

Barriers to lifelong learning: results from the HaPAI survey
2018

The Healthy and Positive Ageing Initiative (HaPAI) is a joint research programme led by the Department of Health with the Health Service Executive, the Age-friendly Ireland Programme and The Atlantic Philanthropies.

ACKNOWLEGEMENTS

This report presents information collected by the HaPAI Age-friendly Cities and Counties Survey, a study involving adults aged 55 and older in 21 Local Authorities in Ireland.

The study was conducted by the HaPAI research team:

Sinead Shannon, Programme Manager;

Sarah Gibney, Programme Analyst;

Eithne Sexton, HaPAI/TILDA Research Fellow (until May 2016);

Mark Ward, HaPAI TILDA Research Fellow (from September 2016);

Tara Moore, Research Assistant; and,

Niamh Moran, Research Assistant.

The team would like to thank all survey respondents who generously gave their time to share their views, circumstances, and experiences, and thank the following Local Authorities for taking part and co-funding the survey in their area. The team would also like to acknowledge the support of our funders, The Atlantic Philanthropies, the HSE and the Department of Health and to thank the members of the HaPAI Steering Group and the HaPAI Oversight Group for their guidance throughout the project.

Citation

Gibney S, Moran N, Shannon S. Barriers to lifelong learning: results from the HaPAI survey. Dublin: HaPAI; 2018.









PREFACE

This report was completed by the Healthy and Positive Ageing Initiative (HaPAI) which is a research programme led by the Department of Health in association with the HSE, the Age-Friendly Ireland Programme, and The Atlantic Philanthropies. The HaPAI was established in order to achieve Goal 4 of the National Positive Ageing Strategy (1): Support and use research about people as they age to better inform policy responses to population ageing in Ireland. National Goal 4 involves two objectives:

- Continue to employ an evidence-informed approach to decision-making at all levels of planning; and
- Promote the development of a comprehensive framework for gathering data in relation to all aspects of ageing and older people to underpin evidenceinformed policy making.

The HaPAI is also aligned with several goals and actions of Healthy Ireland – A Framework for Improved Health and Wellbeing 2013-2025 (2), the national framework for the improvement of population health and wellbeing, and the WHO's Active Ageing: A Policy Framework (3) which provides key policy proposals for enabling active ageing in our societies. The HaPAI commenced in 2015 and is operational in a number of different areas of activity:

- The development of national indicators of older people's health and wellbeing, leading to the 2016 publication of a biennial report on the health and wellbeing of older people in Ireland;
- The establishment of a research fund to commission targeted additional research to fill identified data gaps required to cover all indicators, relevant to the design or configuration of future services and supports for older people; and
- At a local level, the development of indicators using either national data broken down to the county level where possible, or additional data collected locally and published in a series of county reports in selected counties.

EXECUTIVE SUMMARY

Education, adult skills, and lifelong learning across the life course has previously been linked to positive health and psychological wellbeing, improved socioeconomic circumstances, and social wellbeing. However, participation in lifelong learning in Ireland is low, particularly among adults who are no longer in the workforce. The identification and removal of barriers to lifelong learning is essential to improving this participation rate.

Supporting evidence-informed strategies and programmes

The purpose of this study was to provide up-to-date evidence about participation in lifelong learning and barriers to lifelong learning among older people in Ireland. For the first time in Ireland this information is reported at local level in order to support the development of programmes and approaches to enhance participation in lifelong learning in local areas. Data is from the HaPAI Agefriendly Cities and Counties Survey which involved 10,500 adults aged 55 and older in 21 Local Authority areas.

Key findings

- Overall, 11.4% of participants engaged in some form of lifelong learning in the past 12 months and participation rates ranged from 5.0% to 19.6% across the Local Authority areas.
- Participation was particularly low among adults aged 75 and older, women, those who were looking after the home or family and, and adults who do not drive.
- Participation rates were higher among those with higher levels of education attainment, and adults with higher incomes.
- Among non-participants who reported barriers, over one third (36.9%)
 experienced access and provision barriers, 23.3% reported personal barriers,
 7.7% reported dispositional barriers, and 32% reported 'other'.
- A large proportion of non-participants did not report a barrier (71%). These
 adults were more likely to be older, with lower education and incomes, in
 poorer health, and do not drive.

Strategy pointers

Some barriers were readily identified by participants themselves, including access, cost, no available courses, care and home responsibilities, and poor health. Dispositional barriers reported by older adults also emphasise the enduring impact of low literacy, low self-esteem, feeling too old, and not placing any value on lifelong learning. A large majority of older adults do not engage in lifelong learning and do not report these types of barriers. Approaches to improving access and provision will also require an increased effort to promote a culture of value and interest in lifelong learning, and increase capacity to engage.

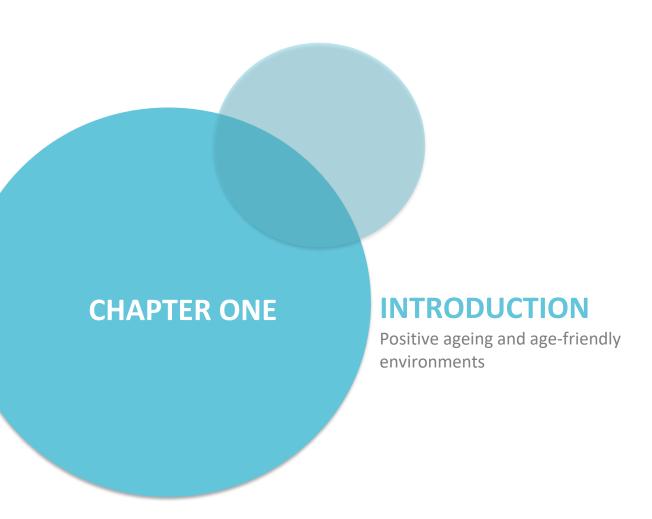
CONTENTS

ACk	KNOWLEGEMENTS	i
PRE	EFACE	ii
EXE	ECUTIVE SUMMARY	iii
TAE	BLES LIST	vi
FIG	URES LIST	vi
1.	INTRODUCTION	8
	IRELAND'S AGEING POPULATION	8
	POSITIVE AGEING	8
	KEY DEFINITIONS USED IN THIS REPORT	12
2.	BACKGROUND	14
	LIFELONG LEARNING AND HEALTH AND POSITIVE AGEING	14
	BARRIERS TO LIFELONG LEARNING	14
	KEY THEORIES AND CONCEPTS	15
	RESEARCH EVIDENCE FROM IRELAND	16
	IRISH POLICY RELATING TO LIFELONG LEARNING	17
	CURRENT PROVISION OF LIFELONG LEARNING FOR OLDER ADULTS	18
3.	METHODS	22
	DATA AND SAMPLE	22
	FIELDWORK AND DATA COLLECTION	22
	RESPONSE RATES AND SAMPLE WEIGHTS	22
	MEASURES	24
	ANALYSIS	27
	SAMPLE CHARACTERISTICS	27
4.	RESULTS	30
	PARTICIPATION IN LIFLONG LEARNING	30

	PARTICIPATION IN LIFELONG LEARNING IN EACH LOCAL AUTHORITY AREA	
	FACTORS ASSOCIATED WITH PARTICIPATION IN LIFELONG LEARNING	
	BARRIERS TO LIFELONG LEARNING	
	FACTORS ASSOCIATED WITH BARRIERS TO LIFELONG LEARNING	
5.	DISCUSSION AND CONCLUSION	
5.	DISCUSSION AND CONCLUSION 44 DISCUSSION 44	
5.		

TABLES LIST

TABLE 1 SAMPLE AND RESPONSE RATE	. 23
TABLE 2 LIFELONG LEARNING SURVEY QUESTIONS	. 24
TABLE 3 LIFELONG LEARNING PARTICIPATION AND BARRIERS (DERIVED	
MEASURES)	25
TABLE 4 DEMOGRAPHIC, SOCIO-ECONOMIC, SOCIAL AND HEALTH MEASURES	. 26
TABLE 5 RESPONDENT CHARACTERISTICS	28
TABLE 6 PARTICIPATION IN LIFELONG LEARNING: DEMOGRAPHIC AND SOCIO-	
ECONOMIC CHARACTERISTICS	31
TABLE 7 PARTICIPATION IN LIFELONG LEARNING: CARER AND HEALTH STATUS .	32
TABLE 8 PARTICIPATION IN LIFELONG LEARNIN: LOCATION AND TRANSPORT	32
TABLE 9 FACTORS ASSOCIATED WITH PARTICIPATION IN LIFELONG LEARNING	35
TABLE 11 REPORTED BARRIERS TO LIFELONG LEARNING AMONG NON-	
PARTICIPANTS BY DEMOGRAPHIC CHARACTERISTICS	. 37
TABLE 12 REPORTED BARRIERS TO LIFELONG LEARNING AMONG NON-	
PARTICIPANTS BY SOCIO-ECONOMIC STATUS	. 38
TABLE 13 REPORTED BARRIERS TO LIFELONG LEARNING AMONG NON-	
PARTICIPANTS BY HEALTH AND CARE, LOCATION, AND TRANSPORT	. 39
TABLE 14 FACTORS ASSOCIATED WITH BARRIERS TO LIFELONG LEARNING	42
FICLIDECTICE	
FIGURES LIST	
FIGURE 1 NATIONAL POSITIVE AGEING STRATEGY GOALS ALIGNED WITH WHO	
AGE-FRIENDLY CORE DOMAINS	
FIGURE 2 PARTICIPATION IN LIFELONG LEARNING BY LOCAL AUTHORITY AREA .	



1. INTRODUCTION

IRELAND'S AGEING POPULATION

Demographic change has the potential to create opportunities and challenges for communities of the future. The demographics of Ireland are changing rapidly and according to a 2017 report from the Economic and Social Research Institute (ESRI) between 2016 and 2030 the population share of people aged 65 and over will increases from 13% to between 17% and 19% and the number of people aged 65 and over is projected to increase by between 58 and 63% during this time (4).

Demographic ageing represents a triumph in development, as people are living longer lives due to better food, health care, sanitation, education and economic wellbeing (5). However, demographic ageing also has implications for public strategies and policies, service provision, long-term planning, and society as a whole in areas as diverse as housing, transport, education, employment, tourism, business development, and civic and social engagement.

Older adults contribute to both their extended families and the wider community in a variety of ways including financial support, family care or other supports and through active citizenship in their communities. Importantly, these relationships are often reciprocal, with older adults benefitting in terms of improved quality of life and psychological wellbeing. Far from being reliant on familial and social support, older members of society are in many instances net contributors to their extended family and communities. As such, it is important that we continue to move away from a predominantly health and medical focus on the ageing population towards a more holistic approach that also includes broader social and economic characteristics (6).

POSITIVE AGEING

Strategies and plans such as the National Positive Ageing Strategy (NPAS) (1) and Healthy Ireland – A Framework for Improved Health and Wellbeing 2013-2025 (2), have recognised this new reality and have sought to take a different approach to planning for this new Ireland. There has been a shift in the perception of ageing towards the more positive perspective, conceptualising later life as a period of continued growth and development for older people. This view is central to the vision set out in the NPAS and is consistent with international developments in relation to ageing, and in particular the WHO's Active Ageing: A Policy Framework (3).

The NPAS set out a vision for Ireland as

"...a society for all ages that celebrates and prepares properly for individual and population ageing. It will enable and support all ages and older people to enjoy physical and mental health and wellbeing to their full potential. It will promote and respect older people's engagement in economic, social, cultural, community and family life, and foster better solidarity between generations".

This vision translated into four goals:

- Remove barriers to participation and provide more opportunities for the continued involvement of people as they age in all aspects of cultural, economic and social life in their communities according to their needs, preferences and capacities.
- 2. Support people as they age to maintain, improve or manage their physical and mental health and wellbeing.
- 3. Enable people to age with confidence, security and dignity in their own homes and communities for as long as possible.
- 4. Support and use research about people as they age to better inform policy responses to population ageing in Ireland

From the outset it was intended that implementation of the NPAS would require a 'whole of government' response, and be framed within the implementation of Healthy Ireland (2). At local level, the WHO Age Friendly Cities and Counties (AFCC) programme was identified in the National Positive Ageing Strategy (1) as being an important approach to improving the lives of older people throughout the country.

The Age Friendly Cities and Counties programme was built on the understanding that the wide-ranging change and planning required to prepare for demographic ageing called for a collaborative approach. In each local authority, the Age Friendly Cities and Counties programme provides a mechanism for the relevant state agencies, working under the aegis of the Local Authorities, to ensure that their combined resources are used optimally, delivering necessary services to older people within their own local communities.

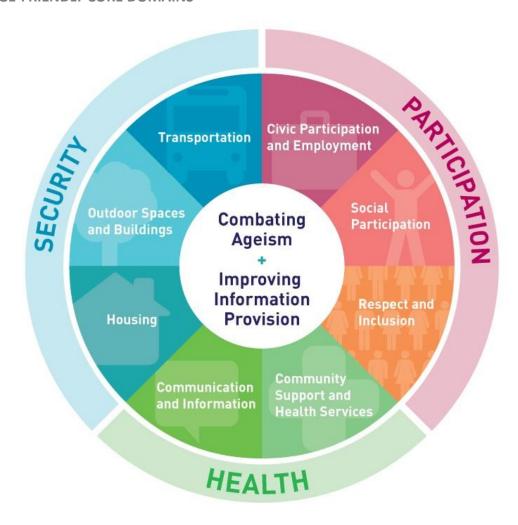
Whilst local government has driven the Programme, the governance is constituted in the multi-agency Age-Friendly Alliances, supported by Older Peoples' Councils. The programme draws in a broad network of stakeholders who collaborate to address issues associated with population ageing and to ensure the health and well-being of community residents as they age. These stakeholders include agencies from local governments, non-profit organisations, advocacy groups, older people themselves and the broader community.

The concept of 'age-friendliness' is linked to an initiative started by the WHO in 2007 called the WHO Global Age-Friendly Cities project (7) . In an age-friendly community, policies, services and structures related to the physical and social environment are designed to support and enable older people to "age actively" – that is, to live in security, enjoy good health and continue to participate fully in society. Public and commercial settings and services are made accessible to accommodate varying levels of ability, to recognise the great diversity among older persons and to promote their inclusion and contribution in all areas of community life.

To achieve this vision each Local Authority in Ireland has committed to developing an Age Friendly Programme based on the World Health Organisation (WHO) Age-Friendly Cities Framework and Guidelines (7). An age-friendly environment fosters

health and wellbeing by focusing on and nurturing eight domains which are closely aligned with the goals of the NPAS as illustrated in Figure 1.

FIGURE 1 NATIONAL POSITIVE AGEING STRATEGY GOALS ALIGNED WITH WHO AGE-FRIENDLY CORE DOMAINS



This report focuses on the WHO Age-friendly core domain of *'Social Participation"* which includes Lifelong Learning and is aligned with Goal 1, Participation and Objective 1.2 Education and Lifelong Learning, of the NPAS. This report has two aims:

Aim 1: Provide a profile participation and barriers to lifelong learning among over 55s

Aim 2: Describe the characteristics of adults who report barriers to lifelong

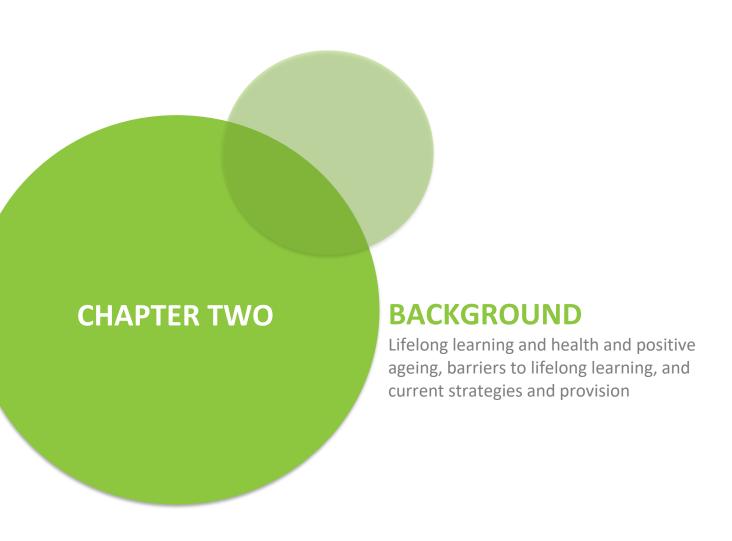
This report is organised as follows: Chapter 2 discusses relevant literature on healthy and positive ageing, lifelong learning, and barriers to lifelong learning. Current lifelong learning strategies and provision is also summarised. Chapter 3 provides details on the methods used in this study. Chapter 4 presents the results of this study by describing participation in lifelong learning, demographic socio-

economic, and health factors associated with participation, and barriers to lifelong learning. Chapter 5 concludes the report.

KEY DEFINITIONS USED IN THIS REPORT

Lifelong learning is defined as "all purposeful learning activity, whether formal, non-formal or informal, undertaken on an on-going basis with the aim of improving knowledge, skills and competence" (8:6). The following definition of formal and non-formal education from SOLAS (2017)(9) are relevant to this report:

Formal education corresponds to education and training in the regular system of schools, universities, colleges and other formal educational institutions. Non-formal education is defined as any organised and sustained educational activities that do not correspond to the definition of formal education. It may or may not take place in educational institutions and can cater to persons of all ages. It may cover educational programmes to impart adult literacy, basic education for out-of-school children, life skills, work skills and general culture.



2. BACKGROUND

LIFELONG LEARNING AND HEALTH AND POSITIVE AGEING

There is a well-established link between educational attainment and positive health outcomes due to better work and economic conditions, enhanced social and psychological resources, and healthy lifestyles across the life course (10,11). Beyond formal education, 'learning in general' and continued adult education can help adults accumulate socio-economic, psychosocial and socio-political resources, all of which support better health outcomes as people age (12).

Older adult learners often report increased confidence (13–15) and mental stimulation (16–19), the latter of which is strongly associated with the maintenance of good physical health (20). Engagement in cognitively stimulating social and leisure activities may protect against cognitive decline (21,22) and as a result, older adults with higher lifetime educational attainment and with higher skill occupations appear to be less likely to experience age-related cognitive decline (21). Participation in learning also provides intrinsic rewards: enhancing quality of life, increasing motivation, improving coping skills, and aiding independence and social connectedness (23).

Lifelong learning is also an adaptive function necessary for a world which is becoming increasingly technology based (24). Regardless of one's age, even some of the most fundamental tasks of daily living require new learning, such as self-service checkouts in supermarkets, and online banking. Individuals need to upgrade their skills and knowledge throughout their adult lives to stay up to date with modern life, not just in relation to work but also their own personal lives (25).

With regard to social and community wellbeing, "participation in learning tends to enhance social capital by helping develop social competencies, extending social networks and promoting shared norms and tolerance of others" (p.23)(26). Learning increases personal and community wellbeing through opportunities for older people to share their life experience and expertise and to contribute to voluntary activities (24). Furthermore, lifelong learning activities promote intergenerational solidarity by bridging age differences and promoting the worth of all ages (3). According to the WHO, young people who learn with older people have more positive and realistic attitudes towards older generations (3).

BARRIERS TO LIFELONG LEARNING

There is an extensive body of research that has built on the three-part framework of barriers to lifelong learning described by Cross (1981) (27). These include 1) situational barriers which occur due to an individual's situation or environment at any given time, 2) institutional barriers which refer to practices and procedures which exclude or discourage adults from participating in organised learning events, and 3) dispositional barriers which are characterised by attitudes and self-

perceptions individuals have about one's self as an active learner and motivation to learn.

Situational barriers

There are a range of situational barriers to participation in lifelong learning. Many older adults, particularly women, who are retired are engaged in caring responsibilities (28) which can act as a personal barrier to participating in lifelong learning. Inadequate provision of accessible information from learning providers and the design of adult education programmes themselves may act as a barrier to participation if their needs and characteristics are not sufficiently taken into account (29). Other access barriers include lack of finance and study facilities and distance to educational provision (29). As most opportunities for further education and training are provided via the workplace (30), older adults, and women in particular, may have less access to learning throughout their adult life.

Institutional barriers

Opportunities for lifelong learning in liberal labour market regimens such as Ireland are strongly influenced by a person's initial level of education and as such, adult skills are highly polarised (31). This is a particular concern as a substantial proportion of older adults in Ireland have a low level of educational attainment. For older workers, this means fewer opportunities to engage in lifelong learning. The strong emphasis in Ireland on initial formal education and training and a comparatively weaker emphasis for older age-groups is reflected in declining participation in formal and non-formal education, from 4% aged 35-44 to 0.8% aged 55-74 (32) and steep gradients in literacy, numeracy and IT skills that decline across age groups (33).

Dispositional barriers

From the perspective of the individual, a person's initial experience of education during childhood and adolescence is pivotal in shaping a 'learner identity' that withstands into adulthood (34). Educational disadvantage is also intergenerational (29) insofar as low education among parents is linked to lower participation in education among next generation, and lower adult skills. Higher educational attainment is also associated with social and economic participation across the life course and increased access to opportunities for learning in later life. As such, those who have the highest level of education continue to engage in learning opportunities across the life course (35).

KEY THEORIES AND CONCEPTS

There are three key behavioral theories to consider when seeking understanding how and why individuals do or do not engage in lifelong learning. To begin, the Theory of Planned Behaviour (TPB) (36,37) proposes that actions are influenced by a variety of individual, social and demographic factors (38,39) and that a certain level of intention is necessary for someone to participate. However intention to participate does not always result in participation. For example, situational barriers

such as family commitments may act as a barrier to participation (40) irrespective of intention.

The Psychosocial Interaction Model (41) recognises that life course experiences, such as childhood and the social environment in which a person grows up can influence their experience with the education system and their opportunities to engage in lifelong learning. Indeed the relationship between socio-economic status and participation in lifelong learning (39) is well established. This theory is often used to explain dispositional barriers, insofar as the extent and quality of education during early years influences a person's ability and motivation to engage in lifelong learning (42) and their adult 'learner identity' (34).

The Bounded Agency Model (43) is often used to explain institutional barriers to lifelong learning, by showing how government policies have the potential to increase or remove barriers to lifelong learning, and over time, influence intention to participate in lifelong learning.

Finally, the concept of motivation-to-learn is also closely linked to each of these theories. According to Gorges et al. (44) motivation to learn can be intrinsic: linked to a specific activity or situation, or extrinsic, due to external incentives or rules, such qualifications required for employment and promotion. Motivation to learn can also be performance goal-orientated, (to out-perform others) and mastery goal-orientated (to develop one's own skills).

RESEARCH EVIDENCE FROM IRELAND

The multi-faceted nature of barriers to lifelong learning is reflected in recommendations for increasing participation rates that were published by AONTAS in 2007. These included making learning in later life a priority in service plans; removing the upper age limit of 64 years for participation in programmes such as the Back to the Education Initiative (BTEI); increasing funding for continuous professional development for service providers to support older learners; improving rural transport links to combat rural isolation and improve access to learning activities; and a more learner-centred approach to developing services.

Experiences and barriers to returning to formal education among older adults (aged 60 and 80 years) in Ireland were profiled by Lalor and colleagues (45). Institutional barriers included experiencing ageist attitudes and feeling that their views were given little consideration. Situational barriers included poor health and access difficulties (lack of transport and inconvenient location). Finally, dispositional barriers included fear, low self-esteem, poor past experience of formal education and reluctance to participate in mixed-generational classes.

A recent study in Ireland (46) of further education and training (FET) provision and extrinsic and intrinsic barriers to FET participation highlighted a range of barriers, including:

- Motivation/disposition (e.g. age, poor mental health, learning difficulties, low confidence, negative prior educational experience, low adult skills, and negative perceptions of FET);
- Socio-economic (e.g. low incomes, childcare, poor transport);

- Organisational (e.g. course length, availability and flexibility, access, perceived purpose): and,
- Information (e.g. insufficient information about course, social welfare entitlements, and benefits of FET).

Beyond participation, socio-cultural factors were also found to act as a barrier to remaining in FET and/or applying FET education and skills to their maximum benefit, after training is completed. These were particularly prevalent among vulnerable groups such as those who are long-term unemployed, people with disabilities, and migrants.

IRISH POLICIES AND STRATEGIES RELATING TO LIFELONG LEARNING

The objective of promoting a culture of lifelong learning contained in the NPAS follows several key policy and strategy developments that have shaped the landscape for lifelong learning in Ireland in the last 20 years.

The Irish University Act (1997) emphasised the role of Universities in allowing access to individuals who were not entering directly from school. Section 9(j) states that the act aims to; 'Facilitate lifelong learning through the provision of adult and continuing education'.

Learning for Life (2000), a seminal paper from AONTAS, linked adult education and the concept of active ageing and highlighted the disproportionate number of older adults in Ireland with literacy difficulties compared to younger cohorts. This was predominantly attributed to the restricted opportunities to access post-primary education prior to the 1960s.

The White Paper (Department of Education and Science, 2000) led to the introduction of the National Adult Literacy Programme and established the National Adult Literacy Agency (NALA) to act as the executive agency, while VECs, SOLAS and community/voluntary groups directed provision. The White Paper (2000) also places a particular emphasis on the need for Information Communication (ICT) training amongst older adults.

The Declaration by the Ministers of Education of the European Higher Education Area (2012) stated that the student population in higher education should be reflective of Europe's diverse populations, and has more recently been followed by an agreement which included a focus on the ageing population (47,48).

Between 2013 and 2016 three national strategies were launched in Ireland, all of which contain objectives to increase participation in lifelong learning. The National Positive Ageing Strategy (1) contains actions relating to increasing participation in lifelong learning which have been outlined in the previous section. The Further Education and Training (8) strategy aimed to provide an overarching framework for outcome-based planning and funding of the entire spectrum of education and training systems in Ireland within a lifelong learning perspectives that comprises formal, non-formal and informal learning. This responded to the need for a governance approach that provides strategic direction nationally, whilst also allowing providers enough autonomy to respond to local needs (49). The FET

strategy acknowledged that community education is a crucial point of access for many adults who were early school leavers and/or who have experienced socioeconomic exclusion (50). The National Skills Strategy (NSS) 2016-2025 emphasises that lifelong learning is crucial for Ireland's future skills development, and that lifelong learning activity can have a positive impact on productivity and the national economy. Among other objectives, the NSS aims to increase participation in lifelong learning to 15% by 2025.

In summary, there is a strong emphasis in the FET and NSS on lifelong learning for economic growth, 'smart ageing', and for the promotion and maintenance of adult skills that are necessary for economic and social progress. The NPAS places an additional emphasis on role of lifelong learning for health and wellbeing.

CURRENT PROVISION OF LIFELONG LEARNING FOR OLDER ADULTS

A comprehensive review of further education and training (FET) in Ireland was undertaken by the ESRI on behalf of SOLAS in 2016, prior to the launch of the FET Strategy, and can be accessed elsewhere. Therefore we will profile two major contributors to the provision of lifelong learning opportunities for older adults in Ireland: the Age-friendly University Initiative and, the University of the Third Age (U3A), and highlight the contribution of a selection of voluntary sector providers.

The Age-Friendly University (AFU) Initiative was launched in Ireland in 2012. The core concept of an AFU is to take a lead in equipping society for the multi-faceted challenges and opportunities of an ageing population. The 10 principles for an Age Friendly University are:

- To encourage the participation of older adults in all the core activities of the university, including educational and research programmes;
- To promote personal and career development in the second half of life and to support those who wish to pursue "second careers";
- To recognise the range of educational needs of older adults (from those who were early school-leavers through to those who wish to pursue Master's or PhD qualifications);
- To promote intergenerational learning to facilitate the reciprocal sharing of expertise between learners of all ages;
- To widen access to online educational opportunities for older adults to ensure a diversity of routes to participation;
- To ensure that the university's research agenda is informed by the needs of an ageing society and to promote public discourse on how higher education can better respond to the varied interests and needs of older adults;
- To increase the understanding of students of the longevity dividend and the increasing complexity and richness that ageing brings to our society;
- To enhance access for older adults to the university's range of health and wellness programmes and its arts and cultural activities;
- To engage actively with the university's own retired community; and,
- To ensure regular dialogue with organisations representing the interests of the ageing population.

Dublin City University (DCU) has developed a range of approaches that reflect these principles such as the use of flexible lifelong learning strategies which integrate part-time or e-learning, and programmes for health and wellbeing, such as the MedEx programme. DCU continues to lead this Initiative with partner institutions in the U.S., U.K., Canada, and Ireland, and the National University of Ireland (NUI) Galway also adopted the AFU principles in 2014. Furthermore, in 2017 the principles were adopted and endorsed by the Association for Gerontology in Higher Education – the educational unit of the Gerontological Society of America.

Since its foundation in 1972, U3A has become one of the most successful organisations engaged internationally in the provision of later life learning. U3As are learning circles or cooperatives that promoted opportunities to share knowledge and experiences, and this reflects the m (51). The term "university" is used here in a less formal sense and comes from its medieval meaning, 'a gathering or cooperative' (51). In Ireland, U3A groups organise a broad range of learning opportunities and activities, including talks on local history and wildlife, creative writing, stress management, gardening, computers, and poetry appreciation (52).

AONTAS is the National Adult Learning Organisation in Ireland and is a voluntary membership organisation. AONTAS seeks to promote the importance of adult and community education as part of lifelong learning and currently has three goals within its strategic plan 2015-2018(53): advocating and lobbying for developing of a quality service for adult learners; Promoting the value and benefits of adult learning; and, Building Organisational capacity.

Key areas of work conducted by AONTAS are providing an information referral service to adult learners and the general public, and to collect information and conduct research for the adult education sector. AONTAS works in partnership with several relevant Government Departments and represents the interests of adult learners at different forums. AONTAS organises the Adult Learner Festival each year and hosts the Adult Learner Forum which is a formal structure through which adult learners in Ireland can seek to influence further education and training (FET) policy decisions that affect them.

The National Adult Literacy Agency (NALA) is an independent charity which is dedicated to ensuring that individuals with literacy and numeracy challenges can participate fully within society and also have access to suitable learning activities. Since its foundation in 1980, NALA has worked in collaboration with various government Departments, non-governmental organisations, tutors and learners to advance policies and strategies and increase provision across multiple settings: homes, workplaces, and communities. In 2013, there were 54,682 adults attending Education and Training Boards adult literacy courses nationwide, however adults aged 65 years and older only comprised 8% of this figure (54).

Among provides who specifically focus on older adults, Age Action was established in 1992 with a mission to "achieve fundamental change in the lives of all older people by empowering them to live full lives as actively engaged citizens and to secure their rights to comprehensive high quality services according to their changing needs". With a particular focus on combatting the digital divide

experienced by many older people Age Action established the 'Getting Started Computer Training' programme which provides free courses on computers, tablets and smartphones for adults aged 55 and above. Since the programme was founded in 2006, over 32,000 older adults across 14 counties have taken part in computer training. Training is run by volunteer tutors and funding comes from a range of sources including government grants, corporate and public donations, charity foundations and Dublin City Council (Age Action, 2015).

Finally, Age and Opportunity (A&O) provides programmes for learning, cultural, sporting, and social activities for those 50 and above, in collaboration with the HSE, Sport Ireland and the Arts Council. A&O also run programmes in partnership with local sports groups, public libraries, arts centres and Vocational Education Committees (VECs) amongst others. A&O advocates that individuals who work with older adults need to be aware of the needs and also the potential of older adults as lifelong learners (55).



3. METHODS

DATA AND SAMPLE

Data is from the Healthy and Positive Ageing Initiative (HaPAI) survey. This was a random-sample, population representative survey of people aged 55 and older, living in 21 Local Authority areas in 2015-2016. The following Local Authorities participated in the survey: Dublin City; South Dublin; Fingal; Dun Laoghaire-Rathdown; Galway City; Galway County; Clare; Limerick City; Limerick County; Kildare; Kilkenny; Laois; Louth; Meath; Wexford; Wicklow; Cavan; Cork City; Cork County; Mayo; and Tipperary. Data was collected between 2015 and 2016.

The target population for this survey includes all community-dwelling members of the population aged 55 and older in each Local Authority. This sample did not include people aged 55 and older who were in long-term care or living in an institution at the time of survey.

A multi-stage random-route sampling strategy was used to generate a sample of this population. This sampling approach involved several steps. Firstly, a random sample of 50 District Electoral Divisions (DED) in each Local Authority was selected as the primary sampling units (PSUs). Within each selected DED a starting address was selected at random. Beginning with this address a total of 10 interviews were to be completed in each of the 50 areas.

Detailed information on the approach that interviewers took to identify eligible households within each area for the survey is described below. In summary, from their starting address, interviewers called to every fifth house. The interviewer asked to speak to a person aged 55 years or older in the household. One person aged 55 or older per household was invited to complete the interview. If there were two or more older people in the household the interviewer applied the 'next birthday' rule to select one participant.

FIELDWORK AND DATA COLLECTION

A total of 10,540 interviews were conducted in Ireland between 2015 and 2016. Each participant completed a structured Computer-Assisted Personal Interview (CAPI) in their own home with a trained interviewer from Amárach Research. Participants were also invited to complete an additional, separate, paper-based survey which included subjective wellbeing (depressive mood and quality of life) and experience of elder abuse.

RESPONSE RATES AND SAMPLE WEIGHTS

The response rate is the proportion of selected households that included an eligible participant who completed an interview. A total of 10,540 surveys were completed.

The overall response rate was 56%, and this ranged from 51% to 63% across the areas. This includes an estimate of the households who are likely to contain an eligible household member, but for which eligibility was not determined. The

response rate and number of respondents within each Local Authority area are reported in Table 1 below.

Response rates typically vary among different groups within a given population such as different age groups or levels of education. This variation can lead to biased estimates when reporting results. In order to adjust for this, sample weights have been applied to the survey data. The sample weights corresponded to the number of people, with a given set of characteristics, in the population that were represented by each survey participant. Weights which were applied to the survey sample were estimated using the Census (2011). The characteristics compared were age, gender, educational attainment (primary/secondary/third level) and marital status (married/not married).

TABLE 1 SAMPLE AND RESPONSE RATE

Area	Sample (n value)	Response Rate (%)
Clare	500	59
Cork County	501	58
Cork City	501	56
Cavan	500	56
Dublin City	502	57
Dublin Fingal	502	50
Dun Laoghaire-Rathdown	502	51
Dublin South	501	57
Galway County	518	55
Galway City	504	63
Kildare	500	62
Kilkenny	500	55
Laois	501	60
Limerick City	501	59
Limerick County	502	59
Louth	500	53
Meath	500	56
Mayo	502	51
Tipperary	502	54
Wicklow	500	57
Wexford	501	51
Total	10,540	56

MEASURES

Two questions about lifelong learning were asked in the survey. As shown in Table 2, the first of these asked participants if they had participated in either formal or informal lifelong learning in the previous 12 months. For clarity, examples of a number of both formal and informal activities were provided. The second question asked participants if they had experienced any barriers that prevented them from participating in an educational course. Again, a list of potential barriers was provided in an effort to ensure the question was clear to participants.

TABLE 2 LIFELONG LEARNING SURVEY QUESTIONS

	Survey question
Participation in Lifelong Learning in the past 12 months	Within the last 12 months, have you participated in formal or informal education? Including; literacy classes (to help overcome reading /writing difficulties); ICT classes; junior or leaving certificate; special interest courses e.g. arts/crafts cookery etc.; technical or vocational course, not leading to a formal qualification; diploma or degree; postgraduate diploma or degree; technical or vocational course, leading to a formal qualification.
Barriers to lifelong learning in the past two years	Within the past two years, have you been prevented from taking an educational course because of; costs associated with taking the course; lack of transport / distance to course; no suitable / interesting courses available; responsibilities in the home (e.g. caring for spouse/other family member); personal incapacity or ill health; other (option to provide open ended feedback); or, no barriers.

From these survey questions, two measures were derived and used in the subsequent analysis presented in this report. As shown in Table 3. Participants were assigned to one of three participation groups: those who had participated in any lifelong learning in the previous 12 months; those who had not participated and reported specific barriers to pa5rticipation; and finally, those who did not participate and did not report any specific barriers to participation. The second composite indicator grouped the types of barriers to non-participation. These were: access and provision barriers; personal barriers; dispositional barriers; and other, non-specified reasons.

TABLE 3 LIFELONG LEARNING PARTICIPATION AND BARRIERS (DERIVED MEASURES)

Measures	Description
Types of participant and non- participants	Participants were grouped into three categories based on their responses to questions about participation in the past 12 months, and about barriers to participation in the past two years:
	1) <i>Participants</i> - participated in the past 12 months;
	2) Non-participant – reported barrier – did not participate and reported specific barriers; and,
	3) <i>Non-participant- no reported barriers</i> – did not participate and reported 'no barriers'.
Type of barriers	Reported barriers were grouped into four categories:
	1) Access and provision - barriers such as the costs associated with participating in courses, lack of transport, no interesting courses available and courses took place at inconvenient times.
	2) <i>Personal</i> - responsibilities in the home and personal incapacity or ill health.
	3) <i>Dispositional</i> - barriers such as being too old, too busy, not interested and having literacy issues.
	4) Other (unspecified): - other barriers selected but not specified.

A list of the indicators included in the analysis in this report is provided in Table 4 below. These indicators are within the domains of demographic characteristics; socio-economic status; health status; caring; and independent transport (driving).

TABLE 4 DEMOGRAPHIC, SOCIO-ECONOMIC, SOCIAL AND HEALTH MEASURES

Measures	Description
Gender	Male or female
Age	Age group categories used in this study: 55+, 55-64, 55-69, 65+, 65-74, 70+ and 75+
Marital status	Married/living with a partner as married, single (never married), divorced/separated, or widowed
Household composition	Living alone, living with spouse/partner, or living with family/non-family (without or without spouse/partner)
Material deprivation	Responding 'no' to two or more items from a list of 11 items about the household E.g. Does the household replace any worn our furniture.
Income	Income bands: €501 up to €1,000; €1,001 up to €1,500; €1,501 up to €2,500; €2,501 or more. A missing category is also included due to missing information (32.4%).
Location of home	Rural (open countryside or village) or urban (town, city or city suburb)
Education	Primary or none, secondary, or third level
Self-rated health	How is your health in general? Very good, good, fair, bad, very bad
Chronic conditions	None, one chronic condition, two chronic conditions, or three or more chronic conditions
Long-standing illness/ condition that limits everyday activities	No long-standing illness/condition; yes, not limiting; yes, limiting; yes, severely limiting.
Caring for older or disabled relatives and caring for children or grandchildren	How often are you involved in caring for your children, older or disabled relatives? Weekly, less than weekly or never.
	How often are you involved in caring for your children, grandchildren? Weekly, less than weekly or never.
Independent transport	Within the past week, did you drive yourself? Yes or no.

ANALYSIS

To examine the effect of a multiple factors on lifelong learning and barriers participation in lifelong learning, a multilevel approach was taken to account for the two-stage sampling strategy employed that involved participants (level 2) being sampled from within Local Authority regions (level 1).

Results are presented as odds ratios which show the odds that a given group is more or less likely than the reference group to which they are being compared to have participated in lifelong learning. An odds ratio greater than one represents an increased likelihood whereas an odds ratio less than one represents' a decreased likelihood. For interpretation, values above one mean that the particular group was more likely to have participated while values below one mean that they were less likely to have participated. For example, if adults aged 75+ have an Odds Ratio of 0.48 compared with adults aged 55-64, for participation in lifelong learning, this means that adults aged 75+ are 52% less likely than adults aged 55-64 to have participated in lifelong learning. For each estimate, 95% confidence intervals are also reported which provide an estimate of the accuracy of the parameter estimate, that is, the odds ratio. Also, if a value of 1.00 does not fall between the confidence interval we can say that there is a statistically significant difference between the groups being compared.

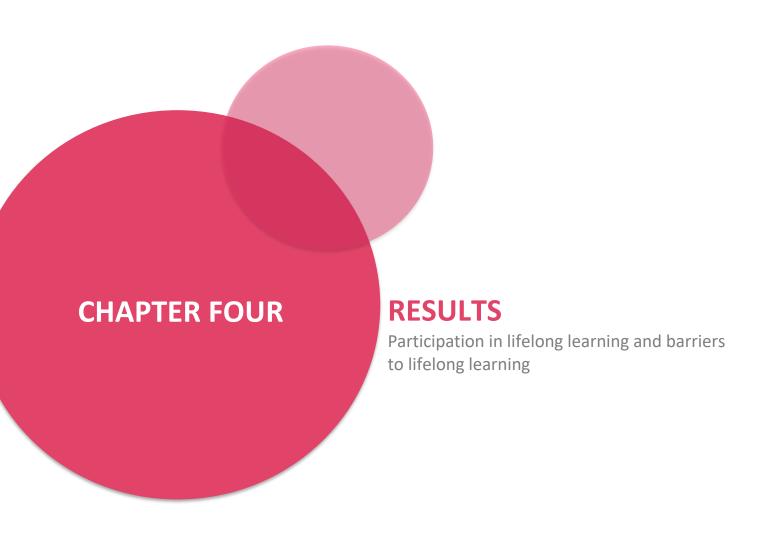
All descriptive statistics were computed using Stata (Version 14) and percentages are reported with 95% confidence intervals (95% CI).

SAMPLE CHARACTERISTICS

The characteristics of the sample are presented in Table 7. Just over half were female (52.7%) and almost half were aged less than 65 years (46.5%). Two-thirds (65.0%) were married and 10.1% were single/never married. Almost one-in-five (17.9%) had a third level education. Half of the sample was retired (50.9%) and a further 25.0% were in paid employment. As is typical in surveys like this one, there was a lot of missing information on household income: respondents either refused to answer the question about their income or could not do so. Of those who did respond, the distribution of household income was quite even across the sample. One quarter of respondents described the place they lived as the open countryside and a similar number lived in a large town. The majority (70.6%) of respondents described their health as good or excellent.

TABLE 5 RESPONDENT CHARACTERISTICS

Characteristics		%	(95% CI)
Gender	Male	47.3	(46.0-48.5)
	Female	52.7	(51.5-54.0)
Age	55-64	46.5	(44.9-48.1)
	65-74	31.5	(30.3-32.7)
	75+	22.0	(20.7-23.3)
Marital status	Married/living with a partner	65.0	(63.5-66.5)
	Single (never married)	10.1	(9.3-11.0)
	Separated/divorced	6.2	(5.5-6.9)
	Widowed	18.7	(17.8-19.8)
Education	Primary or less	34.4	(32.3-36.4)
	Secondary	47.8	(46.1-49.5)
	Third Level	17.9	(16.6-19.2)
Employment Status	Retired	50.9	(49.2-52.6)
	Employed/self-employed	25.0	(23.7-26.4)
	Looking after home/family	14.2	(13.1-15.4)
	Other	9.9	(9.0-10.8)
Income	€501 up to €1,000	15.1	(13.6,16.6)
	€1,001 up to €1,500	14.3	(13.0,15.6)
	€1,501 up to €2,500	20.8	(19.3,22.5)
	€2,501 or more	17.4	(15.7,19.3)
	Missing	32.4	(29.8,35.1)
Location	Open countryside and villages	42.2	(38.9,45.6)
	Town	25.4	(22.8,28.2)
	City (inner and suburb)	32.4	(29.0,35.9)
Self-rated health	Excellent	25.2	(23.9,26.7)
status	Good	45.4	(43.8,46.9)
	Less than Good	29.4	(28.0,30.8)



4. RESULTS

PARTICIPATION IN LIFLONG LEARNING

Just over one in ten (11.4%) adults aged 55 and above engaged in lifelong learning activities in the past 12 months. However participation rates for formal and nonformal education were very different: 9.5% for non-formal education and 1.8% for formal education. The most common form of lifelong learning involved participation in interest courses such as arts, crafts, cookery etc. (6.2%). Other learning activities which older adults engaged in included technical or vocational courses, which did not lead to a formal qualification (2.1%), ICT classes (1.5%), literacy classes, junior or leaving certificate courses, diplomas or degrees, postgraduate diplomas or degrees and technical or vocational courses, which lead to a formal qualification (<1%).

Tables 6-8 shows the distribution of participation in lifelong learning in the past two years by the socio-demographic, socio-economic, health and location characteristics of adults aged 55 years and older. Participation in lifelong learning was lower at older ages. More women reported participating in lifelong learning (13.6%) compared to men (8.9%). Among different marital status categories, those who were widowed had the lowest participation rate (7.6%).

There was a clear education gradient: participation rates were significantly higher at each higher level of education. Participation rates were higher among those still in the labour market, either employed or unemployed, compared with those who were retired.

Those who were in better health were also more likely to participate. In terms of independent transport, those who drove in the last week reported higher rates of participation (13.1%) than those who did not (7.6%).

TABLE 6 PARTICIPATION IN LIFELONG LEARNING: DEMOGRAPHIC AND SOCIO-ECONOMIC CHARACTERISTICS

			Tot	al sample		icipated in ng learning
Characteristics	5	n	(%)	(95% CI)	%	(95% CI)
Age	55-64	3,913	46.4	(44.8,48.0)	15.0	(13.3,16.7)
	65-74	4,051	31.6	(30.4,32.8)	10.3	(8.9,11.8)
	75+	2,546	22.0	(20.8,23.3)	5.2	(4.1,6.6)
Gender	Male	5,071	47.2	(46.0,48.5)	8.9	(7.7,10.2)
	Female	5,439	52.8	(51.5,54.0)	13.6	(12.2,15.0)
Marital	Married	6,711	65.0	(63.5,66.5)	12.0	(10.8,13.3)
Status	Single (never married)	1,080	10.1	(9.2,11.0)	11.3	(8.7,14.4)
	Separated or divorced	646	6.1	(5.5,6.9)	15.8	(12.1,20.5)
	Widowed	2,073	18.8	(17.7,19.9)	7.6	(6.1, 9.5)
Household	Living Alone	3,074	27.5	(26.1,28.9)	9.4	(7.8,11.2)
Composition	Living with spouse	5,760	54.5	(52.8,56.2)	11.2	(10.0,12.6)
	Living with spouse and/ or others	1,676	18.0	(16.8,19.4)	14.8	(12.6,17.3)
Education	Primary	2,762	34.3	(32.3,36.3)	6.1	(4.8,7.6)
	Secondary	4,951	47.9	(46.2,49.6)	11.1	(9.8, 12.4)
	Third Level	2,797	17.8	(16.6, 19.1)	22.2	(19.8,24.7)
Occupation	Retired	5,911	51.0	(49.4,52.7)	9.5	(8.4,10.8)
	Employed	2,422	25.1	(23.8,26.5)	15.5	(13.6,17.6)
	Unemployed	443	5.3	(4.7, 6.1)	14.9	(10.7,20.3)
	Permanently Sick/Disabled	357	4.2	(3.7,4.9)	10.5	(6.9,15.8)
	Homemaker	1,374	14.3	(13.2, 15.4)	9.7	(7.7,12.1)
Income	>€2,500	1,721	15.1	(13.7,16.6)	7.8	(5.9,10.2)
	€1,501 up to €2,500	1,489	14.3	(13.0,15.6)	10.1	(7.9,12.7)
	€1,001 up to €1,500	2,244	20.9	(19.3,22.5)	12.3	(10.6,14.3)
	€501 up to €1,000	1,838	17.4	(15.6,19.3)	16.4	(14.0,19.1)
	Missing	3,218	32.4	(29.8,35.1)	10.3	(8.8,11.9)
Total		10,540	100		11.4	

TABLE 7 PARTICIPATION IN LIFELONG LEARNING: CARER AND HEALTH STATUS

		Total sample			Participated in lifelong learning	
Characteristic		n	%	95% CI	%	95% CI
Cares for older	Weekly	802	8.5	(7.7, 9.4)	15.2	(12.5,18.4)
or disabled	Less than Weekly	369	3.5	(2.9,4.2)	19.6	(14.7,25.7)
relatives	Never	9,044	88.0	(86.8,89.1)	10.8	(9.8,12.0)
Coving for	Weekly	2,310	24.9	(23.4,26.5)	13.1	(11.4,15.2)
Caring for Grandchildren	Less than Weekly	1,039	9.3	(8.5,10.2)	14.2	(11.4,17.5)
Granuciniuren	Never	6,889	65.8	(63.9,67.5)	10.4	(9.3,11.7)
	Excellent	2,649	25.2	(23.9,26.7)	15.3	(13.4,17.3)
Health Status	Good	4,783	45.4	(43.8,46.9)	11.3	(10.0,12.7)
	Less than Good	3,050	29.4	(28.0,30.8)	8.2	(6.7,10.0)
	No Illness	5,973	56.9	(55.2,58.7)	12.2	(11.0,13.6)
Limiting illness	Not limited by illness	1,430	14.0	(13.0,15.2)	13.2	(10.7,16.3)
	Limited by illness	2,948	29.0	(27.5,30.5)	9.1	(7.5,10.8)
Mental health	No	9,579	95.2	(94.5,95.8)	11.3	(10.2,12.4)
difficulties	Yes	424	4.8	(4.2,5.5)	13.2	(9.5,18.0)
Total		10,540	100		11.4	(12.5,18.4)

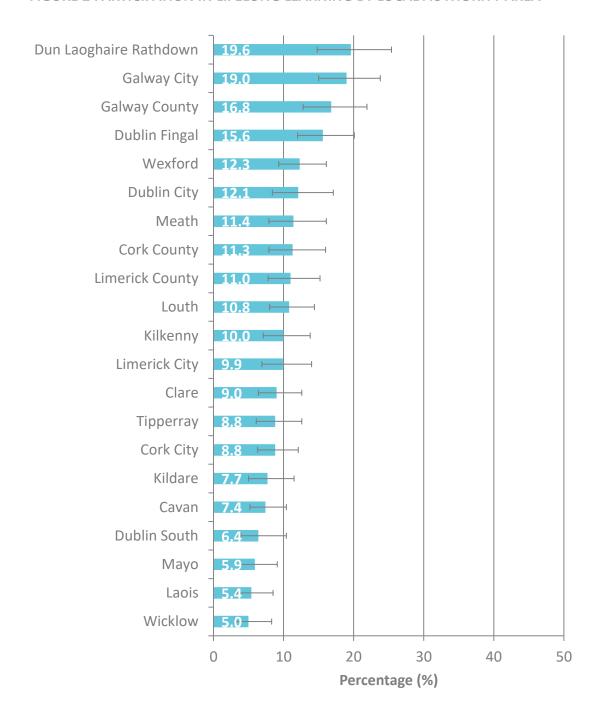
TABLE 8 PARTICIPATION IN LIFELONG LEARNIN: LOCATION AND TRANSPORT

Characteristics	Total sample			Participated in lifelong learning		
		n	%	95% CI	%	95% CI
	Open countryside and villages	4,534	42.2	(38.9,45.6)	10.5	(9.1,12.0)
Location	Town	2,863	25.4	(22.8,28.2)	11.7	(9.8,14.0)
	Inner city & suburbs	3,113	32.4	(29.0,35.9)	12.2	(10.4,14.2)
Duiyan in the	No	3,076	31.5	(29.8,33.3)	7.6	(6.3,9.2)
Driven in the past week	Yes	7,434	68.5	(66.7,70.2)	13.1	(11.9,14.3)
Total		10,540	100		11.4	(10.4,12.4)

PARTICIPATION IN LIFELONG LEARNING IN EACH LOCAL AUTHORITY AREA

While the overall the participation rate was 11.4%, Figure 2 shows there was considerable variation across the 21 Local Authority areas. Participation rates ranged from 5.0% in Wicklow to 19.6% in Dun Laoghaire-Rathdown.

FIGURE 2 PARTICIPATION IN LIFELONG LEARNING BY LOCAL AUTHORITY AREA



FACTORS ASSOCIATED WITH PARTICIPATION IN LIFELONG LEARNING

In this section, we report the results of a mixed-effects regression analyses to identify the socio-demographic, socio-economic factors associated with participation in lifelong learning, in order to try to explain some of the differences we have described in participation in lifelong learning.

According to the results presented in Table 9 women were more likely than men to have participated in lifelong learning in the past 12 months. Participants aged 75 and above 52% less likely than those aged 55-64 to report participating in lifelong learning.

Respondents with a secondary education were almost twice as likely (OR 1.84 95% CI 1.48-2.31) and participants with tertiary education were almost four times more likely (OR 3.83 95% CI 3.00-4.89) more likely to have participated in lifelong learning, compared to those with primary education only.

In terms of occupational status, those who were responsible for looking after the home were 41% less likely to participate in lifelong learning than those who were employed. Adults who provided care for grandchildren on a less-than-weekly basis were 28% more likely to participate in lifelong learning compared with those who were not providing this care.

Compared to those in excellent health, respondents who rated their health as good were 15% less likely and participants who rated their health as less than good were 34% less likely to participate in lifelong learning.

Compared with respondents who lived in inner city areas were 25% less likely engage in lifelong learning. Finally, respondents who had driven themselves in the last week were 32% more likely to have participated in lifelong learning more than those who had not driven in the last week.

TABLE 9 FACTORS ASSOCIATED WITH PARTICIPATION IN LIFELONG LEARNING

Characteristic		OR	95% CI
Age	55-64	Ref	erence
	65-74	0.84	(0.71-1.00)
	75+	0.48	(0.37-0.61)
Gender	Male	Ref	erence
	Female	1.93	(1.67-2.23)
Marital Status	Married	Ref	erence
	Single (never married)	0.83	(0.58-1.18)
	Separated or divorced	1.07	(0.76-1.51)
	Widowed	0.86	(0.61-1.19)
Household	Living Alone	Ref	erence
Composition	Living with spouse	0.82	(0.60-1.13)
	Living with spouse and /or others	1.05	(0.80-1.37)
Education	Primary	Ref	erence
	Secondary	1.84	(1.48-2.31)
	Third Level	3.83	(3.00-4.89)
Occupation	Employed	Ref	erence
	Retired	0.93	(0.77-1.12)
	Unemployed	1.53	(1.10-2.13)
	Permanently Sick/Disabled	0.93	(0.59-1.45)
	Homemaker	0.59	(0.45-0.76)
Income	>€2,500	Ref	erence
	€1,501 to €2,500	0.93	(0.76-1.14)
	€1,001 to €1,500	0.80	(0.63-1.04)
	€501 to €1,000	0.71	(0.52-0.93)
	Missing	0.85	(0.70-1.03)
Cares for older or	Never	Ref	erence
disabled relatives	Weekly	1.07	(0.85-1.34)
	Less than weekly	1.27	(0.92-1.76)
Cares for	Never	Ref	erence
Grandchildren	Weekly	1.00	(0.85-1.18)
	Less than weekly	1.28	(1.03-1.58)
Health Status	Excellent	Ref	erence
	Good	0.85	(0.73-0.99)
	Less than Good	0.66	(0.52-0.83)
Limiting illness	No Illness	Ref	erence
	Yes- not limited	1.47	(1.22-1.78)
	Yes - limited	1.11	(0.91-1.38)
Mental health	Yes	Ref	erence
difficulties	No	1.21	(0.86-1.70)
Location	Rural (open countryside or village)	Ref	erence
	Town	1.16	(0.97-1.40)
	City (inner and suburb)	0.75	(0.58-0.97)
Driven (yourself) in	No	Ref	erence
the past week	Yes	1.32	(1.10-1.60)

BARRIERS TO LIFELONG LEARNING

Table 10 shows that the majority (88.6%) of adults aged 55 and older did not participate in lifelong learning in the past 12 months. Among these non-participants, just under one-fifth (18.1%) reported barriers. In this section we describe the types of barriers that were reported by the group of non-participants.

TABLE 10 LIFELONG LEARNING STATUS OF ADULTS AGED 55+

Participated in lifelong learning			ot participate – orted barriers	Did not participate – did not report barriers		
%	(95% CI)	%	(95% CI)	%	(95% CI)	
11.4	(10.4,12.4)	18.1	(16.3,20.0)	70.6	(68.5,72.6)	

Table 11 shows the type of barriers reported by non-participants. Among non-participants who reported barriers, the most the most frequently reported barriers were access and provision barriers (36.9%) which included the costs associated with participating in courses, lack of transport, no interesting courses available and, courses taking place at an inconvenient time. A further 23.3% reported personal barriers which included poor health and family responsibilities. A smaller percentage of adults (7.7%) reported dispositional barriers such as the perception of being too old, feeling too busy, not being interested in lifelong learning, and having literacy issues. Finally, almost one-third (32.2%) selected 'other' barriers but did not specify what these barriers were.

Tables 11 to 13 show the distribution of each category of barrier by the demographic, socio-economic, health and location characteristics of these non-participants. Access/provision barriers were more frequently reported by adults with lower monthly household incomes. Personal barriers were more frequently reported by older adults (age 70+) and those with a longstanding illness or disability. Dispositional barriers were more frequently reported by older adults (aged 70+), those in poorer health, and those with lower levels of education and, those involved in caring for older or disabled relatives.

Finally, 'other – unspecified' barriers were more frequently reported by younger adults (aged 55-64 and aged 65-74), adults in poorer health, those on lower incomes, and those caring for grandchildren.

TABLE 11 REPORTED BARRIERS TO LIFELONG LEARNING AMONG NON-PARTICIPANTS BY DEMOGRAPHIC CHARACTERISTICS

		Access/provision Personal		Personal	Dispositional		Othe	r - unspecified	
		(%)	95% CI	(%)	95% CI	(%)	95% CI	(%)	95% CI
Total		36.9	(33.1,40.8)	23.3	(20.2,26.7)	7.7	(6.0, 9.8)	32.2	(27.5,37.3)
	55-64	41.0	(35.7,46.5)	19.8	(15.9,24.3)	4.3	(2.8,6.6)	34.9	(29.0,41.3)
Age	65-74	35.6	(30.4,41.1)	18.8	(15.2,23.0)	8.9	(5.7,13.8)	36.7	(30.2,43.8)
	75+	30.0	(24.3,36.5)	35.9	(29.6,42.6)	12.9	(9.2,17.8)	21.2	(16.0,27.5)
Condor	Male	36.1	(31.4,41.1)	21.7	(17.9,26.0)	8.1	(5.7,11.5)	34.1	(28.7,39.9)
Gender	Female	37.5	(32.8,42.4)	24.6	(20.8,28.8)	7.3	(5.2,10.3)	30.6	(25.3,36.5)
	Married	35.5	(31.0,40.3)	19.9	(16.3,23.9)	7.3	(5.3,10.0)	37.3	(31.6,43.4)
Marital	Single (never married)	47.1	(37.4,57.0)	23.4	(16.3,32.4)	4.6	(1.9,10.7)	24.9	(17.0,35.1)
Status	Separated or divorced	43.7	(32.7,55.3)	26.1	(16.4,39.0)	9.1	(3.9, 19.9)	21.1	(11.7,34.9)
	Widowed	32.9	(26.3,40.3)	32.9	(26.5,40.0)	10.0	(6.7,14.9)	24.2	(18.0,31.6)
Harrachald	Living Alone	38.8	(33.2,44.8)	28.6	(23.1,34.8)	7.6	(5.1,11.3)	25.0	(19.4,31.5)
Household Composition	Living with spouse	35.5	(30.8,40.6)	18.2	(14.6,22.5)	7.3	(5.2,10.3)	39.0	(32.9,45.4)
Composition	Living with spouse and/ or others	37.7	(30.6,45.5)	29.7	(23.7,36.4)	8.7	(5.4,13.9)	23.8	(17.8,31.1)

Note: based on a sub-sample of non-participants who reported barriers (unweighted n=1,765).

TABLE 12 REPORTED BARRIERS TO LIFELONG LEARNING AMONG NON-PARTICIPANTS BY SOCIO-ECONOMIC STATUS

		Access/provision		Personal		Dispositional		Other	- unspecified
		(%)	95% CI	(%)	95% CI	(%)	95% CI	(%)	95% CI
Total		36.9	(33.1,40.8)	23.3	(20.2,26.7)	7.7	(6.0,9.8)	32.2	(27.5,37.3)
	Primary	33.2	(27.8,39.0)	25.8	(21.0,31.2)	9.8	(6.9, 13.7)	31.3	(24.8,38.5)
Education	Secondary	40.1	(35.0,45.4)	22.7	(18.8,27.1)	6.5	(4.5,9.3)	30.7	(25.2,36.8)
	Third Level	38.7	(32.2,45.6)	17.6	(13.0,23.4)	4.9	(3.1, 7.6)	38.9	(31.4,46.9)
	Retired	35.7	(31.1,40.6)	25.6	(21.3,30.4)	10.0	(7.3,13.4)	28.8	(23.8,34.3)
	Employed	38.9	(32.1,46.3)	7.5	(5.0,10.9)	6.5	(4.0,10.5)	47.1	(39.4,54.9)
Occupation	Unemployed	47.3	(35.5,59.5)	5.3	(1.9,13.8)	5.4	(2.0,14.0)	42.0	(30.0,54.9)
	Permanently Sick/Disabled	25.1	(17.7,34.2)	57.5	(47.3,67.1)	2.6	(0.6,10.3)	14.8	(8.9,23.6)
	Homemaker	39.0	(30.8,47.9)	28.0	(21.1,36.2)	6.5	(3.4,12.1)	26.4	(18.3,36.5)
	>€2,500	27.6	(20.5,36.0)	14.3	(9.8,20.3)	3.5	(1.8,6.7)	54.7	(44.8,64.2)
Monthly	€1,501 up to €2,500	31.1	(25.2,37.5)	26.3	(20.1,33.5)	14.3	(9.7,20.5)	28.4	(21.5,36.4)
household	€1,001 up to €1,500	46.8	(38.6,55.3)	31.0	(23.9,39.1)	6.7	(4.0,11.2)	15.4	(10.7,21.8)
income	€501 up to €1,000	46.5	(38.4,54.9)	28.8	(21.6,37.3)	4.3	(2.2,8.3)	20.3	(13.4,29.6)
	Missing	36.3	(29.2,44.0)	19.2	(14.1,25.6)	7.8	(4.7,12.5)	36.8	(28.4,46.1)

Note: based on a sub-sample of non-participants who reported barriers (unweighted n=1,765).

TABLE 13 REPORTED BARRIERS TO LIFELONG LEARNING AMONG NON-PARTICIPANTS BY HEALTH AND CARE, LOCATION, AND TRANSPORT

		Access/provision		F	Personal [Dispositional		- unspecified
		(%)	95% CI	(%)	95% CI	(%)	95% CI	(%)	95% CI
Total		36.9	(33.1,40.8)	23.3	(20.2,26.7)	7.7	(6.0,9.8)	32.2	(27.5,37.3)
Cares for older or	Weekly	29.5	(21.3,39.3)	35.5	(26.4,45.9)	2.5	(0.9,6.7)	32.4	(23.3,43.2)
disabled relatives	Less than Weekly	14.7	(7.6,26.6)	4.1	(1.9,8.5)	0.7	(0.2, 2.8)	80.6	(68.8,88.6)
uisabieu leiatives	Never	39.8	(35.8,44.0)	24.0	(20.8,27.6)	9.1	(7.1,11.5)	27.1	(22.8,31.8)
Caring for	Weekly	36.6	(29.7,44.1)	17.6	(13.0,23.4)	10.3	(6.0,17.2)	35.5	(27.7,44.1)
Caring for Grandchildren	Less than Weekly	22.6	(15.6,31.7)	12.0	(7.5,18.6)	7.4	(3.9, 13.5)	58.0	(47.5,67.7)
Grandeniidren	Never	40.6	(36.1,45.4)	29.0	(25.0,33.3)	7.3	(5.5,9.7)	23.1	(19.1,27.7)
	Excellent	48.3	(40.2,56.5)	13.0	(8.7,19.0)	10	(6.1,15.8)	28.7	(21.8,36.8)
Health Status	Good	39.3	(33.9,44.9)	15.1	(11.7,19.3)	6.8	(4.5, 10.1)	38.8	(32.7,45.3)
	Less than Good	31.6	(26.9,36.7)	33.8	(28.9,39.1)	7.8	(5.5,11.0)	26.8	(20.6,34.0)
	No Illness	38.5	(32.9,44.3)	8.5	(6.4,11.2)	4.1	(2.6,6.5)	48.9	(42.5,55.4)
Limiting illness	Not limited by illness	41.4	(31.7,51.8)	26.6	(17.9,37.5)	9.8	(5.4,17.2)	22.2	(15.2,31.3)
	Limited by illness	36.1	(31.3,41.0)	39.7	(35.0,44.6)	11.9	(9.1,15.4)	12.4	(9.3,16.2)
Mental health	No	37.9	(33.9,42.1)	23.5	(20.2,27.2)	8.8	(6.9,11.3)	29.7	(25.0,34.9)
difficulties	Yes	31.8	(24.6,40.0)	21.9	(16.0,29.2)	2.1	(1.0,4.2)	44.2	(34.6,54.3)
	Villages	45.3	(39.6,51.1)	24.4	(20.0,29.5)	7.9	(5.8,10.6)	22.5	(17.0,29.0)
Location	Town	25.9	(20.6,32.2)	17.9	(13.4,23.6)	4.4	(2.1,9.0)	51.7	(43.0,60.3)
	City (suburb/inner)	34.2	(27.5,41.7)	26.3	(20.3,33.3)	10.3	(6.9,15.2)	29.2	(21.3,38.5)
Driven (yourself) in	No	36.6	(31.2,42.4)	32.7	(27.8,38.1)	9.1	(6.3,12.8)	21.6	(16.2,28.2)
the past week	Yes	37.1	(32.6,41.7)	16.9	(13.9,20.5)	6.8	(5.0,9.1)	39.3	(33.6,45.2)

Note: based on a sub-sample of non-participants who reported barriers (unweighted n=1,765).

FACTORS ASSOCIATED WITH BARRIERS TO LIFELONG LEARNING

A large proportion of older adults who did not participate in lifelong learning did not select any of the barriers listed in the survey, and did not provide additional information as to the barriers they face. This group of non-participants with no reported barriers make up a sizeable proportion of non-participants. Therefore in this section we investigate the characteristics of these non-participants in order to provide a profile of trends and possible traits that may explain why they did not participate. We use a multinomial logistic regression model which allows us to identify the characteristics that make respondent more or less likely to be in one of three groups:

- Group a) Participated in lifelong learning;
- Group b) Non-participant reported barriers; or,
- Group c) Non-participant no reported barriers.

Therefore there are two sets of results for this model. The first set of the results shows the risk of being in group b versus being in group a. The second set of results shows the risk of being in group c versus group a. Results are reported in Relative Risk Ratios (RRR). A RRR of >1 indicates that the risk of being in a comparison group (e.g. group b) versus group a, is more likely. A RRR <1 indicates that the risk of being in the comparison group versus group a, is less likely.

The confidence interval (CI) for the RRR is also reported given that there are other predictors in the model. The 95% CI shows that for a given predictor in the model, we are 95% confident that the true population RRR lies between the lower and upper limit of the interval. This provides an illustration of the range within which the true population relative risk ratio lies. The results of a mixed-effects multinomial logistic regression are presented in Table 14.

Results

In this study, adults aged 75+ were more likely to not participate in lifelong learning, and to be in both categories: those who report barrier (91% more likely) and those who do not report a barrier (96% more likely). Women were significantly more likely than men to participate in lifelong learning. The results of the regression analysis show that women were 39% less likely to be in the non-participant-reported barriers group, and 50% less likely to be in the non-participant-no reported barriers group. Compared with adults who were living alone, adults who were living with a spouse where 70% more likely to be in the non-participant-reported barriers group.

Adults who had a higher level of education were more likely to have participated in lifelong learning in the past 12 months. In comparison to adults who had a primary education only, those with a secondary education were 57% less likely and adults with third level education were 79% less likely to be in the non-participant-reported barriers group. Similarly, adults with secondary education were 43% less likely and adults with third level education were 74% less likely to be in the non-participant-no reported barriers group.

In terms of occupation, participants who were permanently sick or disabled were 80% more likely than those who were employed to be in the non-participant-

reported barriers group which highlights the role of disability as a barrier to participation in lifelong learning. Compared to those who were employed, adults who were looking after the home were 41% more likely to be in the non-participant-reported barriers group and 81% more likely to be in the non-participant-no reported barriers group. Participants who were unemployed were 41% less likely to be in the non-participant-no reported barriers group. In terms of income, compared with adults in the highest income bracket (€2,500 and above) adults in the lowest income bracket (€501 up to €1,000) were 49% more likely to be in the non-participant-no reported barriers group.

In terms of health status, adults who were in poorer health were consistently more likely to not participate in lifelong learning. The results of the regression analysis show that adults in less than good health were more than three time more likely to be in the non-participant-reported barriers group (RRR 3.71 OR 95% 2.80-4.94) and were 31% more likely to be in the non-participant-no reported barriers, compared with adults who were in excellent health.

Participants who cared for older relatives (on a less-than-weekly basis) were 57% more likely to be in the non-participant-reported barriers group, and were 30% less likely to be in the non-participant-no reported barriers group. Participants who cared for grandchildren (on a less-than-weekly basis) were 25% less likely to be in the non-participant-no reported barriers group, compared with those who do not provide and care for grandchildren.

Finally, participants who were drivers were 33% less likely than non-drivers to be in the non-participant-reported barriers group and 23% less likely than non-drivers to be in the non-participant-no reported barriers group.

TABLE 14 FACTORS ASSOCIATED WITH BARRIERS TO LIFELONG LEARNING

	Reference: Participated		rted barriers	No reported barriers			
Characteristic		RR	RRR (95% CI)		RRR (95% CI)		
Age	55-64		Ref	ference			
	65-74	1.19	(0.95-1.49)	1.16	(0.97-1.39)		
	75+	1.91	(1.42-2.57)	1.96	(1.52-2.52)		
Gender	Male		, ,	ference	(=====/		
	Female	0.61	(0.51-0.73)	0.50	(0.43-0.58)		
Marital Status	Married		,	ference	,		
	Single (never married)	1.43	(0.92-2.21)	1.13	(0.79-1.60)		
	Separated/ divorced	1.31	(0.85-2.02)	0.85	(0.60-1.20)		
	Widowed	1.45	(0.96-2.20)	1.11	(0.79-1.56)		
Household	Living Alone		,	ference	,		
Composition	Living with spouse	1.70	(1.14-2.55)	1.16	(0.84-1.61)		
	Living with spouse or others	1.03	(0.75-1.42)	0.95	(0.73-1.25)		
Educational	Primary		, ,	ference	. ,		
Attainment	Secondary	0.43	(0.33-0.55)	0.57	(0.46-0.72)		
	Third Level	0.21	(0.16-0.28)	0.26	(0.20-0.33)		
Occupational	Employed	0.22	,	ference	(0.20 0.00)		
Status	Retired	0.98	(0.77-1.24)	1.15	(0.95-1.39)		
	Unemployed	1.00	(0.67-1.49)	0.59	(0.43-0.83)		
	Permanently Sick/Disabled	1.80	(1.10-2.93)	0.84	(0.53-1.33)		
	Homemaker	1.41	(1.02-1.95)	1.81	(1.40-2.35)		
Income	>€2,500			ference	(/		
	€1,501 up to €2,500	0.73	(0.57-0.94)	1.08	(0.89-1.31)		
	€1,001 up to €1,500	0.81	(0.60-1.09)	1.22	(0.96-1.56)		
	€501 up to €1,000	0.88	(0.64-1.22)	1.49	(1.13-1.96)		
	Missing	0.79	(0.63-1.00)	1.25	(1.05-1.51)		
Caring for	Never		, ,	ference	(,		
older/disabled	Weekly	1.15	(0.87-1.53)	0.87	(0.70-1.10)		
relatives	Less than Weekly	1.57	(1.07-2.30)	0.70	(0.51-0.97)		
Caring for	Never		, ,	ference	,		
grandchildren	Weekly	0.99	(0.81-1.22)	0.99	(0.84-1.16)		
	Less than Weekly	0.92	(0.71-1.20)	0.75	(0.61-0.94)		
Health Status	Excellent		,	ference	,		
	Good	1.59	(1.28-1.97)	1.18	(1.01-1.38)		
	Less than good	3.71	(2.80-4.94)	1.31	(1.04-1.66)		
Limiting Illness	No Illness		, ,	ference	,/		
	Yes- not limited by illness	0.64	(0.51-0.82)	0.66	(0.55-0.80)		
	Yes - limited by illness	0.88	(0.70-1.29)	0.86	(0.70-1.06)		
Mental Health	No	0.00	, ,		(0.70-1.00)		
difficulties		0.04		ference	(0.51.1.01)		
	Yes	0.91	(0.62-1.33)	0.72	(0.51-1.01)		
Location	Villages	0.00		ference	(0.04.4.47)		
	Town	0.90	(0.74-1.10)	0.99	(0.84-1.17)		
	City (inner or suburb)	0.80	(0.66-0.97)	1.05	(0.86-1.18)		
Driven in the last	No			ference			
week?	Yes	0.67	(0.54-0.83)	0.77	(0.64-0.93)		



5. DISCUSSION AND CONCLUSION

DISCUSSION

In terms of situational barriers, Individuals who had less than good health were less likely to participate, citing their poor health as a barrier. Additionally, those who were not limited by an illness were more likely to participate in lifelong learning. This finding may be viewed in a bidirectional manner, as existing research has highlighted that those with poor health are less likely to participate in lifelong learning (45) and that those who do participate in lifelong learning are more likely to experience better health outcomes due to better economic and social resources and healthy lifestyles across the life course (10,11).

In terms of dispositional barriers to participation, we found that age, gender, carer status and, lower educational attainment were important factors in non-participation among adults who do not report situational barriers. In addition to calendar age, age-perceptions play an important role among those aged 55 and older in terms of participation in lifelong learning. Many of those who provided open ended feedback on barriers specifically referred to the perception of being too old to participate. Therefore, the promotion of opportunities for lifelong learning will also need to be supported by efforts to promote the value of lifelong learning to individuals at all ages.

We also found that women were more likely than men to participate in lifelong learning. This finding can be explained by the fact that non-formal education accounts for the majority of lifelong learning activities measured in this study and previous research has found that women are more likely than men to participate in these types of course, particularly special interest courses (56). However it is also important to recognise that there is a gender dimension to other situational barriers to participation. For example, older adults who were responsible for looking after the home were less likely to report participating in lifelong learning, and the majority of these were women. Additionally, those who cared for older or disabled relatives were less likely to participate due to situational (family responsibilities and health) barriers, and again these adults were mostly women.

In line with theories of cumulative advantage (57), we found that those who had previously attained higher levels of formal education were more likely to participate in lifelong learning and this highlights that education in early formative years enhances one's ability and motivation to participate in lifelong learning (42). This finding may also offer a partial explanation for low participation among older cohorts overall, as a significant proportion of older adults have low levels of educational attainment (58). Another possible explanation for the association between non-participation in lifelong learning and lower formal education is that prior negative experience in schooling and long periods of time across the life course without engagement in further education or training are particular

challenges for providers seeking to engage older adults in learning programmes (45).

Socio-economic differences have also been show to effect participation rates, and in keeping with findings from Murphy (2012), those who were unemployed, permanently sick or disabled, or responsible for looking after the home, were more likely to not participate in lifelong learning due to situational barriers (59). Those who were permanently sick or disabled were more likely to report personal barriers which included health status. Those responsible for looking after the home were more likely to report access and provision barriers, and personal barriers, which include caring responsibilities. Those who were responsible for looking after the home were also more likely to experience dispositional barriers to participation. A lack of prior experience of lifelong learning is likely to play a role in this regard insofar as the majority of adult education is provided through the workplace (30) and adult learner identities are often shaped within the context of the workplace (60). Therefore, adults who are responsible for looking after the home may have had fewer opportunities to participate in lifelong learning.

The current study also found that those who earned less were more likely to experience dispositional barriers to participation. This echoes the findings of previous studies that have shown that adults who are working in, or retired from, lower skilled occupations tend to participate less, compared to higher skilled occupations which are more knowledge intensive and require more training and skills development (61).

It was clear that geographical location also influenced participation in lifelong learning: participants living in city (suburb or inner) locations were less likely to report situational (access and provision) barriers than those living in rural areas. This finding reiterate spatial aspects of inequalities in provision, whereby the majority of educational courses are provided in towns, cities or suburban areas (62). This issue is exacerbated by poor transport provisions in rural areas (28) which is reflected in the current study as those who had independent transport (had driven in the past week) were significantly less likely to not participate and report situational or dispositional barriers to participation in lifelong learning.

CONCLUSION

Overall, participation rates in lifelong learning among this study of adults aged 55 and older were low and reflected similarly low participation rates observed among the working age population (age 25-65) reported in other national data sources such as the Quarterly National Household Survey (QNHS, 2016)(63). The results of the present study also reflect patterns that are observed among the working age population; overall, age, education level, and employment status were the strongest predictors of participation among adults aged 25-64 in Ireland (SOLAS, 2017)(9). Low levels of participation among older adults who are pre-retirement age is also a concern particularly as the retirement age in Ireland is set to increase to 68 after 2028 (OECD, 2014)(64).

From age 55 onwards, participation is mainly consists of engagement in non-formal learning activities, which provide an important opportunity for social engagement. However, many adults experience barriers to participation and the situational barriers reported by participants provided an insight into aspects of provision that can be improved in order to increase participation rates.

Trends which are particularly relevant to achieving the goals of the NPAS are: declining rates of participation with age; persistently low levels of participation amongst those who have lower levels of initial formal education; older adults in caring roles (particularly women); those living in rural areas (particularly those without independent transport); and adults who are on lower incomes. Furthermore, negative age-perceptions such as feeling too old to participate were associated with lower participation rates, and these represent a particular challenge to those in promoting positive value-based attitudes towards lifelong learning across the life course, and for healthy and positive ageing.

This study has also highlighted various health and socio-economic characteristics and circumstances which can be considered as dispositional barriers participation in lifelong learning. In addition to poor health status and functional limitations, the association between lower education and lower income and non-participation highlights the enduring role of socio-economic exclusion from lifelong learning across the life course.

Finally, while this study has focused on the barriers that older adults reported to lifelong learning, an equally important finding is that the majority of respondents who do not participate in lifelong learning did not identify any barriers to their participation. This suggests that a sizeable proportion of the older population are either unaware of the availability of opportunities for lifelong learning or have no desire to participate. It is therefore important for strategies aimed at increasing participation rates in lifelong learning to address not only barriers to those who wish to participate but also this other group who are unaware or disinclined to participate.

REFERENCES

- Department of Health. Positive ageing starts now! The National Positive
 Ageing Strategy. Dublin: Department of Health; 2013.
- 2. Department of Health. Healthy Ireland A framework for improved health and wellbeing 2013-2025. Dublin: Department of Health; 2013.
- World Health Organisation. Active Ageing: A policy framework. Geneva:
 World Health Organisation; 2002
- Wren M, Keegan C, Walsh B, Bergin A, Eighan J, Brick A, et al. Research Series Number 67: Projections of Demand for Healthcare in Ireland, 2015-2030 First Report from the Hippocrates Model. Economic and Social Research Institute: Dublin; 2017. Available from: https://www.esri.ie/pubs/RS67.pdf
- 5. United Nations Population Fund. Ageing [Internet]. New York: United Nations Population Fund; 2015. Available from: http://www.unfpa.org/ageing
 - 6. Ward M, McGarrigle C. The contribution of older adults to their families and communities. In: McGarrigle C, Donoghue O, Scarlett S, Kenny RA, editors. Health and wellbeing: active ageing for older adults in Ireland Evidence from The Irish Longitudinal Study on Ageing. Dublin: The Irish Longitudinal Study on Ageing; 2017. p. 15–46.
 - 7. World Health Organisation. Global age-friendly cities: a guide. Community Health. Geneva; 2007.
 - 8. Department of Education and Skills. Further Education and training Strategy (2014-2019). Dublin: Department of Education and Skills; 2014.
 - 9. SOLAS. Lifelong Learning Participation Among Adults. Dublin: SOLAS; 2017.
 - 10. Ross C, Mirowsky J. Refining the association between education and health: the effects of quantity, credential, and selectivity. Demography. 1999; 36(4):445-460
 - 11. Hammond C. What is it about education that makes us healthy? Exploring the education-health connection. Int J Lifelong Educ. 2002; 21(6):551-571.

- Schuller T, Hammond C, Preston J, Brassett-Grundy A. The benefits of learning: The impact of education on health, family life and social capita.
 London: Routledge; 2004
- Dench S, Regan J. Learning in later life: Motivation and impact. Nottingham:
 DFEE Publications; 2000
- 14. Schuller T, Brassett-Grundy A, Green A, Hammond C. Learning, Continuity and Change in Adult Life. Wider Benefits of Learning Research Report.
 London: Department for Education and Skills; 2002
- 15. Preston J, Hammond C. Practitioner Views on the Wider Benefits of Further Education. J Furth High Educ. 2003;27(2):211–222.
- 16. Feinstein L. Quantitative Estimates of the Social Benefits of Learning, 2: Health (Depression and Obesity). Wider Benefits of Learning Research Report. London: Department for Education and Skills;2002
- 17. C Hammond LF. Are those who flourished at school healthier adults? What role for adult education? Wider Benefits of Learning Research Report.
 London: Department for Education and Skills;2006
- 18. Richeson NE, Boyne S, Brady EM. Education for Older Adults with Early-Stage Dementia: Health Promotion for the Mind, Body, and Spirit. Educ Gerontol. 2007;33(9):723–736.
- Formosa M. Policies for older adult learning: The case of the European
 Union. In: Field J, Burke R, Cooper CL, editors. The SAGE Handbook of Ageing,
 Work and Society. London: SAGE; 2013. p461-476.
- 20. Wilson R, Hebert L, Scherr P, Barnes L. Educational attainment and cognitive decline in old age. Neurology . 2009; 72(5):460-465.
- 21. Valenzuela M, Sachdev P. Brain reserve and dementia: a systematic review. Psychol Med . 2006; 36(4):441-554.
- 22. Stern Y. Cognitive reserve in ageing and Alzheimer's disease. The Lancet Neurology. 2012; 11(11):1006–1012.
- 23. Simone P, Scuilli M. Cognitive benefits of participation in lifelong learning institutes. LLI Review. 2006;1:44-51.
- 24. Merriam S, Kee Y. Promoting community wellbeing: The case for lifelong learning for older adults. Adult Educ Q. 2014; 64(2):128-44.

- Organisation for Economic Cooperation and Development (OECD).Qualifications Systems Bridges to Lifelong Learning. Paris: OECD; 2007.
- 26. Field J. Learning Transitions in the Adult Life Course: agency, identity and social capital. In Merril B, editor. Learning to Change?: The Role of Identtu and Careers in Adult Education. Peter Lang GMBH: Frankfurt; 2009. p17-32.
- Cross K. Adults as Learners. Increasing Participation and Facilitating Learning.
 San Francisco: Jossey-Bass Inc; 1981.
- 28. AONTAS. The Lifelong Learning Needs of Older People in Ireland. Dublin: AONTAS; 2007.
- 29. Longworth N. Lifelong learning in action: Transforming education in the 21st century. London: Routledge; 2003.
- 30. Billett S. Workplace participatory practices: Conceptualising workplaces as learning environments. J Work Learn. 2004; 16(6):312-24.
- 31. Green A. Lifelong Learning, Equality and Social Cohesion. Eur J Educ. 2011; 46(2):228–243.
- 32. Eurostat. Lifelong learning statistics. Luxembourg: Eurostat; 2017.
- Central Statistics Office (CSO). Information Society Statistics Households.
 Dublin: CSO; 2012.
- 34. Gorard S, Smith E. Do barriers get in the way? A review of the determinants of post-16 participation. Res Post-Compulsory Educ. 2007; 12(2):141-58.
- 35. Desjardins R, Milana M, Rubenson K. Unequal chances to participate in adult learning: International perspectives . Paris: The United Nations Educational, Scientific and Cultural Organization; 2006.
- 36. Ajzen I, Madden T. Prediction of goal-directed behavior-attitudes, intentions, and perceived behavioral-control. J Exp Soc Psychol. 1986;22(5):453–474.
- 37. Ajzen I. From intentions to action. Attitudes, Personal Behav . 1988;112–145.
- 38. Rutter D. Attendance and reattendance for breast cancer screening: A prospective 3-year test of the Theory of Planned Behaviour. Br J Health Psychol. 2000; 5(1):1-3.
- 39. Roosmaa E, Saar E. Adults who do not want to participate in learning: a cross-national European analysis of their perceived barriers. Int J Lifelong

- Educ. 2017; 36(3):254-277.
- 40. Heckhausen H. Motivation and action (PK Leppman, Trans.). Beflin: Heidel; 1991.
- 41. Darkenwald G, Merriam S. Adult education: Foundations of practice.New York: Harper & Row; 1982.
- 42. Hargreaves D, Istance D, Schuetze H, Schuller T. Effective schooling for lifelong learning. Perspect lifelong Learn. 2002; 49-62.
- 43. Rubenson K, Desjardins R. The impact of welfare state regimes on barriers to participation in adult education a bounded agency model. Adult Educ Q. 2009; 59(3):187-207.
- 44. Gorges J, Maehler DB, Koch T, Offerhaus J. Who likes to learn new things: measuring adult motivation to learn with PIAAC data from 21 countries.

 Large-scale Assessments Educ. 2016;4(1):9.
- 45. Lalor T, Doyle G, Mckenna A, Fitzsimons A. Learning through Life: A study of older people with literacy difficulties in Ireland. Dublin: National Adult Literacy Agency (NALA) . 2009.
- 46. SOLAS. Specific Aspects of Further Educations and Training (FET) Provision and Barriers to Participation in FET Programmes Amárach Research. Dublin: SOLAS; 2017.
- 47. Talmage C, Mark R, Slowey M. Age Friendly Universities and engagement with older adults: moving from principles to practice. Int J. 2016; 35(5):537-554.
- 48. Withnall A. Learning in later life: What can universities do? In Field J, Schmidt-Hertha B, Waxenegger A, editors. Universities and engagement: international perspectives on higher education and lifelong learning New York: Routledge; 2016. p156-166.
- 49. McGuinness S, Bergin A, Kelly E, McCoy S. Further Education and Training in Ireland: Past, Present and Future. Dublin: SOLAS; 2014.
- 50. Expert Group for Forecasting Future Skills Needs(EGFSN). Guidance for higher education providers on current and future skills needs of enterprise. Dublin; EFGSN; 2016
- 51. Midwinter E (editor). Mutual aid universities (Routledge Revivals). London:

- Routledge; 2014.
- 52. Age Action. Lifelong Learning / U3A. Dublin: Age Action; 2016. Available from: https://www.ageaction.ie/how-we-can-help/lifelong-learning-u3a
- AONTAS. Learning A Lifetime's Work: AONTAS Strategic Plan 2015-2018.
 Dublin: AONTAS, 2014.
- 54. National Adult Literacy Agency (NALA). NALA Factsheet: Participation in the ETBs Adult Literacy Service in 2013. Dublin: NALA; 2013.
- 55. Age and Opportunity. Active Citizenship & Lifelong Learning. Dublin: Age and Opportunity; 2013. [cited August 25 2017]. Availible from: http://ageandopportunity.ie/what-we-do/education-training
- 56. Jackson S. "Lost ladies": Lifelong learning and community participation for older women. Stud Educ Adults. 2012; 44(1):21-34.
- 57. Tuijnman A. Lifelong education: A test of the accumulation hypothesis. Int J Lifelong Educ . 1991; 10(4):275-278.
- 58. The Irish Longitudinal Study on Ageing. Fifty Plus in Ireland 2011 First results from the Irish Longitudinal Study on Ageing (TILDA). Dublin: TILDA; 2011.
- 59. Murphy C. Transferring Knowledge and Life Experience Between Generations: the Potential of Community Based Intergenerational Projects[dissertation]. Dublin: Dublin Institute of Technology; 2012.
- 60. Wojecki A. "What"s identity got to do with it, anyway?'Constructing adult learner identities in the workplace. Stud Educ Adults. 2007;39(2):168-82.
- 61. Blossfeld H, Kilpi-Jakonen E, de Vilhena D. Adult learning in modern societies: an international comparison from a life-course perspective . 2014; 39(2):168-82.
- 62. Department of Education and Skills. Widening Participation in Adult Learning. Dublin: Department of Education and Skills, 2013.
- 63. Central Statistics Office (CSO) Quarterly National Household Survey. Dublin: CSO; 2015.
- 64. The Organisation for Economic Co-operation and Development (OECD).

 Reviews of Pension Systems Ireland. Paris: OECD Publishing, 2014.

