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# What is CARDI?

The Centre for Ageing Research and Development in Ireland (CARDI) is a not for profit organisation developed by leaders from the ageing field across Ireland (North and South) with support from The Atlantic Philanthropies. CARDI focuses on promoting research cooperation across sectors and disciplines and influencing the direction of research on ageing and older people.

**CARDI's mission** is to advocate for and advance the ageing research agenda by identifying, coordinating, stimulating, and communicating strategic research on ageing and older people as a means to improve the lives of older people in Ireland especially those who are disadvantaged.

# CARDI's all-island approach focuses on:

- Identifying and establishing ageing research priorities relevant to policy and practice
- Promoting collaboration and cooperation to build an ageing research community
- Stimulating research in priority areas to inform policy and practice
- Communicating strategic research to raise the profile of ageing research

### **CARDI's work includes:**

- CARDI Grants Programme to stimulate inter-disciplinary research into ageing issues across the island of Ireland
- A Policy Support Programme to help develop greater links in policy areas between the research and policy community
- Communicating the latest news, research and funding opportunities relating to ageing research

CARDI's website www.cardi.ie provides access to an extensive library of ageing research and policy reports, research contacts, funding opportunities, key events and the latest news on ageing research and older people.

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# foreword

# An ageing world requires new thinking

...the future belongs to those who prepare for it.

Dr. Robert N. Butler, Former President and CEO of the International Longevity Centre, USA.

One of the greatest achievements of the last century is that we are living longer than ever before both as individuals and an island.

Medical advances, improved diet and living conditions and better healthcare have resulted in the rapid growth of older people.

Worldwide, some one million people pass the sixty year old threshold every month.

Ageing on this scale is unprecedented and will have significant consequences globally and across Ireland – North and South.

However, while people are living longer and many more are living healthier lives into old age, this is not universal. There are still considerable health, social and economic challenges to be overcome to help us achieve a healthy, active and fulfilling old age for all.

Preparing for the diversity of later life can be helped by understanding the implications of ageing: health and

ageing, social participation and isolation, inequalities in later life and creating services that are shaped by and appropriate for older people.

Likewise there is a need to understand the role of older people as citizens, consumers, carers and, increasingly, as workers. Finally it is important to recognise that ageing poses no threat to our society but there is a need to plan and make the fullest use of research to take account of this demographic transformation.

CARDI was established to help research play its role in planning for demographic change. This publication provides an overview of major academic research into ageing being undertaken across the island of Ireland. It comprises submissions made by academic institutions in response to a formal invitation issued by CARDI. It also provides an overview of some of the major collaborative ageing projects, including the Irish Longitudinal Study on Ageing (TILDA). In addition, it provides an overview of CARDI funded research projects, which are all Ireland, interdisciplinary projects designed to improve policies and services for older people.

I would like to take this opportunity to thank all those who made submissions and to Nicola Donnelly, Communications Officer with CARDI, for her work in compiling this publication.

We are delighted to present to you this report which illustrates the breadth and quality of work by academic institutions in diverse disciplines relating to ageing in Ireland (North and South) and the significant role it has in all our futures.

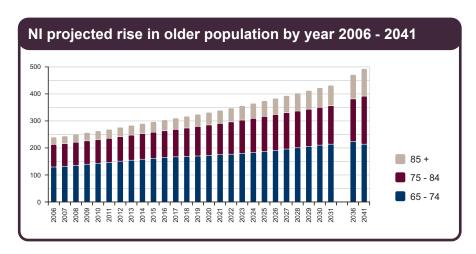
Dr Roger O'Sullivan, Director

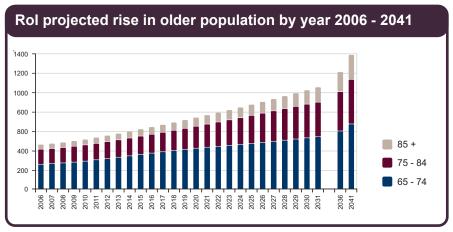
# ageing research in context

### Ageing in Ireland, North and South

The island of Ireland is an ageing society with nearly one million people aged 60 years or older. By 2031, it is expected that Northern Ireland's percentage of people aged 60 or older will increase to 28 per cent. It will take until 2041 to reach a similar level in the Republic of Ireland. There is also a significant increase in the oldest old. By 2041 the number of people aged 85 years or older will rise almost fivefold, from 74,000 to 356,000 with the number of centenarians predicted to top 8,500 by 2041.1

### **Projected Population Change**





Data from Illustrating Ageing in Ireland North & South Key Facts and Figures. See www.cardi.ie/publications/illustratingageinginirelandnorthsouthkeyfactsandfigures

### What is ageing research?

Ageing is a diverse subject and ageing research takes place in a variety of academic disciplines, from the biomedical to social sciences. It touches on subjects including age-related diseases, determinants of healthy ageing, ageing and economic development, changing family structures, social integration and participation, work and retirement, economic security and pensions, and quality of life.

Although the term ageing may have different meanings in different academic disciplines, it is increasingly recognised as a complex area with a major impact medically, economically and socially. It is also recognised

that no single discipline can answer all we need to know about ageing.

### Why ageing research matters?

An ageing population is one of the success stories of modern society. Yet, changing population demographics highlight the urgent need for research to support such change.

Research on older people's lives and experiences can provide an important evidence-base for 'what works' and 'what will work' for our ageing populations and can be a vital resource for effective policy making.

Policy, practice and resource allocation decisions must be made on the best available information. It is essential that ageing research helps play its part to plan for demographic change.

Dr. Roger O'Sullivan <u>Director</u>, CARDI Research into ageing as a subject is a relatively new phenomenon in Ireland, North and South.

However, it is growing in strength and reputation across a wide range of disciplines. One theme which remains constant is the drive to improve the quality of life for the increasing number of older people on the island of Ireland.

The funding of ageing research in Ireland, North and South, is supported by a range of government departments, charities, trusts, businesses, the European Union, international and philanthropic bodies.

The Health Research Board in the Republic of Ireland and the Health & Social Care Research & Development Office within the Public Health Agency, Northern Ireland hold significant research budgets. The investment by Irish Life, Intel, The Atlantic Philanthropies and the American Federation of Ageing Research among others has helped bring forward important and much needed ageing research.

# major collaborative research projects

# The Irish Longitudinal Study on Ageing (TILDA)

66 Ageing on the scale we will experience in the near future is an unprecedented phenomenon in Irish history. In stark contrast to the evident importance of ageing, there is an acute shortage of social, economic and health information on older persons in Ireland. The data from TILDA will be crucial in filling this gap and will provide policy-makers in the fields of health, social care, pension planning and biotechnology with a unique knowledge base. TILDA is essential to underpin planning and to ensure a 'healthy and happy' life span for the people of Ireland.

Professor Rose Anne Kenny Principal Investigator, TILDA and Professor of Geriatric Medicine and Consultant Geriatrician at St James's Hospital, Dublin.

# The Irish Longitudinal Study on Ageing (TILDA) continued

The Irish Longitudinal Study on Ageing (TILDA), launched in 2006, is a study of a representative sample of 8,000 people living in Ireland over the age of 50, charting their health, social and economic circumstances over a 10-year period. It will collect detailed information on all aspects of their lives, including:

- Health physical, mental, service needs and usage;
- Economic pensions, employment, income and assets;
- Social contact with friends and family, formal and informal care, social participation.

The study is being carried out by Trinity College Dublin in collaboration with an interdisciplinary panel of scientific researchers, with expertise in various fields of ageing, from the Dundalk Institute of Technology, the Economic and Social Research

Institute, the National
University of Ireland
Galway, the Royal College
of Surgeons in Ireland,
University College Cork, University
College Dublin and Waterford
Institute of Technology.

Similar studies have been conducted in a number of other countries such as the United States and England and have made important contributions to policy analysis and design. In this way, they have led to major improvements in the pensions and healthcare systems.

TILDA is funded by The Atlantic Philanthropies, Irish Life and the Department of Health and Children. The study will cost €29 million over a ten-year period.

For further details on TILDA visit www.tilda.ie

### TRIL

The TRIL (Technology Research for Independent Living) Centre was established in 2007. It is an initiative to explore the physical, cognitive and social consequences of ageing and develop technology solutions to address them in 2007. Over the last three years, more than 600 older adults have been assessed in the TRIL Clinic and a large number have participated in the TRIL technology home deployment programme.

The Centre was originally funded by Intel and IDA Ireland. It recently also added GE Healthcare as an industry partner to help extend and expand its research programme. TRIL brings together a multidisciplinary team of more than 70 researchers from Intel, University College Dublin (UCD), Trinity College Dublin (TCD) and National University of Ireland (NUI) Galway.

The TRIL Centre seeks to enable older people to live independently in the homes of their choice for as

long as possible, with the help of technology and in the process, to help ease the strain on global healthcare systems as the world's population ages.

Through home-based behavioural assessment, multi-disciplinary research teams identify behavioural markers such as changes in gait, speech patterns, or social interactions that indicate the onset of disease, then create and hometest technology solutions to enable early disease detection, measurement and positive intervention by patients themselves or caregivers. These solutions are shared with other researchers in modular, reusable open-IP tool-kits and also used to inform the home health platform development of Intel and its eco-system collaborators.

For more information about the TRIL Centre visit www.trilcentre.org.

### Northern Ireland Longitudinal Study on Ageing (NILDA)

Plans for a Northern Ireland Longitudinal Study on Ageing (NILDA) are building momentum. It is intended that NILDA will be a comprehensive, long-term study of adult development and ageing in Northern Ireland. It will sample men and women aged 50 years and above who will be representative of the Northern Ireland population. The study will collect data on various aspects of their lives including health, social and economic information in order to build up a picture of ageing in Northern Ireland. Participants will take part in repeated waves of data collection every three years and will be followed-up for a period of at least ten years.

The core aim of NILDA is to gain a better understanding of the social,

biomedical, behavioural, economic and environmental factors associated with agerelated change and to identify ways in which this knowledge can inform future policies and services.

The NILDA study will forge links with and be informed by other longitudinal studies of ageing in a number of other countries including England and the United States where they have had an important role in shaping policies and planning. The study will also work closely with The Irish Longitudinal Study on Ageing (TILDA) to provide an island of Ireland analysis.

# The Survey of Health, Ageing and Retirement in Europe (SHARE)

The Survey of Health, Ageing and Retirement in Europe (SHARE) is a longitudinal, multidisciplinary and cross-national panel database of micro data on health, socio-economic status and social and family networks of more than 30,000 individuals aged 50 or over.

SHARE is coordinated centrally at the Mannheim Research Institute for the Economics of Aging (MEA). Eleven countries contributed data to the 2004 SHARE baseline study. They represent the various regions in Europe, ranging from Scandinavia (Denmark and Sweden) through Central Europe (Austria, France, Germany, Switzerland, Belgium, and the Netherlands) to the Mediterranean (Spain, Italy and Greece). Further data were collected in 2005-06 in Israel.

Ireland joined SHARE in 2006 and participated in the second wave of data collection in 2006-07. The survey's third wave of data collection, SHARELIFE, collects detailed retrospective life-histories in thirteen countries in 2008-09.

The Geary Institute at University College Dublin (UCD) runs the study in Ireland - collecting and managing a cohort of approximately
1,000 over-50's from
across the country. With
funding support from the
Irish Research Council for
the Humanities and Social
Sciences (IRCHSS) and more
recently the Health Research
Board (HRB), they are progressing
with SHARELIFE. In this wave, they
are re-interviewing the original cohort
but taking detailed retrospective
life-histories.

Participating in this project connects Ireland with an international research network involving the major experts in the world in a number of diverse ageing fields including medicine, economics, epidemiology and several others. Combined with the comparable data-set, there is also an opportunity for Ireland to learn in advance from the experiences of countries further along the ageing process.

For more information on SHARE please visit www.share-project.org

For more information on SHARE in Ireland please visit geary.ucd.ie/share/index.php

# academic institutions research profiles

# Academic institutions across the island of Ireland are engaged in a wide range of research programmes and projects relating to ageing.

Research is conducted across a variety of disciplines touching on all aspects of the ageing research spectrum.

A number of institutions are conducting pioneering research that has gained international recognition and many of them are increasingly focussing on the area of ageing as a research priority.

The institution profiles in this publication provide a snapshot of academic research on ageing activity across Ireland, North and South and illustrate the breadth and quality of ageing research being carried out by universities.

### 1. Athlone Institute of Technology

## Nutritional Status of the Older Person in Residential Care

At Athlone Institute of Technology (AIT), a research project focusing on the connection between nutrition and dementia is being carried out by the School of Science. The project title is 'Assessing the Nutritional Status of the Older Person in Residential Care and its impact on Cognitive Ability'. It is being undertaken by the Department of Nursing and Health Sciences, School of Science and is funded by the Higher Education Authority – Technology Sector Research Programme for Postgraduate R&D Skills Programme. This project is also supported by the Health Service Executive (HSE).

The project assesses the baseline nutritional status of an elderly population and assesses them for dietary deficiencies. Cognitive ability will also be determined. These two measurements will be assessed to see whether a correlation exists between nutritional status and cognitive ability.

It is hoped the research findings will enable residential care workers and primary healthcare teams to better deliver optimal care specific to individual older persons.



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### 2. Cork Institute of Technology

### **Elder Care**

Research currently being undertaken on elder care in the Department of Social and General Studies revolves around activity interventions with adults with dementia and the provision and experiences of care support for persons with a disability living at a home.



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### 3. Dublin City University

Ageing research at DCU takes place across a number of departments and disciplines. Key projects include:

# DCU Intergenerational Learning Project (ILP)

ILP began in February 2008 aiming to research the benefits of creating a teaching and learning space on a third level campus where the knowledge, wisdom, insight and vibrancy of older people could be valued through their meeting and learning with third level students. One of the aims of this project is to bridge the so called digital divide by providing a space at third level where the younger DCU students, in a volunteering capacity, impart these skills to the older learners. In return, the older students transfer their lived experience, their knowledge, their interests, their wisdom and creativity. To date, over 100 older people and over 100 DCU students have participated in this project.

### **EU lifelong learning policies**

This study explores the relationship between **EU lifelong learning policies** and strategies with the attributes and practices of adults in relation to learning in later life. The study highlights the weaknesses of European legislation in taking into account of the pattern of changes during the life time of individuals as they age, in particular, the provision of learning opportunities at major life transition stages, such as retirement.

# Representations of older people in advertising

Researchers at the School of Communications have carried out an

age-analysis of the representation of the men and women in advertising in Ireland. Their data indicate that there is a substantial underrepresentation of older people, especially older women, in advertising. The findings demonstrate that male and female youthfulness are constructed and valorised in significantly different ways- there is a far greater onus on women to look young (and sexual), whereas for men the focus is more on acting and feeling young.

## Bridge-employment after formal retirement

This research project examines pre-retirement decision making in relation to engaging in **bridge-employment after formal retirement** (bridge employment being defined as part-time or short-duration jobs that occur between full-time career employment and complete labour force withdrawal), by looking at the psychological processes involved in this decision making and the preparation strategies used to prepare.

Ageing research activity at the School of Health and Human Performance is taking place on two fronts. It is working with the European Space Agency to investigate the impact of short-term immobility on metabolism. Short-term bed rest is a model of accelerated ageing and is useful for the study of muscle wasting and metabolic dysfunction. It is also researching the influences and motivations of elderly individuals who adhere long term to physical activity following a cardiac event.

Research into Age friendly and Assistive technologies for the elderly is also being carried out at two major research centres at DCU, the Biomedical Diagnostics Institute (BDI) and the Center for Sensor Web technologies (Clarity). The BDI is involved in the Nestling project, which aims to develop a centre of excellence for the promotion of community oriented models for independent living, focusing on more sustainable home and neighbourhood design and more age-friendly technologies.

Researchers in Clarity are involved in a series of research initiatives aimed at developing assistive technology for the elderly. For example, one of their projects aims at developing wearable sensors for monitoring breathing; which can be used to detect pre-onset of asthmatic attacks, or incidents related to chronic respiratory conditions.



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### 4. Dublin Institute of Technology

Dublin Institute of Technology (DIT) undertakes research that is strongly focused on problem-solving, social and technological development and innovation that advances human knowledge and makes a real impact on people's life experience. Some research areas specific to ageing include:

# Healthier Lives for Children, the Elderly and Vulnerable Populations

The Environmental Health Sciences Institute (EHSI) is a dedicated national translational research platform, uniquely based on collaboration between DIT, the Health Service Executive (HSE) and Dublin City Council (DCC), with the active participation of other academic institutions. The overarching mission and vision is to achieve 'Healthier Lives for Children, the Elderly and Vulnerable Populations'. Key areas of ageing research within the institute include dietary and nutritional studies, assistive technology research. Some of the research projects that have been completed or are currently being undertaken are outlined below:

# The Community Life of Older People in Ireland

The Department of Social Science, has published a major study of the lives of

older people in 21st century Ireland, titled 'The Community Life of Older People in Ireland'. This study is based on primary research that examined the everyday lives of older people in two geographic locations - a suburban area in the North Dublin and a rural area in County Donegal.

# Investigating the links between fuel poverty and health

Research funded by CARDI explores fuel poverty and health across the island of Ireland. It looks at the extent of fuel poverty and undertakes a survey of the health behaviours of fuel-poor older householders. It explores the link between cold-related mortality and morbidity among older people. The research will examine household temperatures and home-heating behaviour among vulnerable older people.

### **Nutrition and diet**

Researchers in the School of Biological Sciences have researched the nutritional status of the elderly and the diet of older citizens in a number of projects. For example, researchers examined the nutritional status of recipients of meals-on-wheels and the nutrient content of a sample of meals provided to determine whether statutory minimum nutritional standards would be beneficial. Research is also focusing on the use of oral nutritional supplements (ONS) in an elderly Irish community setting. The study has discovered that social factors, such as living alone, and difficulties with cooking and shopping, influenced the need for ONS in almost 70% of cases. Currently researchers are investigating 'The nutritional status of patients with Clostridium difficile-associated diarrhoea'. Although this project is not specifically related to older persons, the average age of patients developing this condition in the sample to date is 78 years.

Investigating age-related visual impairment

Age-related macular degeneration (AMD) visual impairment is the most common cause of vision impairment in people aged 65 and over in developed countries. The Department of Optometry is embarking on a research project to measure the "Functional health literacy and medical information in adults with macular degeneration visual impairment". Little research has been carried out to date in Ireland concerning functional health literacy (FHL) and medical prescription labels in adults with age-related macular degeneration (AMD) visual impairment. This research therefore aims to provide data on the relationship between health information, near visual ability, AMD visual impairment and the extent to which this influences medication compliance. The results of this study will help develop strategies to improve medical compliance and access to written medical prescription labels compatible to individuals suffering from AMD.



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### 5. Dundalk Institute of Technology (DkIT)

Ageing research is a major research theme at Dundalk Institute of Technology which is focused around the Netwell and CASALA Centre's.

### The Netwell Centre

The Netwell Centre is focusing on transforming communities, environments and technologies for ageing-in-place. Its primary goal is to provide a Centre of Excellence for the applied research, development and application of innovative service models and technologies to support older people to age in place in their own homes. The Netwell Centre provides a means to develop the augmentation and streaming of this work into translational, clinical and field research directed at the range of disciplines that address the phenomenon of longer living on the Island. The Centre focuses upon environmental gerontology, geron-technology and psychosocial gerontology.

### The CASALA Centre

The Centre for Affective Solutions for Ambient Living Awareness (CASALA) is an applied research centre on the Dundalk Institute of Technology (DkIT) campus, established with seed funding under the Enterprise Ireland Applied Research Enhancement programme. CASALA's primary function is working with Irish industry to achieve product innovation, business competitiveness,

and market leadership in the emerging Ambient Assisted Living (AAL) sector.

The centre's are currently involved in a wide variety of regional, national and international age related research and development projects, such as;

### The Nestling Project

A collaborative demonstration project aimed at developing innovative service models to support older people to age in place in their own homes, based on a closer integration of community care, physical environment, and technology dimensions. This project has led to the development of development of 16 smart-homes / apartments (Great Northern Haven), located in Dundalk, and aims to provide a more adaptable social and physical environment that it more responsive to older peoples needs, and which will enhance the quality of life for ageing people living independently.

### Age Friendly County Initiative

The Age Friendly County Initiative is grounded in research, and based on a number of important principles agreed by the partners in the Age Friendly Alliance, which include: a recognition that older people are critical contributors to our society and a resource. Louth is the first county to led the initiative, and will help to define standards thereby acting as a roadmap for other counties to follow.

### **BRIAD**

Bridging Research in Ageing and ICT Development (BRAID) co funded under the European FP7 Programme. It will develop a comprehensive RTD (Research and Technology Development) roadmap for active ageing, by consolidating existing roadmaps. BRAID will identify key research challenges and produce a vision for a comprehensive approach in supporting the well-being and socio economic integration of increasing numbers of senior citizens in Europe.

well-being and quality of life. They also solicited feedback from clinicians to learn how telehealth systems may contribute to improving their healthcare service and relationships with patients. This pilot project will allow healthcare services to assess the feasibility of expanding telehealth services to a broader community.

### **Home Sweet Home**

Health monitoring and sOcial integration environMEnt for Supporting WidE ExTension of independent life at HOME, a FP7/CIP funded project - The project will trial a new, economically sustainable home assistance service which extends elders independent living. It intends to achieve this by providing a comprehensive set of services which support elders in their daily activities and allows carers to remotely assess their ability to stay independent.

### **Bosch Telehealth Trial**

Robert Bosch Healthcare, Inc. undertook its first UK/Ireland trial of the Health Buddy remote patient monitoring system in Ireland. During the trial researchers evaluated how patients responded to the telehealth technology and determine its ability to impact their



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### 5. National University of Ireland Galway

The National University of Ireland Galway (NUIG) is involved with a number of the major ageing research initiatives in Ireland (SHARE, TRIL, TILDA). While the Irish Centre for Social Gerontology (ICSG) is the catalyst for much of the recent research activity on ageing in the University, work on ageing is also being undertaken by researchers and academic faculty across a wide range of schools and disciplines. Major research themes and initiatives include:

### **Ageing and Migration Intersections**

The theme explores the intersections between migration and ageing at a societal, population and cultural level. Researchers at the ICSG are currently contributing to the international synthesis report on 'the role of migrant care workers in ageing societies', which is the product of a three-year long cross-national research project involving colleagues in Georgetown University, University of Oxford and the University of Ottawa.

# Autonomy and Quality of Life in Residential Care

The School of Nursing and Midwifery is exploring the concept of autonomy in residential care with the purpose of enhancing resident autonomy. Research on factors that impact on the implementation of person-centred care in residential care is also being undertaken by Nursing and Midwifery. ICSG is also looking at the effects of institutionalisation on low-dependency older people and the role of environmental and organisational components in the construction of these effects.

### **Dementia and Cognitive Ageing**

The dementia reminiscence education programme for staff (DARES) is investigating the impact of a reminiscence based education programme on care for people with dementia living in long-stay care. Research at the School of Nursing and Midwifery is looking at the psychosocial training needs of nurses and health care assistants working with people with dementia in residential care settings. At the School of Psychology, researchers are examining novel biomarkers of cognitive ageing. Economic aspects of dementia care are also being investigated within ICSG.

### **Health and Ageing**

This theme covers a wide range of projects on health and ageing encompassing elements of health economics, epidemiology and general practice medicine. Work under this theme includes implementing and evaluating a structured education programme for people with Type 1 Diabetes (DAFNE) in Ireland (ICSG). Other projects include Multimorbidity, Healthcare Utilisation and Healthcare Costs in Ireland (ICSG), health economics evaluation of COPD.

### **Political Economy of Ageing**

Current work includes documenting the work of older social and political entrepreneurs and identifying where and how the social economy can produce innovative solutions to the challenges of an ageing society (ICSG). Research is also underway that uses a political framework of analysis to examine how policies for older people are designed.

### Retirement, Health and Pensions

Researchers at the ICSG, the Global Women's Studies Programme, and the School of Economics are looking at the relationship between ill-health and retirement; financial incentives to retire through pensions, the impact of these incentives on alternative working arrangements such as part-time work or self employment and older women workers and their access to pensions.

### Rurality, Place and Neighbourhood Context

ICSG is involved in the Limerick Regeneration Programme supporting a prioritisation of older people and their needs and interests in regeneration communities. A Healthy Ageing in Rural Communities (HARC) cross-border research network, funded by CARDI, has been established with Queens University Belfast and other rural ageing stakeholder groups. There is also continuing work on the influence of neighbourhood context, including the relationship between disability onset and neighbourhood variables.

# Technology, Ambient Assistant Living and Independent Living:

Researchers at the National Centre for Biomedical Engineering Science and the Smart Ambient Assisted Living research group are pursuing a number of projects in the areas of smart sensor technology for ambient assisted living. Dissemination activity is continuing on NUIG's work in the Technology Research for Independent Living project (TRIL) focusing on older people and

cognitive, social connection and falls technology. Researchers at ISCG are also conducting work on the willingness to pay for technological interventions in older adult care.

### Wisdom

The Galway Wisdom Project draws on international co-operation including colleagues in Oxford, Salford (UK) and Wuhan (China). It explores the history and philosophy of different approaches to wisdom using ethnographic and other approaches to track forms of wisdom relevant to the contemporary world.

NUI Galway also run innovative teaching and learning programmes in the field of ageing, including: the Diploma in Social Gerontology and the "Living Scenes" Intergenerational Programme of Learning coordinated by the Community Education Centre.



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### 7. National University of Ireland, Maynooth

Ageing research takes place across a wide range of disciplines and themes at the National University of Ireland (NUI), Maynooth. Some examples of ageing research work include:

# Psychosocial influences on cognitive ageing

Research at the Department of Psychology is examining the psychosocial influences on cognitive ageing. Ongoing studies have explored this by examining how attitudes towards self-ageing may influence cognitive performance, and the relationship between participation in engaging productive activities and subjective well-being. In addition, the Department of Psychology has developed a research collaboration with the Age-Related Health Care/stroke service at the Adelaide and Meath Hospital. The research interests of this group include developing an understanding of the psychological impact of stroke and the role of technology in cognitive and physical recovery after stroke.

### Sarcopenia of old age

The Muscle Biology Laboratory, is involved in the large-scale and high-throughput biochemical analysis of the sarcopenia of old age. The major aim of the laboratory is to identify novel disease-specific markers of ageing in the main types of skeletal muscles in the body.

This biomedical knowledge can then be used to promote healthy ageing by improving diagnostic procedures, providing information on the most suitable preventative schemes to lessen age-related muscle wasting and identifying new therapeutic targets. The Department of Biology also carries out research into the use of adult stem cells to repair degenerating tissues and examining how the immune system declines with age.

# Understanding biological systems through innovative engineering

The Biomedical Engineering Group's mission is to seek new knowledge in understanding biological systems through innovative engineering science approaches and to harness this understanding for the synthesis of new devices, algorithms, techniques and systems that advance biology, medicine and human health. Specific research projects relating to ageing includes: Brain Computer Interfacing for Stroke Rehabilitation, Non-contact Actigraphy Based Sleep Monitoring, Daily Activity Monitoring and Intervention in a Smart Home Environment and Modelling of blood pressure control systems in the body.

### **Geographies of Caring and Disability**

Research at the Department of Geography, looks at the use of spatial data for needs assessment and has worked with the Combat Poverty Agency and with the Health Research Board (HRB) on projects relating to poverty indices and resource allocation modelling while also carrying out work on accessibility to secondary care services with the Centre for Cross-Border Studies. An understanding of spatial information/knowledge and its relevance to the planning of services for ageing populations would be a core concern.



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www.research.nuim.ie/

### 8. Queen's University Belfast

Ageing research takes place across a number of schools and centres, primarily in the medical field, at Queen's University Belfast. Some notable research programmes include:

### Medical

# Ageing Research in the Centre for Public Health

Research into the chronic diseases associated with ageing represents a significant theme within the Centre for Public Health (CPH). There is an Ageing Group with a specific focus on cognitive decline, but in addition much of the work of the remaining groups within the Centre (Renal Disease, Cardiovascular Epidemiology, Cancer Epidemiology and Health Services Research and Nutrition and Metabolism) is directly related to the common degenerative conditions which affect an elderly population.

### **Ageing Group**

Within the Ageing Group, the main focus is on Alzheimer's disease (AD) and in particular on genetic susceptibility. The group has published extensively on susceptibility genes for AD and neuropsychiatric symptoms in AD. Most recently a major success was being a significant part of the consortium which identified the first major susceptibility genes for AD for 16 years, rated 9th in the top medical breakthroughs of 2009 by TIME magazine. Genetic studies are

continuing both inhouse and as a continuing part of the successful international collaborations.

# Genetic studies of AD and vascular dementia

Research has involved genetic studies of AD and vascular dementia, dementia after stroke, peripheral blood markers of AD and studies of macular degeneration in AD, as well as managing a clinical trials programme for most recent agents in trial for AD.

### eHealth

The eHealth research team at Queen's University Belfast, with core activity based on the School of Medicine, has immediate links with the Belfast Health and Social Care Trust – a very large healthcare provider offering services to over 340,000 people in Greater Belfast. Research is focussed in the areas of disease diagnosis and monitoring and chronic disease support. Exemplars include the use of ICT support in providing reminding cues to those with Alzheimer's disease, and movement/cognitive rehabilitation of Parkinson's disease patients. Grants are held from EPSRC, MRC, FP7 and Alzheimer's Association amongst other organisations.

# Molecular and biochemical research into neurodegenerative diseases

Molecular and biochemical research into neurodegenerative diseases focuses on proteins central to the

aetiologies of Alzheimer's disease (AD) and Parkinson's disease. This work includes investigation of the rate-limiting enzyme activity for amyloid β production in clinical samples and cell culture, where it has been found that significantly increased activity in platelets from individuals with AD, identified an influence of membrane cholesterol on enzyme activity and investigated the influence of genetic variation. Studies of mRNA expression of molecules relevant to both diseases in post mortem brain tissue have also been carried out. This has, for example, revealed changes in metal ion transport expression in the disease, informing further studies of the functional consequences of these changes in cell culture.

2005 with the aim of improving the quality of life for older people through a combination of research, policy and advocacy work. Funded by The Atlantic Philanthropies, the partnership brings Queen's University Institute of Governance together with Age NI and the Workers' Educational Association. It has undertaken research and awarded research grants for studies in areas such as health and social care, economic independence and community safety. There are currently 22 seed grant projects and seven PhD studentships engaged in research under the CAP programme. For more information: www.changingageing.org

### Social research

Staff in the The Institute of Spatial and Environmental Planning are currently working on a two year Economic Social Research Council (ESRC) funded project entitled The Retirement Transition and the Celtic Fringe: Mobility Trends and Migrant and Rural Community Wellbeing. This research examines specifically the migration patterns, decisions and impacts of those aged over the age of 50 years in rural Scotland, Wales and Northern Ireland.

The Changing Ageing Partnership (CAP) was established in December



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### 9. Royal College of Surgeons (RCSI)

Research into ageing is mainly carried out by the RCSI's Division of Population Health Sciences. Current ageing-related research includes:

# Quality of care of vulnerable patient groups

The Health Research Board (HRB) Centre for Primary Care Research aims to establish standards for the quality of care of vulnerable patient groups including older adults. Current studies focus on prescribing in older populations and patterns of multimorbidity. More information: www.hrbcentreprimarycare.ie/

### **SLÁN 2007**

SLÁN 2007 was the third and largest National Survey of Lifestyle, Attitudes and Nutrition. As part of the survey 1200+ adults aged 45 years + took part in a medical examination. Preliminary results were published in the main SLÁN report, detailed analysis is ongoing. The detailed protocols have provided input into the design and development of the health assessment component of TILDA. More information: www.slan07.ie

### Other relevant research

In conjunction with TILDA and building on the work of the Healthy Ageing Research Programme, 2003-2007 (HARP), research on ageing

perceptions and Quality of Life in older adults is ongoing.

# Recently completed ageing-related projects:

### **INASC**

The Irish National Audit of Stroke Care (INASC) was the first national audit of stroke services, extending through six surveys across hospital and community care, and involving interviews and surveys with key stoke care providers, as well as people with stroke and their primary caregivers.

### **HARP**

The HARP (the Healthy Ageing Research Programme, 2003-2007) provided continuity in knowledge of health and social service usage for older people in Ireland. Funded by the Health Research Board, it examined ageing in relation to health and interaction with health care and social services.

### HeSSOP 1 & 2

The Health and Social Services for Older People Survey (HeSSOP) was conducted in the year 2000,involving consultation with community-dwelling older people in Ireland about their health, social needs and service use, with a view to identifying challenges to

service delivery and uptake. HeSSOP 2 was a follow up study conducted in 2004. It provided information on progression of morbidity, changes in informal and formal health and social service use and perceptions of service quality over a four-year period.

For reports see epubs.rcsi.ie



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### 10. Trinity College Dublin

Trinity College Dublin (TCD) has a large community of researchers currently working on ageing-related projects, funded by grants in the region of €130 million.

Ageing initiatives are coordinated by the Trinity Consortium on Ageing, which brings together research centres/institutes, schools and individuals working in the area. It exists to promote research and teaching in ageing, to develop and sustain a comprehensive research agenda on ageing, to broaden interest in ageing and maintaining relations with relevant external stakeholders.

www.tcd.ie/research/ageingconsortium/

Ageing and Independent Living has been identified as one of the eight priority research themes of TCD for 2009-2014 in our institutional strategy.

Major ageing social and clinical research centres include:

The Social Policy and Ageing
Research Centre was established
in 2005 with the view to analysing the
social policy ramifications of population
ageing in Ireland and in the
comparative perspective. Fundamental
to the Centre's work is the belief that
research has a central role to play in
making Ireland a better place to grow
old in. www.sparc.tcd.ie/

The Centre of Excellence for Successful Ageing (CESA), at St James's, a TCD teaching hospital, is currently under construction and will be a uniquely comprehensive and

integrated facility combining state of the art health facilities with strong links with business, services and local communities. Both the major IDA (Industrial Development Authority) - supported collaborative research programme with Intel, GE (General Electric), UCD and NUI Galway - the Technology Research for Independent Living (TRIL) Centre and the Ageing Well Network will be key partners within CESA. www.cesa.ie/

Major ageing research programmes include:

The Irish Longitudinal Study on Ageing (TILDA), which was launched in 2006, explores various aspects of the lives of 8,000 people in Ireland as they grow older, and observe how their circumstances change over a ten-year period. It is funded by the Department of Health, The Atlantic Philanthropies and Irish Life. The study is being carried out by Trinity College Dublin in collaboration with an inter-disciplinary panel of scientific researchers, with expertise in various fields of ageing, from Dundalk Institute of Technology (DKIT), Economic and Social Research Institute (ESRI), National University of Ireland Galway (NUIG), The Royal College of Surgeons in Ireland (RCSI). University College Cork (UCC), University College Dublin (UCD) and Waterford Institute of Technology (WIT). www.tilda.tcd.ie/

Living with Dementia is a social research programme in dementia care that aims to tackle the marginalisation of people with dementia, enhance

service provision, and improve quality of life for those diagnosed with Alzheimer's disease and related dementias. www.socialworksocialpolicy.tcd.ie/livingwithdementia/

The Neuroenhancement for Inequalities in Elder Lives programme aims to develop a new model for the early detection and prevention of dementia among older people by enhancing cognitive function through new combinations of brain stimulation, mental training and pharmaceuticals.

The Intellectual Disability
Supplement to The Irish Longitudinal
Study on Ageing (IDS to TILDA),
which was launched in 2008, explores
the lives of 800 randomly selected
people with Intellectual Disability in
Ireland as they grow older, and
observes how their circumstances
change over a ten-year period. It is
funded by the Health Research Board
and Department of Health and Children.
The study is being carried out by the
School of Nursing and Midwifery, Trinity
College Dublin.

# Palliative and End of Life Care in Dementia and Intellectual Disability:

Strategies for the effective utilisation of palliative approaches and their integration with person centred care practices in intellectual disability services providers are being explored and evidence based interventions established and tested. Funding has been received from the Health Research Board and the Irish Hospice Foundation.

### Intellectual Disabilities and

Dementia: A comprehensive research programme addresses identification, screening and assessment for dementia, evidence based interventions, policy and service redesign and strategic planning approaches. Funders have included the Health Research Board and Daughters of Charity Service.

A Carers' Agenda: Understanding is being advanced of the experiences of carers of persons with chronic conditions including Alzheimer's disease and COPD (chronic obstructive pulmonary disease) and of the caring career including what happens when a caring experience ends. Funders include Alzheimer's Society of Ireland, Health Research Board, the Irish Hospice Foundation, Irish Research Council for Humanities and Social Sciences & Care Alliance Ireland.



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### 11. University College Cork (UCC)

UCC has a wide ranging research agenda. The main research programmes relating to ageing include:

### **TILDA - Cardiovascular Analysis**

Researchers at UCC, Department of Epidemiology, are working with on the Irish Longitudinal Study on Ageing (TILDA). Its data on cardiovascular health, in particular, are being examined as is the relationship between social, economic and health factors in determining healthy ageing.

# Inappropriate prescribing and STOPP

Researchers at UCC have developed a new screening tool for assessing inappropriate prescribing in older people. The new criteria, STOPP (Screening Tool for Older Persons' Prescriptions), was developed, validated and published by the UCC research team to address the perceived limitations of the Beers criteria (widely used in the US) in a European context. The School of Pharmacy is also leading a CARDI funded research programme aimed at gathering information on inappropriate prescribing in Ireland, North and South, using this tool.

### **ISS21 Ageing Research Cluster**

The Institute for Social Sciences in the 21st Century (ISS21) is an interdisciplinary research institute for the social sciences in UCC, which seeks to build, sustain and enhance research on social, economic and

cultural issues that will shape Ireland during the 21st century. Within this, the ISS21 Ageing Research Cluster provides a forum for interdisciplinary research to enhance knowledge of the social, economic and cultural implications of an ageing society. The cluster consolidates expertise in a range of related areas including: dementia care and intervention: occupational health, older workers and the ageing workforce; older people and community and diet, health and lifestyle in older people. More information: www.ucc.ie/en/iss21/clusters/ageing/

### **Eldermet**

ELDERMET combines expertise from a wide range of departments at UCC, Teagasc (The Irish Agriculture and Food Development Authority) and local Cork hospitals. ELDERMET is examining the influences of, and on, the intestinal bacteria by diet, health and lifestyle in older Irish people. A total of 500 subjects, over 65 years, from the very frail to the very healthy, will provide 1,000 samples to examine the composition and stability (over a six month period) of the intestinal bacteria; and the potential to use targeted dietary intervention to promote and maintain health in older populations. ELDERMET's research will provide the evidence base for the development of functional foods / food ingredients, specifically designed for older populations. More information: eldermet.ucc.ie

#### **Healthy Ageing**

The aim of this research theme is to develop research capacity on healthy ageing and its promotion. The specific research projects include: Outcomes of a Community and Web based Psycho-educational intervention based on the Progressively Lowered Stress Threshold Model, for Dementia Patients and their Caregivers; The Relationship between Physical. Psychological and Social Functioning in Older People at Discharge from Hospital and Selected Health Related Outcomes Six Weeks Post Discharge and A comparison of Stroke Patients' outcomes when managed by a stroke clinical nurse specialist with those who receive usual treatment in a Medical care of older Adult ward.

## Oral Health and Health of the Elderly

Researchers at UCC with funding from the Health Research Board are investigating the links between poor oral health and chronic diseases in older people, including diabetes. Preliminary data have indicated that there are links between oral health status and nutritional markers. It is envisaged that this research programme will provide data which will underpin a new oral healthcare policy for the elderly in Ireland, and. feed into the international network investigating the problems of the elderly. There are links between this programme and the ELDERMET study in UCC.



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www.ucc.ie/research

#### 12. University College Dublin

UCD is actively involved in a wide range of interdisciplinary, international, ageing research that aims to develop a full understanding of the ageing process, develop technologies that address the challenges of ageing, access the social, psychological and medical needs of those ageing with intellectual disabilities and look at the determinants of depression in older people. Some of its major research projects and centres relating to ageing include:

## TRIL (Technology Research for Independent Living) Centre

The TRIL Centre, based in UCD, was established in January 2007 to advance the understanding of the ageing process and to develop technologies that address some of the challenges of ageing. The current TRIL consortium consists of research groups in UCD, TCD, NUIG, Intel and GE Healthcare. The ultimate aim for the range of research and innovation activities carried out in the Centre is to drive the development of new models of home and community care for older people to enable them to live independently 'in place' for longer with a better quality of life that is associated with lower healthcare costs. The Centre is funded by Intel, GE Healthcare and IDA Ireland. The European Commission recently selected the TRIL Centre as an example of good practice in ICT and ageing. More information: www.trilcentre.org

### Ageing research in people with intellectual disabilities

Researchers at the Centre for Disability Studies, have recently completed a study looking at the social, psychological and medical needs of an ageing group of people with intellectual disabilities in the Dublin area. This research used qualitative and quantitative research methods, and involved direct interviews with people with intellectual disabilities and their carers. The research team is currently designing a study looking at the pattern of social and specialist service utilisation in ageing people with intellectual disabilities.

#### **UCD Geary Institute**

#### **SHARE**

The Survey of Health, Ageing and Retirement in Europe (SHARE) is a longitudinal, multidisciplinary and crossnational panel database of micro data on health, socio-economic status and social and family networks of more than 30,000 individuals aged 50 or over. SHARE is coordinated centrally at the Mannheim Research Institute for the Economics of Aging (MEA). The UCD Geary Institute run the study in Ireland collecting and managing a cohort of approximately 1,000 over-50's from across the country. The next stage, called SHARELIFE, is currently underway. This involves re-interviewing the original participants but taking detailed retrospective life-histories. giving a fascinating perspective of the experience of ageing over the lifecycle. More information: geary.ucd.ie/share/index.php

## Determinants of depression in the elderly

Researchers at the School of Economics and the Geary Institute,

are currently working on some of the determinants of depression in the elderly using a large representative population sample across 11 European countries (the SHARE data). This work builds on recently published papers (in Laterality and British Journal of Health Psychology) that looked at depression and drinking behaviour, respectively, in the same population.

## National Centre for the Protection of Older People (NCPOP)

The National Centre for the Protection of Older People (NCPOP), officially opened in November 2009, is funded by the Health Service Executive (HSE). Its principal purpose is to develop an evidence base to contribute to education, policy and practice relating to elder abuse in Ireland. The Centre consists of a collaborative research team from five different UCD Schools and a UCD Research Institute. A National Prevalence Study of Elder Abuse, involving interviews with over 2000 older people across the country, is currently in progress which aims to identify levels of physical, financial, sexual and psychological abuse and neglect, and the risk factors associated with elder abuse. In addition to this study NCPOP researchers are also engaged in a range of other quantitative and qualitative research projects exploring, for example, the experiences of abused older people, research on abuse and neglect in care homes, the potential of elder abuse screening tools in healthcare settings, and other strategies for prevention, detection and management of abuse. More information: www.ncpop.ie

#### **Healthy Ageing Study**

The UCD Institute of Food and Health and the UCD Institute for Sport and Health are collaborating in a study on healthy ageing. The aim of this study is to verify the relative effectiveness of multi-functional training compared with a progressive resistance training programme for improving functional ability, muscular strength and power, aerobic fitness, cognitive functions, balance and metabolic health parameters in an elderly population (65-75yrs). The hypothesis to be tested in this study is that strength and functional training exercises are both associated with general health and metabolic improvements in the elderly.



#### For more information:

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#### 13. University of Limerick

There is a campus-wide interest and capability in ageing related research at University of Limerick (UL) fostered through the interest and energy of individual members of faculties, their departments, affiliated teaching hospitals and general practitioners, and community-oriented groups such as Limerick Regeneration Agencies.

Principal investigators contributing to UL's ageing-focused research agenda are experts in fields including (but not limited to) psychology, psychiatry, occupational and speech therapy, physiotherapy, nursing, physical education and sports science, gerontology, endocrinology, physiology, medical imaging, and electronics and engineering.

UL ageing related centres and projects include:

The Centre for Active Management of Lifelong Ageing (CAMLA) is currently led by, and based in, the Graduate Entry Medical School but is an inter-faculty centre facilitating the establishment of an inter-disciplinary forum promoting initiatives that tackle life-stage factors influential in determining subsequent health and performance across lifestyles and demographic groupings.

Connected Health Implementation Pilot (CHIP) examines the interaction of clinical medicine and engineering focused on development of aids to independent living. UL collaborates closely with NUI Galway, and Georgia Tech Ireland, in an initiative focused on Smart Ambient Assisted Living (SAAL). This is an alliance of researchers with a focus on creation of innovative, person-centered, technological solutions for the effective management of health and wellness in the home and community.

Participation in the Forum in Support of Older People allows for a sharing of knowledge regarding the real life challenges facing older people in economically deprived areas. This project and others, emphasising an understanding of mental health and access to clinical services, receive support from Limerick Regeneration Agencies.



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#### 14. University of Ulster

University of Ulster undertakes research relating to ageing in a number of areas from the social sciences to biotechnology. Major research programmes and projects include:

#### Attitudes to ageing: ARK

A collaboration between Queen's University Belfast and University of Ulster, ARK (Access Research Knowledge) examines attitudes to age and ageing. In 2003 and again in 2008/09 ARK carried out research on public attitudes to age and ageing in the North and South of Ireland in surveys funded by The Atlantic Philanthropies. Topics covered in the surveys include perception of the contribution made by older people, whether people are treated with more or less respect as they get older and how older people are treated in comparison with the rest of the population. The adequacy of pension provision and financial provision by the state more generally is explored. The surveys also look at perceptions of discrimination against older people in relation to employment, health and financial services.

ARK is currently developing follow up work linked to the survey findings. More information: www.ark.ac.uk

#### **TUDA - Nutrition**

The Nutrition team at Ulster, in collaboration with partners in Trinity College Dublin and St James's Hospital, Dublin, is currently conducting a large investigation of 6000 Irish adults over 60

years termed the Trinity, Ulster, Department of Agriculture (TUDA) cohort study. The TUDA study is aimed at investigating nutritional factors and gene-nutrient interactions in healthy ageing and in the development of diseases of ageing such as Alzheimer's disease, stroke and osteoporosis. When complete in 2011, the TUDA study will provide detailed clinical, nutritional and genetic data on all 6000 participants, including three sub-cohorts of 2000, one with cognitive impairment, one with impaired skeletal function and one with high blood pressure. The TUDA study in turn is part of a larger cross-border research initiative the National Nutritional Phenotype Database project (otherwise known as the JINGO project www.ucd.ie/jingo), funded by the Food for Health Research Initiative, of the Irish Department of Agriculture, with very substantial co-funding from the Department for Employment & Learning Northern Ireland (DEL) under its Cross-Border R&D Programme: "Strengthening the all-Island Research Base".

#### **Connected Health**

Advances in technology have the potential to revolutionise healthcare delivery by reducing the amount of time spent in hospitals and supporting the notion of 'ageing in place'. This has led to the establishment of a Connected Health theme at the University of Ulster. Participating research groups under this theme are members of the high priority Metallurgy and Materials and the Computer Science Units of Assessment

#### 14. University of Ulster continued

(RAE 2008). Together they have secured funding of over £35M since 2001. The centres and groups include:

Computer Science Research Institute (CSRI) The CSRI comprises four research groups covering areas of Information and Software Engineering, Intelligent Systems, Artificial Intelligence and Applications and Smart Environments. The CSRI's work is strongly aligned with Engineering and Physical Sciences Research Council's (EPSRC) activities in Ageing Research (New Dynamics of Ageing (NDA) Programme and the Extending Quality of Life (EQUAL) Initiative) and the EU initiatives in healthy ageing and ICT for independent living in an ageing society.

Smart Environments Research Group This group has a track record of funding awards and strong research developments in "smart home" technologies and systems for assisted living. Funds from the EU FP6 (6th research framework programme), the Research and Development Office and the Everyday Technologies for Alzheimer Care (ETAC) Consortium have supported significant research efforts in the development of ICT based solutions for persons with mild dementia. Funding from the EPSRC EQUAL initiative has supported interdisciplinary collaborative work on home based rehabilitation and self management.

Working with Older People Research Group

The Working with Older People
Research includes staff with a particular interest in research and practice

development in the field of gerontological nursing. Research activity is influenced by clinical practice experiences and current innovations in the field of gerontology. The group is committed to a multidisciplinary approach to working with older people and to maximising opportunities for older people to be at the forefront of knowledge development. Research projects are centred on three main themes; the effectiveness of practice, vulnerable older people and transitions. Ongoing research projects include: The roles, responsibilities and services provided by home helps/home care assistants; Mental health disorders among residents of care homes: Incidence, prevalence and societal comparisons; Assessing telecare for carers of older people and Development and implementation of a composite model of person-centred practice with older people with dementia - joint project with Care Circle.



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#### 15. Waterford Institute of Technology

The Macular Pigment Research Group (MPRG), based at WIT, is conducting research into age-related macular degeneration (AMD) with emphasis on the role that nutrition might play in the prevention, delay, or modification of this disease.

Macular pigment, and factors which influence the amount of pigment an individual has at the macula, has been the focus of research by the MPRG for the last decade. Recently published findings by the MPRG have shown that individuals at increased risk of developing AMD including cigarette smokers, older people and people with a positive family history of AMD are lacking in this pigment at the centre of the macula, consistent with the hypothesis that this pigment is protective for AMD.

The MPRG has also shown that individuals at increased risk of developing AMD respond positively to a dietary supplement containing the macular pigments in that they were able to rebuild this pigment centrally following supplementation with the dietary supplement.

In addition, in a recent double blind, gold standard clinical trial designed to investigate the impact of a dietary supplement containing the macular pigments, the MPRG has also identified that patients with early stage AMD who consumed the dietary supplement demonstrated an improvement in vision and a reduced risk of progression to the late stage of this condition.

Research in this area is ongoing at the Waterford Institute of Technology, but this work has already contributed significantly to science and current medical practice in this area. More information: www.mprg.ie



Waterford Institute of Technology
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For further information:

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# cardi. ageing research grants programme

The CARDI Research Grants Programme aims to promote North-South research partnerships that bring together different subject areas to look at issues affecting older people in new ways. It encourages ground-breaking studies that bring together different perspectives, sectors and disciplines across the island of Ireland in ways that can help improve the lives of older people. It promotes the engagement of older people in the research and focuses on building the ageing research community in Ireland.

CARDI has to date awarded funding to **18 research projects** through its grants programme. These projects cover a wide spectrum of research, reflecting the huge range of issues relevant to the ageing research agenda. In addition to bringing together researchers from north and south of the island of Ireland, all the projects also involve

a high degree of interdisciplinary and cross-sectoral collaboration.

CARDI is proud to support the work of its awardees as they endeavour to ensure that we can all look forward to longer, healthier and more fulfilling lives. For more information on the projects please visit: www.cardi.ie/grantprogramme

#### **CARDI Funded Projects:**

Factors influencing physician decision-making regarding medication use in patients with dementia at the end of life

Project leader: Dr Carole Parsons, Lecturer in Pharmacy Practice, Queens University Belfast.

Despite the increase in the prevalence and incidence of dementia, research into palliative care for patients with advanced dementia is limited. This novel study seeks to evaluate, in Ireland (North and South), the extent to which patient-related factors influence clinical decision-making in respect to medication use in patients with end-stage dementia.

#### **CARDI Funded Projects:**

## An evaluation of inappropriate prescribing in long-stay elderly facilities in Greater Cork and Northern Ireland

Project leader: Dr Stephen Byrne, Senior Lecturer in Clinical Pharmacy, University College Cork

This research project is investigating inappropriate prescribing in long-stay elderly facilities in Greater Cork and Northern Ireland. Inappropriate prescribing in older people is a major global health problem, with serious consequences for patients, principally adverse reactions and morbidity.

## Social Exclusion and Older People in Diverse Rural Communities

Project leader: Professor Eamon O'Shea, Irish Centre for Social Gerontology, National University of Ireland, Galway (NUIG).

This will be the first study to address the important question: is rural Ireland a good place to grow old? The project is being carried out by Healthy Ageing in Rural Communities Research Network (HARC) (established with funding from CARDI's Grants Call 1). It examines social exclusion among older people living in diverse rural areas and investigates ways to prevent social exclusion.

# The development of end of life care standards for people with end stage dementia

Project leader: Dr Suzanne Cahill, Dementia Service Information and Development Centre, the School of Social Work and Social Policy, Trinity College Dublin

The aim of the project is to improve the quality of life for people with dementia dying in Irish residential care settings by investigating the experience of elderly spouses and collecting data to inform a draft standard for quality care in end stage dementia long-stay care.

## Healthy ageing in rural communities; an interdisciplinary cross-border research network

Project leader: Dr Kieran Walsh, Irish Centre for Social Gerontology, National University of Ireland Galway

This project aims to establish a cross-border research network to explore healthy ageing in rural communities. The Healthy Ageing in Rural Communities (HARC) network draws on interdisciplinary expertise in the areas of gerontology, economics, spatial planning, rural geography, social care, and public health. The network identified key research questions on healthy ageing in rural communities and explores the potential for future interdisciplinary research in this area.

# Rural transport for older people in the north and south – understanding and meeting their needs

Project leader: Dr Aoife Ahern, University College Dublin, School of Architecture, Landscape and Civil Engineering

This project examines the transport needs of vulnerable older people, especially in rural areas. The aim is to establish the current transport needs of older people in rural areas, and how these needs are being addressed.

# Older Women Workers' Access to Pensions: Vulnerabilities, perspectives and strategies

Project leader: Dr Nata Duvvury, Co- Director, Global Women's Studies Programme, National University of Ireland, Galway (NUIG).

This interdisciplinary study being carried out by researchers from NUIG and Queen's University Belfast examines the position of older women workers, rural and urban, focusing on their access to economic security, particularly pensions. The project explores the causes and consequences of women's current access to pensions to help inform more gender sensitive pension policy making.

#### **CARDI Funded Projects:**

#### Fuel poverty and health

Project leader: Professor Patrick Goodman, Lecturer, School of Physics, Environmental Health Sciences Institute, Dublin Institute of Technology

The project aims to link data on cold-related deaths in Ireland north and south, identify factors associated with fuel poverty, measure indoor and outdoor temperatures and study the response of older people to cold weather.

#### Leading dance for older people - a community health network

Project leader: Dr Sylvia O'Sullivan, Senior Lecturer in Physical Education, Mary Immaculate College, University of Limerick

The project explores the relationship between physical activity, health and well-being among older people. It examines the role of leaders of dance in local communities and work towards a research proposal of dance and older people.

#### Telecare for carers of older people: a research network

Project leader: Ms Brigid Barron, Innovation and Programme Manager, Caring for Carers Ireland

This research network is examining stress and fatigue among carers for older people. It will investigate how telecare can alleviate carer stress. It also seeks to identify facilitators and barriers to telecare, implement telecare on a cross-border basis and evaluate its effectiveness.

#### Inequalities in old age: pensions and the recession

Project leader: Professor Paddy Hillyard, Emeritus Professor of Social Policy, Queen's University Belfast

This project explores the impact of the recession on older people north and south in the context that the value of pensions has declined in the recession against a background of very high levels of pensioner poverty throughout Ireland.

#### A predictive model of long-term care

Project leader: Professor Charles Norman, Edward Kennedy Professor of Health Policy and Management, Trinity College Dublin.

This project plans to construct a predictive model for long term care needs. This model will be developed into a tool which policy makers can use to help better plan for future care needs of older people.

# Encouraging behaviour change in mild cognitive impairment patients: development of educational materials

Project leader: Dr Jayne Woodside, Senior Lecturer of Nutrition, Centre for Public Health, Queen's University Belfast (QUB)

This project uses focus groups with mild cognitive impairment patients and their care-givers as well as structured interviews with professionals to design and test educational materials that can encourage changes in diet and physical activity.

#### Universally designed built environments at the urban scale

Project leader: Professor Mark Dyer, TrinityHaus, Trinity College Dublin

This research network examines how the urban environment, in planning, design, architecture and engineering, can be accessed and used to the greatest possible extent by people of all ages.

# Is age a determining factor in the treatment of men with prostate cancer?

Project leader: Dr Anna Gavin, Director, Northern Ireland Cancer Registry, Queen's University Belfast

The aim of this project is to investigate why older men are less likely to receive treatment for prostate cancer than younger ones and whether this affects survival rates.

#### **CARDI Funded Projects:**

## Older people's views of support and services in response to elder abuse in communities across Ireland

Project leader: Dr Emer Begley, Policy and Social Inclusion Officer, Age Action Ireland

This project examines how older people themselves see the problem of elder abuse and the support they need if they are victims. The project seeks to define how older people see elder abuse, what they consider to be the main threats to their safety, identify suitable supports and how these could be improved, and compare and contrast access to services across Ireland.

# Using aerobic exercise to promote brain plasticity and increase functional capacity in older people

Project leader: Professor Richard Carson, Queen's University Belfast School of Psychology

This project examines how physical exercise can promote brain function and help older people recover from neurological illness. The aim of the project was to establish whether brain plasticity, as induced by standard (non-invasive) transcranial cortical stimulation techniques, is enhanced in older people following aerobic exercise.

# Ageing in persons with an intellectual disability: building the foundation for an all-island, longitudinal study

**Project leader: Professor Roy McConkey, Institute for Nursing Research, University of Ulster** 

The project aims to develop an all-Ireland module on intellectual disability that will be part of a long-term study of older people. This study will provide information needs to policy makers and service planners.







For further details on the projects please visit www.cardi.ie/grantsprogramme