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Prevention and Early Interventions Supporting Health and Well-Being in Older Age

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Under *A Programme for a Partnership Government*, the Department of Public Expenditure & Reform has established a Prevention and Early Intervention Unit (PEIU). The focus of the PEIU's work is on prevention and early interventions that can improve the life outcomes of children as well as the quality of life of older people dealing within long term conditions such as chronic illness; which the PEIU is locating within the context of population health.

These types of interventions have a strong common-sense appeal; most people are familiar with the idiom that "prevention is better than cure". However, effective prevention and early interventions rely on both knowing what to do (scientific understanding of cause and effect) and being in a position to act (the capacity of the government to intervene).

The PEIU is undertaking a series of Focussed Policy Assessments on key prevention and early interventions supported by public resources. The approach is to describe each intervention by following a common structure:

- *Rationale* for the intervention;
- *Public resources* provided to support the delivery of the intervention;
- *Outputs and services* provided; and
- *Achievements* of the intervention relative to its stated goal.

As a whole, this series of descriptive reports will provide the evidential base for a thematic consideration of prevention and early interventions in Ireland.

Contents

Introduction[1]

One of the many ways in which Irish society is changing is people are living longer lives.[2] While this change ought to be seen in a positive light, as a reflection of how life in Ireland has improved for the better, there is a tendency to emphasise the challenges presented by an ageing population. As has been experienced in other countries, Ireland's ageing population is likely to lead to increased demands for pension provision and health and social care services with implications for public expenditure policy both in terms of capital investment and the provision of capacity within the various services.[3]

In planning for the future, it is important to acknowledge and plan for these challenges. However, these plans should be about more than just preparing to meet the needs of an ageing society. Over the last four decades or so, there has been an international movement toward seeing later years as a time of new beginnings and of new possibilities.[4] Gibney et al. (2018: 10) have noted that the World Health Organization has:

> "identified population ageing as one of humanity's greatest triumphs and greatest challenges… countries can afford to get old if governments, international organisations and civil society enact 'active ageing' policies and programmes that enhance the health, participation and security of older citizens."

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[1] The author is grateful to colleagues in Department of Health for their comments and insights. The author is also grateful to Dr. Fiona Keogh of the Centre for Economic and Social Research in Dementia (NUI Galway) and Catherine McGuigan and Dr. Emer Coveney of Age Friendly Ireland for their comments and insights.

[2] Over the last century, life expectancy at birth has increased from around 54 years for both males and females in 1911 to about 69 years for males and 73 years for females in 1971 to about 78 years for males and 83 years for females in 2011. (Central Statistics Office, Key Table VSA30. *Accessed*: 6 June 2019) The age profile of the Irish population is also changing. The most recent Census indicates that in 2016 the population of Ireland aged 65 years and older was some 637,570 people (13% of the total population). In 1971, the number of people in this age group was 329,820 (11%) and in 1926 it was 271,680 (9%). (Central Statistics Office, Key Table E2002. *Accessed*: 6 June 2019.) While it is evident that the increase in the number of older people is accelerating, this increasing rate of change is even more evident amongst those aged 85 years and older; increased by 41% between 1926 (14,860) and 1971 (20,930) and by 223% between 1971 and 2016 (67,555). The population aged 65 years and older increased by 21% in the 45 years between 1926 and 1971 and by 93% in the 45 years between 1971 and 2016. It is projected that the Irish population will continue to increase over the next few decades and that the number of people aged 65 years and older will be in the region of 1 million by 2031 and 1.4 million by 2046 (i.e. people born in 1981). Similarly, the population aged 85 years and older is projected to increase to around 133,000 by 2031 and 256,000 by 2046 (i.e. people born in 1961).

[3] Wren et al. (2017) have provided an extensive examination of projections of healthcare demand to 2030 that indicate increased demands for: (a) public hospital services including inpatient bed days, inpatient and day-patient cases, Emergency Department attendances Outpatient Department attendances; (b) private hospital services including inpatient bed days and inpatient and day-patient cases; (c) GP and practice nurse visits; (d) community pharmaceuticals and pharmacy services; (e) long-term and intermediate care resident places and bed days; (f) home care packages and for home help hours; (g) public health nursing and community therapy services including public health nursing visits, public physiotherapy visits, public occupational therapy visits and public speech and language therapy visits.

[4] For instance, the UN First World Assembly on Ageing (1982); UN Principles for Older Persons (1991); International Year of Older Persons (1999); UN Second World Assembly on Ageing, the Madrid International Plan of Action on Ageing (2002); Europe 2020 - Innovation Union (2010); the European Innovation Partnership on Active and Healthy Ageing (2011); European Year for Active Ageing and Solidarity between Generations (2012).

In this context, it is also important to work towards ensuring the additional years of life experienced by increasing numbers of people living in Ireland are lived in health.

The *National Positive Ageing Strategy* vision is of an Ireland 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. It will be a society in which the equality, independence, participation, care, self-fulfilment and dignity of older people are pursued at all times.[5]

A focus on supporting health and well-being in older age is not simply about the absence of disease and infirmity. Instead, it is about a person's complete physical, mental and social well-being. When a person has positive physical, social and mental well-being their basic needs are met, they have a sense of purpose, they feel they can achieve goals that are important to them, they are able to participate in society and they find value in the lives that they live.[6] From a policy perspective, this approach points to the need for a whole of government approach.

The World Health Organization (2002) has set out a roadmap for designing multi-sector active ageing policies. This policy framework seeks to encourage policy makers to recognise and address factors that affect how people and populations age, to adopt a life-course perspective and to promote intergenerational solidarity in developing policies to respond to population ageing. The World Health Organization has defined active ageing as a process of optimising opportunities for participation, health and security.

In Ireland, these three elements of active ageing are evident in the national goals set out in the whole of government *National Positive Ageing Strategy*[7] (See Appendix A.):

- The first goal is concerned with removing barriers and providing opportunities for people to be involved in all aspects of life. In particular, this goal references employment and education, active citizenship and volunteering, engagement and participation in their local communities and enabling people to "get out and about".

- The second goal is concerned with supporting people's physical and mental health and well-being. In particular, it focuses on preventing and reducing disability and chronic illness and promoting the development and delivery of high quality care services and supports.

- The third goal is concerned with enabling people to age with confidence, security and dignity in their own homes and communities. To this end it focuses on people's income and standard of living, the quality of their homes, the accessibility of public spaces, transport and buildings and their feelings of safety and security both within and outside their homes and families.

The implementation of the *National Positive Ageing Strategy* requires a whole of government response and is framed within the implementation of *Healthy Ireland* (the whole of government national framework for action to improve health and well-being of the population):

[5] Department of Health, 2013a: 18.
[6] Department of Health: 2013b: 9; Diener, 2006: 156; Dolan, 2014; Ryan and Deci, 2001; Ryff and Singer, 2008; Stiglitz, Sen and Fitoussi, 2009.
[7] Department of Health, 2013a: 20-21.

> …everyone can enjoy physical and mental health and wellbeing to their full potential, where wellbeing is valued and supported and at every level of society and is everyone's responsibility.[8]

Within its vision, *Healthy Ireland* emphasises:

- The need for public policy to focus on health and wellbeing over the life-course and across the broader determinants of health; and

- Personal and collective responsibility for protecting health and preventing disease.

Amongst its high-level goals, *Healthy Ireland* intends to:

- Increase the proportion of people who are healthy at all stages of life; and

- Reduce health inequalities.

Gibney et al. (2018: 11) have noted that the implementation of the *National Positive Ageing Strategy* is an essential part of creating the vision set out in *Healthy Ireland* of a society in which "every individual and sector of society can play their part in achieving a healthy Ireland".

There is a tendency to think of prevention and early interventions in terms of policy for children and young people. However, prevention and early intervention is an important element of Ireland's policy focus on ageing. The *Sláintecare Report* (2017: 71) identified health promotion and the prevention of ill-health as a key element of it vision for integrated care in Ireland. In terms of the population as a whole, the policy focus of *Healthy Ireland* is to increase the proportion of people who are healthy at all stages of life. In terms of older people, the *National Positive Ageing Strategy* have been set out above (and in Appendix A). While the HSE's *National Clinical Programme for Older People* seeks to improve the management of acutely ill frail older adults in the acute hospitals, it is also seeking to reduce the number of falls by older people and increase their independence in the home. Interventions that seek to support health and well-being in older age need to be concerned not only with people's physical and mental health but also with their ability to play an active part in society without discrimination and to enjoy an independent and good quality of life.[9]

This paper seeks to illustrate how a prevention and early intervention approach to designing and implementing policies, might be useful in supporting positive health and well-being outcomes for older people.[10] The paper initially sets out a broad range of interrelated factors that are important to consider when trying to understand how to support better health and well-being in older age. These factors influence health and well-being over the course of a lifetime

[8] Department of Health, 2013b: 6.

[9] The World Health Organization (WHO) has been central to policy initiatives that have sought to develop societies in ways that support older people in continuing to lead active and healthy lives. In particular, the WHO (2002, 2015) has set out a framework that provides a roadmap for involving multiple agencies in designing multi-sectoral active ageing policies. (See also: Department of Health. 2013a: 63-64; Baltes and Baltes, 1990.)

[10] In drafting this report, the author only considered publically available information and did not have access to any considerations that might be underway as to how the programmes considered could be developed. As noted this report is part of a series of reports that taken together will inform a thematic consideration of prevention and early interventions in Ireland. As such, within this overall approach the individual reports are not evaluations of the programmes considered and do not seek to arrive at any conclusions or make any recommendations.

so it is important to take account of a person's current circumstances and behaviours as well as the accumulation of positive and negative effects of how their life has been lived.

The paper then focuses on trying to describe how old age is lived in Ireland. Research evidence published by *The Irish Longitudinal Study on Ageing,* the *Healthy Ireland Survey* and the *Healthy and Positive Ageing Initiative Survey* are used to describe health and well-being amongst older people living in Ireland and to set out how the various factors are related to each other.

The final section of this paper outlines a number of examples of interventions that seek to address one or more of the factors associated with health and well-being in older age. As the various factors are amenable to policy interventions, there are opportunities for policy interventions that can promote better health and well-being amongst older people.

Understanding Health and Well-being in Older Age

The purpose of this section is to set out key factors that support an understanding of health and well-being in older age.

In older age, a person's health and well-being is influenced by complex interactions of a range of factors over the course of their life. A life course approach to understanding health and well-being in older age involves taking account of a person's current circumstances and behaviours as well as the accumulation of positive and negative effects of social, economic and environmental conditions throughout their life (i.e. the circumstances in which people are born, grow up, live, work and age).[11]

Health and Well-Being

A central concern with realising the benefits of increased life expectancy is how life is lived in older age. If the benefits of the changes in life expectancy are to be fully realised then the focus has to be on more than the delayed onset of morbidity and infirmity. From this perspective, policy is concerned with a person's complete physical, mental and social well-being.[12]

[11] Bell, 2017: 5-10; World Health Organization, 2002; Department of Health, 2013a, 2013b and 2015c.

[12] For instance, the WHO Regional Committee for Europe has set out a *Strategy and Action Plan for Healthy Ageing in Europe, 2012–2020*. Within this it has set out four strategic priority areas for action that help people to stay active as long as possible (including in the labour market) and actions to protect the health and well-being of people with (multiple) chronic conditions or at risk of frailty: healthy ageing over the life-course; supportive environments; health and long-term care systems fit for ageing populations; and strengthening the evidence base and research. The Strategy and Action Plan also suggests five priority interventions: promoting physical activity, falls prevention; vaccination of older people and infectious disease prevention in health care settings; public support to informal care-giving, with a focus on home care; and geriatric and gerontological capacity-building among the health and social care workforce. Finally, it sets out additional supporting interventions that link healthy ageing to its wider social context: prevention of social isolation and social exclusion; prevention of elder maltreatment; and quality of care strategies for older people including dementia care and palliative care for long-term care patients.

Table 1 provides a summary of the some of the key factors that support an understanding of health and well-being in older age. These factors include more than a traditional focus on the physical and mental health of older people[13]:

- A *healthy ageing* approach that focuses on optimising opportunities for physical, social and mental health in order to enable older people to take an active part in society without discrimination and to enjoy an independent and good quality of life;

- Ideas around *active ageing* that emphasise people's continued participation in all aspects of their communities (e.g. social, economic, cultural, spiritual and civic affairs) and not just the ability to be physically active or to participate in the labour force;[14]

- A *positive ageing* approach that moves beyond a concern with a person's physical, emotional and mental well-being to include social attitudes and perceptions of ageing that can influence the well-being of older people, whether through direct discrimination or through negative attitudes and images; and

- A *successful ageing* approach that accounts for the dynamic or life-cycle element of ageing as it is concerned with the ability of people to adapt to the transitions experienced by the ageing person; preventing or reducing the negative impacts on their quality of life.[15]

Table 1 – Key Factors Associated with Health and Well-being in Older Age[16]

Latent Factors	***Behavioural Factors***	***Health Status***	***Quality of Life***
Adversity	*Health Risk*	*Physical Health*	*Control*
Personal Safety	*Physical Activity*	*Disability*	*Autonomy*
Resilience	*Social Integration*	*Frailty*	*Self-Realisation*
Beliefs and Attitudes		*Falls*	*Pleasure*
		Cognitive Function and Dementia	
Age Friendly Environments			
Demographics			

[13] Department of Health. 2013a: 63-64; Department of Health, 2015a: 2-3; Baltes and Baltes, 1990.
[14] Bass, Caro and Chen, 1993; OECD, 1998.
[15] Depp and Jeste, 2006; Montross et al., 2006.
[16] What is set out here is not exhaustive but is intended to provide a broad overview of key factors that are associated with Health and Well-being. In part, the selection of domains and factors included here has been influenced by the empirical work published by TILDA as well as with concern to focus on elements that are amenable to policy actions in support of better outcomes for older people.

Quality of Life

Quality of life is an important measure of well-being. The World Health Organization has defined quality of life in terms of:

> the individual's perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns. It is a broad ranging concept affected in a complex way by a person's physical health, psychological state, level of independence and their relationships to salient features of their environment.[17]

Quality of life is a multi-dimensional concept encompassing not only a person's physical health but also their psychological wellbeing, social functioning and participation in the world around them. This broader focus (beyond physical health) is important as it is not uncommon for older people to rate their quality of life as good even when they have a serious illness or disability.[18]

Quality of life focuses on a person's ability to actively participate in the place where they live, live their life in a way that allows them to fulfil their potential and derive happiness or enjoyment and be free from the unwanted interference of others.[19]

Health Status

Physical Health

As people and populations age, there are increases in both the prevalence and incidence of poor health as well as demand for health services. People's quality of life can be undermined by reduced physical health and disability.[20]

Cardiovascular conditions continue to be a key cause of early mortalities in Ireland despite decreases in the age-standardised mortality rate.[21] Cardiovascular conditions are also associated with secondary complications. For instance, people with diabetes are more at risk than their counterparts of cognitive decline and depression as well as Alzheimer's Disease.[22]

Non-cardiovascular conditions can also contribute to a reduction in people's quality of life.[23] Diseases of this type can result in reduced physical activity and increased risk of disability that can have further negative consequences for people's health and well-being. For instance, osteoporosis is associated with fractures while cataracts are one of the most common causes of vision loss in people over 40 years of age.[24]

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[17] World Health Organization Quality of Life Group,1997: 1.
[18] McGarrigle and Ward, 2018; McGee, Morgan, Hickey, Burke and Savva, 2011; Bowling and Dieppe, 2005.
[19] Sen (1999) emphasises whether or not a person has the necessary capabilities or opportunities to lead the kind of life they value (e.g. are they well nourished, mobile, take part in community life).
[20] George, 2010; Stegenga et al, 2012.
[21] McNicholas and Laird, 2018. Cardiovascular conditions include hypertension, diabetes, heart attack, angina, stroke, transient ischaemic attach (TIA) and heart failure.
[22] Downs and Spezia Faulkner, 2015.
[23] For example, cataracts, osteoporosis, arthritis and lung disease.
[24] McNicholas and Laird, 2018.

Disability

The risk of disability increases as people age. There are many types of disability but a distinction is often drawn between those that impact on "activities of daily living" (e.g. washing, eating and toileting which are essential to daily life) and "instrumental activities of daily living" (e.g. preparing meals, managing money and household chores which are important in maintaining independence).

In addition to the impact of disability on "daily living", it can also hinder a person's ability to access their community. When this happens it can reduce their quality of life and contribute to depression, social isolation and loneliness.[25] That said, the negative impact of disability on life satisfaction may reduce over time[26] as people's resilience helps shape how they adapt to disability.[27]

Frailty

In terms of addressing the health needs of an ageing population, frailty is becoming a key concept in terms of healthcare service planning, development and delivery.[28]

Frailty is a distinctive health state related to the ageing process during which multiple body systems gradually losing their in-built reserves. In frail people there is an increased risk that a minor health related event (e.g. an infection, dehydration or adverse effects related to a new medication) could result in a deterioration of their health.[29] Those living with frailty tend to have:

- Difficulty walking a short distance;
- Difficulty climbing stairs;
- Exhaustion/having energy to spare;
- Extent of physical activity; and
- Co-morbidity of two or more of hypertension, lung disease, stroke, diabetes, angina and heart problems.[30]

However, frailty is not an inevitable part of the ageing process. While frailty is a common condition in older adults, it is a dynamic process that changes over time. An older person can transition between the different states of frailty:

- Robust – a person's health problems are well managed;
- Pre-frailty – a person is coping with their health problems but are at increased risk of adverse outcomes; and

[25] McGarrigle and Ward, 2018; Barry, Soulos, Murphy et al. 2013; Sexton, King-Kallimanis, Layte and Hickey, 2015; Burholt and Scharf, 2014.
[26] Oswald and Powdthavee, 2008.
[27] Hayslip and Smith, 2012.
[28] Health Service Executive, 2017.
[29] O'Halloran and O'Shea, 2018; Roe, O'Halloran, Normand and Murphy, 2016; Clegg, Young, Iliffe et al., 2013.
[30] Scarlett, King-Kallimanis, Young, Kenny and O'Connell, 2014.

- Frailty – a person has complex health problems and functional limitations such that they are at high risk of adverse health outcomes (e.g. falls, disability, hospitalisation, nursing home admission and death).[31]

Falls

Falls are the leading cause of injury, disability and admission to nursing homes for people aged 65 years and older. A single fall significantly increases the risk of subsequent falls. In terms of injury, hip fracture is the most common disabling injury in older adults and can cause accidental death.[32]

Cognitive Function and Dementia

Cognitive function and dementia have been identified as key risk factors for the onset of disability and reduced physical function in later life.[33]

In terms of cognitive function, as people age, they may encounter difficulties with one or more of verbal memory (words and other abstractions of language), prospective memory (perform an action in the future; important in terms of maintaining independence by performing day-to-day tasks) and executive function (such as the ability to plan, utilise mental flexibility and to suppress inappropriate or incorrect responses). At older ages, these changes may impact on their ability to perform everyday tasks, retain autonomy and live independently.[34]

Dementia is a progressive condition that impacts on memory, language, ability to communicate, mood and personality. (Alzheimer's disease is the most common cause of dementia.)[35] From a clinical perspective, dementia is likely to begin at midlife (40-65 years) though symptoms may not be observed for some years. The *Lance*t's Livingston Commission adopted a life-course approach to its review of dementia and posited that there is a window of opportunity to intervene and address a range of potentially modifiable risk factors at different stages of life. In particular, they identified low educational level in childhood, hearing loss, hypertension, obesity, smoking, depression, physical inactivity, social isolation and diabetes.[36]

Behavioural Factors

Health Risk Behaviours

Behavioural health refers to modifiable risk factors (e.g., smoking, alcohol consumption and diet) that can have a negative influence on health and contribute to chronic disease.[37] The impact of these behaviours is not only associated with current behaviour but is also related to the cumulative effect of these behaviours over the course of a lifetime.

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[31] O'Halloran and O'Shea, 2018; Gill, Gahbauer, Allore and Han, 2006; Fried, Ferrucci, Darer et al. 2004; Clegg, A., J. Young, S. Iliffe S et al., 2013.
[32] McNicholas and Laird, 2018; Donogue, 2014; American Geriatrics Society, British Geriatrics Society, and American Academy of Orthopaedic Surgeons Panel on Falls Prevention, 2001; O'Loughlin, Robitaille, Boivin and Suissa, 1993; Dyer, Crotty, Fairhall et al., 2016.
[33] Spiers, N.A., R.J. Matthews, C. Jagger et al., 2005.
[34] Feeney and Tobin, 2018.
[35] Morgan, Gibney and Shannon, 2017.
[36] Livingston, Sommerlad, Orgeta et al., 2017.
[37] McNicholas and Laird, 2018.

Physical Activity

Physical activity is recommended as an essential component of a healthy lifestyle at all ages because even moderate levels of physical activity can help prevent disease, improve quality of life and promote physical and mental health (physical inactivity is one of the leading risk factors for mortality).[38]

In adults aged 65 years and older, the health benefits of physical activity include:

- Increased cardiorespiratory and muscle fitness, lower body fat, more favourable metabolic profile and lower rates of cardiovascular disease (including high blood pressure, stroke, type 2 diabetes) and cancer (colon and breast);
- Better cognitive function and functional health and a lower risk of falling;[39] and
- Increased well-being and improved mental health and quality of life through social engagement.[40]
- People who engage in little or no physically activity are at greater risk of premature death as well as cardiovascular disease, hypertension, type 2 diabetes, obesity, osteoporosis, anxiety and depression.[41]

Social Integration

Social integration refers to the extent to which an individual has meaningful personal ties to friends and family and social ties to their community.

People who engage in their communities are more likely to have better physical and mental health and are less at risk of pre-mature mortality. Social engagement is protective against cognitive decline and dementia and can influence levels of physical activity, healthy eating, and other positive health behaviours.[42] However, low levels of social engagement are held to have a similar impact on people's health as established risk factors such as physical inactivity, obesity, smoking and high blood pressure.[43]

Feelings of loneliness encompass missing close personal relationships (emotional loneliness) and wider social interaction. Such feelings reflect a deficit between a desired quality and quantity of engagement with others and the day-to-day reality of their engagement with others.[44] In older adults, loneliness has been associated with declines in physical, mental and cognitive health and increased risk of mortality.[45]

Volunteering is on important source of social engagement. There is evidence to suggest that older adults who volunteered for at least 100 hours a year have slower declines in self-rated

[38] McNicholas and Laird, 2018.
[39] World Health Organization, 2010.
[40] Chodzko-Zajko, Proctor, Fiatarone Singh et al., 2009; Heesch, van Uffelen, Hill and Brown, 2010.
[41] Donoghue, O'Connell and Kenny, 2016.
[42] Allen and Daly, 2016: 3-4.
[43] Holt-Lunstad, 2017; Donoghue, O'Connell and Kenny, 2016; House, Robbins and Metzner, 1982.
[44] Victor, Scambler, Bowling and Bond, 2005.
[45] Holt-Lunstad, 2017; Donoghue, O'Connell and Kenny, 2016; Hawkley and Cacioppo, 2010; Hawkley, Thisted and Cacioppo, 2009.

health and physical functioning, slower increases in depression levels and lower mortality rates compared to those who volunteered for less than 100 hours a year.[46]

Latent Factors

In addition to factors that can be observed such as a person's behaviour or health status, well-being can also be influenced by a variety of factors that are less observable such as people's experiences of adversity over the course of their lives, as well as by the attitudes that they and society hold regarding ageing.

Adversity

People of all ages encounter adversity. In general terms, adversity can be defined as a lack of positive circumstances or opportunities, which may be brought about partially by physical, mental or social losses, or by experiencing deprivation or distress.[47] The *Adverse Childhood Experiences Study* has demonstrated the longer term impact of adversity on health outcomes.[48]

Exposure to stressful experiences may predispose people to developing chronic diseases such as diabetes, cardiovascular disease, liver cancer, asthma, chronic obstructive pulmonary disease, autoimmune diseases, poor dental health, and depression.[49] In part, this may be due to people trying to cope and manage their experiences of adversity by adopting behaviours such as smoking, alcohol or drug abuse, overeating or sexual behaviours because of their immediate pharmacological or psychological benefits. For instance, nicotine has psychoactive benefits such as anti-anxiety, anti-depressant, anger-suppressant and appetite-suppressant.[50] Furthermore, the experience of stress over a prolonged period of time, toxic stress[51], can have long-term health consequences especially in the absence of protective coping strategies and healthy interpersonal relationships.[52]

End-of-Life Experiences

One obvious source of stress is people's experience around end-of-life. Issues around death and dying are seen as important to quality of life. For many, there are feelings of uncertainty and fear around death (e.g., not feeling in control of how you die and fear of being in pain before death). While most people would prefer to die in their own homes, the experience in high-income countries tends to be one in which up to half of deaths occur in an acute hospital setting.[53]

Adult Safeguarding (Elder Abuse)

In recent years, efforts to safeguard vulnerable or at risk adults from abuse, neglect and exploitation have been encompassed by the field of adult safeguarding. The abuse and

[46] Donoghue, O'Connell and Kenny, 2016; Lum and Lightfoot, 2005.
[47] Hildon, Smith, Netuveli and Blane, 2008.
[48] Felitti, Anda and Nordenberg, 1998; Felitti, 2009; Runyan et al, 2002; Singh and Ghandour, 2012; Appleyard, Egeland, van Dulmen, and Sroufe, 2005.
[49] Downs and Spezia Faulkner, 2015.
[50] Felitti et al., 1998: 253-254; Felitti, 2009.
[51] The strong, frequent and prolonged activation of the body's stress response systems.
[52] Shonkoff and Garner, 2012; Johnson, Riley, Granger and Riis, 2013; Shonkoff, Boyce and McEwen, 2009; Shonkoff, 2012.
[53] Power, Quinn and Schmidt, 2005; May, McGarrigle and Normand, 2017; Gomes, Higginson, Calanzani et al., 2006; Bekelman, Halpern, Blankart et al., 2016; Teno, Gozalo, Bynum et al., 2013.

mistreatment of older people is an issue that has become more salient in public discourse over the last few decades.[54] The World Health Organisation (2002) has defined elder abuse as:

> a single or repeated act or lack of appropriate action occurring within any relationship where there is an expectation of trust, which causes harm or distress to an older person or violates their human and civil rights.

Older people who have experienced abuse are at risk of premature mortality, emotional distress such as increased experiences of fear and grief, anger and upset, isolation from family and friends, the loss of self-confidence and self-esteem, depression and thoughts of suicide or self-harm.[55]

While elder abuse and neglect are the potential outcomes of complex interactions between social, economic, health, social isolation, education and so on, older people who are most at risk of abuse are those with a physical impairment and dependent on others for assistance with activities of daily living as well as older people co-habiting with family and being socially isolated.

Self-Neglect

More recently, there has been a focus on the issue of self-neglect by older people. Self-neglect occurs when people refuse to provide themselves with adequate food, water, clothing, hygiene and safety precautions and can threaten a person's health and safety. The factors associated with risk of self-neglect include clinically significant depressive symptoms, cognitive impairment, alcohol abuse, low self-rated health, higher levels of pain and frailty.[56]

Resilience

Morgan et al. (2016) have noted that having to deal with adversity is not always detrimental to the person. The experience of having to cope with low levels of adversity can enable people to deal with difficulties, "resilience":

> The capability of individuals or systems (such as families, groups, and communities) to cope successfully in the face of significant adversity and risk.[57]

Resilience is not an inherent trait. Instead, it is perhaps best understood as an interaction between psychological processes and ecological influences - it is both nature and nurture.[58] Resilience results from a mixture of both protective and risk factors and ranges on a continuum from "basic survival" to "flourishing resilience".[59] Protective factors work to buffer an individual from the likelihood of negative effects of a particular problem[60] and include positive attachment, self-esteem, intelligence, emotion regulation, humour and independence.[61] (Protective factors may be at the level of the individual, their family or the community within which they live.)

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[54] Naughton, Drennan, Treacy, Lafferty, Lyons, Phelan, Quin, O'Loughlin and Delaney, 2010.
[55] Lachs, Williams O'Brien et al., 1998; Comijs, Pot, Bouter and Jonker, 1998; O'Keeffe, Hills, Doyle et al., 2007; Mowlam, Tennant, Dixon and McCreadie, 2007; Mears, 2003.
[56] Dong, Simon and Evans, 2011; Abrams et al., 2002; Hansen et al, 2016; Lee et al, 2016.
[57] Lyons, Mickelson, Sullivan and Coyne, 1998.
[58] Masten, 2001; Harrop, Addis, Elliott and Williams, 2006.
[59] Palmer, 1997.
[60] Shonkoff and Garner, 2012.
[61] Child Welfare Information Gateway, 2013: 3.

Personal Safety

It is important that people feel safe both in their own homes and when they are out-and-about.[62] For older people, feeling safe at home and in their neighbourhoods is a key element of a good quality of life.[63] Older adults who perceive their neighbourhoods as unsafe, particularly at night, tend to engage in less physical activity, regardless of socioeconomic status.[64]

Another concern about their personal safety that older adults may have is in relation to falling. Given the potential negative health consequences of falling, many older people, including those with no history of falls, are afraid of falling. There is evidence that fear of falling is associated with an increased likelihood of experiencing a fall within two years. This may be because the fear of falling results in a person avoiding activities they are capable of performing and, as a consequence, experiencing increased social isolation and reduced strength, fitness and mobility.[65]

Beliefs and Attitudes

Ageing tends to be seen in negative terms with stereotypes portraying older adults as physically weak, forgetful and stubborn. However groundless these biases may be,[66] these perceptions can contribute to social inequalities and have a negative impact on how older adults function. The pervasiveness of ageism in society may mean that as people age, they themselves possess and articulate negative expectations about their own ageing.

How people think about old age, and the societal biases they encounter, can influence well-being and health.[67] For instance, older people who have a positive view of ageing are more likely to engage in preventive health behaviour, have fewer functional limitations and live longer[68] while negative perceptions of ageing are associated with poorer quality of life among community-dwelling older people.[69]

Age Friendly Environment

There is an increasing interest in promoting age friendly environments. As people age they can encounter difficulties moving around the communities in which they live (e.g. poor quality footpaths, lack of places to rest, inadequate lighting, heavy traffic). This can have a negative impact on their ability to access services or to continue to participate in their local communities. However, it is possible, through planning and designing the towns and cities in which people live, to build environments that are safe and accessible to older people and support people to continue living in their own homes and communities.[70]

One of the National Policy Objectives under the *National Planning Framework* (2018: 86) is that:

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[62] De Donder, de Witte, Dury et al., 2012.
[63] Gabriel and Bowling, 2004.
[64] Bennett, McNeill, Wolin et al. 2007; Tucker-Seeley, Subramanian, Li and Sorensen, 2009.
[65] Donogue, 2014; Rantakokko, Mänty, Iwarsson et al., 2009.
[66] World Health Organization, 2007a; Pinquart, 2002.
[67] McGee, Morgan, Hickey, Burke and Savva, 2011.
[68] Levy and Myers, 2004; Levy, Slade and Kasl, 2002; Levy, Slade, Kunkel and Kasl, 2002.
[69] Hickey, O'Hanlon and McGee, 2010.
[70] Garin et al., 2014; Bentley et al., 2013; Romero-Ortuno, Cogan, Cunningham, & Kenny, 2009; Michael, Green, & Farquhar, 2011.

Local planning, housing, transport / accessibility and leisure policies will be developed with a focus on meeting the needs and opportunities of an ageing population along with the inclusion of specific projections, supported by clear proposals in respect of ageing communities as part of the core strategy of city and county development plans.

Demographics

Finally, well-being is also associated with a range of social, economic and environmental factors (i.e. the circumstances in which people are born, grow up, live, work and age). While these factors are not usually the direct causes of illness, in older age, a person's health is associated with the cumulative impact of these circumstances:[71]

- Before a person is born, a maternal diet that is less rich in nutrients can impact on how the foetus develops heightening their risk in later life to diseases such as coronary heart disease, stroke, diabetes and hypertension;[72]

- Maternal depression and economic deprivation can diminish a child's cognitive and emotional development resulting in their being less ready for school and reducing educational attainment;[73]

- Socioeconomic disadvantage and social exclusion can mean that some groups in society are "hard to reach" which can hinder their ability to access services such as health, education and housing in ways that undermine health and well-being in later life;[74]

- People who are involved in providing informal care for relatives and others are at risk themselves of poor health, especially stress and depression. While a caring role can provide a person with a sense of purpose, self-esteem and well-being, it should be acknowledged that the role, in particular the duration and intensity of it, can impact on the health and well-being of the carer;[75]

- In later life, a person with a greater 'cognitive reserve' of skills, abilities and knowledge to draw on has a better chance than their counterpart of coping with the onset of mild cognitive impairment and dementia;[76]

- Experience of unemployment or poor quality / sporadic work impacts on a person's ability to prepare financially for later life which can impact on their standard of living in older age and their levels of social engagement and physical activity;[77]

[71] Allen and Daly, 2016; Marmot Review Team, 2010; Department of Health, 2013a.
[72] Jefferis, Power and Hertzman, 2002; Barker, 1998.
[73] Kiernan and Huerta, 2008.
[74] Ní Shuinear, 1994.
[75] Schulz and Sherwood, 2008; Heisler et al, 2012; Winter, Bouldin and Andresen, 2010.
[76] Scarmeas and Stern, 2003; Richards and Sacker, 2003; Stern, 2003.
[77] Allen, and Daly, 2016; Allen, Daly and Institute of Health Equity, 2016; Allen, 2008; Institute of Health Equity, 2004; Roberts and Bell, 2015.

- Unemployment can impact on people's physical and mental health through increased tobacco use and alcohol consumption; poor housing conditions and inadequate diet; stress around debt and poverty, social withdrawal and family disruption;[78]

- Poor work conditions (e.g., exposure to hazards and the physical impact of manual labour) can impact on physical health;[79]

- How people perceive their own health is seen as a good indicator of overall well-being. There is an association between poor self-rated health and future disease, functional decline, use of healthcare services and mortality;[80]

- For older people, good living conditions are important to maintaining good physical and mental health.[81] Living conditions may be seen in terms of the building itself (problems with damp and mould, the structure of the building or with pests) and how comfortable the building is to live in (heating). The older housing stock is more likely to exhibit problems related to damp and moisture ingress and these houses are more likely to be occupied by older people;[82]

- Cold weather and cold houses can have serious implications for people's health.[83] Adults who have difficulty heating their homes are more likely to have poorer self-rated health, clinically relevant depressive symptoms and chronic pain.[84] Cold living conditions are associated with increased mortality due to exacerbation of respiratory and cardiovascular conditions and increased incidence of stroke as well as increased morbidity in terms of arthritis, colds and flus and increased risk of accidents and injuries;[85] and

- The health consequences of poor housing conditions is not confined to the older cohorts of the population. For children living in cold homes there may be longer term health outcomes such as cardiovascular and respiratory illnesses. When children live in overcrowded households there is an increased risk of childhood / adolescent depression, slower physical growth and slower cognitive development and limited educational attainment.[86]

[78] Waldron and Lye, 1989; Popovici and French, 2013; Brand, 2014; Drewnowski and Specter, 2004; Gallo et al., 1999; Marmot Review Team, 2011.
[79] Marmot Review Team, 2010.
[80] Donoghue, O'Connell and Kenny, 2016; Idler and Benyamini, 1997; DeSalvo, Bloser, Reynolds et al., 2006; Lee, 2000.
[81] Breen, 2013.
[82] Orr, Scarlett, Donoghue and McGarrigle, 2016.
[83] The World Health Organisation recommends that indoor home temperatures are kept at a minimum of 18°C and even higher for sedentary older adults. (World Health Organization, 1984.)
[84] Pisters, Veenhof, van Dijk et al., 2012; Mezuk, Edwards, Lohman et al., 2012.
[85] Gibney, S., M. Ward and S. Shannon, 2018. Fuel poverty refers to households that have difficulties heating their homes. A household having to spending 10% or more of household income on heating is seen as a key threshold in terms of identifying fuel poverty and it has been estimated that a quarter of all Irish households spent more than 10% of household income on heating. It has also been reported that half of older people in Ireland went without food or new clothing in order to pay for heating bills and are likely to forego heating and food if they have other high priority bills such as mortgages to pay. (Collins, 1986; Department of Communications, Energy and Natural Resources, 2015; Goodman, 2011.)
[86] Allen and Daly, 2016; Marmot Review Team, 2011.

Lived Old Age in Ireland – Health and Well-Being

The purpose of this section is to set out the empirical evidence of how old age is lived in Ireland. The structure of this section is based around the factors set out in Table 1 as these are central to understanding health and well-being in older age. The data is presented in a way that not only focuses on the individual factor but sets out how the various factors are related to each other. In terms of designing policy and interventions it is important to be cognisant of these relationships. That said, it should also be recognised that the relationships presented here are not causal relationships.

This section of the paper draws on the substantial research that has been undertaken over the last decade or so on older people in Ireland. One key contribution to this effort has been *The Irish Longitudinal Study on Ageing* (TILDA). This is a nationally representative survey of the older population in Ireland that provides a comprehensive picture of the characteristics and contributions of older persons in Ireland.

A second important contribution in this area has been the annual *Healthy Ireland Survey*. This survey collects data on the adult population as a whole in order to support the monitoring and assessment of the various policy initiatives *Healthy Ireland Framework*.

The *Healthy and Positive Ageing Initiative* (HaPAI) *Survey* completed 10,540 interviews of community-dwelling members of the population aged 55 years and older who were living in private households in 20 local authority areas. The survey was carried out to provide evidence about the experiences and preferences of older people and to identify the gaps in services and supports needed to allow them to age positively in their local communities.[87]

While the data presented here focus for the most part on older adults, it is important to remember that both the *National Positive Ageing Strategy* and *Healthy Ireland* promote a life course approach to health and well-being in older age. As noted above, in older age, a person's health and well-being is not just associated with their current circumstances and behaviours but is the accumulation of positive and negative effects of social, economic and environmental conditions throughout their life (i.e. the circumstances in which people are born, grow up, live, work and age).

Quality of life

Quality of life is an important measure of well-being. It is a multi-dimensional concept encompassing not only a person's physical health but also their psychological wellbeing, social functioning and participation in the world around them. Quality of life focuses on a person's ability to actively participate in the place where they live, live their life in a way that allows them to fulfil their potential and derive happiness or enjoyment and be free from the unwanted interference of others.[88]

In TILDA, quality of life is seen in terms of needs satisfaction and is measured along four domains of "control" and "autonomy" (prerequisites for an individual's free participation in society) and "self-realisation" and "pleasure" (active and self-reflexive aspects of living that bring reward and happiness to people in later life).[89]

[87] Gibney et al., 2018.
[88] McGarrigle and Ward, 2018; McGee, Morgan, Hickey, Burke and Savva, 2011; Bowling and Dieppe, 2005.
[89] McGee, Morgan, Hickey, Burke and Savva, 2011.

McGee et al. (2011) have found that overall, older people in Ireland feel that they experience high levels of quality of life:

- Control refers to a person's ability to actively participate in their environment. To a large degree, older Irish people feel they are free to plan for their futures and rarely feel that what happens to them is out of their control, that they are left out of things or that their age prevents them from doing things they like to do;

- Autonomy refers to the right of the individual to be free from the unwanted interference of others. To a large degree, older Irish people feel that they can do the things that they want to do and they rarely feel that family responsibilities or their health prevents them from doing what they want to do;

- Self-realisation refers to the fulfilment of one's potential. To a large degree, older Irish people feel full of energy and feel optimistic about the future and positive about the past; and

- Pleasure refers to the sense of happiness or enjoyment derived from engaging with life. To a large degree, older Irish people feel that life has meaning, look forward to each day, enjoy the things that they do and the company of others and look back on their life with a sense of happiness.

Research utilising the TILDA data has shown that quality of life is associated with[90]:

- Age – The evidence suggests that quality of life does not decrease linearly with age but instead increases to a peak at 68 years and then starts to gradually decline;

- Marital status - Those who were married have a higher quality of life than those who were separated or divorced;

- Education - Those who had tertiary education have a higher quality of life than those who at best had primary level education;

- Self-rate health status - Those who rated their health as either excellent or good have higher quality of life than those who rated their health as either fair or poor;

- Wealth - Those in the most well-off quartile have a higher quality of life than those in the least well-off quartile;

- Social integration – There was a positive association between social integration and quality of life with social isolation being associated with lower quality of life. The quality of these relationships is also important in that people who reported having positive supportive relationships with friends were also more likely to report a higher quality of life relative to those with less supportive relationships. As such then, quality of life in older life is not just about having active social interactions it is also about having quality relationships (i.e. both quantity and quality are important);

- Chronic conditions – There was a negative association between the number of chronic conditions and quality of life; and

[90] McGarrigle and Ward, 2018; McGee, Morgan, Hickey, Burke and Savva, 2011; Ward, McGarrigle and Kenny, 2018.

- Disability - For both ADLs and IADLs, quality of life decreased with increasing numbers of limitations.

Health Status

Physical Health

There are increases in both the prevalence and incidence of poor health as people and populations age.

McNicholas and Laird (2018) have found an overall increase in the prevalence of chronic health conditions across the first four waves of TILDA:

- Hypertension (35% to 38%),
- Diabetes (8% to 11%),
- Heart attacks (4% to 6%),
- Strokes (1% to 2%) and
- Transient ischaemic attack (TIA) (2% to 4%).

In particular, the increases in diabetes and heart attacks were most evident in men while the older age group (75 years and older) reported a higher prevalence of cardiovascular conditions than the younger age group (50-64 years).

McNicholas and Laird (2018) have also found increased prevalence of:

- Cataracts (9% to 14%),
- Osteoporosis (9% to 17%),
- Arthritis (26% to 39%) and
- Lung disease (4% to 5%).

The highest burden of both osteoporosis and arthritis was among older women (75 years and older) increasing their risk of disability and reduced physical activity. Cataracts were common in the older age group but it is worth noting that their prevalence increased amongst women aged 50-64 years between Waves 1 and 4 of TILDA.

Disability

There are many types of disability. A distinction is often drawn between those that impact on "activities of daily living" (e.g. washing, eating and toileting which are essential to daily life) and "instrumental activities of daily living" (e.g. preparing meals, managing money and household chores which are important in maintaining independence).

McGarrigle and Ward (2018) have examined disability amongst Irish people aged 50 years and older and have found that:

- 8% of men and 11% of women reported at least one activity of daily living impairment;
- 6% of men and 7% of women reported at least one instrumental activity of daily living impairment; and
- The highest number of limitations were evident in men and women aged 75 and over.

The *HaPAI Survey* (2018: 62) has found that while more than half of those aged 55 years and older do not have a long-standing illness or condition that limits daily activity, almost 7% have such a condition that severely limits their daily activity while 22% have reported that their daily activity is limited (14% have reported that they have such a condition but their daily activity is not limited).

Frailty

Frailty is a distinctive health state that is a recognisable and common phenomenon in ageing.[91]

TILDA utilised the Cumulative Deficit, or Frailty Index, that views frailty as a state of system breakdown due to the accumulation of physical, social and psychological health symptoms and conditions. It measures the number of health deficits present as a proportion of the total number of potential health deficits tested to determine whether a person is in "robust health", "living with pre-frailty" or "living with frailty".[92]

O'Halloran and O'Shea (2018) have examined the issue of frailty in the Irish population aged 50 years and older. They have found that between Waves 1 and 4 of TILDA:

- The prevalence of robustness decreased from 56.4% to 41.8%.
- The prevalence of pre-frailty increased from 30.9% to 39.2%; and
- The prevalence of frailty increased from 12.7% to 19.0%;

[91] The gold standard for the assessment and management of frailty is the Comprehensive Geriatric Assessment (CGA). This is a holistic and interdisciplinary assessment of an individual and has been demonstrated to reduce adverse outcomes including disability, cognitive decline, long-term residential care and death. However, CGA is time consuming and must be carried out by trained clinicians so it is not feasible for everyone living with frailty to undergo a full multidisciplinary review. (See: Ellis, Whitehead, Robinson et al., 2011)

[92] An alternative screening method is the Frailty Phenotype model that views frailty as the presence of three or more of the following characteristics: unintended weight loss, exhaustion, weakness, slow gait speed and low physical activity. A person is considered pre-frail if they have 1-2 characteristics and robust if they have none of these characteristics. (See: Rockwood and Mitnitski, 2007; Searle, Mitnitski, Gahbauer et al., 2008; Fried, Tangen, Walston et al., 2001; Fried, Ferrucci, Darer et al., 2004.)

- The prevalence of frailty among women was higher at all waves and was approximately twice that of men at Waves 2-4;
- Frailty was twice as prevalent among those who attained a primary level of education compared to those who attained secondary level and over three-times more prevalent compared to those who attained third level education;
- The prevalence of frailty was lowest in those who were married and highest in those who were widowed;
- The prevalence of frailty among adults aged 50 years and older who lived alone was approximately twice that of older adults who lived with other people;

O'Halloran and O'Shea (2018) have suggested that the increasing prevalence of pre-frailty and frailty was mainly due to the ageing of the cohort between Waves 1 and 4.

By focusing on the incidence of frailty (i.e. the rate of occurrence of new cases), O'Halloran and O'Shea (2018) have examined how the Irish population has transition between the various states of fraility. Of those who were:

- Robust at Wave 1:
  - The majority (64%) remained robust at Wave 4 but
  - 31% were pre-frail at Wave 4 and
  - 5% were frail at Wave 4;
- Pre-Frail at Wave 1:
  - The majority (58%) were pre-frail at Wave 4 and
  - 18% were robust at Wave 4 but
  - Almost a quarter were frail at Wave 4;
- Frail at Wave 1:
  - The majority (67%) were frail at Wave 4 but
  - 31% were pre-frail at Wave 4 and
  - 2% were robust at Wave 4.

Compared to those who are robust or pre-frail, frail older people tend to be:

- older;
- have worse health;
- have lower levels of education;
- experience more falls;

- have more disabilities; and
- use more medications and healthcare services.[93]

O'Halloran and O'Shea (2018) have examined the relationship between frailty and mental health as frailty may be a risk factor for, and a consequence of, decline in cognitive function, and found that:

- Based on data derived from the mini–mental state examination (MMSE), individuals living with frailty had exhibited worse cognitive function than those living with pre-frailty or robust individuals. Furthermore, they found evidence of a progressive decline in global cognitive function among those living with pre-frailty and frailty; and
- At each wave, the group with frailty reported higher levels of depressive symptoms than the pre-frail and robust groups.

Falls

Frailty is a known risk factor for falls. Falls are the leading cause of injury, disability and admission to nursing homes for people aged 65 years and older.

TILDA collected self-reported data on the number of falls. McNicholas and Laird (2018) have noted that, by Wave 4 of TILDA, 52% of participants had reported at least one fall.

O'Halloran and O'Shea (2018) have examined:

- Number of falls by the prevalence of frailty:
    - The prevalence of single falls was highest among people living with frailty compared to those with pre-frailty or those who were robust;
    - The prevalence of recurrent falls was highest among people living with frailty compared to those with pre-frailty or those who were robust; and
    - Those who were robust were much less likely to have recurrent falls compared to single falls.

Cognitive Function and Dementia

As people age they may encounter difficulties with one or more elements of memory that impact on their ability to perform everyday tasks.

Dementia is a progressive condition that impacts on memory, language, ability to communicate, mood and personality. The prevalence of dementia in Ireland has been estimated at just over 55,260 individuals with about 59% of these cases in people aged 75-89 years. As dementia is more prevalent amongst older age groups, its prevalence is expected to increase over the coming decades in line with demographic projections. It is estimated that

[93] Roe, O'Halloran, Normand and Murphy, 2016; O'Halloran and O'Shea, 2018.

the number of cases of people with dementia will increase to some 95,860 by 2031 and some 157,880 by 2046.[94]

TILDA included a number of cognitive tests that were administered to participants at each wave of data collection.[95] Using the TILDA data, Feeney and Tobin (2018) have examined cognitive change over time in adults of 50 years and older. In setting out these results it is important to note that participants lived in their communities when recruited to TILDA and the interviews were carried out in person (i.e. the results represent individuals without severe cognitive impairment).

Feeney and Tobin (2018) have found that:

- Overall there was little change in cognitive function across the four waves of TILDA, particularly in adults who were aged less than 75 years at Wave 1. While they did observe a small decline in cognitive function in those aged 75 years and over this was likely to have a negligible effect on the everyday functioning and was in keeping with international evidence;

- The overall level of cognitive performance was impacted by education whereby individuals who had more years of formal education consistently performed better on the tasks than those who had received less education;

- Women performed better than men in the immediate and delayed recall tasks; and

- In the oldest age group, men performed better than women on the test of verbal fluency.

It has been suggested that the degree to which a person is socially integrated rather than isolated can influence their psychological and physical health and may be important for maintaining good cognitive function in later life. However, when Feeney and Tobin (2018) examined change in objective cognitive performance according to how well socially integrated participants were at Wave 1 of TILDA, they found, in the main, that there were no significant differences in word recall performance, prospective memory or MMSE scores between social integration groups at any wave.

[94] Pierce and Pierse, 2017: 28-29. In terms of putting the projections in context, it is worth noting that those aged 75 years in 2031 will have been born in 1956 while those aged 75 years in 2046 will have been born in 1971.

[95] The cognitive measures are designed to test several different aspects of cognitive function: verbal memory (10-word list learning and recall), prospective memory (remembering to do something at a later point in time) and participants' own perception of their memory functioning (self-rated memory). Executive function is an umbrella term given to a number of cognitive abilities that are required for goal-directed action, including planning, mental flexibility and the ability to suppress inappropriate or incorrect responses. In TILDA, executive function is assessed using a verbal fluency task. Global cognitive function is assessed using the Mini-Mental State Examination (MMSE), a brief 30-point test comprising several domains of cognitive function (e.g. orientation, memory, language, spatial ability, attention and abstract thinking).

Behavioural Factors

Health Risk Behaviours

Behavioural health refers to modifiable risk factors (e.g., smoking, alcohol consumption and diet) that can have a negative influence on health and contribute to chronic disease.[96]

Smoking

Smoking is a well-known risk factor for a variety of conditions, in particular, cardiovascular and lung diseases and also plays a role in other non-life-threatening chronic conditions such as cataracts and osteoporosis.[97] The cumulative effects of smoking over the life course means that the disease burden falls disproportionately on older people.[98]

In TILDA, smoking status was assessed at each wave by identifying participants as non-smokers, past smokers or current smokers. Over the four waves of TILDA, there has been an overall decrease in the proportion of current smokers (from 19% to 13%). Those in the oldest age cohort (75 years and older) were less likely to be a current smoker than those aged 50-64 years.[99]

Similar findings are evident in the *Healthy Ireland Survey* (2018: 8-9). The prevalence of smoking in the population as a whole is 20% but it is less prevalent amongst those aged 65-74 years (13%) and 75 years or older (8%). The *HaPAI Survey* (2018: 62) has reported that 18% of those aged 55 years and older are current smokers with 29% of respondents reporting that they are former smokers.

Alcohol Consumption

The consumption of alcohol is responsible for a wide range of health and social harms in society. The World Health Organization has reported that the harmful use of alcohol is a causal factor for more than 200 diseases and injury conditions and can cause death and disability relatively early in life.[100]

In order to calculate the number of units of alcohol consumed each week, participants in TILDA were asked if they drank alcohol, what drink did they typically consumed, how often and how much in an average sitting. Participants were also asked whether they had attempted to cut down their alcohol intake. McNicholas and Laird (2018) have found that:

- Levels of alcohol consumption were higher in men than women at all age groups;
- Levels of consumption decreased with age (over 40% of women aged 75 years and older reported that they did not drink any alcohol);
- 33% reported that they had attempted to cut down their alcohol intake in the last 2 years;
- 14% of participants reported that they had never consumed alcohol; and

[96] McNicholas and Laird, 2018.
[97] Wald and Hackshaw, 1996.
[98] Hudson, Madden and Mosca, 2015.
[99] Only 12 people who were non-smokers at Wave 1 commenced smoking during the subsequent three waves.
[100] World Health Organization, 2014.

- Problematic alcohol use was more prevalent in men than women and decreased with age in both sexes.

The *Healthy Ireland Survey* (2018: 12-13) has shown that as people age they are less likely to drink alcohol. The prevalence of alcohol consumption decreases from 75% amongst those aged 55-64 years to 53% amongst those aged 75 years and older. While excessive consumption of alcohol[101] also decreases with age, it is evident that this behaviour is notably greater amongst males than females. For instance, 52% of males aged 55-64 years binge drink as compared with 9% of females and 25% of males aged 75 years and older binge drink as compared with1% of females.

The *HaPAI Survey* (2018: 62) has reported that almost a quarter of people aged 55 years and older have consumed alcohol weekly (including daily) in the past 6 months with just over a quarter doing so once or twice a month.

Diet

Obesity is a major health concern (i.e., excess body fat to the extent that health may be impaired). It is associated with reduced life expectancy at 50 years of age and with increased risk of disability, depression, type-2 diabetes, frailty and cardiovascular disease.[102] Obesity is caused by an energy imbalance (consuming more calories than are used up in activity combined with increasingly sedentary lifestyles). The factors contributing to obesity are modifiable as energy intake does not increase with ageing but the level of physical activity is likely to decrease.[103]

In recent decades, the prevalence of obesity has increased dramatically in many countries, including Ireland.[104] The *Healthy Ireland Survey* (2018: 14-15) has reported that the daily consumption of unhealthy foods[105] amongst people aged 75 years and older (38%) is slightly greater than it is amongst the population as a whole (34%); 34% of those aged 65-74 years do so as do 32% of those aged 55-64 years. Furthermore, the daily consumption of fruit and vegetables decreases with age from 40% amongst 55-64 year olds to 25% amongst those aged 75 years and older.

Using the Body Mass Index, an indicator of overall body fatness, Leahy et al (2014a, 2014b) have found that obesity is more prevalent among men (38%) than women (33%).

The Body Mass Index data reported by the *Healthy Ireland Survey* (2017b: 27-28) have indicated that about 1-in-3 adults aged 55 years and older are obese with a further 4-in-10 being overweight.

Leahy et al (2014a, 2014b) also considered an alternative metric, central obesity as measured by waist circumference. In older adults waist circumference is considered to be a more useful measure of obesity as fat deposited in this region is associated with greater risk of cardiac and metabolic disease.[106] This data has shown that:

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[101] Drinking six or more standard units on a typical drinking occasion.
[102] Preston and Stokes, 2011; Reuser, Bonneux and Willekens, 2009; Blaum, Xue, Michelon et al., 2005; Arterburn, Westbrook, Ludman et al., 2012; Katsiki, Ntaios and Vemmos, 2011; Magnani, Hylek and Apovian, 2013; Mokdad, Ford, Bowman et al., 2001; Marinou, Tousoulis, Antonopoulos et al., 2010; Wajchenberg, 2000.
[103] Villareal, Apovian, Kushner and Klien, 2005.
[104] World Health OrganiZation, 2000; Organisation for Economic Co-operation and Development, 2012; Irish Universities Nutrition Alliance, 2011.
[105] Includes the consumption of sweets, cakes and biscuits, salted snacks, pastries and take-aways.
[106] Lee, Huxley, Wildman and Woodward, 2008. Metabolic diseases are a cluster of conditions that occur together (e.g. increased blood pressure, high blood sugar, excess body fat around the waist,

- 53% of Irish adults aged 50 years and older were “centrally obese” and at substantially increased risk of metabolic complications;

- Women (56%) were more likely to have a substantially increased waist circumference than men (48%); and

- Age differences were apparent as both men and women aged 65 years and older have significantly larger waist circumstances compared to those aged 52-64 years.

The *Healthy Ireland Survey* (2017b: 27) has noted that based on waist measurements, 19% of women aged 75 years and older have an increased level of risk of premature death due to obesity while 67% have a substantially increased level of risk.

Obesity is an independent risk factor for cardiovascular disease. Leahy et al (2014a and 2014b) have shown that those with substantially increased waist circumferences were more likely than those with normal waist circumferences to have been diagnosed with:

- Diabetes;

- Higher prevalence of heart attacks;

- Higher prevalence of angina;

- High blood pressure or hypertension; and

- High cholesterol.

Within the Irish population the frequency of physically disabilities is low but Leahy et al (2014b) have found that substantially increased waist circumference is associated with a higher incidence of limitations with activities of daily living in both men and women (need help with walking across a room, dressing, bathing, eating, getting in and out of bed, and using the toilet) and a higher incidence of limitations with instrumental activities of daily living in women (preparing meals, shopping for groceries, making telephone calls, taking medications and managing money).

Finally, the *Healthy Ireland Survey* (2016: 32) has also published data on the proportion of age cohorts who engage in two or more unhealthy behaviours. The data suggests that males are more likely to do so than females and that the likelihood of engaging in multiple unhealthy behaviours decreases with age. Amongst those aged 55-64 years, 53% of males and 25% of females engage in two or more unhealthy behaviours. In the cohort aged 75 years and older, 32% of males and 17% of females engaged in two or more unhealthy behaviours.

Physical Activity

Physical activity is an essential component of a healthy lifestyle at all ages because it can help prevent disease, improve quality of life and promote physical and mental health.[107] For older adults, walking is a common and accessible activity. In the *HaPAI Survey* (2018: 61) about

and abnormal cholesterol or triglyceride levels, that increase the risk of heart disease, stroke and type 2 diabetes).

[107] McNicholas and Laird, 2018.

two thirds of men and women have reported that they walk in their local area for health or fitness (70% amongst those aged 55-69 years and 59% amongst those aged 70 years and older).

The *National Guidelines on Physical Activity in Ireland* recommend that all adults take part in at least 150 minutes of moderate activity each week.[108] Participants in TILDA were asked to indicate the number of days and typical time each day spent walking and doing physical activities of vigorous or moderate intensity during the last week. Donoghue et al. (2016: 14) and McNicholas and Laird (2018: 102) have reported that large proportions of TILDA participants did not walk at least 150 minutes a week (40% to 48%). The lowest levels of walking was evident amongst adults aged 75 years and older, especially amongst women in this age cohort.

The findings of the *Healthy Ireland Survey* (2016: 24-25) have suggested that Irish people feel that they do enough physical activity but across all of the age cohorts they fall notably short of the recommended guidelines. For instance, 60% of males and 50% of females aged 55-64 years feel that their activity levels are sufficient but only 33% of males and 18% of females achieve the recommended activity guidelines. The contrast is even greater amongst those aged 75 years and older where 54% of both males and females feel their levels of activity are sufficient but only 14% of males and 7% of females achieve the guideline levels.

Gibney et al. (2018: 61) have used self-reported levels of physical activity in the *HaPAI Survey* to calculate the proportion of respondents complying with the *National Physical Activity Guidelines* recommendation. They have found that 51% of people aged 55 years and older engage in at least 150 minutes of moderate physical activity a week and that males and those aged 55-69 years are more likely to do so than females and those aged 70 years and older.

In addition to having a better quality of life, Donoghue et al (2016) have found that Irish adults who participate in moderate or high levels of physical activity (e.g. walk for 150 minutes a week) were more likely than their counterparts to report:

- Good, very good or excellent health;
- Engagement in active social participation and formal organisational activities outside of work; and
- Volunteering;

and were less likely to report:

- Feelings of loneliness (females only); and
- Clinically relevant depressive symptoms.

Social Integration

People who engage in their communities are more likely to have better physical and mental health and are less at risk of pre-mature mortality. Social engagement is protective against cognitive decline and dementia and can influence levels of physical activity, healthy eating, and other positive health behaviours.[109] However, low levels of social engagement are held

[108] Department of Health and Children, 2009
[109] Allen and Daly, 2016.

to have a similar impact on people's health as established risk factors such as physical inactivity, obesity, smoking and high blood pressure.[110]

The *Healthy Ireland Survey* (2015b: 44-45) has found that 52% of males and 43% of females participate in some form of social group or club. When age is taken into account, similar levels of participation are evident amongst those aged 55-64 years but there is a decrease in participation amongst males aged 65 years and older (45%).

The *HaPAI Survey* (2018: 40 and 42) has found that 48% of people aged 55 years and older participate in community activities at least once a month (50% of males and 46% of females). Participation in community activities is slightly less amongst those aged 70 years and older (46%) than it is amongst those aged 55-69 years (49%). In terms of barriers to participation, 37% of people aged 55-69 years, and 41% of those aged 70 years and older, have reported that they experienced one or more barriers. With regard to the types of barriers encountered, about a tenth of respondents have reported that they either cannot get to the venue or the costs were too high. For just less than a tenth of respondents, a barrier to participation was people having negative attitudes towards older people being involved. The *HaPAI Survey* (2018: 129) has also found that 11% of people aged 55 years and older had experienced negative attitudes or behaviours towards them as an older person.

In order to measure social participation, TILDA participants were asked to indicate how often they took part in a range of activities:

- *Intimate social relationships* (e.g., daily visits to or from family and friends) - women were more likely to engage in this type of activity than men;

- *Formal organisational involvements outside of work* (e.g., going to religious services or meetings at voluntary associations at least once a month) - men and adults aged 50-64 years were more likely to engage in this type of activity than women and adults aged 75 years and older; and

- *Active and relatively social leisure activities* (e.g., going to classes, lectures, movies, plays and concerts, playing cards or bingo, eating outside the house, taking part in sports at least once a month) - men and adults aged 50-64 years were more likely to engage in this type of activity than women and adults aged 75 years and older.[111]

McGarrigle and Ward (2018) have noted that over a fifth of TILDA respondents reported the highest level of social integration with 39% reporting that they were moderately integrated. However, 29% of TILDA respondents felt that they were moderately isolated while 11% were recorded as most isolated.

In addition to social integration, TILDA also sought to examine the quality of social support received from friends by asking respondents a series of questions about the relationship.[112] McGarrigle and Ward (2018) have found that women were more likely to report positive supportive friendships than men. Both social integration and the quality of these relationships have been shown to have positive implications for people's health and wellbeing.[113] It is

[110] Holt-Lunstad, 2017; Donoghue, O'Connell and Kenny, 2016; House, Robbins and Metzner, 1982.
[111] Donoghue, O'Connell and Kenny, 2016.
[112] These questions were: 'Do you feel you can rely on them if you have a serious problem', 'how much do they understand the way you feel about things', and 'how much can you open up to them if you need to talk about your worries'.
[113] Seeman, 1996; Nieminen, Harkanen, Martelin et al., 2015; Holt-Lunstad, Smith and Layton, 2010; Wahrendorf and Siegrist, 2010; Windsor and Anstey, 2010; McMunn, Nazroo, Wahrendorf et al., 2009; Santini, Koyanagi, Tyrovolas and Haro, 2015.

posited that this benefit is a consequence of positive emotions and buffering the harmful effects of stress.[114]

The *HaPAI Survey* (2018: 128 and 131) has found that 15% of people aged 55 years and older and 18% of those aged 70 years and older feel isolated some or all of the time (around 3% of each cohort feel isolated all of the time). Those who were most likely to feel socially isolated were those who were either single (never married), separated / divorced or widowed; living alone; fair or poor health; limited by illness; mental health difficulties; or materially deprived.

Volunteering is on important source of social engagement and people who do so tend to have slower declines in self-rated health and physical functioning, slower increases in depression levels and lower mortality rates.[115]

In TILDA, just over a quarter of participants reported that they volunteer at least once a month (26%) with 15% reporting that they volunteer at least once a week. While the prevalence of volunteering amongst men and women is relatively similar, adults aged 65-75 years are more likely to volunteer than those aged 75 and older.[116]

Along similar lines, the *HaPAI Survey* (2018: 33) found that 25% of adults volunteered at least once a month in the past 12 months (15% reported that they volunteered at least once a week) with those aged 55-69 years more likely to do so than those aged 70 years and older.

Latent Factors

Adversity

People of all ages encounter adversity. In general terms, adversity can be defined as a lack of positive circumstances or opportunities, which may be brought about partially by physical, mental or social losses, or by experiencing deprivation or distress.[117] However, a person's resilience can enable a person to deal with adversity so that it is not always something that is detrimental to their health or well-being.[118] Resilience is both nature and nurture[119] and ranges from "basic survival" to "flourishing resilience".[120]

Adult Safeguarding (Elder Abuse)

The mistreatment and abuse of older people is an issue that has become more salient in public discourse over the last few decades. Older people who have experienced abuse are at risk of premature mortality, emotional distress, isolation from family and friends, the loss of self-confidence and self-esteem, depression and thoughts of suicide or self-harm.[121]

Naughton et al. (2010) examined the abuse and neglect of older people in Ireland focusing on five forms of elder abuse perpetrated by those in a 'position of trust' (e.g. a family member,

[114] Berkman, Glass, Brissette and Seeman, 2000.
[115] Donoghue, O'Connell and Kenny, 2016; Lum and Lightfoot, 2005.
[116] Donoghue, O'Connell and Kenny, 2016.
[117] Hildon, Smith, Netuveli and Blane, 2008.
[118] Lyons, Mickelson, Sullivan and Coyne, 1998.
[119] Masten, 2001; Harrop, Addis, Elliott and Williams, 2006.
[120] Palmer, 1997.
[121] Lachs, Williams O'Brien et al., 1998; Comijs, Pot, Bouter and Jonker, 1998; O'Keeffe, Hills, Doyle et al., 2007; Mowlam, Tennant, Dixon and McCreadie, 2007; Mears, 2003.

close friend or care worker) in the previous 12 months.[122] The study found that the overall prevalence of mistreatment in the previous 12 months was 2.2% (an estimated 10,200 people in terms of the general population of people aged 65 years or older).

The most frequent type of abuse reported was financial abuse (1.3%), that is, being forced to give money or property to someone in a position of trust. The next most frequent type of abuse was psychological abuse (1.2%) which tended to involve verbal insults as well as actions to exclude or undermine the older person as well as verbal threats. The prevalence of physical abuse was 0.5% and in the most part related to being pushed, threatened or hit with an object, kicked, denied access to equipment (e.g., a walking or hearing aid) or being restrained. The prevalence of neglect was 0.3%.[123] Of those respondents who had been abused in the last 12 months, about a quarter had experienced more than one type of abuse with 14% experiencing three or more types of mistreatment. In particular, Naughton et al. (2010) have noted that psychological abuse was likely to accompany other forms of abuse such as physical abuse, financial abuse and neglect.

Naughton et al. (2010) have found that over the previous 12 months:

- Women were more likely than men to have experienced mistreatment;
- People aged 70 years or older were more likely to have experienced mistreatment than those aged 65-69 years;
- People living in intergenerational households or complex household structures (i.e. the older person(s) shares the house with an adult child and their family or other relatives) were more likely to have experienced mistreatment than those who were living alone or with a spouse or partner; and
- Those who had lower levels of education or lived on less than €220 a week or were in lower socio-economic status were more likely to have experienced mistreatment than their counterparts.

In addition to the direct impact of elder abuse on well-being in older people, it can also impact on other factors that are important for well-being. Naughton et al. (2010) have shown how mistreatment of older people is associated with a range of factors that are associated with quality of life in older age:

- There was an association between self-reported health status and prevalence of mistreatment with increased levels of mistreatment related to decreasing levels of health. Respondents aged 70-79 years who identified as having poor or very poor health reported the highest prevalence of mistreatment;
- There was an association between measures of physical and mental health and mistreatment as older people with below average physical health scores or mental health scores were more likely to report mistreatment;
- There was an association between experience of mistreatment and the need to access health services as more than three quarters of older people who experienced

[122] These included: (a) physical abuse e.g. slapped, pushed, physically restrained; (b) psychological abuse e.g. insulted, threatened, excluded; (c) financial abuse e.g. stolen money or possessions, forced to sign over property; (d) sexual abuse e.g. talked to or touched in a sexual way; and (e) neglect e.g. refusal or failure of carer to help with activities of daily living such as shopping, washing or dressing.

[123] Sexual abuse at 0.05% was the least common type of reported abuse.

mistreatment had high frequency contact with their GP (more than two visits in six months) and they were significantly more likely to contact additional health or social services compared to participants who had not experienced mistreatment;

- There was an association between family support and mistreatment as older people with poor or moderate levels of family support were over three times more likely to report mistreatment compared to those with strong family support; and

- There was an association between social inclusion and mistreatment as older people with poor levels of community support were more likely to report mistreatment compared to those with strong or moderate levels of community support. In particular, it was noted that women with poor community support were especially vulnerable to interpersonal and financial abuse.

In recent years *The National Safeguarding Office Report* has published data on the number of preliminary screenings of concerns relating to vulnerable adults undertaken by Designated Officers operating in service settings as well as direct community referrals to the HSE's Safeguarding and Protection Teams. In its report for 2017, the data published by the HSE (Undated, 49 and 52-53 and 55) has indicated that when population size is taken into account, the number of safeguarding concerns reported about people aged 80 years and over is more than twice that of people aged 65-79 years and, irrespective of age, more safeguarding concerns are likely to be reported about females than males. The data has also set out information on the person causing the safeguarding concern: 29% son or daughter, 23% other service user or peer; 17% other relative and 13% staff member (4% neighbour / friend, 2% spouse, 1% stranger). The type of alleged safeguarding concerns were: psychological abuse (28%); physical abuse (20%); financial abuse (20%); neglect (15%) and self-neglect (10%). The data also indicates that people aged 80 years and older were somewhat less likely to experience physical abuse than those aged 65 years and older while males aged 80 years and older were more likely to experience financial abuse with females aged 80 years and older more likely to experience neglect.

End-of-Life Experiences

Issues around death and dying are seen as important to quality of life and include feelings of uncertainty and fear around death, not feeling in control of how you die and fear of being in pain before death.

May et al. (2017) have examined the end-of-life experiences of older adults who participated in the TILDA study. They interviewed family members or close friends about how people died (health, serious events and conditions, cause and place of death) and what services and care they received from both the formal healthcare system and from their families and friends in the last year of life. May et al. (2017) have found that:

- Nearly half (46%) of deaths occurred in hospital with just over a quarter occurring in the individual's own home (27%) with the remainder in either a hospice (11%) or a nursing home (10%);

- Compared to those who lived with others, those who lived alone were half as likely to die at home and almost 4 times more likely to die in a nursing home;

- People with cancer were more likely to die in a hospice and less likely to die in a nursing home;

- The likelihood of dying in a nursing home increased with age and disabilities;

- Based on the TILDA data, the majority (61%) of deceased participants were described as wholly or mostly disability-free in the last year of life, while 30% gradually became more disabled in the last year of life;

- In terms of illness during the last year of life, 29% were described as suffering illness for less than a month prior to death (of whom half died suddenly), 21% were ill for between one and six months; 17% were ill for between six and 12 months and 33% were ill for more than a year. Over the course of the last year of life, TILDA participants, on average, visited the GP six times and experienced one hospital inpatient admission. Compared to all older adults in the TILDA study, those in the last year of life tended to access health services more frequently (Nolan et al., 2016); and

- In the last year of life, between 15% and 30% of people who needed services such as home care, community care and allied health care but were unable to access them.

Personal Safety

One source of concern about personal safety for older people is the neighbourhood in which they live. The *Healthy Ireland Survey* (2015b: 46) has examined issues around neighbourhood safety. The majority of respondents did not report a problem with safety in their neighbourhoods. Furthermore, those aged 65 years and older were less likely than others to be concerned about problems in their areas:

- On average, 45% of respondents felt that housebreak-ins was at least "a bit of a problem" in their neighbourhood with 35% of those aged 65 years and older feeling it was a least "a bit of a problem".

- On average, 13% of people felt people being drunk in public was a problem in their area, just 5% of those aged 65 years and over said it was a problem.

- On average, 5% of people felt people there are problems with insults or attacks in relation to race or colour in their area, just 2% of those aged 65 years and over said it was a problem.

The *Positive Ageing Indicators 2018* (2019: 104-105) references the 2016-2017 *TILDA (Wave 4)* that has found that older people tend to have a positive feeling about their local area and that this increases with age. It should also be noted that those living in rural areas are more likely to have a positive feeling than those living in urban areas, especially when compared against those living in Dublin. Furthermore, around three-quarters of males and two-thirds of females aged 56 years and older report that it is safe to walk alone after dark in their local area.

The *HaPAI Survey* (2018: 120) has found that 14% of people aged 55 years and older had an experience that left them concerned about their personal safety. The survey has also found that women and those aged 70 years and older were more likely than men and those aged 55-69 years to report that they felt unsafe out and about at night.

Another source of concern about personal safety for older people is falling and the subsequent consequences of an injury. TILDA collected data on whether or not participants had a fear of falling. O'Halloran and O'Shea (2018) have examined fear of falling by the prevalence of frailty as frailty is a known risk factor for fear of falling. They have found that when compared with

those who were robust, the fear of falling was at least four times higher among people living with frailty and twice as high among people living with pre-frailty.

Beliefs and Attitudes

Ageing tends to be seen in negative terms with stereotypes portraying older adults as physically weak, forgetful and stubborn. How people think about old age, and the societal biases they encounter, can influence well-being and health.[124]

McGee et al. (2011: 274-281) have examined attitudes to ageing amongst older people in Ireland. Their approach focused on the multifaceted nature of the ageing process, taking account of both positive and negative aspects of older people's views:

- *Timeline* – awareness of ageing and variation in experience of the process over time.[125] The data suggests that people were slightly more likely go through phases of feeling old than to be constantly conscious of it but they did not perceive it to be strongly one or the other. Those aged 75 years and older and those with the lowest levels of formal education were more likely than their counterparts to be constantly conscious of feeling old;

- *Consequences* – beliefs about the positive and negative impacts of ageing on one's life.[126] The data suggests that a majority of older people acknowledged the positive aspects of ageing with 86% agreeing that they appreciate things more and 72% feeling that they continue to grow as a person. While the negative aspects of ageing have less of an impact, it is nonetheless worth noting that just over half felt that age restricts what they can do (53%) while just over a quarter felt that they do not cope so well with problems that arise (28%). Those who were more likely to have negative beliefs about the impact of ageing on their lives were people aged 75 years and older, those with the lowest formal education qualifications, people who rate their health as either fair or poor and those who live alone;

- *Control* – beliefs about one's power over both the positive and negative aspects of ageing.[127] The data suggests that, in large part, older people believed they have control over the positive experiences of ageing with 87% believing that they can determine to live life to the full and 84% believing that they can determine the positive aspects of ageing. There was also a sense that they have considerable control over negative aspects of ageing as 56% disagreed that they have no control over the impact of ageing on their social life but 60% agreed that they cannot control slowing down with age. The people who were least likely to feel that they have control over the negative aspects of ageing were those who are aged 75 years and older, those with the lowest levels of formal education, the least well off and those who live alone; and

[124] McGee, Morgan, Hickey, Burke and Savva, 2011.
[125] This dimension is divided in "timeline-chronic" (the extent to which awareness of one's age or ageing is constant, e.g., 'I always classify myself as old') and "timeline- cyclical" (the extent to which one experiences variation in awareness of ageing, e.g., 'I go through phases of feeling old').
[126] This dimension is divided into "consequences-positive" (awareness of the benefits of ageing, e.g., 'As I get older I get wiser') and "consequences-negative" (awareness of the downsides of ageing, e.g., 'Getting older makes everything a lot harder for me').
[127] This dimension is divided into "control-positive" (perceived control over positive experiences of ageing, e.g. 'The quality of my social life in later years depends on me.') and "control-negative" (perceived control over negative experiences of ageing, e.g. 'How mobile I am in later life is not up to me').

- *Emotional representations* – emotional responses to ageing, (e.g., 'I get depressed when I think about getting older'). The data suggests that people did not have strong emotional responses to ageing.

Robertson and colleagues have examined how negative attitudes towards ageing can effect health in later life and have shown that older adults with negative attitudes towards ageing exhibited a decline in walking speed and cognitive abilities over time even when controlling for health, medications, mood, life circumstances and other health changes over the same period of time.[128]

Robertson and Kenny (2015) have found that negative attitudes towards ageing affect the interaction between different health conditions. In particular, frail older adults with negative attitudes towards ageing had worse cognitive ability compared to participants who were not frail while frail participants with positive attitudes towards ageing had the same level of cognitive ability as their non-frail peers.

Age Friendly Environment

As people age they can encounter difficulties moving around the communities in which they live and this can have a negative impact on their ability to access services or to continue to participate in their local communities.

The *HaPAI Survey* (2018: 101) has found that 28% of females aged 55 years and older and 21% of males had difficulty walking in their local area. This type of difficulty is more prevalent amongst those aged 70 years and older (39%) than it is amongst those aged 55-69 years (16%).

The *Positive Ageing Indicators 2018* (2019: 98, 100 and 102) has referenced the 2016 *European Quality of Life Survey* that has found that people aged 65 years and older have difficulty accessing essential services (36% of males and 50% of females). Accessing public transport was the service that people were most likely to have difficulty with followed by banking services and then grocery shops / supermarkets. This survey also found that people aged 65 years and older encountered difficulties accessing cinema, theatre or cultural centres (32% of males and 44% of females) and had difficulties accessing recreational or green areas (8%).

Gibney, Moore and Shannon (2019) have used data from the *HaPAI Survey* to investigate the relationship between the age-friendliness of local environments and self-reported loneliness amongst adults aged 55 years and older in Ireland. They have found that average loneliness scores were significantly higher for those in poorer health, who lived alone, were materially deprived and those never or formerly married. They have also found lower ratings and poorer outcomes for several interrelated age friendly place-based factors were significantly associated with higher loneliness scores (i.e. difficulty with transport, difficulty accessing social services, barriers to community activities, lower social engagement, and experiences and perceptions of ageism in the community).

[128] Robertson, Savva, King-Kallimanis and Kenny, 2015; Robertson, King-Kallimanis, and Kenny, 2015.

Prevention and Early Interventions Supporting Health and Well-Being in Older Age

From the above it is evident that there is a wide range of factors associated with health and well-being in older adults. It is also evident that these factors are amenable to policy interventions that can support positive health and well-being outcomes. The purpose of this section is to outline a number of examples of interventions that seek to address one or more of the factors associated with health and well-being in older age.

Prevention and early intervention is an important element of Ireland's policy focus on ageing. The *Sláintecare Report* (2017: 71) identified health promotion and the prevention of ill-health as a key element of it vision for integrated care in Ireland. In terms of the population as a whole, the policy focus of *Healthy Ireland* is to increase the proportion of people who are healthy at all stages of life. In terms of older people, the *National Positive Ageing Strategy* is seeking to remove barriers and provide opportunities for people to be involved in all aspects of life; to support people's physical and mental health and well-being; and enable people to age with confidence, security and dignity in their own homes and communities.

A more specific focus on people's health is evident in the HSE's *National Clinical Programme for Older People* in that it seeks to improve the management of acutely ill frail older adults in the acute hospitals, to reduce the number of falls by older people and increase their independence in the home.

More generally, under the *National Planning Framework* (2018: 86), one of the national policy objectives is that local planning, housing, transport/ accessibility and leisure policies will be developed with a focus on meeting the needs and opportunities of an ageing population. For instance, the aim of the *Housing Options for Our Ageing Population – Policy Statement* (2019: 1) is to encourage and facilitate timely planning by older people so as to support older people to remain living independently in their own homes and communities for longer and to rebalance the care model away from inappropriate residential and/or acute care. The policy statement has identified six key principles that will inform strategic thinking and practical planning in developing housing options and supports for older people: ageing in place; supporting urban renewal; promoting sustainable lifetime housing; using assistive technology; staying socially connected; and working together.

Health Risk Behaviours

It is evident that behaviour is an important factor to understanding chronic disease. Efforts to improve people's physical health have focused on behaviour as a modifiable risk factor associated with chronic disease. These efforts are also important in terms of reducing the prevalence of disabilities associated with chronic disease.

In Ireland, the *Healthy Ireland* initiative has focussed on:

- Smoking – In terms of tackling smoking, *Tobacco Free Ireland* seeks to de-normalise tobacco use through warning about the dangers of tobacco, banning tobacco advertising, promotion and sponsorship and offering help to those who seek to quit smoking. It has set a target of having a smoking prevalence rate of less than 5% by 2025.[129]

[129] Report of the Tobacco Policy Review Group. 2013. *Tobacco Free Ireland*. https://assets.gov.ie/7560/1f52a78190ba47e4b641d5faf886d4bc.pdf

- Alcohol consumption – The Public Health (Alcohol) Act 2018 is part of a suite of measures designed to reduce alcohol consumption and limit the damage to the nation's health, society and economy. In terms of changing people's behaviour the Act seeks to reduce alcohol consumption to 9.1 litres of pure alcohol per person per annum by 2020 and to delay the initiation of alcohol consumption by children and young people as well as providing for minimum unit pricing, health labelling on products that contain alcohol, restrictions on the advertising and marketing of alcohol and the regulation of sports sponsorship and restrictions on certain promotional activities.

- Diet and Obesity – *A Healthy Weight for Ireland* was developed in the context of the prevention and management of overweight and obesity. Rather than simply focusing on the amount of weight lost, the approach has sought to change behaviour by getting people to focus on eating healthier foods and being more active. The types of measures that are being undertaken include a code of practice in relation to advertising, promotion and sponsorship of food and drink; a media campaign to communicate practical solutions for parents to adopt in order to tackle the everyday habits that are associated with excess weight in childhood; revised Healthy Eating guidelines (eat more vegetables, salad and fruit, limit intake of high fat, sugar and salt in food and drinks and reduce volume consumed); treatment guidelines for overweight and obesity; and calorie posting in restaurants.[130]

- Physical exercise - Both within the population as a whole, and within the older cohorts in particular, there is a need to focus on promoting physical activity in an effort to reduce the high levels of overweight and obesity in this group.[131] The aim of the *National Physical Activity Plan* is to increase physical activity levels across the entire population. In order to support groups of people who face barriers to accessing opportunities to be physically active, this plan recognises that targeted interventions are required to address and overcome such barriers.[132] The *Get Ireland Active* and *Get Ireland Walking* initiatives have sought to increase the number of Irish people of all ages who take part in physical activity and/or walking for fitness, health and well-being benefits because even moderate levels of physical activity can help prevent disease, improve quality of life and promote physical and mental health.[133]

In addition, the health services also provide a range of other services that seek to protect people's health:

- Cancer screening - The national breast cancer screening programme, *BreastCheck*, offers breast cancer screening with biennial mammography. *BreastCheck* has provided more than 1.5 million mammograms to over 500,000 women. The average number of women screened each year has increased by 140% from 55,230 (2002-2007) to 132,690 (2009-2016). The National Cervical Screening Programme, *CervicalCheck*, offers cervical cancer screening using a cervical smear test. On average, 272,090 women attended for *CervicalCheck* screening in 2015-16. The National Bowel Screening Programme, *BowelScreen*, utilises the faecal immunochemical test (FIT-Home Test Kit) as the primary screening test. In 2016,

[130] Department of Health. 2016. *A Healthy Weight for Ireland: Obesity Policy and Action Plan*. https://assets.gov.ie/7559/2d91a3564d7e487f86a8d3fa86de67da.pdf
[131] Leahy, Nolan, O'Connell and Kenny, 2014.
[132] Department of Health and Department of Transport, Tourism and Sport. 2016. *Get Ireland Active! National Physical Activity Plan for Ireland*. https://assets.gov.ie/7563/23f51643fd1d4ad7abf529e58c8d8041.pdf
[133] Donoghue, O'Connell and Kenny, 2016.

some 111,740 FITs were returned (these account for about 40% of those invited to participate in the screening programme).

- Influenza immunisation - One of the "at risk" groups that the HSE advises should avail of the influenza vaccine are people aged 65 years and older. For 2015, the HSE set out a target that three-quarters of those aged 65 years or older with a Medical Card or a GP Visit Card should avail of this vaccine.[134] The Health Protection Surveillance Centre has noted that participation in the influenza vaccination programme is strongest amongst those aged 75 years and older (60.6%) and it is weakest amongst those aged 65-69 years (45.5%). Data from the *Healthy Ireland Survey* (2018: 16-17) has indicated that 66% of those aged 65 years and older received the flu vaccine the previous winter; this is notably greater than the 25% of the population who did so. A similar finding is evident in the *HaPAI Survey* (2018: 73) which has also reported that the percentage receiving the vaccine is higher amongst those aged 75 years and older (76%) than it is amongst those aged 65-74 years (57%).

Frailty and Falls

Frailty is not an inevitable consequence of ageing. Furthermore, it is a dynamic process with evidence that over time people can transition between the different states of frailty. Given that frailty is modifiable, appropriate prevention and early intervention approaches can be implemented to either delay, halt or reverse the process in a way that improves quality of life and reduces the risk of adverse health outcomes.

Early detection of frailty can prevent or at least slow down the decline and improve the quality of life of those affected.[135] The World Health Organisation (WHO) Clinical Consortium on Healthy Ageing (December 2016) has stated that proactive identification of people in the community at risk of frailty provides opportunities to intervene and so prevent or delay functional decline and disability and that active case findings of older people with frailty is essential for the reorientation of health services to meet people's needs.

In Ireland, the *National Clinical Programme for Older People* (NCPOP) and the *Integrated Care Programme for Older People* (ICPOP) recognise the significance of frailty to healthy ageing, health care planning and delivery. Since 2016, a *National Frailty Education Programme* has sought to train health professionals to understand the risk factors for frailty enabling them to implement programmes for early detection, prevention and management.

When older adults present at emergency departments, their acute illnesses are often complicated by frailty. In 2015, Beaumont Hospital introduced the Frail Intervention Therapy Team (FITT). The FIT Team is a group of Health and Social Care Professionals (HSCPs) who identify frailty in patients presenting at the emergency department and provide early comprehensive multidisciplinary assessment in order to ensure the person's health and social needs are met in as timely a manner as possible. (Physiotherapy, Occupational Therapy, Medical Social Work, Speech and Language Therapy, Dietetics and Pharmacy.)[136]

The overall goal of the guidelines set out in the *Strategy to Prevent Falls and Fractures in Ireland's Ageing Population* (2008: 73) was to optimise and standardise assessment and

[134] Health Service Executive. 2014. *National Service Plan 2015*: 26.
[135] Scarlett et al., 2014.
[136] Frail Intervention Therapy Team (FITT): Integration of Early Interdisciplinary Assessment in the Emergy Department. https://www.hse.ie/eng/services/publications/clinical-strategy-and-programmes/frail-intervention-therapy-team-fitt.pdf

intervention so as to reduce the incidence of falls in older people.[137] In keeping with the approach set out in that strategy, the *AFFINITY National Falls and Bone Health Project* has sought to coordinate the development of a comprehensive falls and fracture prevention system. In carrying out its work that project has sought to increase awareness of the preventable nature of falls and to enable older people, communities and health and social care providers to reduce the risk and rate of falling where possible, to reduce the severity of injuries and to promote the best possible outcomes for people who have suffered a fall-related injury. In particular, the project has sought to promote falls prevention activities in well older people (e.g. evidence-informed community-based exercise programmes that address balance and strength), building community capacity for identifying and responding to those people within or moving into the at-risk group for falls and develop an integrated clinical care pathway for assessment and treatment of those who have fallen.[138]

End-of-Life Experiences

When May et al. (2017: 26) examined the end of life experiences of older adults who participated in the TILDA study, they found that older people experienced modifiable health problems toward the end of life. In particular, they found that 50% experienced regular pain, 45% experienced regular depression and 41% experienced a fall.

They suggest that people's quality of life and end-of-life experience could be improved by recognising the risk and presence of such modifiable conditions and addressing the challenges that they present.[139]

The Irish Hospice Foundation operates a *Nurses for Night Care* programme that enables people with diseases like dementia, motor neurone disease, advanced respiratory disease, heart failure and end stage kidney disease to receive expert care and support at night in their own homes in their final days. It provides clinical expertise, compassion, comfort and continuity of care to people in the last few days of their life as well as giving relief and expert advice to family members in their period of grief and loss. In 2017, just over 2,020 nights of nursing care were provided enabling over 630 people to die at home.[140]

Social Interaction

The evidence suggests that it is not just the quantity of social interactions that is important to well-being in older years but also the quality of those relationships. Since maintaining social participation and engagement is important to sustaining good physical and mental health, McGarrigle et al. (2018) have suggested that consideration should be given to the promotion of participation in social activities and community groups when treating older adults with chronic physical health conditions. Policies promoting and enabling continued social participation and engagement in older age, particularly amongst those who have reduced interactions because of a disability, could significantly improve health outcomes, and enhance healthy and active ageing and maintain quality of life in the ageing population.

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[137] *Strategy to Prevent Falls and Fractures in Ireland's Ageing Population* (2008: 73) https://www.hse.ie/eng/services/publications/olderpeople/strategy-to-prevent-falls-and-fractures-in-irelands-ageing-population---full-report.pdf

[138] AFFINITY National Falls and Bone Health Project: https://www.hse.ie/eng/services/list/4/olderpeople/falls-prevention-and-bone-health/

[139] Callis, 2016; Goldman, Nielsen and Champion, 1999; Morrison, Meier, Fischberg et al., 2006.

[140] Irish Hospice Foundation. 2018. *Annual Report 2017*. https://hospicefoundation.ie/wp-content/uploads/2018/08/IHF_AR17_vWEB.pdf

For example,

- Rural Transport Programme provides a community based public transport system in rural Ireland which responds to local needs including meeting transport needs of people who require assistance and the provision of 'once off' trips for individuals and community and voluntary groups to help address rural social exclusion.[141]

- Older People's Councils are representative groups of older people who work together and with key state and voluntary agencies to raise concerns or issues of importance at a local level. Over time, it is intended that these councils will be representative of the diversity of the older population in the city or county, linked to local older people's groups and supportive of the participation of the most marginalised.[142]

- Crime Prevention Ambassadors are garda-trained volunteers who visit older peers in their local area in order to support and empower them to feel and be safer at home and in their communities.[143]

'Warmth and Wellbeing' Pilot Project

The Warmth and Wellbeing pilot scheme commenced in 2016. Under the scheme, eligible older adults and families may apply for a free home energy efficiency improvement (retrofit). Participants are selected on the basis of age, diagnosed respiratory disease and receipt of fuel allowance.

By retrofitting homes, the scheme aims to improve their internal air temperature and air quality, producing an improved quality of life for residents, reducing their energy bills and reducing impact on the health service through less frequent doctor/hospital visits. The scheme is currently being implemented in selected areas of Dublin with high index of deprivation.

The Department of Health's Health and Wellbeing Programme and HSE are supporting this project, which is being led by the Department of Communications, Climate Action and Environment and is a key action in the Strategy to Combat Energy Poverty. A health impact evaluation of the scheme is currently being conducted by the London School of Hygiene and Tropical Medicine, in conjunction with the HSE.

As of mid-April 2019, 1,487 individuals who have qualified for the scheme following an assessment by the HSE have been referred onto the Sustainable Energy Authority of Ireland for works to commence.

[141] National Transport Authority: https://www.nationaltransport.ie/public-transport-services/rural-transport-programme/ *Accessed*: 17 June 2019.
[142] Age Friendly Ireland. *Older People's Council's Guide*. http://agefriendlyireland.ie/wp-content/uploads/2016/06/online_OPC-GUIDE.pdf
[143] Crime Prevention Ambassadors: http://agefriendlyireland.ie/portfolio-item/crime-prevention-ambassadors/ *Accessed*: 17 June 2019.

Age-Friendly Environments

In response to population ageing, the World Health Organization has initiated the *Age Friendly Cities and Communities Programme* and has contributed to the development of a global network of counties and cities that have made formal commitments to becoming age friendly.[144] The *Age Friendly Cities and Communities Programme* covers eight themes and these are associated with health and well-being of older people.[145]

Under the Dublin Declaration on Age-Friendly Cities and Communities in Europe (2013), Ireland has committed to develop cities and counties in which older people can live full, active, engaged and health lives. The Irish Age Friendly programme is closely aligned to national policies, in particular, the *Programme for a Partnership Government*, the *National Positive Ageing Strategy*, *SláinteCare*, the *Irish National Dementia Strategy*, the *Healthy and Positive Ageing Initiative, Healthy Ireland, National Planning Framework*, and *Housing for Our Ageing Population*.

In Ireland, the programme is led by Age Friendly Ireland, a shared service function of local government that provides a national infrastructure to bring key stakeholders[146] together to plan collaboratively, to share resources and to streamline their work in meeting the interests and needs of older people. There are many ways in which cities and counties can and have been developed so that they support people's enjoyment of healthier, more active and connected lives. The types of actions that can be taken include those that help provide walkable, attractive and accessible spaces as well as those that support participation and tackle inequality. Some examples of actions taken include[147]:

- Make outdoor spaces and buildings pleasant, clean accessible and safe for older people, creating walkable communities and age-friendly spaces (e.g. the development of Castle Saunderson as an intergenerational public facility support social and civic participation; Galway Dementia Friendly Community implementing a programme of training and awareness raising actions with local communities and service providers);

- Promote safe, accessible, reliable and comfortable transport services for older people (e.g., Leitrim Rural Lift provides an integrated accessible transport to support social inclusion in the Rural Lift area; Door-to-door transport to health appointments for older people living in the north central area of Dublin; information exchange between Local Public Transport Committee and Older People's Council in South County Dublin);

- Provide a more seamless and appropriate continuum of housing choices and options for older people (e.g. installation by local authorities of smoke alarms; OPRAH is a project is aimed at supporting older adults to remain living in their own homes and communities and to reduce repeated hospital admissions and early entry to long-term nursing home care);

- Provide opportunities for older people to stay socially connected and to play an active part in social networks (e.g., each month older people meet and socialise at the

[144] World Health Organization, 2015; World Health Organization, 2007b.
[145] The eight themes are: outdoor spaces and buildings; transportation; housing; social participation; respect and social inclusion; civic participation and employment; communication and information; and community and health services.
[146] That is, local authorities, An Garda Síochána, the Health Service Executive, Education and Training Boards, NGOs, Older People's Councils, business and third level sector representatives.
[147] For further details see Age Friendly Ireland. *A Catalogue of Age Friendly Practices*: http://agefriendlyireland.ie/wp-content/uploads/2016/07/WHO-compendium-4.pdf

Raheny Age Friendly Community Club; in County Clare there are concerts to celebrate the contribution of older musicians);

- Combat stereotypes, myths and negative views on ageing and prevent prejudice and discrimination against older people (e.g. recognition scheme for business who have delivered their services in an age friendly manner; Clare Memories Programme is an intergenerational programme recording the voices and stories of older people in County Clare);

- Increase employment, volunteering and civic participation among older people (e.g. Ageing with Confidence is career guidance training and enterprise supports provided by Meath Partnership; South Dublin Business Advice Line Initiative is a panel of older people offering advice to people with questions relating to business; Kilkenny Chamber of Commerce and Business of Ageing Forum's Mature Workers Initiative promotes the recruitment and retention of workers aged 60 years and older);

- Ensure that older people can access timely, practical information about what is happening in their communities (e.g. Dublin Central Library hosts an annual over 55s fair that provides information on services and activities available to older people; Galway Older People's Council provides a service directory; NUIG has developed a programme to help those with no computer background to start using computers); and

- Provide older people with accessible health and community services and with help with, and access to, everyday activities and high-quality home care and residential facilities (e.g. Louth County Hospital reconfigured existing services and resources to provide rehabilitation and 'step down' residential and day-care facilities; informing the development of principles and standards for an age friendly hospital through consultation with older people).

Appendix A – National Goals and Objectives of the National Positive Ageing Strategy

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.

Objectives

- Develop a wide range of employment options (including options for gradual retirement) for people as they age and identify any barriers (legislative, attitudinal, custom and practice) to continued employment and training opportunities for people as they age.
- Promote access (in terms of affordability, transport availability, accessibility of venue) to a wide range of opportunities for continued learning and education for older people.
- Promote the concept of active citizenship and the value of volunteering, and encourage people of all ages to become more involved in and to contribute to their own communities.
- Promote the development of opportunities for engagement and participation of people of all ages in a range of arts, cultural, spiritual, leisure, learning and physical activities in their local communities.
- Enable people as they age 'to get out and about' through the provision of accessible, affordable, and flexible transport systems in both rural and urban areas.

Support people as they age to maintain, improve or manage their physical and mental health and wellbeing.

Objectives

- Prevent and reduce disability, chronic disease and premature mortality as people age by supporting the development and implementation of policies to reduce associated lifestyle factors.
- Promote the development and delivery of a continuum of high quality care services and supports that are responsive to the changing needs and preferences of people as they age and at end of life.
- Recognise and support the role of carers by implementing the National Carers' Strategy (2012).

Enable people to age with confidence, security and dignity in their own homes and communities for as long as possible.

Objectives

- Provide income and other supports to enable people as they age to enjoy an acceptable standard of living.
- Facilitate older people to live in well-maintained, affordable, safe and secure homes, which are suitable to their physical and social needs.
- Support the design and development of age friendly public spaces, transport and buildings.
- Continue to implement An Garda Síochána Older People Strategy and empower people as they age to live free from fear in their own homes, to feel safe and confident outside in their own communities, and support an environment where this sense of security is enhanced.
- Continue to address the problem of elder abuse at all levels of society through raising awareness, improving reporting rates and developing services.

Support and use research about people as they age to better inform policy responses to population ageing in Ireland.

Objectives

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

Source: Department of Health. 2013. *Positive Ageing – Starts Now! The National Positive Ageing Strategy*: 20-21.

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