aois

The Irish Longitudinal
Study on Ageing