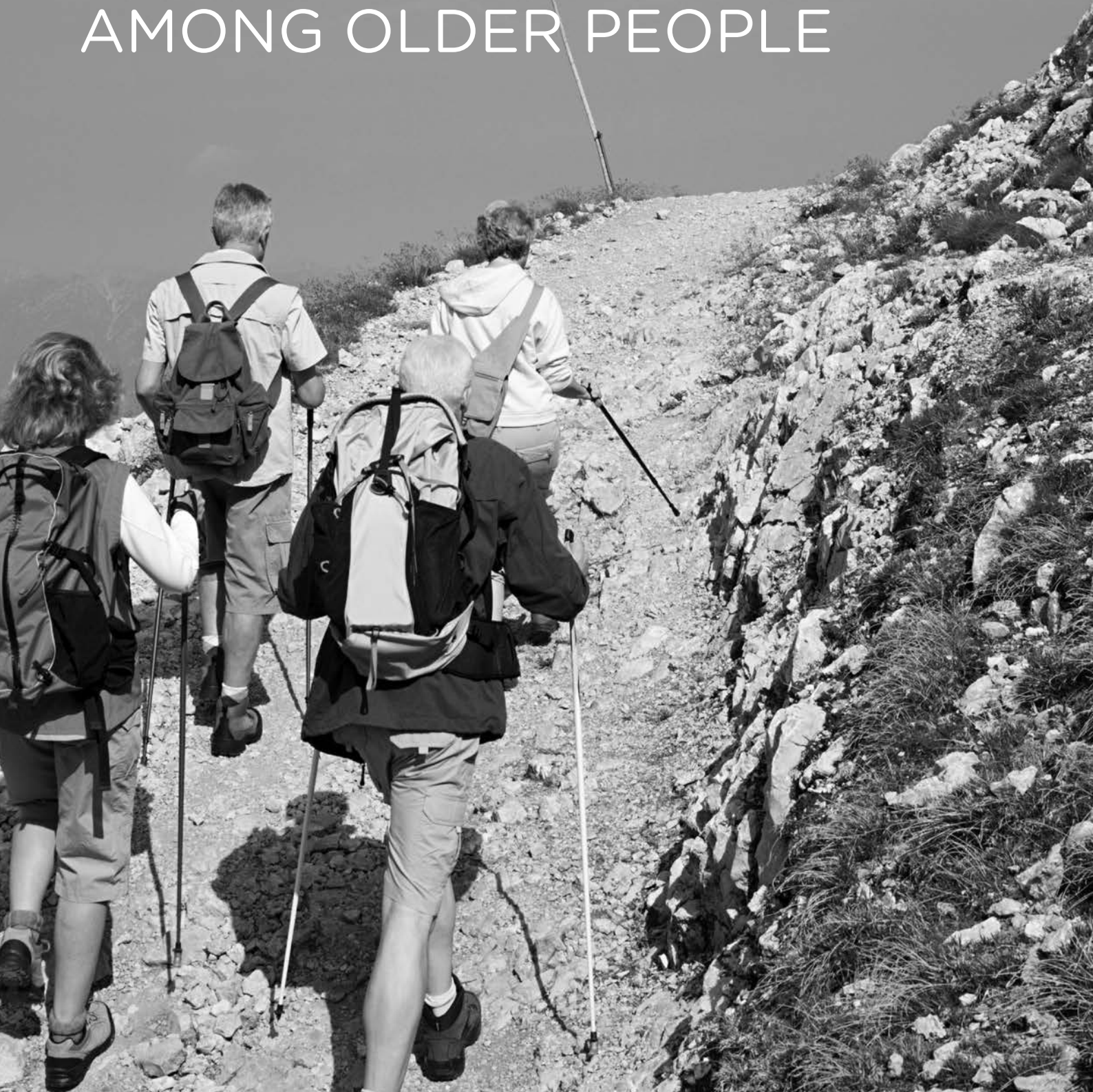


INEQUALITIES IN MENTAL HEALTH, COGNITIVE IMPAIRMENT AND DEMENTIA AMONG OLDER PEOPLE



ABOUT THE UCL INSTITUTE OF HEALTH EQUITY

The UCL Institute of Health Equity (IHE) is led by Professor Sir Michael Marmot and seeks to increase health equity through action on the social determinants of health, in four specific areas: influencing global, national and local policies; advising on and learning from practice; building the evidence base; and capacity building. The Institute is building on previous work to tackle inequalities in health led by Professor Sir Michael Marmot and his team, including the Commission on Social Determinants of Health, Fair Society Healthy Lives ('The Marmot Review') and the Review of Social Determinants of Health and the Health Divide for the WHO European Region. www.instituteofhealthequity.org

This paper was commissioned by the Department of Health as part of the Social Determinants of Health Programme and researched, analysed and written by Sorcha Daly and Jessica Allen at the Institute of Health Equity. The review was supported by a number of people at the Institute of Health Equity, and we would particularly like to thank Professor, Sir Michael Marmot, Ruth Bell, Peter Goldblatt, Sara Thomas, Patricia Hallam and Georgie Kyriacou.

The Department of Health supported the development of the review through a panel of advisors. Ray Earwicker chaired the panel, and we would like to thank, Gary Arnold, Gillian Ayling, Beelin Baxter, Sue Cochrane, Francis Dickenson, Sarah Gravenstede, Lorraine Jackson, Louise Knowles, Jennifer Marshall, Christine Mcguire, Afrose Panchoo, Caroline Rumble, Ben Thomas, Leonora Weil, and Bola Akinwale (Public Health England).

For queries relating to this document, please contact: sorcha.daly@ucl.ac.uk Jessica.allen@ucl.ac.uk

CONTENTS

Executive Summary	6
Key Messages	8
Introduction	15
Aims	15
Poor mental health: Definition and prevalence	15
Cognitive Impairment and dementia: Definition and Prevalence	16

PART 1: INEQUALITIES IN HEALTH AND WELLBEING AMONG OLDER PEOPLE: THE SOCIAL DETERMINANTS THROUGHOUT LIFE **17**

Chapter 1. Inequalities in mental health, cognitive impairment and dementia and their determinants	18
1.1 Inequalities in limiting, long-standing illness, disability and mortality	19
1.2 Prenatal and early childhood drivers for poor mental health, cognitive impairment and dementia	20
1.3 School and home life drivers for poor mental health, cognitive impairment and dementia	21
1.3a Cognitive reserve	21
1.4 Employment, income and housing drivers for mental health, cognitive impairment and dementia	22
1.4a Employment and income	22
1.4c Housing	22
1.5 Inequalities in health behaviours increasing the risk of poor mental health, cognitive impairment and dementia	22
1.5a Smoking	22
1.5b Alcohol	23
1.5c Drug use	23
1.5d Physical activity	23
1.5e Obesity	24
1.5f Malnutrition or under nutrition	24
1.6 Ethnicity and inequalities in mental health, cognitive impairment and dementia	25
1.7 Gender and inequalities in mental health, cognitive impairment and dementia	25
1.8 Learning disabilities and prevalence of dementia	25
1.9 Carers and health inequalities	25
Part 1. summary	26

PART 2: SOCIAL DETERMINANTS OF SOCIAL ISOLATION, MENTAL STIMULATION AND PHYSICAL INACTIVITY IMPACTING ON INEQUALITIES IN MENTAL HEALTH, COGNITIVE IMPAIRMENT AND DEMENTIA IN OLDER AGE **27**

Chapter 2. Social connectedness in later life and its impact on mental health, cognitive decline and dementia	29
2.1 Prevalence of social isolation in older age	30
2.2 Social isolation, social connectedness and mental health	30
2.3 Social isolation, social connectedness and cognitive impairment	31
2.4 Social isolation, social connectedness and dementia	31
2.5 Social determinants of social isolation in older age	32
2.5a Income, wealth and living standards	32
2.5b Inequalities in Retirement Income and Pensions	33
2.5c Income and Gender	33

2.5d	Income and Carers	34
2.5e	Income and Ethnicity	35
2.6	Household structure and social isolation	36
2.7	Community activities and social isolation	36
2.8	Gender and social isolation	37
2.9	Ethnicity and social isolation	37

Chapter 3. Mental stimulation and physical activity and their impacts on mental health, cognitive impairment and dementia in older age **38**

3.1	Mental stimulation and Cognitive decline and dementia	39
3.2	Inequalities in access to mental stimulation	39
3.3	Physical activity and mental health, cognitive decline and dementia	40
3.4	Inequalities in access to physical activity	40

Chapter 4. UK policies and practices and their effects on mental health and cognitive impairment and dementia **42**

4.1	Mental health Policy and practice in the UK	43
4.1a	Mental health Policy	43
4.1b	Health and social care for poor mental health	44
4.2	Dementia Policy and practice in the uk	45
4.2a	Dementia Policy	45
4.2b	Health and social care for dementia	46
4.2c	Community Interventions	47
4.2d	The Care Act	47
4.2e	Personal Budgets	47

Part 2. Summary **48**

PART 3: IMPROVING MENTAL HEALTH, DELAYING ONSET OF DEMENTIA AND COGNITIVE DECLINE AND REDUCING INEQUALITIES

49

Chapter 5. Interventions to address social isolation, physical activity and mental stimulation **50**

5.1	Social isolation and social connectedness	51
5.2	Income, Wealth and Living Standards for older people	54
5.3	Physical Activity	56
5.4	Mental Stimulation	57

Chapter 6. Recommendations **59**

6.1	Social connectedness	60
6.1a	Pre-retirement	60
6.1b	Post-Retirement	60
6.1c	Late old age	60
6.2	Physical Activity	61
6.2a	Pre-retirement	61
6.2b	Post-retirement	61
6.2c	Late old age	62
6.3	Mental Stimulation	62
6.3a	Pre-retirement	62
6.3b	Post-retirement	62
6.3c	Late old age	62

Part 3 Summary **63**

Conclusion **64**

Appendix 1. Methodology **65**

Stakeholders	65
Scope	65

Appendix 2. Key Literature **66**

Glossary **69**

References **71**

EXECUTIVE SUMMARY

The likelihood of having good physical and mental health in later life in England is not evenly distributed across the population and there is a social class gradient in life expectancy, and disability free life expectancy. This report focuses on inequalities in the experience and prevalence of poor mental health, cognitive impairment and dementia.

Sixty thousand people die each year from symptoms directly attributable to dementia, and 25% of older people are diagnosed with depression, rising to 40% in residential care homes. Lower socioeconomic groups have higher incidence of poor mental health and are more likely to have earlier onset of dementia than higher socioeconomic groups. The social determinants of these health outcomes are more likely to be experienced by people in lower socioeconomic groups, some BAME groups and for women.

The risks and likelihood of experiencing poor mental health, mild cognitive impairment and dementia are influenced by factors across the life course. In earlier life, poor educational attainment, unemployment, or poor quality employment, poor quality housing conditions and neighbourhood deprivation increase the risk of developing these health outcomes. Poor mental health, mild cognitive impairment and dementia are also profoundly influenced by experiences in later life. Significantly – and the focus of this report – social isolation, lack of mental stimulation and physical activity, before and after retirement, and in later old age, exacerbate risks of poor mental health, cognitive impairment and dementia.

Each year, 60,000 older people die from effects directly attributable to dementia. Postponing the onset of dementia by five years would decrease the number of deaths by half; 30,000 per year. The financial cost of caring for people with dementia is over £26 billion per year, including healthcare, social care and unpaid care from family members, more than the cost of cancer or heart disease. Therefore, delaying the onset of dementia would result in significant cost savings as well as considerable benefits to health and wellbeing.

Older people from lower socioeconomic backgrounds are also more likely to experience cognitive dysfunction at earlier stages of cognitive decline and cognitive impairment, and will have fewer resources to cope with the symptoms than their counterparts from higher socioeconomic groups.

This report examines the effect of social isolation, physical inactivity and a lack of mental stimulation in later life on inequalities in poor mental health, dementia and cognitive decline. People from lower socioeconomic groups are more likely to live, work and age in physical and economic environments that do not support social connectedness, physical activity or mental stimulation. The

report provides clear evidence that this can increase the risk of poor mental health, cognitive impairment and dementia in later life.

This report will:

1. Provide an overview of inequalities in poor mental health, cognitive impairment and dementia, and their social determinants across the life course.
2. Describe how social isolation, loneliness and a lack of mental stimulation and physical exercise can impact on mental health, cognitive impairment and dementia.
3. Present evidence of the ameliorating effects of social connectedness, physical exercise and mental stimulation on poor mental health, cognitive impairment and dementia in older age.
4. Provide an overview of the effects of health and social care interventions on mental health, cognitive impairment and dementia.
5. Make proposals for policies at a national level and interventions at a local level to achieve better health and reduced health inequalities for older people.

Specifically, this report aims to:

- Provide evidence to help prioritise and support national government cross-departmental action on reducing inequalities in the health and wellbeing of older people.
- Provide proposals for action based on the best available evidence, appropriate to national and local policy and service priorities, to address significant drivers of health inequalities, specifically social isolation and loneliness, physical activity and mental stimulation.

Policy has mostly focused on the diagnosis and treatment of mild cognitive impairment (MCI) and dementia, and experience of loneliness and depression has often been seen as an inevitable part of ageing. However, there is increasing recognition, reflected in some policies, of the importance of preventative measures to reduce the growing numbers of older people with poor mental health, MCI and dementia. So far, this has largely focused on individual lifestyle factors and health outcome risks. However, without addressing key drivers such as poverty, social exclusion, low levels of mental stimulation and physical activity, numbers of people with poor mental health, cognitive impairment and dementia will continue to rise and inequalities persist and potentially worsen.

Health and social care services will be under increasing strain due to rising numbers of older people with poor mental health, MCI and dementia. This is particularly significant for older people in lower socioeconomic groups, who are more at risk of experiencing the drivers of poor mental health, MCI and dementia over the life course and in older age, and will likely lack the social and economic resources to secure appropriate care.

Adequately funded, preventative interventions, addressing the social determinants of poor mental health, MCI and dementia, will ensure better health outcomes across all socioeconomic groups and reduce costs. Poor mental health, MCI and dementia are inter-related so action to address one issue is likely to have a positive impact on another as well as bringing a range of other desirable impacts.

The proposals in this report will likely reduce incidence of poor mental health, MCI and dementia by addressing powerful drivers which perpetuate inequalities in these conditions and, in so doing, will save money as well as improve health. In Chapter 6 we make such proposals.

The financial case for action

In 2015 the financial cost of caring for people with dementia was over £26 billion. [1] This figure includes healthcare costs, publicly and privately funded social care, unpaid care, and other dementia care costs. Adequately investing in initiatives which improve the economic, social and physical environments in which older people live has the potential to prevent poor mental health and delay the onset of MCI and dementia.

Postponing the onset of dementia by up to two years could decrease the number of deaths by around 12,000 per year and represents a potential saving of £52 billion and could significantly reduce the number of deaths attributed to dementia every year.

Approximately £3 billion is spent on the treatment of poor mental health for older people in the UK each year. Services are underfunded when compared with investment in physical health for older people, which is around two fifths of the NHS total spend (£46.5 billion). [2]

Prevention

Current preventive strategies for poor mental health, cognitive impairment and dementia are focused on encouraging individuals to make lifestyle changes, or on developing medical interventions that can prevent or delay the progress of cognitive decline and dementia. National and local government can also ensure further supportive action on the main social drivers of poor mental health, cognitive decline and dementia to reduce the prevalence and cost of care and treatment.

Government policy, including *The Prime Minister's Challenge on Dementia*, urgently needs to give greater focus to the social determinants of MCI and dementia, drawing on key literature such as the *Blackfriars Consensus*. [3] Published in 2014 by the UK Health Forum and Public Health England, the *Consensus* advocates for strategies which address the drivers for social isolation, physical inactivity and lack of mental stimulation and therefore reduce the inequalities in prevalence of poor mental health, MCI and dementia. These strategies include 'improved workplace health in mid-life; supporting social interactions and lifelong learning and stimulation in later life; and supportive care from services and from carers/families'.

Key messages

Box 1. Life course determinants for poor mental health, mild cognitive impairment and dementia in later life

- The cumulative experience of the social determinants of health throughout the life course impact on health inequalities in older age, including increasing the risk of poor mental health, mild cognitive impairment (MCI) and dementia.
- Compared with people from higher socioeconomic groups, lower socioeconomic groups are more likely to experience physical, social and economic environments, and adverse childhood experiences, that result in these inequalities, and will have fewer resources to cope when experiencing poor health outcomes in later life.
- Cognitive reserve – the skills, abilities and knowledge that increases the resilience and adaptability of the brain and its functioning – is built throughout the life course. A high level of cognitive reserve increases brain efficiency and flexibility and reduces the risk of MCI and dementia in later life.
- Lower educational attainment, and a history of poor quality, manual employment or unemployment results in fewer opportunities to build the skills, abilities and knowledge, or cognitive reserve, needed to lower the risk and impact of poor mental health, mild cognitive impairment and dementia in later life.
- Unemployment also increases the risk of various poor health outcomes, including poor mental health. Poor quality employment is linked to job strain and more sedentary lives, which are linked to poor mental health.
- Unemployment and poor quality, sporadic employment reduce lifetime income, increasing the risk of poverty in older age, increasing the risks of poor mental health, and earlier onset cognitive impairment and dementia.
- Manual and low paid groups have less access to ongoing professional, educational opportunities than groups employed in non-manual, higher paid professions reducing their likelihood of building later life skills and abilities, or cognitive reserve, and potential for ongoing employment in later life.
- Homes in poor condition are more likely to experience fuel poverty, and cold homes have been independently linked to poor mental health, and increase the risk of respiratory problems in children and adults, also affecting school attendance, academic achievement and lifetime employment chances.

Box 2. Later life social determinants of poor mental health, mild cognitive impairment and dementia

- Social isolation and loneliness, lack of mental stimulation, and physical inactivity in later life increase the risk of poor mental health, including depression, and the risk of mild cognitive impairment and dementia. These later life circumstances can also increase the risk that cognitive decline will occur at a faster rate, and that mild cognitive impairment and dementia will start at an earlier age.
- Depression has also been shown to increase the risk of converting MCI to dementia.
- One million older people report not having spoken to another person in over a month and around 25% of older people living in the community have a mental illness that requires intervention. This figure increases to 40% in residential care settings. Two per cent of older people have a major depressive disorder; 11% have a minor depressive disorder. These figures are likely to be an underestimation as depression in older age is often under- or misdiagnosed.
- Social isolation, and in particular loneliness, can be one of the most powerful drivers for common mental disorders (CMDs) including depression, anxiety and stress and are independently linked to cognitive impairment and dementia.
- Older people identified as being lonely are 1.63 times more likely to be diagnosed with clinical dementia than those who are not lonely and older people with weak social ties have a 50% higher risk of mortality, comparable to the risks caused by smoking or obesity.
- There are clear socioeconomic inequalities related to risks of becoming socially isolated in older age. Poverty is one of the most significant drivers for social isolation and loneliness, and is linked to lower educational attainment, a history of poor quality employment or unemployment, poor quality housing, and low retirement income and pensions.
- Care-givers are vulnerable to social isolation and loneliness. Loss of earnings and poverty, restrictions on leisure time, and the disability and symptoms of care recipients contribute to carers' social isolation and risk of depression, putting them at an increased risk of depression and dementia.
- People who are socially disconnected have a reduced ability to self-regulate and are less likely to take part in healthy behaviours. They will also lack the social, emotional and practical support needed to cope with the symptoms of poor mental health, MCI and dementia.
- Older people with a history of social isolation, poverty and living in areas of deprivation have limited access to mental stimulation and there is a social gradient experienced in the access to and ability to use stimulating resources, including education courses, leisure activities, civic engagement and ongoing, good quality employment.
- Large proportions of older people are not engaged in learning activities and only 16% of people between 65 and 75 years think of themselves as learners. Only 7% of people over the age of 75 are likely to take part in learning.
- Disadvantaged older people are more likely than non-disadvantaged to depend on government funded education programmes and as such are more likely to be excluded from education when government policies gear funding towards employment-focused training and education.
- Physical exercise in mid and later life helps to prevent poor mental health, improves cognitive functioning, and can ameliorate the symptoms and impact of cognitive impairment and dementia as exercise is associated with increased brain capacity. Older people who are physically fit score more highly on cognitive ability testing.
- Older people with a history of social isolation, poverty and living in areas of deprivation have limited access to physical exercise.
- Lack of access to green space is associated with physical inactivity. Green spaces are distributed unevenly across the UK, with five times more green space found in the most affluent areas than in the least affluent.
- People with the lowest household income have a 30% chance of not engaging in physical activity, compared to a 10% chance for those people in the highest quintiles. Twenty per cent of people living in the most deprived areas do not take part in physical activity.
- Health outcomes such as diabetes, cardiovascular problems, obesity and poor mental health are more likely to be found in areas of deprivation with limited access to good quality green space, and increase the risk of MCI and dementia.

Box 3. Improving mental health, delaying onset of cognitive decline and dementia, and reducing inequalities

- Cognitive reserve is not static, and can be built on even in later life. This is especially important for people who have not had the opportunity to build cognitive reserve during their younger life. Mental stimulation in later life can protect against and ameliorate the symptoms of cognitive impairment and dementia and has the potential to replace lost cognitive function or delay cognitive ageing by up to 1.75 years.
- Depression is a ‘modifiable risk factor’ for the conversion of MCI to dementia. Preventing depression through action on the social determinants that are linked to poor mental health, and ensuring access to appropriate treatment when depression occurs, will contribute to reducing the risk of dementia.
- Social connectedness in mid and later life, helps to prevent poor mental health, improves cognitive functioning, is associated with reduced incidence of dementia and can ameliorate the symptoms and impact of cognitive impairment and dementia.
- Social connectedness in later life increases social, emotional and practical support, which is needed to cope with the symptoms of poor mental health, MCI and dementia and can help to prevent more rapid deterioration.
- Action can be taken in both mid and later life to prevent social isolation in older age, promote improved cognitive function and mental health. This includes enabling people to prepare financially for later life through good quality employment during working life, provision of part-time employment opportunities for retirement age, volunteering opportunities and access to educational courses and social activities, raising awareness of the impact of loneliness among older people, and developing and maintaining homes, neighbourhoods and interventions that facilitate social connectedness.
- Physical exercise has been found to be protective against both prevalent and incident depression, even when adjusting for age, gender, smoking, ethnicity, financial strain, chronic conditions, disability, body mass index, alcohol consumption and social relations. Access to green space and physical exercise can also prolong years of living independently, reduce the risk of disability, and impact on the general quality of life of older people.

Box 4. UK Policy and Practice

- The Blackfriars Consensus highlights the importance of creating the social, environmental and economic circumstances that promote brain health and enable people to live healthier lives and reduce their risk of developing dementia.
- Much of current health policy focuses on diagnosis and treatment of poor mental health, cognitive impairment and dementia without recognising that addressing the wider social determinants of health inequalities in older age would make a significant contribution to preventing poor mental health, decreasing the risk, delaying onset, and limiting the impact of cognitive impairment and dementia.
- The Government strategy paper *No Health Without Mental Health*, [4] and its companion paper *Delivering Mental Health Outcomes for all Ages* [5] does explicitly identify some of the social determinants of poor mental health such as isolation, caring responsibilities, economic deprivation and lack of access to education. However, subsequent documents, such as the *Mental Health Dashboard*, [6] highlight increasing levels of absolute low income but fail to measure access to education or support for carers.
- Government policy focusing on improving access to mental health treatment, and improving services has failed to address unhelpful service divisions that result in older people denied access to services for younger age groups, or do not provide services which cater for older people with poor mental health and other physical co-morbidities.
- *The Prime Minister's Challenge on Dementia 2020* focuses on improving diagnosis and treatment of dementia, and preventative action focuses predominantly on encouraging individuals to make lifestyle choices which reduce the risk of MCI and dementia, including staying socially connected, physically fit, and mentally stimulated.
- Proposed policies to increase the state pension age between 2026 and 2028 will impact hardest on people on low income, in manual trades and without a private pension, affecting income levels, quality of life and the financial resources to remain or become social connected. Low interest rates on savings continue to undermine pension increases for those who have been able to save.
- Current funding cuts to local authorities will directly affect their ability to develop and maintain local areas and neighbourhood services to standards that enable older people to remain physically active and social connected. Areas of deprivation are likely to be hardest hit.
- Government education policy focuses predominantly on preparing students for the labour market, and has resulted in a lack of government funding for life long learning opportunities for older people. Older people living in deprived areas may experience difficulties accessing the educational or mentally stimulating activities appropriate to their needs.
- Under-funded, poorly coordinated and disjointed service provision for MCI and dementia in later life can create inequities in provision of, and access to, care for the elderly. This will affect people with lower social and economic resources to a greater degree, as they are more reliant on Government funded services.
- The Care Act and the introduction of Personal Budgets have improved health and social care provision for some older people and their carers. However, budget cuts and the separation of health and social care in the UK continue to result in a significant number of older people not receiving the most appropriate care for their needs and people with dementia are among groups who are not receiving the potential benefits from Personal Budgets.
- Residential care homes require better service design, adequate funding, and training of staff to ensure that older people from lower socioeconomic groups do not receive poor quality care.

Box 5. Recommendations

- Investing in initiatives which improve the economic, social and physical environments in which older people live can prevent poor mental health, and have the potential to delay the onset of MCI and dementia by up to 1.75 years, representing a saving of £45.5 billion.
- Upstream interventions which focus on creating the social, financial and physical environments which enable older people will make a significant contribution to preventing poor mental health, and to decreasing the risk, delaying onset and limiting the impact of, cognitive impairment and dementia.
- Strategies to prevent the rising number of older people experiencing poor mental health, MCI and dementia can focus on three key stages in later life: pre-retirement working life, post retirement, and later old age.
- The Department of Health, Public Health England and other government departments such as the Department for Work and Pensions can work with employers, trade unions and other local government agencies to ensure people pre retirement are enabled to prepare financially and psychologically for retirement, embedding healthy living practices, such as active travel and social connectedness, into working life. Employers can play an important role in promoting and supporting an open attitude to lifelong learning across the social gradient, providing information and opportunities for training and further education, particularly in the years running up to retirement.
- Statutory and voluntary sector education and training providers can support post retirement and later old age mental stimulation through ensuring activities and courses are relevant and accessible to older people, particularly those with caring responsibilities or in residential care homes.
- Local authorities, town planners, and housing and care providers can incorporate age-friendly considerations into their local planning, development and decision-making. The planning, development and maintenance of neighbourhoods and towns should be appropriate to the needs of older people post retirement and in later old age, enabling them to become or remain socially connected, mentally stimulated and physically active, through well maintained, walkable streets and green spaces with communal areas, adequate seating and toilet facilities, and transport links.
- GPs and older-age service providers can prioritise identifying and treating later life depression, and facilitate social connectedness, and physical and mental activity in later life. Social prescribing, or the referral of older people to services that will address the social determinants of health is important.
- A wide range of successful interventions combating isolation and loneliness in older people exist. More action is needed across government departments at a policy level to highlight the social determinants and impacts of social isolation and loneliness.
- Initiatives that attempt to promote physical activity without taking account of the physical environment in which people live are likely to experience difficulties in engaging older people.
- Several initiatives, such as the introduction of free 'green gyms' in parks and outdoor leisure spaces, and mentoring projects, have supported older people to be socially connected and remain active and mentally stimulated in older life. However, lack of public transport, deteriorating and under-maintained streets, public toilets, seating areas and green spaces, prevent older people from remaining physically active and socially connected.

Action is needed during three specific stages in older age: pre-retirement working life, retirement and early old age, and later life.

PRE-RETIREMENT WORKING LIFE

The department for work and pensions, department of health and public health england should:

- Raise awareness among employers regarding the risks of poor mental health, MCI and dementia and the impact of social isolation, physical inactivity and lack of mental stimulation, disseminating best practice initiatives and encouraging healthy working practices.
- Raise awareness in other government departments about the impact of low paid, insecure, working conditions on the ability to save adequately for retirement and subsequent risks of older age poor mental health, MCI, dementia, and costs of health and social care.
- Work with employers to ensure a variety of appropriate, flexible retirement and part-time employment options are available to older people and that the extension of working lives supports good health rather than increasing the risk of poor mental health, MCI and dementia.

The department of health and public health england should:

- Work with local authorities to encourage active travel to and from work by providing safe cycle paths, developing and maintaining green spaces and ensuring adequate public transport.

The department of health, public health england, trade unions and employers should:

- Promote safe working practices, good mental and cognitive health, and supported returns to work by disseminating information about good working practices and adequate training and support for employers.

The department of health, public health england and the department for business, innovation and skills should:

- Work collaboratively with trade unions and employers, ensuring low-skilled, manual workers are mentally stimulated and physically active throughout their working life and promoting lifelong learning through to retirement.

The department for work and pensions, department of health, public health england and the department for business, innovation and skills should:

- Utilise current research, such as the Foresight series of evidence reviews on the future of ageing, and address the gap in basic skills experienced by those in manual trades, fostering a disposition to engage in learning, and promoting the diversification of skills in the older age workforce.

RETIREMENT AND EARLY OLDER AGE

The department of health and public health england should:

- Work collaboratively with other government departments, town planning, housing providers and other agencies to highlight the risks and costs of widening health inequalities in poor mental health, MCI and dementia if basic needs of older people are not met. This includes facilitating adequate living conditions and standards of living.
- Develop and disseminate training for town planners, architects, local housing authorities and other agencies to ensure local environments, housing and services are accessible to older people, promoting social inclusion through well designed communal spaces and services, and enabling physical activity through access to green spaces and increasing the 'walkability' of streets and town centres.
- Prioritise social isolation and loneliness as a key driver for poor mental health, MCI and dementia, and work collaboratively with local authorities, Health and Wellbeing Boards and initiatives such as the Campaign to End Loneliness to address the social determinants of social isolation and loneliness in older age.
- Work closely with local authorities, developing initiatives that improve and maintain local environments and green spaces, and work proactively to encourage older people to use them, improving their mental and cognitive health.

- Work with the Department for Business, Innovation and Skills to highlight the links between cognitive health, mental wellbeing and mental stimulation, and the lack of opportunity for, and engagement in, continuing learning for older people in lower socioeconomic groups.
- Promote the use of interventions that encourage the engagement of lower socioeconomic groups in lifelong learning including funding third sector learning initiatives, utilising agencies who are already engaged with underserved groups, adapting the provision of education to the needs of a diverse and older cohort, and providing specialised later life education advisors.

LATER LIFE

The department of health and public health england should:

- Work to raise awareness of the prevalence and risks of poor mental health in later life, its links with the conversion of MCI to dementia, and to challenge the acceptance of depression and poor mental health as inevitable parts of ageing, supporting GPs and other NHS staff to enquire about, identify and address the causes of poor mental health in later life through referrals to appropriate services.
- Work closely with the Dementia Platform UK and other national healthy ageing research initiatives, highlighting the impact of social determinants of poor mental health, MCI and dementia, and ensuring that cost-effective interventions are developed through current research strategies alongside medical interventions for prevention and treatment.
- Ring-fence funding for carer breaks and support, older age housing and care settings, and improvements to local environments, to ensure dedicated funding to interventions that support older people and enable them to flourish.

Public Health England can provide impetus and guidance to local agencies to set up strategic partnerships between the Environment Agency, local authorities, education providers, the voluntary sector, Health and Wellbeing Boards and NHS Trusts to facilitate better town planning, service design and delivery and social connectedness. Collaborative strategies developed by local and national government departments, third sector agencies, the private sector, trade unions and other local service agencies will promote the best health outcomes. Government policy that tackles the social determinants of cognitive impairment, dementia and poor mental health at a whole-population level, but targets the most resources at areas with the most need, will enable the greatest reduction in health inequalities found in poor mental health, cognitive impairment and dementia.

INTRODUCTION

There are multiple factors across the life course that increase the risk of poor mental health, mild cognitive impairment (MCI) and dementia in older age and result in inequalities in the prevalence and experience of these conditions. Policies and interventions that enable social connectedness, mental stimulation and physical activity in later life have the potential to prevent, delay and ameliorate the symptoms of these conditions.

Environments that enable older people to remain physically active, mentally stimulated and socially connected will make a significant contribution to reducing the inequalities experienced in poor mental health, MCI and dementia, and the financial and human cost that these health outcomes incur. Currently the combined expenditure on care for poor mental health and dementia in later life is over £30 billion per year, including £26 billion on the care of dementia and £6 billion on the treatment of poor mental health. Delaying the onset of dementia by up to two years could represent a saving of £52 billion per year.

This report will:

1. Provide an overview of inequalities in poor mental health, cognitive impairment and dementia, and their social determinants across the life course.
2. Describe how social isolation, loneliness and a lack of mental stimulation and physical exercise can impact on mental health, cognitive impairment and dementia.

3. Present evidence of the ameliorating effects of social connectedness, physical exercise and mental stimulation on poor mental health, cognitive impairment and dementia in older age.
4. Provide an overview of the effects of health and social care interventions on mental health, cognitive impairment and dementia.
5. Make proposals for policies at a national level and interventions at a local level to achieve better health and reduced health inequalities for older people.

AIMS

Specifically, this report aims to:

- Provide evidence to help prioritise and support national government cross-departmental action on reducing inequalities in the health and wellbeing of older people.
- Provide proposals for action based on the best available evidence, appropriate to national and local policy and service priorities, to address significant drivers of health inequalities, specifically social isolation and loneliness, physical activity and mental stimulation.

The report contains two Appendices:

1. Methodology for conducting the research
2. Key literature to support the report and its findings

For the purposes of this report, 'older people' refers to those aged over 65, or as otherwise stated.

POOR MENTAL HEALTH: DEFINITION AND PREVALENCE

Mental health, or 'good' mental health, is defined by the World Health Organisation (WHO) as 'a state of wellbeing in which every individual realises his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community'. [7] There are many people who do not reach the threshold for a diagnosis of a mental disorder but who, under the WHO's definition, have poor mental health. Mental illness, or common mental disorders (CMDs), include depressive and anxiety disorders. [8]

People over the age of 65 account for 35% of people with mental health problems in the UK. Around 25% of older people living in the community have a mental health

illness that requires intervention. [4] Two per cent of older people have a major depressive disorder; 11% have a minor depressive disorder. [4] Later life experiences such as the death of a spouse, retirement, poor physical health, loss of status, discrimination, caring, lower income, lack of physical and mental stimulation, and isolation increase the risk of poor mental health in later life. Dementia and living in residential care settings are two important risk factors for depression and mental ill health in older age, with 25% of people with dementia and 40% of older people living in residential care settings experiencing depression. [9, 10] Up to 30% of residents in residential care settings experience anxiety. [10] It is thought that these figures are an underestimation. [4]

The incidence of poor mental health shows a marked rise in late old age: 40% of people over the age of 85 experience depression. [11] Depression is two to three times more likely to be found in people with chronic physical health symptoms such as diabetes, angina and chronic musculoskeletal disorders than in those without such problems. [12] The symptoms of depression have also been shown to increase the risk of converting MCI symptoms into dementia. [13]

COGNITIVE IMPAIRMENT AND DEMENTIA: DEFINITION AND PREVALENCE

Each year, 60,000 older people die from symptoms directly attributable to dementia. Postponing the onset of dementia by five years would decrease the number of deaths by 30,000 per year. The financial cost of caring for people with dementia is over £26 billion per year, including healthcare, social care and unpaid care from family members. [1] This is more than the cost of cancer or heart disease. [14] Two-thirds of people living with dementia live in the community, while the remaining third live in residential care settings. Eighty per cent of care home residents have some form of dementia, or severe memory problems. [15]

Mild cognitive impairment (MCI) describes a set of symptoms that involves various problems with cognitive functioning including memory loss, and problems with language, attention and problem-solving. Mild forms of cognitive impairment in which the symptoms are not severe and remain relatively static over time can be a normal part of the ageing process. MCI can also be associated with depression, anxiety, stress, physical illness or taking some medications. However, MCI can develop into dementia, including Alzheimer's disease, vascular dementia, fronto-temporal dementia, and dementia with Lewy bodies, all of which are progressive, with people living for up to 12 years after initial diagnosis. [16, 17] Around 10 to 15% of people who experience MCI with memory loss will go on to develop dementia, most often Alzheimer's disease. [18]

Cognitive impairment is thought to occur along a continuum and there is not a clear demarcation between age related 'normal' and mild cognitive impairment, and the onset of dementia. This lack of delineation has led to a lack of standardisation of methods in research, and can hinder the review and comparison of research studies. [19]

Alzheimer's disease is one of the most common forms of dementia and is caused by a build-up of proteins in the brain, creating 'plaques' and 'tangles', leading to the loss of brain tissue. People with Alzheimer's disease also experience a shortage of specific chemicals in the brain, resulting in ineffective transmission of signals. Over time symptoms such as memory loss, language difficulties and difficulties with daily tasks such as cooking become more severe. People diagnosed with Alzheimer's disease live, on average, around 8-10 years after initial diagnosis. [20]

Although there are cases of early onset dementia in people below the age of 65, the majority of cases are in older people. After the age of 65 the risk of developing dementia doubles every five years. Dementia affects people over the age of 80 and women disproportionately. It is estimated that 850,000 people in the UK have dementia, which is expected to rise to one million by 2025 due to the UK's ageing population. Only 62% of people living with dementia in the UK have been diagnosed. [21] Some areas of the UK, such as Northern Ireland, show much higher rates of diagnosis. This has an impact on rates of referrals to relevant support and care, for example memory clinics or carer support agencies. [22]

PART 1:

INEQUALITIES IN HEALTH AND WELLBEING AMONG OLDER PEOPLE:

THE SOCIAL DETERMINANTS THROUGHOUT LIFE

1

INEQUALITIES IN MENTAL HEALTH, COGNITIVE IMPAIRMENT AND DEMENTIA AND THEIR DETERMINANTS

Key Messages

- The cumulative experience of social, physical and economic circumstances throughout life impact on health inequalities in older age, including poor mental health, cognitive impairment and dementia.
- Compared with people from higher socioeconomic groups, people from lower socioeconomic groups are more likely to experience health-harming social, physical and economic environments which lead to health inequalities.
- Health outcomes such as diabetes, cardiovascular problems, poor mental health and obesity are more likely to be found in areas of deprivation than in better-off areas, and increase the risk of MCI and dementia.
- Unemployment and poor quality employment have been linked to various poor health outcomes. Unemployment is linked to health-harming behaviours such as smoking and excess alcohol intake. Poor quality employment is linked to job strain and more sedentary lives, which are linked to diabetes and cardiovascular disease respectively.
- Unemployment and poor quality, sporadic employment reduce lifetime income, increasing the risk of poverty in older age and reducing the likelihood that working life will be extended.
- Homes in poor condition are more likely to experience fuel poverty, and cold homes have been independently linked to poor mental health.
- Depression, more likely in lower socioeconomic cohorts, has been found to increase the risk of converting MCI to dementia.
- Cognitive reserve – the ability to build skills, abilities and knowledge to improve life chances – is built throughout the life course, starting with maternal and foetal health, developing in early childhood and school life, and maintained throughout working life. High levels of cognitive reserve increase brain efficiency and flexibility and reduce the risk of MCI and dementia.
- A high level of educational attainment, particularly when ‘leveraged’ into occupations that involve dealing with high levels of complex data, is a key determinant for lowering the risk of developing cognitive impairment and dementia.
- People from lower socioeconomic groups, with lower educational attainment, and with a history of unemployment or poor quality, manual employment, have fewer opportunities to build cognitive reserve.

1.1 INEQUALITIES IN LIMITING, LONG-STANDING ILLNESS, DISABILITY AND MORTALITY

Social and environmental factors influence the experience of ageing, alongside physiological factors. People in lower socioeconomic positions have a much higher risk of long-standing illness, disability, and shorter life expectancy than their counterparts in higher positions, as detailed in Figures 1 and 2. For example, men and women living in Blackpool, the most deprived area of England, will live around 16.5 and 11.6 fewer years respectively in good health than men and women living in Wokingham, the least deprived area in England. [23]

Figure 1. Male healthy life expectancy at local authority level, by Index of Multiple Deprivation, 2010-12 and 2011-13 [23]

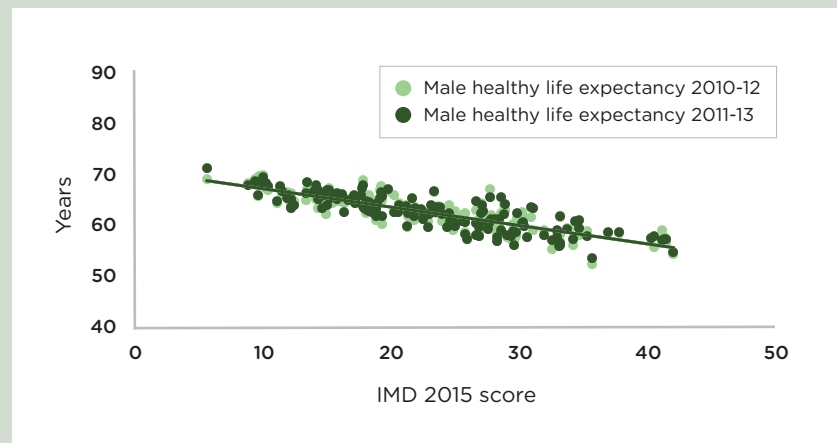
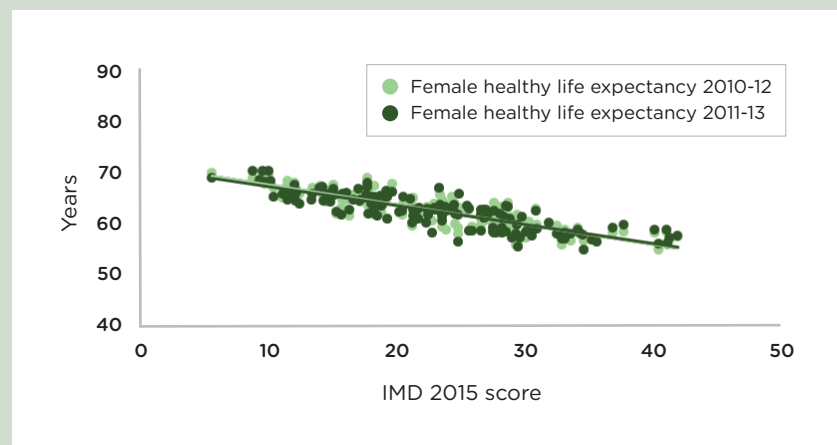


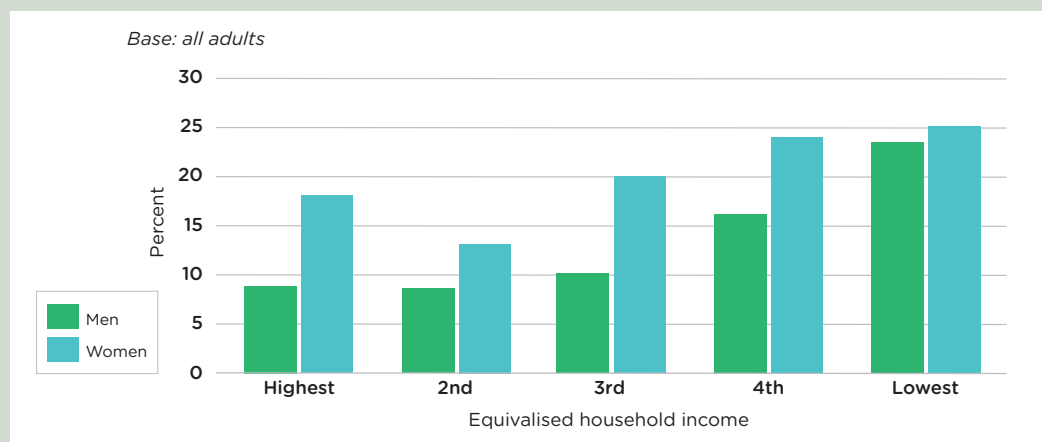
Figure 2. Female healthy life expectancy at local authority level, by Index of Multiple Deprivation, 2010-12 and 2011-13 [23]



Social, economic and physical conditions, experienced throughout the life course, also influence the risk of poor mental health. Higher levels of psychotic disorders are found in the lowest quintile of household income, and common mental disorders such as anxiety and depression are twice as likely to be found in the lowest 20% of the population for income [24], as shown in Figure 3.

Figure 3. Rates of common mental health disorders across the life course

Re-used with the permission of the Health and Social Care Information Centre. All rights reserved



Social determinants, including income, levels of education and access to good quality employment, also influence the rates of cognitive decline, and increase the risk and worsen the symptoms and experience of cognitive impairment and dementia. [25]

1.2 PRENATAL AND EARLY CHILDHOOD DRIVERS FOR POOR MENTAL HEALTH, COGNITIVE IMPAIRMENT AND DEMENTIA

Maternal health, including nutrition and the prevalence of smoking, substance misuse and stress during pregnancy, is linked to birth weight. The in utero environment of the womb impacts on the health of the baby in adult life. [24] Low birth weight impacts on infant brain development, as do adverse experiences in the first year of life.

Figure 4 depicts rates of poor social and emotional adjustment in children, according to their father's social class at birth. Recent research has shown that maternal depression and economic deprivation can diminish cognitive and emotional development in children, together and separately. [26] It has also been demonstrated that incidence of health-harming behaviours, low educational attainment, low income, and limited resources of parents, all of which are socially graded, affect social, emotional and physical resilience of children in their early years, continuing into adulthood and later life.

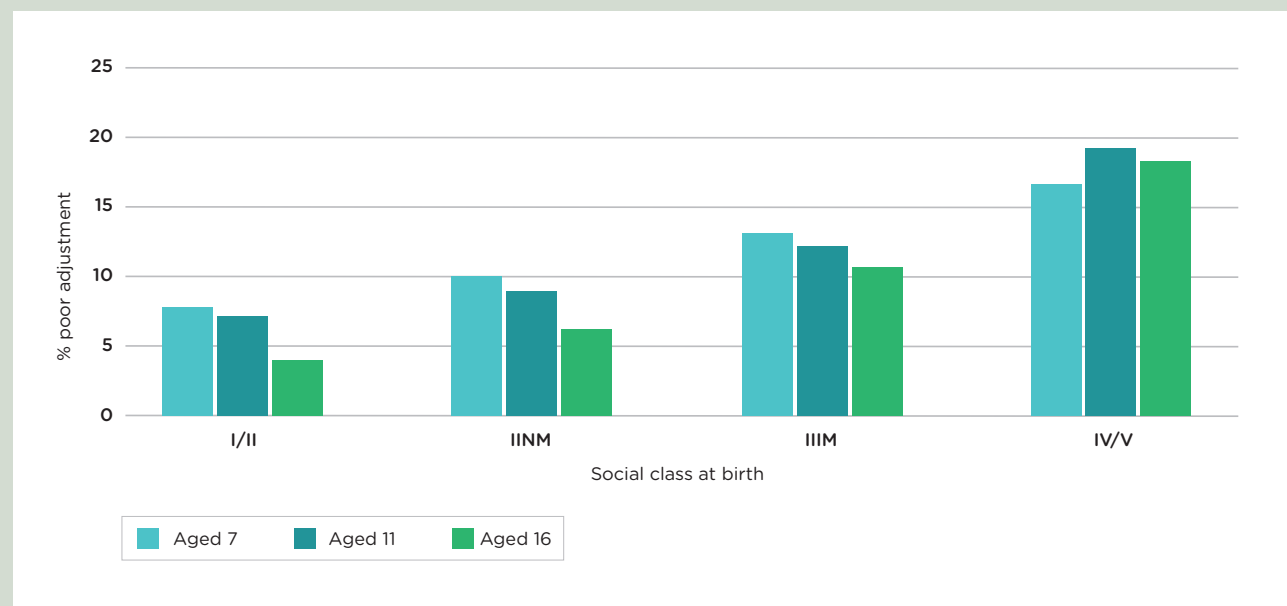
Figure 4. Rates of poor social/emotional adjustments at ages 7, 11 and 16 by father's social class at birth, Child Development Study

Social class I/II = Professional / managerial occupations

Social class IINM = Skilled non-manual occupations

Social class IIIM = Skilled manual occupations

Social class IV/V = Partly skilled / unskilled occupations



Family structure, income, and home and community environments also impact on children's longer-term health and mental wellbeing. Children from deprived households whose mothers worked but were poorly educated are more likely to have mental health problems as adolescents [27] that can continue into adult and later life.

Conversely, breast feeding, good maternal mental health and educational attainment, stable households, adequate family income and decent, and damp-free homes are all protective factors against low cognitive function in children. These conditions increase the likelihood that children will be socially, emotionally and psychologically school-ready, [24, 27] and able to build the skills, abilities and knowledge, known as cognitive reserve (see Section 1.3a), to improve life chances over the life course.

1.3 SCHOOL AND HOME LIFE DRIVERS FOR POOR MENTAL HEALTH, COGNITIVE IMPAIRMENT AND DEMENTIA

Children living in cold homes are more than twice as likely to develop a variety of cardiovascular and respiratory illnesses as those not living in cold homes. [28] Poor housing conditions in childhood are also linked to a range of other health problems including depression, slower physical growth and slower cognitive development. [29] A quarter of adolescents growing up in cold housing are at risk of various mental health problems. [28] Growing up in poor or overcrowded housing also impacts on a child's ability to reach his or her full educational potential and has lasting, life-changing effects. [30]

Adverse childhood experiences (ACEs) between age 5 and 18 years, such as sexual or emotional abuse, neglect, parental substance misuse, or living in care, increase the risk of negative health outcomes including poor mental health throughout the life course, including in older age. ACEs are linked to high cortisol (stress hormone) levels, which can lead to increased sensitivity to external stressors when older. [31]

A recent review (2012) examining the impact of childhood trauma on mental and physical health in later life (in adults aged 50 and over) found that experience of childhood trauma was significantly associated with poor mental health in later life. [32] The Royal College of Psychiatrists notes that, 'the majority of mental illness have childhood antecedents'. [33]

Studies have shown that more than half of children who have experienced adverse childhood conditions do not graduate from high school. [34] Furthermore, children who have been neglected have lower grades in reading and maths, and those who have been abused have lower grades and lower attendance. [35] [36] [37] The interrelationship between adverse childhood conditions, lower socioeconomic position of parents, and the attainment of learning and life skills, can result in lower cognitive functioning and less cognitive reserve to draw upon. [24] [31]

Cognitive scores also affect mental health, with higher cognitive functioning linked to higher socioeconomic position, which protects against psychological distress in later life. [24] A longitudinal study investigating how lifetime cumulative adversity and depression moderated age-related health markers such as physical, mental and cognitive health, found that age-related decline in physical, mental and cognitive health was most pronounced in those participants who had a history of depression and lifetime adversity. Specifically, the study found that high levels of lifetime adversity resulted in higher levels of age-related cognitive decline, or 'a stronger age effect on [...] decrease in cognitive functioning'. [38]

Additionally, higher educational attainment and higher cognitive scores are associated with less risky health behaviours, better health outcomes, and longer life expectancy, [24] with less limiting long-term illness in older age. Higher cognitive development in childhood, maintained and expanded into adulthood, provides a greater cognitive reserve on which to draw in later life.

1.3A COGNITIVE RESERVE

The cognitive reserve hypothesis suggests that older people with a wide range of skills, abilities, and knowledge, gained through higher levels of education and good quality and stimulating employment and environments, are able to continue to function well despite brain damage experienced through cognitive impairment and dementia. [39] Various studies have found that higher educational attainment enables people to cope better with the onset of MCI and dementia, should it occur. [40] [41] Those with higher educational attainment are able to call on a wider range of strategies and problem-solving to mitigate the symptoms of the disease. The symptoms of cognitive impairment or dementia also impact on individuals with higher cognitive functioning at a later stage. [39]

More recent research has found that individuals who have achieved higher grades in school have a lower risk of developing dementia. This is particularly true for those who go on to occupations that involve dealing with high levels of complex data, although not for occupations with high levels of complexity concerning people or things. Children who have lower school grades may have 'lower brain network efficiency or flexibility', leaving them more 'vulnerable to dementia pathology'. [25] Therefore a high level of educational attainment, particularly when 'leveraged' into occupations of high data complexity, is a key determinant of lowering the risk of developing cognitive impairment and dementia. [42]

1.4 EMPLOYMENT, INCOME AND HOUSING DRIVERS FOR MENTAL HEALTH, COGNITIVE IMPAIRMENT AND DEMENTIA

1.4A EMPLOYMENT AND INCOME

As noted in Section 1.3a, cognitive reserve gained in childhood can be built on and maintained through complex occupational activities. Conversely, low quality, manual occupations are not protective against cognitive impairment and dementia, and, alongside sporadic employment and unemployment, can have other negative mental and physical health outcomes. For example, unemployment increases the risk of health-harming behaviours such as smoking, greater alcohol consumption, inactivity and poor living standards, all of which are associated with poor mental and physical health outcomes. [43]

Poor work conditions, including exposure to hazards and the physical impact of manual labour, inconsistent work, or long-term unemployment, can cause poor mental health and musculoskeletal problems, increased rates of long-term illness, increased medication use, and lower recovery from illness. [24] Poor quality work, and unemployment, have also been linked to suicide and other causes of early death such as cardiovascular disease. For example, the Korean Community Health Survey found that unstable work is associated with a 1.5 times higher risk of suicide attempts in Korea. [44] A report analysing the mortality data from the World Health Organisation's European Detailed Mortality Database found in 2015 that adults who experience job strain are more likely to have diabetes, to smoke and to lead more sedentary lives, leading to increased risk of cardiovascular disease. [45] [46]

The experience of multiple, and/or long-term illnesses may also prevent return to the labour market. For those people working in manual employment, the likelihood of extending retirement age is low and there are fewer years to build material reserves and therefore more risk of older age poverty. There is also less likelihood of belonging to professional groups or social clubs during employment and after retirement, reducing the social capital available in older age. [47]

The experience of poor quality employment, unemployment and manual labour can limit future employment opportunities, reduce lifetime income and standards of living in later life, and increase risks of poverty-related poor physical and mental health in older age. These experiences also reduce the social, emotional and financial capital needed to cope with life-changing events in older age such as bereavement and retirement and undermine, rather than support, the accumulation of cognitive reserves.

1.4B HOUSING

Research conducted by the National Centre for Social Research concluded that living in a cold home is a predictor of poor mental and physical health, independent of other predictors such as education or income. Furthermore, mould in the home, using less fuel due to poverty, and fuel debt were all indicators for experiencing common mental disorders (CMDs). [48] Low income, debt, unstable employment and poverty prevent people from accessing adequate, affordable housing. Thirty-eight per cent of people in the private rented sector and 43% of people in the social rented sector in the UK are living on a low income once housing costs have been paid. [49]

People on low incomes or living in homes in poor condition are more likely to experience fuel poverty and cold homes. [28]

1.5 INEQUALITIES IN HEALTH BEHAVIOURS INCREASING THE RISK OF POOR MENTAL HEALTH, COGNITIVE IMPAIRMENT AND DEMENTIA

There is a social class gradient in harmful health behaviours, with greater incidence of smoking, excessive drinking and other substance misuse, overeating and inactivity found in more deprived areas in the UK. [24] Unhealthy behaviours also tend to cluster lower down the social class gradient. Those in lower socioeconomic positions are more likely to participate in three or four concurrent health-harming behaviours. [50]

Although participating in three or four of these concurrent health-harming behaviours declined from 33% of the English population in 2003 to 25% in 2008, this decline has mainly been experienced in cohorts from higher socioeconomic positions. [50] Evidence from 2013 showed that people with no qualifications were five times more likely than those with qualifications to engage in four health-harming behaviours. [50] Health-harming behaviours throughout the life course, and in older age, are associated with poor mental health and increased risk of cognitive impairment and dementia.

1.5A SMOKING

Figures for 2010/2011 show that 1.5 million admissions to hospital in the UK were caused by smoking-related disease, and an estimated 18% of all deaths in the UK were related to smoking. [51] In general men and women working in manual trades, from Irish and Black Caribbean ethnic groups, and from

the North of England, have higher prevalence of smoking than those not in these groups.

Relatively fewer older people smoke. Thirteen per cent of people over the age of 60 smoked in 2014 compared with 20% of the whole population. [52] [51] However, smoking by older people decreased by only 1% between 2005 and 2012, compared with a 3% decline in the general population. [52] People who carry on smoking into later life can expect to lose at least 10 years' life expectancy. [51] Older smokers are likely to have been smoking for a long period of time and have a greater risk of experiencing poor health outcomes than younger people who smoke.

People with mental health problems such as depression are twice as likely to smoke as those without, and find it more difficult to stop smoking due to the increased feelings of anxiety and irritability experienced during nicotine withdrawal. [53] Smoking also increases the risk of dementia due to harmful effects on the blood vessels of the brain. [54]

1.5B ALCOHOL

Problematic drinking, such as binge drinking and alcohol dependence, is more prevalent, as are hospital admissions for alcohol-specific illnesses, in areas of lower socioeconomic status. [24] For example, the prevalence of binge drinking (drinking more than double the lower risk guidelines for alcohol in one session [55]) is higher in the North of England, with around one-third of drinkers who drank in the week before interview in the North of England having binged, compared with less than one quarter in other regions. [56]

An estimated 1.4 million people over the age of 65 drink above recommended limits. [1] Safe limits of alcohol intake currently recommended in the UK are based on younger adults. Levels of hazardous drinking among older people have been increasing. In 2010, one in five older men and one in 10 older women were drinking at harmful levels, an increase of 40% and 100% respectively since 1990. Alcohol misuse can be harder to diagnose in older people, and can be misdiagnosed as dementia and/or general cognitive decline and impairment. An estimated 60% of older people admitted to hospital could be undiagnosed 'problematic' drinkers. [57]

Life events in later years such as the death of a spouse, loneliness and isolation, and physical illness (in particular physical pain), can increase levels of alcohol consumption. Balance deteriorates with age, and the risk of trips and falls can increase with relatively small amounts of alcohol, and depressive symptoms can become worse when specific antidepressants are consumed with alcohol. [58] Alcohol also affects the chemistry of the brain, increasing the risk of depression. [59]

Drinking excessively, over long periods of time, can significantly increase the risks of dementia, particular Alzheimer's disease and vascular dementia. [60]

1.5C DRUG USE

Older age groups have the largest number of people using prescription and over-the-counter medication [61] and there has been an increase in the number of older people with substance misuse and dependency problems. [62] Deaths

related to drug use are more likely to be found in older than younger people, and there are high rates of co-morbidity with mental ill health. Older people experience higher rates of poor mental health and cognitive disorders than younger people, sometimes leading to complex behaviours around substance use, with both intentional and unintentional misuse of over-the-counter drugs. Older women have particular problems with addiction and misuse of over-the-counter medications. [61] There is some evidence that long-term use of certain drugs, such as benzodiazepines, contributes to the causal pathway that leads to the development of cognitive impairment. [63]

1.5D PHYSICAL INACTIVITY

Households with the lowest incomes have a 30% chance of not partaking in any physical activity, whilst those in the highest quintiles have a 10% chance. , As explored in more depth in Chapter 4, lack of physical activity can increase the risk of poor cognitive functioning in older age. [64]

Physical activity decreases with age and it is estimated that 70% of men and 80% of women aged 75 and over are physically inactive, while around 57% of men and 67% of women over 55 do not engage in the recommended amount of physical exercise each week. [65] Cost, health problems and lack of opportunity all act as barriers to older people being physically active, in addition to a lack of awareness or understanding of what constitutes physical activity. [65] It is estimated that a physically inactive person spends 37% more time in hospital, and visits their GP 5.5 more times, than an active person. [64]

¹ Current government guidelines state that there are no safe levels of alcohol consumption. Men and women are advised to drink no more than 14 units of alcohol per week, the equivalent of six pints of 4% lager, or six glasses of 13% wine.

Physical activity throughout the life course is important for physical and mental health. Effects of physical activity include reduced depression and anxiety and reduced risk of cognitive impairment and dementia. [66] [67] Physical activity is also linked to 'enhanced mood states' and improved 'self esteem'. [68] Lack of access to green space is associated with physical inactivity and green spaces are unevenly distributed across the UK, with five times more green space being found in the most affluent areas. 'Income related health inequality is less pronounced where people have access to green space.' [66]

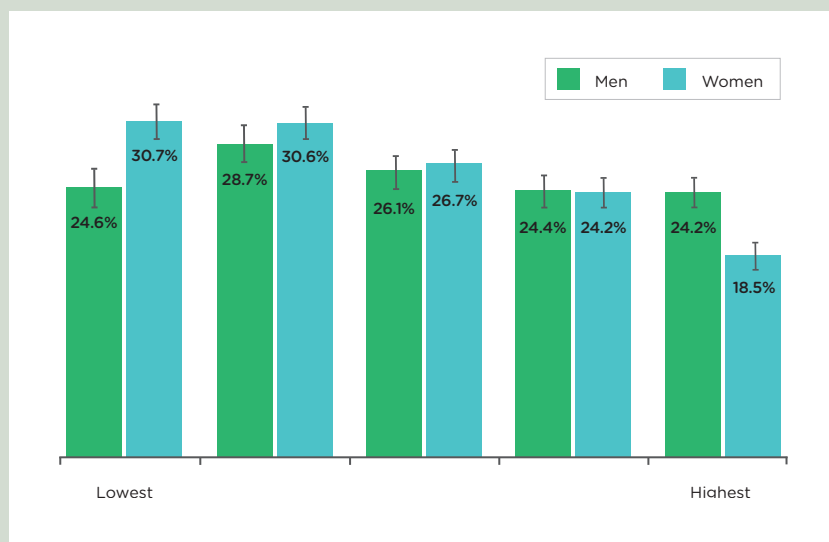
1.5E OBESITY

Life-course risk factors such as having an obese parent, not being breastfed, and low childhood physical activity double the risk of adult obesity. [69] Obesity for both men and women is significantly higher in manual occupation groups than non-manual groups. Obesity is also associated with lower educational attainment rates. [70] Obesity levels peak between ages 45 and 74. Of men over the age of 60, 37.1% are classified as obese and 78.4% as overweight. [71] For women, the rates are 33.6% and 68.6% respectively. Obesity has a range of negative health outcomes including coronary heart disease, diabetes, hypertension, sleep apnoea, increased cholesterol and lower life expectancy.

There is a relationship between obesity and poor mental health. Depression, low self-esteem, and poor body image are linked to weight stigma, although this varies across cultural and ethnic groups. [72] Obesity for older people also results in other co-morbidities. For example, it can increase the risk of osteoarthritis, or aggravate

pre-existing osteoarthritis, by increasing the demand on ageing and damaged joints, [73] resulting in reduced physical activity and worse mental health. Obesity in older people can also increase difficulties in carrying out daily living tasks, which can affect quality of life, [74] further exacerbating poor mental health. Obesity also increases the risk of stroke, cardiovascular disease, heart disease, high blood pressure, and type-2 diabetes, which in turn increase the risk of developing dementia.

Figure 5. Prevalence of obesity in adults (aged 16 and over) by equivalised household income quintile, 2006-2010



Source: Public Health England at www.noo.org.uk/uploads/doc/vid_16966_AdultSocioeconSep2012.pdf

1.5F MALNUTRITION OR UNDER NUTRITION

Around one in ten older adults in the UK is undernourished (2), meaning they do not have enough food to remain healthy, and 93% of older people who are malnourished, meaning they either have too much unhealthy food, or are not getting enough nutrients from the food they eat, live in the community rather than in care settings. [75] It is estimated that one in three older people admitted to hospital or a care setting is malnourished or at risk of malnourishment. Reduced mobility, long-term health conditions (including dementia and cognitive impairment), alcohol or drug abuse and poverty are all risks for malnourishment in older people. Living alone and social isolation are also key risk indicators for being under nourished. There is conflicting research evidence about the link between consumption of certain vitamins and minerals and the slowing or reversal of cognitive decline and dementia. [76] Approaches to the prevention, delay and amelioration of cognitive impairment and dementia have shown the importance of nutrition to the general health and wellbeing of older people, and the link between improved nutrition and an individual's ability to adequately manage the conditions. Additionally, good nutrition in early life leads to healthy brain development, and as such has the potential to contribute to cognitive reserve in later life, potentially delaying the onset of symptoms of cognitive impairment and dementia. [77] A healthy diet across the life course, including in later life, is also thought to lower the risk of cognitive impairment and dementia. [78]

2 NICE (the National Institute for Health and Care Excellence) defines malnutrition as either: 1) a body mass index of less than 18.5, or 2) unintentional weight loss greater than 10% within the last 3-6 months, or 3) body mass index below 20 and unintended weight loss greater than 5% with the last 3-6 months.

1.6 ETHNICITY AND INEQUALITIES IN MENTAL HEALTH, COGNITIVE IMPAIRMENT AND DEMENTIA

Black, Asian and minority ethnic (BAME) groups are more likely to be diagnosed with a mental health problem, more likely to be admitted to hospital with a mental health diagnosis, and more likely to have poor outcomes following treatment than the white British majority. Experience of racism, exclusion and poverty are significant drivers for the poor mental health outcomes of BAME groups; in addition, some mental health services fail to adapt services to meet needs. [79]

BAME groups are projected to experience a seven-fold rise in the prevalence of dementia as the population ages, in comparison to a two-fold rise in the rest of population across the UK as a whole. People from Black, Asian and minority ethnic groups are living longer, and the number of people over 80 is expected to almost triple. However, within these groups there is also higher incidence of risk factors such as high blood pressure, diabetes, stroke and heart disease [80] and a greater risk of experiencing poor health associated with socioeconomic circumstances throughout life and in older age, increasing the risks of cognitive impairment and dementia.

1.7 GENDER AND INEQUALITIES IN MENTAL HEALTH, COGNITIVE IMPAIRMENT AND DEMENTIA

Women make up two thirds of all people currently with dementia (3) [15], and although some studies have linked the increased risk of women developing dementia to high levels of

some types of oestrogen [81], women's longer life expectancy and other gender-specific social determinants clearly increase the risk of cognitive impairment and dementia (examined in more depth in Section 2.5c). Gender is also an important risk factor for experiencing poor mental health. One in four women will access support for depression at some point in their life, compared with one in 10 men over age 18 [9]. Although there is under-diagnosis of depression in men, in later life women are more likely than men to experience the death of a spouse, move into residential care, or experience physical ill health, due to their longer life expectancy, and the report has shown that depression can be a risk indicator for converting cognitive impairment to dementia. However, depression linked to physical illness is an issue which appears to affect older men more than women. [4]

1.8 LEARNING DISABILITIES AND PREVALENCE OF DEMENTIA

People with learning disabilities, and in particular those with Down's syndrome, are at greater risk of developing dementia, are likely to develop the condition at an earlier age, may show different early signals of the disease, and can have a faster rate of progression. Alzheimer's disease is the most common form of dementia experienced by people with Down's syndrome, and one in three develops dementia between the ages of 50 and 60 years old. Although the cause of this higher rate of incidence is not yet fully known, research has shown that the protein that causes brain cell damage is produced from a gene on chromosome 21. An extra copy of this chromosome

is found in people with Down's syndrome. People with other forms of learning disability are three to four times more likely to develop Alzheimer's as the rest of the UK population. [82]

1.9 CARERS AND HEALTH INEQUALITIES

There are around three million carers over the age of 50 in the UK, and half of these are over age 65. Analysis of UK Census data (2011) on carers reports that at least one-third of these carers provided more than 50 hours of care per week and over 75% had some form of health concern themselves, with more than a quarter of older carers rating their health as 'not good'. [83] A report written by the Princess Royal Trust for Carers found that more than a third of carers do not get any respite breaks away from their caring duties and that the pressures, concerns and responsibilities of caring result in at least a third of carers reporting that they have cancelled treatment or an operation for an existing health concern of their own. [83] Half of carers surveyed said that their health had deteriorated in the last year, 70% stated that their physical and psychological health had worsened since taking on their caring role and over 75% stated that their mental health had deteriorated. [84] Depression and social isolation are two particular and common issues for carers, with at least eight out of 10 carers reporting feeling isolated and alone, which in turn leads to higher risk of MCI and dementia. [84]

³ Some studies have researched the role of specific types of oestrogen in increasing the risk of cognitive impairment and dementia in post-menopausal women, although trials have experienced methodological problems and remain inconclusive.

PART 1. SUMMARY

Part 1 has described social, economic and physical environments across the life course, including older age, and how these impact on the prevalence of poor mental health, rates of progression of cognitive decline, and the ability of older people to cope with the dysfunctional symptoms of dementia.

The circumstances in which people are born, grow, live, work and age impact on the ability to accumulate 'reserves' across the life course, which in turn impact on mental and physical health in later life. Although various contributing factors, such as housing, education and employment, and risk indicators such as gender and ethnicity, have been reviewed separately, it is the cumulative experience of all of these factors, often experienced simultaneously, which helps explain patterns, risks and prevalence of poor mental health, cognitive decline, impairment and dementia.

Part 2 examines the social determinants specifically related to later life that impact and potentially widen inequalities in mental health, cognitive impairment and dementia. There is particular focus on social connectedness, mental stimulation and physical inactivity.

PART 2:

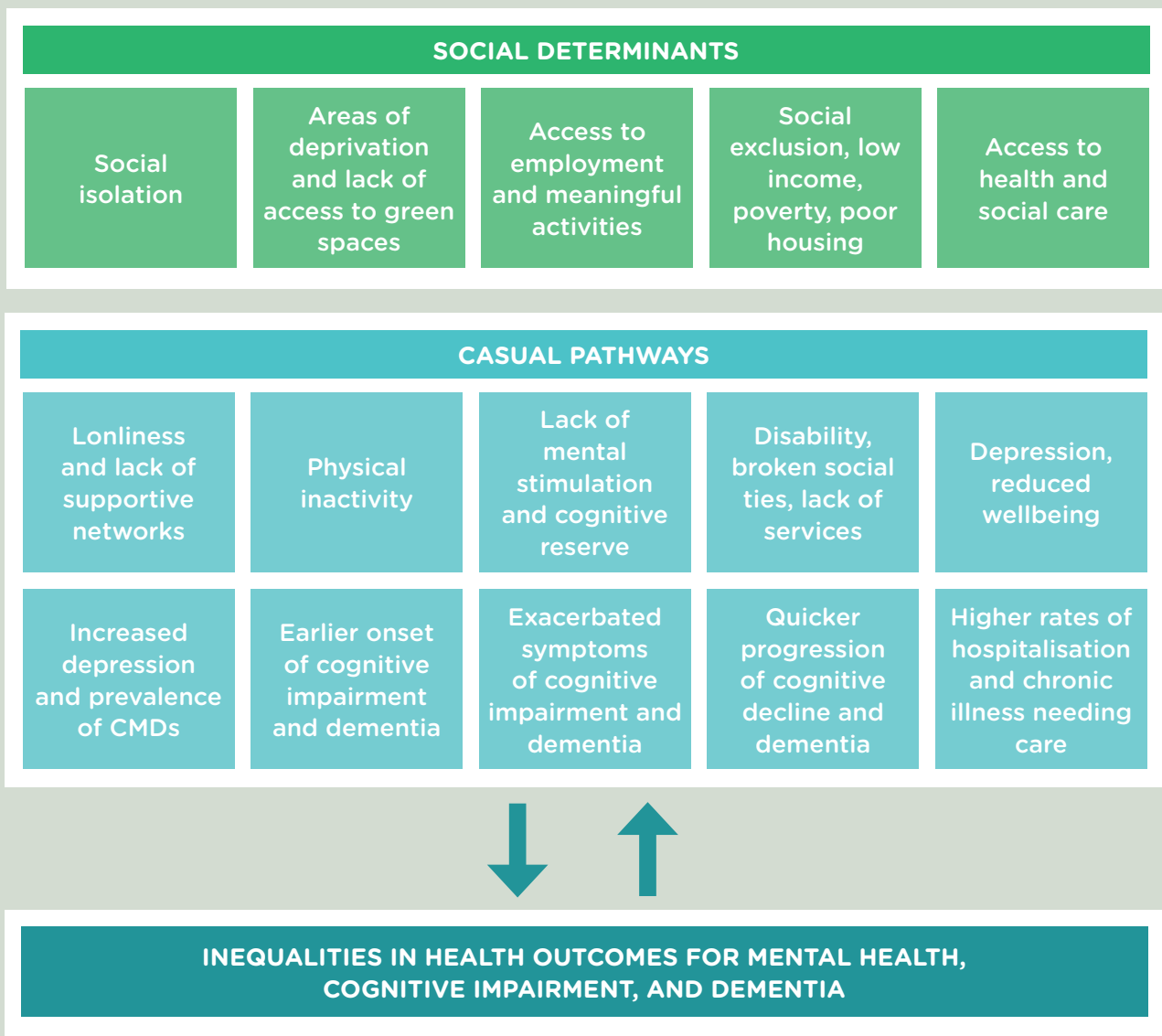
SOCIAL DETERMINANTS OF SOCIAL ISOLATION, MENTAL STIMULATION AND PHYSICAL INACTIVITY IMPACTING ON INEQUALITIES IN MENTAL HEALTH, COGNITIVE IMPAIRMENT AND DEMENTIA IN OLDER AGE

This section of the report comprises the bulk of new analysis and evidence – both in the analysis of key social determinants at older age and the focus on mental health and cognitive impairment and dementia. Evidence shows clearly that levels of social isolation (Chapter 2), levels of physical and mental stimulation (Chapter 3) and access to appropriate health and social care (Chapter 4) all impact on the likelihood of poor mental health and rate of cognitive decline and dementia. This section describes inequalities in experience of these key drivers among older people.

While there is clear evidence to support a focus on social and economic factors in mental health, cognitive impairment and dementia, this is not widely drawn on or developed in most relevant policies or interventions. The evidence described in this chapter is intended to inform policy recommendations which are aimed at mitigating the incidence and effects of these key drivers among older people.

Figure 6 demonstrates the interlinked relationships between social, economic and physical factors, and poor mental health, cognitive impairment and dementia. Social determinants such as poor quality employment, social exclusion and lack of access to health and social care can create ‘causal pathways’ such as loneliness, physical inactivity, or lack of cognitive reserve, which lead to inequalities in the incidence of poor mental health, cognitive impairment and dementia.

Figure 6. Relationships between social, economic and environmental factors, and poor mental health, cognitive impairment and dementia



2 SOCIAL CONNECTEDNESS IN LATER LIFE AND ITS IMPACT ON MENTAL HEALTH, COGNITIVE DECLINE AND DEMENTIA

Social connectedness is an important determinant of good mental and physical health at all ages. Key life events in older age, such as bereavement, or experiences of age discrimination, can make the impact of social disconnectedness more acute. Indeed, key life events and transitions in older life, such as taking on caring roles, the death of a spouse and retirement, often result in loss of social connections. [85] Social connectedness is also affected by levels of income, housing conditions, transport systems, built and natural environments, social cohesion and community functioning.

This section looks at prevalence and distributions of social isolation, or social disconnectedness, among older people. It provides an overview of the factors in older age that are linked to social isolation and examines the impact that social disconnectedness and social isolation have on mental health, cognitive decline and dementia.

Key Messages

- Socioeconomic factors, such as poverty and poor housing, increase the risks of becoming socially isolated in older age.
- Social isolation, and in particular loneliness, can cause mental health disorders and symptoms including depression, anxiety and stress.
- Social isolation is a predictor for cognitive impairment and increases the risk of dementia, even when controlling for symptoms of depression.
- Older people with weak social ties have a 50% higher risk of mortality. One million older people report not speaking to anyone in over a month.
- Poverty is one of the most significant drivers for social isolation and loneliness and is linked to lower educational attainment, a history of poor quality employment or unemployment, poor quality housing, and low retirement income and pensions.
- Care-givers are vulnerable to social isolation and loneliness. Loss of earnings and poverty, restrictions on leisure time, and the disability and symptoms of care recipients contribute to this.
- Social engagement in later life is protective against the onset of dementia and poor mental health.
- People who are socially connected have a better ability to self-regulate and are more likely to take part in healthy behaviours.
- Research has found that older people who were identified as being lonely were 1.63 times more likely to be diagnosed with clinical dementia as those who were not lonely.
- Social connectedness in later life increases the social, emotional and practical support that is needed to cope with the symptoms of poor mental health, MCI and dementia.
- Social engagement facilitated through recreational and productive activities, and linking people to social ties and support, is found to have a strong association with reduced all-cause dementia.

DEFINITION

A lack of social connectedness can lead to social isolation, an objective measure which reflects a lack of social ties or relationships. However, people who are socially isolated, or who have few social connections do not necessarily experience the subjective experience of social isolation: loneliness. Further, perceived social disconnectedness can be experienced even when there are social connections, but the quantity, quality or nature of these ties is perceived as inadequate, leading to feelings of loneliness. Social isolation can be measured through various indicators including social relationships, access to cultural and civic activities, and neighbourhood inclusion. [86] Loneliness can have multiple forms: it can be transient, situational or chronic, and therefore requires different interventions depending on which form is present. [87]

2.1 PREVALENCE OF SOCIAL ISOLATION IN OLDER AGE

In 2014, one million older people in the UK reported not having spoken to anyone in over a month, and Age UK estimates that around five million older people regard their television or their pet to be their main form of company. Around 600,000 older people leave their house less than once a week. [88] In 2006, around 1.2 million older people in England (7%) were found to be excluded, or lacking in participation and access, on three or more indicators such as goods and services, cultural and leisure activities, employment, and education. A further 13% were excluded on two indicators. [86] [89]

2.2 SOCIAL ISOLATION, SOCIAL CONNECTEDNESS AND MENTAL HEALTH

A wide range of research details the association between social isolation and poor mental health, evidence describes how social isolation can be both a cause and result of poor mental health. An Australian study seeking to address this issue examined the mental health of individuals who had been geographically re-located due to external circumstances and experienced a break in familial or friendship ties. The study demonstrated that, 'feelings of isolation have large negative consequences for psychological wellbeing, and that the effects are larger for women and older people'. [90] Other research has examined two main pathways relating to the relationship between social disconnectedness and common mental health disorders (CMDs) (for example, depression and anxiety). The 'stress buffering model' states that social connectedness can mitigate against CMDs. [85] The 'main effect model' proposes that participating in social networks and groups can provide a sense of purpose, belonging and self-worth, which can lead to increased motivation and better mental health. [85]

Social networks can provide emotional and psychological support (a 'buffer') [85] in times of unavoidable stress, such as the death of a spouse or financial hardship. People who believe that support is available in stressful situations are more likely to perceive the situation as less stressful, and cope better, physically and psychologically. [85]

Other research has examined the association between actual social disconnectedness, perceived social disconnectedness (leading to loneliness) and poor mental health in older people. On the whole, belonging to and remaining actively engaged in social networks provides a sense of belonging and of having a role. [85][39]

Life course events, illnesses and transitions in older age can mean that older people need additional support to cope, and it is the perceived inadequate support, or lack of social connectedness, which leads to poor mental health. Those with actual and perceived high levels of social support have better coping mechanisms, greater self-esteem, and a greater sense of control. Studies have shown that even the possibility of future isolation and loneliness is enough to alter mood. [85]

Lonely individuals are known to have a heightened sensitivity to negative social information, increased symptoms of anger, depression and anxiety and reduced ability to gain pleasure from positive social situations. Lonely people are more likely to avoid potentially unpleasant social situations, and to interpret situations as more threatening and anxiety making, perpetuating a downward spiral into isolation, and more acute loneliness. Interpreting social situations with heightened sensitivity to potential threats stimulates neurobiological mechanisms, including the hypothalamic pituitary adrenal (HPA) axis, making it difficult to control reactions to stress, mood and emotions and affecting sleep patterns. [91] Considering these findings it is possible to make a clear link between a lack of social interaction and support and higher

rates of depression. A 2010 meta-analysis of 148 studies found a 50% higher risk of mortality among participants with weaker social relationships than those with stronger social relationships, a finding that was comparable with risk factors such as smoking and alcohol consumption and a greater influence on health than physical inactivity and obesity. [92]

2.3 SOCIAL ISOLATION, SOCIAL CONNECTEDNESS AND COGNITIVE IMPAIRMENT

An American study examining the impact of social disengagement on older people living in the community found that the likelihood of developing some form of cognitive impairment was 'twice as great' in those respondents who were predominantly socially disengaged, and this effect became more pronounced on those who had a consistent history of social disengagement. [93] Other studies, looking at the psychological risks associated with the role of care-givers, and particularly the role of care giving to a spouse with dementia, noted the decline in social interactions of carers. Care-givers experiencing social isolation have reduced opportunities for social interaction and intellectual stimulation. [94]

Further research has examined the biological and neurological processes that occur in the brains of socially isolated individuals who feel lonely. Research suggests that loneliness can be a contributory factor and is associated with cognitive decline, accelerated cognitive decline and poor executive functioning. Although loneliness can be a consequence of cognitive decline, recent longitudinal studies have been able to identify the predictive nature of loneliness and cognitive decline. [95]

Other studies have exclusively examined executive functioning, which determines ability to self-regulate, for example, being able to control your attention, your emotional responses, your cognition and behaviour in line with social norms and expectations. The research demonstrated lower executive functioning, specifically around attentional regulation, the ability to choose what is ignored and what is focused on, in lonelier individuals. Lonelier individuals are therefore at a higher risk of a downward spiral in mental health, as their actions and reactions to social interaction begin to fall outside of social norms. [96] Social isolation and experiencing loneliness are also known to impair self-regulation, in particular behavioural self-regulation, which impacts on motivation to engage in physical exercise, and while social networks had a positive effect, group membership was not found to mediate the impact of loneliness on the propensity for physical exercise. [96]

2.4 SOCIAL ISOLATION, SOCIAL CONNECTEDNESS AND DEMENTIA

Research shows that depression, loneliness and social isolation can increase the risk of dementia, in addition all three factors can be a co-morbidity of the disease. [97] Although feelings of loneliness can be an early symptom of dementia, other research demonstrates that experience of loneliness can be a significant risk for developing dementia. In 2012, Barber et al conducted a review of various studies with 39,512 participants and examined the impact of a variety of protective and preventative interventions for dementia. They found that never being married, being widowed, or living alone showed a marked

increase in the risk of developing dementia, which is likely to include MCI or decline. [98]

A ten-year study based in Helsinki, Finland, beginning in 1990 and working with 75–85 year olds, found that loneliness independently predicted for cognitive decline. Another larger study based in the US, which collected data from 2000 to 2006 found lower cognitive scores associated with loneliness, even when controlling for depressive symptoms. The study included 823 participants who were clinically diagnosed free from dementia upon engagement, and assessed levels of cognition and brain function, social participation and loneliness at yearly intervals in addition to examining brain pathologies post mortem. This study demonstrated that loneliness was associated with an increased risk of developing late life dementia. [95]

Conversely, social engagement facilitated through recreational and productive activities, linking people to social ties and support, is found to have a strong association with reduced all-cause dementia. A review [99] found that, although life course social engagement is protective against the onset of dementia, later life engagement is 'far from futile'. [100] More frequent social engagement (at least once a week) produces a greater benefit [101], with incremental health benefits and improved health outcomes associated with the frequency of social engagement. [102] Other research has found that older people who were identified as being lonely were 1.63 times more likely to be diagnosed with clinical dementia as those who were not lonely. The research proposed that it was the feelings of being lonely, as opposed to the incidence of

being alone, that predicted for the onset of dementia. [95, 97]

The reviewed research clearly shows that social disconnectedness and feelings of loneliness are linked to mental ill health, cognitive impairment and dementia. The social determinants of social isolation and loneliness are complex and interlinked. Section 2.5 below details the prevalence of social isolation in older age, and then focuses on the following social determinants of social isolation:

- Income, wealth and living standards
- Household structure
- Access to community activities

2.5 SOCIAL DETERMINANTS OF SOCIAL ISOLATION IN OLDER AGE

There are a number of key drivers which increase the risk of social isolation in older age, including income, wealth and living standards, household structure and access to community activities. Poverty experienced in older years results from both lifelong inadequate income, and from reduced income after retirement. However, other factors such as energy inefficient and poor housing, increasing energy and food bills, discrimination, and caring responsibilities and expenses, can reduce the financial and social capital needed to remain socially connected. Other factors such as changing household structures result in more older people living alone in later life.

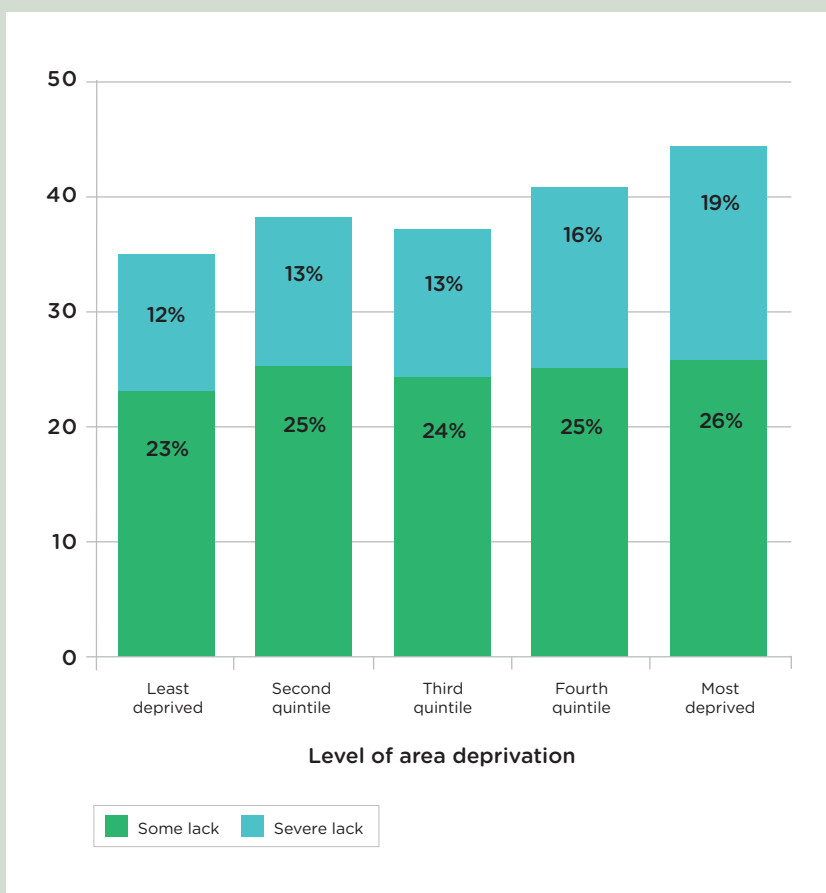
2.5A INCOME, WEALTH AND LIVING STANDARDS

Inadequate income and living standards are closely related to social disconnectedness and/or isolation in later life. [103] The Minimum Income for Healthy Living (MIHL), as set out in the *Marmot Review*, proposes ‘the level of income needed for adequate nutrition, physical activity, housing, social interactions, transport, medical care and hygiene’. [24] Older people living on low pensions and incomes can experience a gap between their financial resources and what is needed for healthy living.

Participants in the Age UK study *Living on a Low Income in Later Life* found the experience of constant economising ‘emotionally draining’ and people responded by eliminating activities such as going out, socialising, holidays, and reduced their heating and energy use. [104]

There are clear socioeconomic inequalities related to risks of becoming socially isolated in older age. Figure 7 shows that in the UK, individuals lacking social support are more likely to live in deprived areas: 45% of those living in the most deprived quintile of areas in England report that they lack social support, compared with 35% of people in the least deprived quintile. [24]

Figure 7. Percentage of those lacking social support, by deprivation of residential area, 2005



Source: [24] Original data from the Health Survey for England [105]

The *English Longitudinal Study of Ageing* (ELSA) found that experience of deprivation, poor health, and lack of education in adults predicted for a lack of engagement in civil participation, leisure activities and cultural engagement. [103] The links between poverty and social isolation are clear. [86] [106] 34% of older people live in non-decent homes, and those on low income are less likely to heat their homes adequately, and more likely to spend increasing time at home as trips and visits with friends and relatives become unaffordable. Conversely, evidence shows that residents were more likely to invite people into their homes after improvements to warmth and energy efficiency had been made. [107] [108]

2.5B INEQUALITIES IN RETIREMENT INCOME AND PENSIONS

Pensioner income and standards of living have, on average, improved over the past 15 years. Further, following abolition of the default retirement age in 2011 many older people have gained more freedom and choice regarding continuing employment after the age of 65. Staying in good quality work beyond the state pension age can have multiple benefits for mental and physical health, income and living standards. Those with higher pre-retirement incomes can expect just under 75% of their income in retirement. Those with incomes of less than £150 a week can expect a rise in income due to an increase in state benefits. [103]

However, there are a significant number of people who leave employment before reaching state pension age. Physical and mental ill health, poor working conditions, redundancy, caring responsibilities and financial circumstances are all

key indicators for unemployment and early retirement and are all socially graded. [109] There are also strong cultural expectations regarding rights to retirement and working past expected retirement age. Long periods of unemployment, or low paid, insecure roles result in reduced pension contributions and less income once retired.

The Department for Work and Pensions' research report *Extending Working Lives* reviews the 'behaviour change interventions' that are likely to encourage older people to work past state retirement age. Notably, the report highlights the importance of the 'choice architecture' encompassing the decision-making of older people approaching retirement. The approach, culture and choices created by employers were seen as crucial in ensuring older people had the opportunity to choose an extended working career that was flexible, age friendly, health promoting and paid a living wage. However, the report noted that there was a gap in the evidence relating to why the practices of employers do not change, and that there were obvious social differences in the availability of employment opportunities, flexible working, and capacity to work. For example, the short-term contracts and self-employed status of many workers in the construction industry limit the extent to which employers can influence employees' saving and working practices. [110] Similarly, the increasing prevalence of zero hours contracts, and in particular, the mismanagement of zero hours contracts, impact on employer-employee relationships and the likelihood of employers creating opportunities where employees are able to save for their retirement. [111]

A large proportion of pensioners who are entitled to benefits do not apply for or receive them, which contributes to at least one in five people over the age of 65 living in poverty. [86] [106] The number of older people not claiming Pension Credit who are entitled to it is estimated to be between 1.21 and 1.58 million, resulting in a total amount of unclaimed Pension Credit of between £1.94 billion and £2.8 billion [112] with around a third of pensioners missing out on at least £50 per week. Factors such as lack of information, complicated application forms, systems and eligibility rules, and limited financial gains for some is exacerbated by the stigma that some pensioners feel associated with benefit uptake and contributes to the number of unclaimed benefits. Some older people are more at risk of living in poverty than others, including those who do not own their own home, single person households, some black and minority ethnic communities, people with a long-term illness or disability (who are not receiving benefits), people over the age of 85, and those who do not have a private pension.

2.5C INCOME AND GENDER

The income of women in retirement is, on average, around 57% of men's. [86] Fewer women (60%) have pensions than men (80%). Only a third of women aged 60-64 years old compared with half of men of the same age continued to work part-time after state retirement age, providing the opportunity to make continued pension contributions, or to delay spending pension funds and savings. Employment rates further decline with age, with just 10% of men, and 5% of women continuing to work between the ages of 70 and 74, as can be seen in Figures 8 and 9.

Figure 8: Male employment rates between 2002-3 and 2008-9

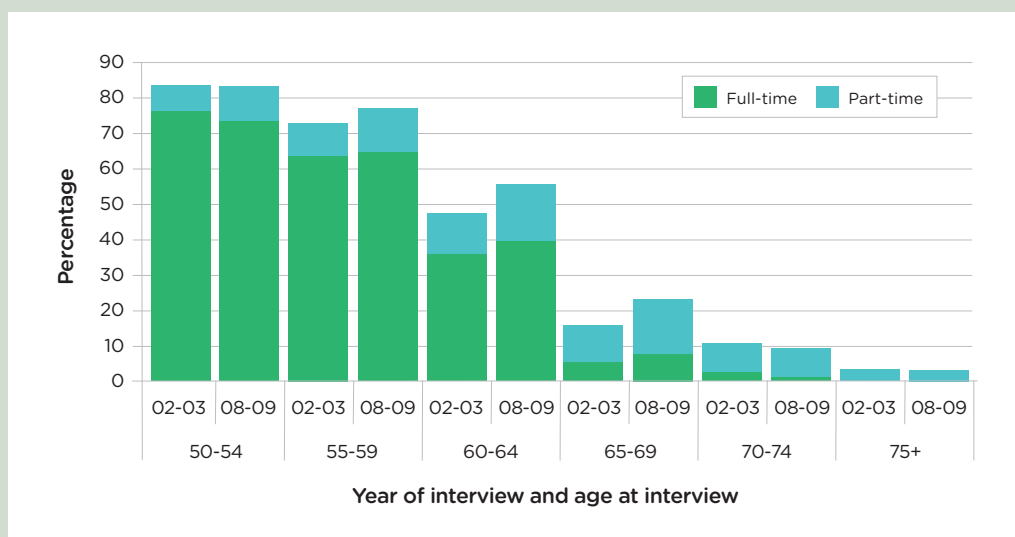
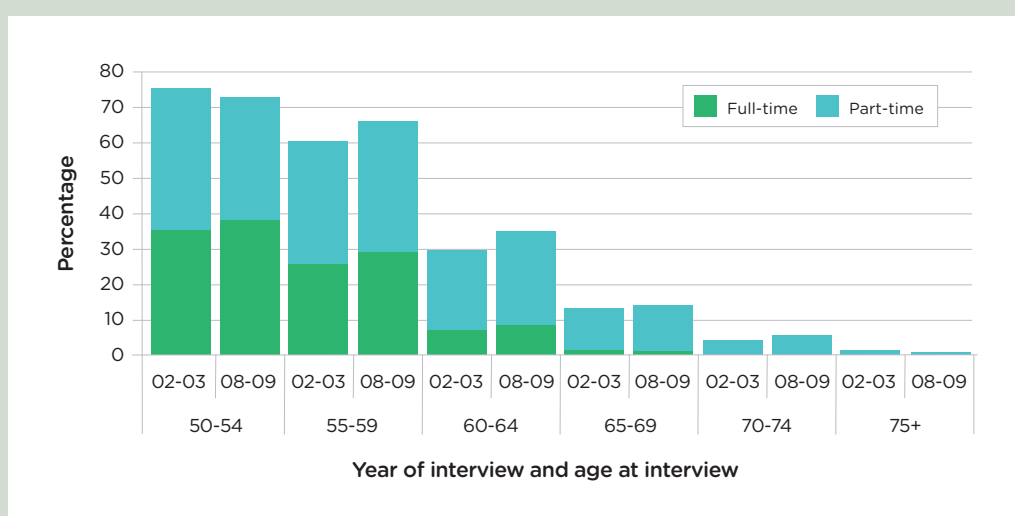


Figure 9: Female employment rates between 2002-3 and 2008-9



Source: [113] Financial circumstances, health and well-being of the older population in England, The 2008 English Longitudinal Study of Ageing (Wave 4)

There are a number of other factors that may influence gender difference in social isolation in older age. As women are more likely to live longer than men, with more limiting long-term illnesses, this will affect their ability to continue in employment. Single female pensioners are more likely to live in poverty than single male pensioners or pensioner couples and are more likely to reduce their fuel consumption because of low income, potentially exacerbating existing physical and mental health issues. [114]

2.5D INCOME AND CARERS

One in six carers is an older person. [115] Caring responsibilities impact on carers' income and resources: around 72% of carers have less income as a result of giving up work (one in five carers), reducing their working hours, or taking on more junior roles, resulting in the loss of pension contributions and subsequent loss of income in later life. Caring responsibilities can prevent people from dedicating time to leisure activities, engaging with part-time paid work and volunteering, and can incur costs such as buying in services, extra laundry, and heating the home for longer periods of time. [116] Lack of support and taking on sole responsibility for the care of another can result in carers experiencing poverty and debt. Those caring for more than 20 hours a week are more likely to live in poverty than the general population, and this likelihood increases with the increasing number of hours of care provided. [117] The impact of caring, particularly providing care for someone with dementia, is widely evidenced as contributing to the deterioration of both physical and mental health and the likelihood of developing depression. [118, 119]

2.5E INCOME AND ETHNICITY

Many older people from black, Asian and minority ethnic groups previously worked in manual or low skilled jobs, and their income and living standards in older age reflect the circumstances of employment in early life. Patterns of work, long-term unemployment and long-term illness prevented many BAME elders from contributing to private pensions, and consequently a large proportion rely on state pensions and benefits. Manual or unskilled jobs are also less likely to carry on after state pension age. On average, British Indians have the highest income of BAME pensioners (although lower than most white British pensioners), and Black Caribbean the lowest. Seventy per cent of BAME people live in deprived areas of the UK, compared with 40% of the white population. Older people from Black Caribbean, Somali and Pakistani communities are particularly vulnerable to poverty. [120]

In 2004 Age UK conducted qualitative interviews with Black Caribbean, Indian and Pakistani communities regarding their experience of ageing in the UK. Figure 10 shows their experiences of factors affecting quality of life and social inclusion, in comparison with the UK white population. Scores below zero show a disadvantage compared with the white British population, while scores above zero indicate a more favourable position. Low income negatively affected ability to maintain contact with friends and family, and to meet religious and community responsibilities. [120]

Figure 10: Differences in factors contributing to quality of life at older ages according to BAME group



Source: Age Concern: Growing Older Programme 2004

2.6 HOUSEHOLD STRUCTURE AND SOCIAL ISOLATION

The total number of people living alone in older age is set to increase due to the higher number of single person households. The divorce rate has nearly doubled in the last 50 years and single pensioners have less than half the earnings of those who are married or co-habiting and report higher levels of loneliness. [47] The quality of social relationships are important factors and negative social relationships have been linked to a greater risk of mortality. [92] Social isolation, and the subsequent increased risk of developing mental ill health, cognitive decline or dementia, may therefore still exist within cohabiting households. People living in abusive relationships, relationships that involve the care of people with dementia or other long-term illnesses or disabilities, experience poorer mental and physical health and multiple barriers to social connectedness. [86]

Throughout the life course at every age there are higher numbers of men than women who have never married. However, once over the age of 65, twice as many women as men live alone and this rises to three times over the age of 75. [121] It is important to note, however, that the proportion of men living alone is increasing. Older men who live alone are more likely to experience social isolation and loneliness than women and are less likely to admit or seek support around issues associated with loneliness or isolation. Sixty-three per cent of adults over the age of 52 who have been widowed, and 51% of the same age group

who are separated or divorced, experience feeling lonely some of the time or often. [122]

There are significant differences in household structure among different BAME groups. Bangladeshi and Pakistani older people are more likely to live in multi-generational households, while those from Indian communities are more likely to live either with their spouse, or with their spouse and children. Black Caribbean and Chinese elders are more likely to live alone. Research by Age UK has found, however, that elders from Black Caribbean communities show the least likelihood of experiencing loneliness and isolation from family and friends, while those from Somali and Pakistani communities are most likely to experience loneliness. [120]

A third of people with dementia live alone and they are more likely to become socially isolated due to their symptoms, and lack of adequate care that would enable them to become more socially connected. Sixty-two per cent of people living alone with dementia experience loneliness, compared with 38% of those with dementia who live with one or more other people. One-third of people living with dementia have reported that they stop activities that they enjoy due to a lack of services, impacting on their quality of life. Living alone with dementia also exacerbates existing worries and concerns about other health issues, negatively impacting on mental health. [123]

2.7 COMMUNITY ACTIVITIES AND SOCIAL ISOLATION

Participation in community activities reduces with age, particularly among people over the age of 80. Seventy per cent of people between 25 and 64 years old took part in at least two cultural or sporting activities over the course of a year, compared with 64% of those aged over 64 years old, and 45.2% of those aged over 75. Only 18% of adults aged 65–74 years old attend adult education courses, compared with 61% of 20–24 year olds, and 31% of 55–64 year olds. [124]

There is a variety of factors which prevent older people from taking part in community activities, increasing rates of social isolation. For example, there have been significant changes to the UK high street in the past two decades, resulting in fewer communal spaces. This is particularly the case in deprived areas, where public services may have been shut and commercial services close down in areas that are seen as unprofitable or unsustainable. Transport to shops and services can be costly, and there are often mobility restrictions. [125] Busy roads, traffic noise and high levels of pollution can deter older people from travelling and prevent participation. [47]

Many services and activities, including advice and support, are now being delivered online, including further education courses, advice, the selling of goods and advertising cultural and leisure events. Over two thirds of all adults who have never used the Internet are over the age of 65, the majority of whom live alone. Online use is at its lowest in rural areas, areas with a high proportion

of widows or widowers, in BAME communities, areas of deprivation, and in areas with high numbers of people with disabilities. [126]

Older people are more likely to feel a sense of attachment to their local community than younger people. However, place attachment is found to be lower in areas of deprivation. A high turnover of people in urban areas can undermine a sense of neighbourhood, trust and safety. A report by Help the Aged, published in 2008, found that 60% of older people in urban areas are worried about their homes being broken into, 58% are worried about being mugged and 26% are worried about being attacked because of their ethnicity or religion. [127] Forty-five per cent of older people are 'very afraid' to go out after dark. [125] In rural areas, although older people often feel safer than in urban areas, there is greater distance to be travelled to community activities, a greater reliance on cars, and fewer services and community activities, all factors which can contribute to isolation. [127]

2.8 GENDER AND SOCIAL ISOLATION

Gender is an important factor in shaping the types of community activities undertaken, and at what level. Low levels of educational attainment and a lack of participation in the labour force predict for low levels of community participation, and several studies have noted the negative impact that care-giving responsibilities have on the time women allocate to activities outside the home. [128] In other studies women have also noted stress associated with managing both home and external responsibilities. Volunteering is often seen as a positive way in which both men and women can take a more active part in their

community, and reduce their isolation. However, some studies have found that volunteering roles for women, particularly those related to health and social care, do not necessarily lead to extended social networks, or participating in community decision-making processes. [129]

Further research has found that men and women experience social isolation differently. Although older women are more likely than older men to live alone in later life and have less financial resources (as explored in section 3.4b), older men are found to be slightly more socially isolated than women (14% compared with 11% respectively). Older men are less likely to engage with health services or projects which are specifically designed to combat isolation or loneliness, and experience greater difficulties in identifying their needs and responding to project marketing. They are also less likely to have regular contact with friends, children or other relatives. [130]

2.9 ETHNICITY AND SOCIAL ISOLATION

Language barriers, poor health and lack of awareness of opportunities to participate in community activities significantly contribute to the social isolation of some older immigrants. Somali women are particularly likely to have poor English language skills, with over half having no English skills at all, in comparison with 24% of Somali men. Support from voluntary sector organisations that provide social, emotional and practical support to access services is important. Communities that are small, widely dispersed, lacking in political or economic power, psychological confidence and strong cultural norms around wider familial networks of support can experience poor engagement in wider community activities. [131]

3

MENTAL STIMULATION AND PHYSICAL ACTIVITY AND THEIR IMPACTS ON MENTAL HEALTH, COGNITIVE IMPAIRMENT AND DEMENTIA IN OLDER AGE

This chapter examines the interaction between mental stimulation and physical activity, and cognitive decline and dementia. Research suggests that mental stimulation and physical exercise can help to delay the onset of cognitive impairment and dementia and improve mental health. There are multiple social determinants which relate to levels of mental stimulation and physical activity for older people, and these will also be reviewed.

Key Messages

- There is a social gradient experienced in the access to, and ability to use, stimulating resources, including education courses, leisure activities, civic engagement and ongoing, good quality employment.
- Large proportions of older people are not engaged in learning activities, and only 16% of people between 65 and 75 years think of themselves as learners. Only 7% of people over the age 75 are likely to take part in learning.
- Manual and low paid groups have less access to ongoing professional, educational opportunities.
- Disadvantaged older groups are more likely to depend on government funded education programmes and as such are more likely to be excluded from Government policies that gear funding towards employment-focused training and education.
- Mental stimulation even in later life can replace lost cognitive function or delay cognitive ageing by up to 1.75 years.
- Exercise is associated with increased brain capacity. Older people who are physically fit score more highly on cognitive ability testing.
- Access to physical activity and mental stimulation in later life can protect against and ameliorate the symptoms of cognitive impairment and dementia. Older people with a history of social isolation, poverty and living in areas of deprivation will have limited access to physical exercise and mental stimulation.
- People with the lowest household income are 30% more likely not to engage in any physical activity, compared to 10% in the highest quintile, and 20% of people living in the most deprived areas do not take part in physical activity.
- Lack of access to green space is associated with physical inactivity. Green spaces are unevenly distributed across the UK, with five times more green space being found in the most affluent areas.
- Local authorities, responsible for the maintenance and development of the local environment, and experiencing cuts in funding, find it difficult to ensure local environments are age-friendly.
- Funding cuts impact on the ability of councils to maintain the built environment, and sustain local amenities, such as libraries, relied on by older people. This will likely lead to reduced mental stimulation and physical activity for older people.

3.1 MENTAL STIMULATION AND COGNITIVE DECLINE AND DEMENTIA

In previous sections we have noted the cognitive reserve hypothesis describing how education, employment and the opportunity to build adequate life skills can provide older people with a larger and more versatile cognitive reserve with which to deal with cognitive decline and dementia. Functioning does not become impaired to the same degree in more educated individuals until later in the progression of decline and impairment because they have a wider range of functioning to draw on.

Numerous studies have tried to establish whether mental stimulation in older age can delay the onset of cognitive impairment, or slow the progress of cognitive decline and dementia in older age. Two potential causes of cognitive impairment have been suggested by psychologists: firstly, that cognitive impairment is an aspect of ageing caused by the reduced capacity of working memory and executive function, and secondly, that cognitive impairment results from reduced mental stimulation and cognitive inactivity: the 'use it or lose it' hypothesis that views the brain as a muscle that has to be used if it is to remain in good condition. [132] Confounding variables, such as the impact of depression or stress and anxiety on working memory and cognitive function, make it difficult to accurately identify causal links between mental stimulation and cognitive impairment, as do 'endogeneity issues', or reverse causation: is cognitive impairment a result of inactivity, or is inactivity a result of cognitive impairment? [133]

However, recent research has found that mentally stimulating experiences have a physiological effect on the brain structure. Changes in the form and structure of the brain can occur when exposed to external stimuli, promoting learning, and can be clinically effective in replacing lost cognitive function caused by dementia, in particular Alzheimer's disease. Cognitive functioning is not fixed and is influenced by education, employment, leisure activities and social networks, and memory and task strategies have proved successful with older people experiencing mild to moderate forms of dementia. [134] Further, Hultsch et al (1999) note that older people benefit from exposure to 'performance enhancing environments' and that these environments may be linked to either the reversal or the maintenance of cognitive function. [135] Performance enhancing environments can be defined as environments which are complex and with a variety of stimuli which require complex decision-making based on contradicting and unforeseen events or incidents.

A longitudinal study conducted by the Survey Research Centre at the University of Michigan examined the role of early retirement on cognition in later life and found that length of retirement had a small and mixed effect on cognitive functioning for white collar workers. [133] However, early retirement for blue collar workers appeared to have a positive link to increased cognitive functioning in later life. Cognitive abilities increased upon retirement possibly due to increased time to pursue more mentally stimulating activities. This indicates that it is not simply continuing to work after retirement age that is protective against cognitive

decline and impairment, but also the nature and quality of the employment undertaken, and the nature and quality of the activities sought outside employment, that positively impact on cognitive functioning. [133] Other research, using data from The Survey of Health, Ageing and Retirement in Europe (SHARE) and Health and Retirement Study, supports this, finding that engaging in activities such as further education and training courses could compensate for professional inactivity. Continuing to work, or participating in voluntary or charity work, can delay cognitive ageing by 1.38 and 1.75 years respectively. [136]

Memory and task strategies have proved successful with older people experiencing mild to moderate forms of dementia. [134] There is a lack of evidence on interventions with individuals experiencing more severe symptoms in the later stages of dementia. One intervention which has proved effective at improving the quality of life at all stages of dementia is music, and in particular music therapy. [137] [138]

3.2 INEQUALITIES IN ACCESS TO MENTAL STIMULATION

There is a social gradient in terms of access to, and the ability to utilise, stimulating resources such as educational resources, leisure activities, civic engagement opportunities and ongoing employment. NIACE, the National Voice For Lifelong Learning, reports concerns that a large proportion of older people are not engaged in learning. In its 2012 *Adult Participation in Learning Survey* it found that only 16% of people between 65 and 75 years old thought of themselves as learners. Only 7% of people

over the age of 75 stated they had any plans to take up some form of learning in the future, and 60% of people over the age of 65 stated that nothing would make the prospect of learning more attractive. [139]

A further report by NIACE looking at the barriers to adult learning experienced by disadvantaged groups reported funding skewed towards higher educated groups, and a disparity in access to meaningful training and professional development between professional, manual and low paid groups of workers. The paper highlighted that disadvantaged groups are more dependent on government-funded training and education programmes than non-disadvantaged groups, and as such are more vulnerable to policies that have the potential to disadvantage them. For example, provision of education below Level 2, for example, below GCSE level, is not funded for adults over the age of 23, and those who find it difficult to complete qualifications may be excluded from provision. All of these issues will have consequences for older adults, and in particular older adults from deprived areas.

3.3 PHYSICAL ACTIVITY AND MENTAL HEALTH, COGNITIVE DECLINE AND DEMENTIA

Physical activity is linked to improved health outcomes across all ages and is linked to reduced risk of coronary heart disease, obesity, diabetes and cancer, in addition to improved mental health. However, as described in Section 1.5, physical activity decreases with age. Around 70% of men and 80% of women over the age of 75 are physically inactive.

There is a wide range of research that demonstrates the positive impact of physical exercise on mental health. In a study of 1,947 participants, examining results over the course of five years, it was found that physical exercise was protective against both prevalent and incident depression, even when adjusting for age, sex, smoking, ethnicity, financial strain, chronic conditions, disability, body mass index, alcohol consumption and social relations. [140]

A systematic review of the effect of combining cognitive and physical exercise interventions with both cognitively impaired and healthy older adults found that, in the majority of studies, significant improvements in cognitive function were found in both cohorts.

There is evidence showing that exercise has an association with an increase in brain capacity over the temporal, parietal and frontal cortices. [141] Some research has suggested that exercise must take place in cognitively challenging environments to ensure it has an effect on cognitive functioning, and other studies have found that it is the combination of exercise and an enriched environment that encourages more neurons, rather than enriched environments or exercise alone. [141]

Studies have also found that moderately intense exercise, as opposed to low intensity, is needed to show marked improvement, and combining aerobic and strength training has a greater impact than a single form of exercise on cognitive functioning. Physical exercise carried out prior to cognitive activity and training has the greatest impact. It is important to note that studies have only included adults aged 61 to 82 years old (both healthy and cognitively impaired). Follow-up research

should focus on cohorts of healthy older people and examine whether taking part in mentally stimulating activities prior to the onset of cognitive decline defers or reduces the impact of cognitive decline and dementia. [141]

Other benefits can also be found from initiating exercise programmes for older people with dementia. These include reduced osteoporosis and fracture risk, reduced age-related sarcopenia (the gradual loss of muscle mass) and reduced anxiety and depression, in addition to improved behavioural management and reduced risk of trips and falls, lessening the risk of hospitalisation or moving to a care setting. [142]

3.4 INEQUALITIES IN ACCESS TO PHYSICAL ACTIVITY

There is a complex and interlinked set of circumstances which lead to older adults leading more sedentary lives. Declining physical and mental health and cognitive functioning, poor motivation, and a lack of knowledge of prospective benefits, in addition to a lack of support, cultural and gender norms, fear of crime, excess traffic and language and environmental barriers, all lead to low levels of physical activity in older people. [143] As noted in previous sections (1.5d), levels of physical activity and inactivity relate to socioeconomic position; for example, people with the lowest household income are 30% more likely not to engage in any physical activity and 20% of people living in the most deprived areas do not take part in physical activity.

Evidence suggests that the effects of current local government budget restrictions are greater in poorer, deprived areas, and older people will be disproportionately

affected. [144] Lack of access to well-maintained green spaces, reductions in free swimming pool times, increases in fly tipping and litter, the re-location of councils services (for example housing) in inaccessible areas, closure of local libraries, and the general degradation of the built environment, are likely to affect the likelihood of older people leaving their home, walking to local services, and engaging in physical activity. [144] Reducing these barriers can significantly improve the likelihood of older people remaining active with resultant improvements in mental and physical stimulation, in mental health, rates of cognitive decline and dementia.

Data gathered through the *Monitor of Engagement with the Natural Environment Survey* (2013) noted that BAME communities, deprived urban populations, lower socioeconomic groups, disabled groups and those aged 65 and over are all less likely than others to access green spaces, although the Adult Participation in Sport report (analysis of the Taking Part survey) 2011, published by the Department of Culture, Media and Sport, found that there was no significant difference when comparing white British and BAME communities' participation in sporting and walking activities. [145] Although personal aspects influencing inactivity are important, research has also found that they are mediated through external influences, such as support (or lack of) from family, friends and healthcare professionals, in addition to institutional and wider community factors. Lack of appropriate transport and exclusion from group activities, even for short amounts of time, can also influence motivation and momentum. Caring duties, especially for women,

interrupted or prevented older people from participating in formal groups with set times. Cultural festivals and practices such as Ramadan and fasting, and the absence of gender-specific classes, also interrupted or prevented participation. Conversely, the social element of classes, particularly for women, acted as an incentive for exercise. [143]

Proximity and access to green spaces impact on the ability to engage in physical activity and they also provide a platform for social interaction, community cohesion, reducing social isolation and improving wellbeing. These factors are particularly important for reducing the risks and ameliorating the symptoms of poor mental health, cognitive decline and dementia. Studies have found that neighbourhoods with good quality amenities are linked to positive physical functioning and positive self-rated health. [66] Evidence also suggests that access to green space and physical exercise can prolong years of living independently, reduce the risk of disability, and impact on the general quality of life of older people. High quality green spaces can evoke memories, and provide opportunity for physical activities and social interaction at very little cost. [146] Gardening is one of the activities most frequently enjoyed by older people; contact with nature and caring for plants can provide a sense of purpose, in addition to reducing symptoms of dementia such as agitation and aggression and improving concentration and decision-making.

Older people living in care settings can lack the ability or resources to participate in physical activity and have a higher risk of encountering barriers to remaining physically active. Environments

within institutions can promote dependency, and older adults are not always offered exercise. [147] However, research has found that combining exercise with other activities such as art, music and interaction with others is particularly effective in alleviating depressive symptoms in older residents living in care settings.

4

UK POLICIES AND PRACTICES AND THEIR EFFECTS ON MENTAL HEALTH AND COGNITIVE IMPAIRMENT AND DEMENTIA

In the previous chapters we have focused on social isolation, social connectedness and mental and physical stimulation as key drivers of inequalities in mental health, rates of cognitive decline and dementia. However, it is important to also review the impact that health and social care policy and practice have on mental health, cognitive impairment and dementia in later life.

The following chapters demonstrate that, while there has been significant progress in the policy and practice relating to the diagnosis and treatment of poor mental health, MCI and dementia, a lack of focus on the social determinants of these three conditions, in addition to a lack of adequate health and social care, are likely to be significant drivers for inequalities in all three health outcomes. Chapter 4 examines UK policy on addressing poor mental health and dementia in the UK, health and social care provision, community-based provision and current practice.

Key Messages

- The Government strategy paper *No Health without Mental Health*, and its companion paper, *Delivering Mental Health Outcomes for All Ages*, explicitly identify some of the social determinants of poor mental health such as absolute low income and lack of education. The *Mental Health Dashboard's* most recent figures show that the number of households experiencing economic deprivation is increasing. Access to education is not monitored.
- Government policy focuses on improving access to mental health treatment, and on improving services. These are both important issues but there continue to be unhelpful service divisions resulting in older people being denied access to services for younger age groups, or to services which cater for older people with co-morbidities.
- Residential care homes require better service design, adequate funding, and training of staff to ensure that older people from lower socioeconomic groups do not receive 'mediocre' and 'life-limiting' care.
- The *Prime Minister's Challenge on Dementia 2020* focuses on improving diagnosis and treatment of dementia, and preventative action focuses predominantly on encouraging individuals to make lifestyle choices which reduce their risk of developing health outcomes that increase the risk of MCI and dementia.
- The *Blackfriars Consensus* highlights the importance of creating the social, economic and environmental contexts that enable people to live healthier lives and reduce their risk of developing dementia.
- Unhelpful divisions in health and social care can impact on the level and quality of care received by older people in the UK. Age discrimination, lack of appropriate training, under-funding, and low levels of mental and physical stimulation in care settings can lead to poorer mental health, cognitive decline and dementia in older people.
- The Care Act, and the introduction of Personal Budgets, have improved health and social care provision for some older people and their carers. However, budget cuts and the separation of health and social care in the UK continues to result in a significant number of older people not receiving the most appropriate care for their needs and people with dementia are among groups who are not receiving the potential benefits from Personal Budgets.
- Acknowledging and addressing the wider social determinants of health inequalities in older age will make a significant contribution to preventing poor mental health, decreasing the risk, delaying onset, and limiting the impact of cognitive impairment and dementia.

As the population ages, the distinction between the health and social care needs of older people decreases. However, while access to NHS healthcare is free, access to social care is means-tested and limited. Funding for both systems is separate and comes from different sources, meaning that people become caught between health and social care systems and struggle to find adequately funded care. Health and social care systems are often poorly coordinated, which can lead to adverse circumstances such as delays in hospital discharge or readmissions to hospital which could have been prevented through appropriate social care. [148] [149]

Figures released by Age UK estimate that between 2010 and 2015, 2.43 million bed days, meaning the days when patients are confined to bed and stay the night in hospital, were lost, i.e. they were made unavailable, due to a lack of appropriate community social care. For older patients, negative experience in hospital can be life-changing, dehumanising and disempowering and, alongside a lack of continuity of care, can impact on mental health, cognitive impairment and dementia. [150]

Recent increases (2012/13) in demand for NHS care exceed the rate of increase in the number of people ageing. This means that the rise in admissions to hospital care cannot be attributable to the increase in an ageing population alone; many hospital admissions could have been prevented with more appropriate care provided in the community. The lack of effective working between primary care, secondary care and social care has been identified as one of the leading contributing factors

to increased demand for hospital admission. [151] Notably, avoidable hospital admissions were 30% higher for care-setting residents with dementia than for those without. [151]

4.1 MENTAL HEALTH POLICY AND PRACTICE IN THE UK

As noted in Chapter 1, older people account for 35% of all people with poor mental health in the UK. Twenty-five per cent of older people living in the community have a mental health illness that will need some form of intervention. This figure rises to 40% for older people living in care, although these figures are thought to underestimate the actual incidence of mental ill health in older age.

4.1A MENTAL HEALTH POLICY

No Health Without Mental Health is the Government's strategy paper, published in 2011, aiming to improve mental health outcomes nationally. In particular the paper sought to address the imbalance found in the emphasis given to physical health in strategy and policy, by investing up to £400 million over four years in treatment services, devolving strategic decision-making about services to local Health and Wellbeing Boards, and tackling inequalities in the prevalence and access of services among older people and for those with other protected characteristics. However, approximately £3 billion is spent on the treatment of older-age poor mental health in the UK each year. Services are underfunded when compared with investment in physical health for older people, which is around two-fifths of the NHS total spend at £46.5 billion. [2]

A 'companion' document, *No Health Without Mental Health – Delivering Mental Health Outcomes for People of All Ages*, was also released in 2011, highlighting the inequalities found in the prevalence of poor mental health, the social determinants of poor mental health, such as economic deprivation and isolation, and the need for proportionate universalism in the approach to addressing the root causes of poor mental health. The document also identifies the specific issues facing older people with poor mental health and proposes several strategies, including reducing social isolation, improving access to informal learning, improving heating in the home, improving physical activities, and improving support for carers.

The Department of Health published a *Mental Health Dashboard* to demonstrate progress towards the specific objectives prioritised in the *No Health Without Mental Health* policy papers. Data from the *Mental Health Dashboard* showed that in some of the wider determinants of poor mental health, such as homelessness and absolute low income, improvements experienced in the years leading up to 2013 have now stalled. [6] Levels of satisfaction with community mental health services have started to decrease, and experience of discrimination has increased, while confidence to challenge this has decreased. Improved access to informal learning opportunities, support for carers, and access to education are not measured in the dashboard.

There has been a lack of focus on action to address and monitor progress against the social determinants of mental health, particularly for older people, including loneliness, poor housing, poor standards of living, discrimination, and lack of mental stimulation and community status. Policies such as the Mental Health Strategy 2011, and the Intervention Plan 2012, focus on access to treatment, and interventions by health and other services once a mental health issue has been identified. Social determinant approaches focus on the causes of the causes of poor mental health, cognitive decline and dementia, such as poverty, unemployment, poor housing conditions and social exclusion. [152]

The Department of Health's policy document *Closing the Gap*, published in February 2014, lists 25 priorities for essential change in mental health provision which are intended to support the implementation of the objectives set out in the *No Health Without Mental Health* strategy document. Among other priorities for action, such as improving access to services, reducing waiting times, improving service quality, and challenging discrimination, *Closing the Gap* highlights the importance of links between good mental health and remaining in, or returning to, employment. This is one of the key mental health prevention strategies, alongside combating stigma and discrimination. However, there are few preventative strategies specific to older people, and the strategic emphasis appears to focus on ensuring older people gain better access to services. Although preventative strategies mention raising awareness of interventions that combat isolation, other preventative interventions specific to older

people, such as access to learning opportunities, improved standards of living or improved access to physical activity, are missed.

Closing the Gap introduces the Mental Health Intelligence Network, set up to gather national mental health information such as age and regional variation in prevalence, quality of services provided, and outcomes achieved. However, although this information is intended to be utilised by Health and Wellbeing Boards and Clinical Commissioning Groups to design and commission treatment services and other interventions, there do not appear to be any objectives detailing if or how the social determinants of mental health will be mapped, and how this information could be used to shape the design and implementation of interventions. *Closing the Gap* also proposes that those services which achieve the most recovery and best outcomes will receive the most funding. However, directing the most funding to services with the most successful outcomes risks overlooking under-funded areas with high need and low recovery outcomes – potentially worsening inequalities in outcomes.

4.1B HEALTH AND SOCIAL CARE FOR POOR MENTAL HEALTH

Mental health services for older people are currently delivered through multiple settings including primary care settings such as GP surgeries, in their homes through community provision, in hospitals, care and nursing homes, and through voluntary sector services.

There are some unhelpful service divisions in the provision of services for older people. For instance, older people already in receipt of mental health support

before they reach 65 may find they no longer meet the age criteria for generic adult services, and are then moved to unfamiliar, age-specific services, losing supportive and longstanding relationships, and as a result may drop out of services entirely.

Mental health services designed specifically for older age groups may also have specific eligibility criteria for access, particularly around dementia, frailty and significant physical illness and end of life needs. Many older people experience depression and loneliness, but do not meet access criteria for dementia or frailty, and therefore will not be eligible for services. [153] In addition, dedicated mental health services may not address the specific, often physically co-morbid, mental health needs of older people. Mental health for older people requires a workforce with distinct competencies, with both clinical and service delivery expertise. Without specialist services to appropriately manage the transition of older people from generic to age-specific specialist services, the mental health inequalities of older people will likely be exacerbated. [153] Better research, diagnosis and intervention strategies specific to poor mental health in older age are required.

The quality and levels of mental healthcare in residential care settings vary nationally and are dependent on the levels of support and training delivered to care staff, and the nature and quality of links that residential care settings have to other social and healthcare providers. Most residential care settings are small, independent or voluntary sector establishments, and the number provided by the NHS has reduced significantly in recent years. Experiencing depression doubles the likelihood of being admitted to a residential care

setting. However, it is important to note that there are difficulties with the tools used to assess depression in residential care settings, and there is potential for depression to be either over- or underdiagnosed in elderly care residents. Additionally, residential care settings often have a depressive effect on residents. [154]

A report by the think tank Demos (2014) makes several recommendations for improving the structure and provision of care in residential settings. The report notes the 'chronic underfunding' experienced in residential care settings, and believes this leads to a two-tiered provision of care for the elderly, with people in lower socioeconomic groups receiving mediocre and life-limiting care. The report also urges the Government to recognise the importance that people attach to 'home and social connectedness', and advocates that the terms 'care home' and 'residential care' are replaced with the term 'housing with care' in addition to changing legislation to ensure enough flexibility is available to inspect, provide and manage care settings appropriate to the needs of residents. [155]

4.2 DEMENTIA POLICY AND PRACTICE IN THE UK

4.2A DEMENTIA POLICY

The Prime Minister's Challenge on Dementia 2020 highlights progress and key areas for improvement in the prevalence, diagnosis and treatment of dementia in the UK, although the document is aspirational rather than mandating any action. [156] The strategy paper acknowledges that specific groups such as BAME groups, women, and those with disabilities – particularly learning disabilities, will be disproportionately affected by cognitive impairment and dementia, and that interventions will need to be appropriate to

the individual needs of those groups. The paper also makes explicit reference to carers, and states that, 'carers of people with dementia' are 'made aware of and offered the opportunity for respite, education, training, emotional and psychological support'. In July 2015 a new carers strategy was announced, to examine what more can be done to support carers, and the financial and health impacts of caring.

The Challenge on Dementia 2020 also makes reference to a new 'global consensus that risk reduction is a key means through which the global burden of dementia can be reduced'. Further, it acknowledges the initiatives of Public Health England which continue to develop the evidence base on risk reduction, particularly through the Blackfriars Consensus (2014), a statement issued by a number of policy makers and health practitioners, advocating addressing the economic and physical environments in which people live to aid prevention. It includes opportunities for action which will enable faster progress towards creating healthier communities and acknowledges the shift of power from central to local government which will better facilitate 'place-based' approaches, which harness the assets of communities and utilise volunteering to increase participation, health literacy, and address issues such as social isolation and loneliness to achieve better health outcomes. [157]

Public Health England's *Guide to Community-Centred Approaches for Health and Wellbeing* (2015) provides clear guidance for incorporating these approaches and advocates that these approaches should no longer be a 'discretionary extra'. Place-based interventions have the scope to make meaningful

differences to many of the social determinants of dementia, creating more cohesive and socially connected communities and addressing environmental drivers of poor health, including housing and education.

A significant proportion of the 'key aspirations' of the *Prime Minister's Challenge on Dementia 2020* focus on research. There is a commitment to double the amount of funding available for dementia research by 2025, and £53 million has been invested through a public-private partnership for the work of the Dementia Platform UK (DPUK), to develop the infrastructure of dementia research in the UK, focusing on early detection, improved treatment and prevention. This work will draw together one of the largest population studies including up to two million participants. With access to such a large and wide-ranging data set, there is an opportunity to assess the 'social patterning' [158] of dementia and the socioeconomic, environmental and other social determinant drivers for the increased risk of cognitive impairment and dementia. This evidence can then be used to design appropriate preventative interventions around social connectedness, physical activity and mental stimulation. However, the focus of DPUK is predominantly on developing medical interventions for prevention and treatment.

The Prime Minister's Challenge on Dementia 2020 also focuses on 'improving public awareness and understanding of the factors which increase the risk of developing dementia and how people can reduce their risk by living more healthily'. This will include a new healthy ageing campaign and resources such as personalised risk assessment

calculators facilitated through health checks. These initiatives will contribute to helping individuals recognise specific lifestyle risks and will raise awareness of lifestyle changes needed to reduce risk. However, there has been criticism of the health checks by leading medics who argue that a large proportion of people do not access health checks, in particular people affected by poverty and people from BAME communities. Additionally, there is little evidence that health checks have an impact on individual behaviour, and independent evaluations of specific aspects of the health checks, such as the identification of people at risk of developing type-2 diabetes, found that the assessments used failed to identify at least one-third of those at risk. [159]

Public Health England, as part of its five-year strategy, has also emphasised the need to tackle the risk, incidence and prevalence of dementia. The strategy proposes a new 'healthy living marketing campaign' aimed at 40-60 year olds and collaborative work with the Alzheimer's Society and the Depression Alliance to prevent depression in older age.

These strategies are important but do not address some of the key drivers of dementia and depression, such as poverty and deprivation and it is important that evaluations of these interventions identify the social patterning of outcomes, contextualise impact of interventions, and assess the appropriateness and methods of interventions for all cohorts. Unless interventions make an impact across the social gradient they will not contribute to reducing the gap between those most and least at risk of cognitive impairment and dementia.

New opportunities identified by Public Health England in its 2014 priorities emphasised the need for 'place-based' approaches to achieve better health outcomes. [157] To ensure this is applicable to older people, local authorities should facilitate the involvement of older people, from all socioeconomic settings, in the design of interventions, particularly in environmental audits. Additionally, local authorities, Health and Wellbeing Boards and Clinical Commissioning Groups should apply a critical 'healthy ageing' lens to suggested approaches, querying how proposed initiatives that rely heavily on volunteering, and community assets, can be applied to areas of deprivation or to full-time carers for example, or how facilitating more choice and control over health services will work for older people with low levels of health literacy.

Additionally, for 'place-based' approaches to create communities that are 'building blocks for health', [157] there needs to be effective collaborations between communities, public health, healthcare, employers, unions and central government departments such as the Department for Work and Pensions, to ensure that poor work and pay conditions are addressed. It is also important that Health and Wellbeing Boards and Clinical Commissioning Groups are made aware of the importance of 'placed based' interventions, and of how 'social prescribing' or the referring of older people to community services can address the root causes of depression or other risks for dementia. However, social prescribing only works if referral services are commissioned based on the needs of the local people and are adequately funded.

4.2B HEALTH AND SOCIAL CARE FOR DEMENTIA

The Prime Minister's Challenge on Dementia 2020 acknowledges the importance of adequate care for people diagnosed with dementia and aspires to ensure that 'every person diagnosed with dementia' will have 'meaningful care following their diagnosis [...] in accordance with published National Institute for Health and Care Excellence (NICE) Quality Standards'. [160] £5.3 billion has been set aside for the Better Care Fund, aimed at providing more joined-up health and social care services, around a quarter of which is dedicated to the care and treatment of people with dementia. From that fund, £130 million has been set aside for carer breaks; however, the money is not ring-fenced, and there is a danger that it will be spent elsewhere, given the spending cuts experienced by local councils in 2015. [161]

The Prime Minister's Challenge on Dementia 2020 also acknowledges that more needs to be done to ensure the adequate training of both community and residential care staff, and to ensure that the caring profession is a career of choice, with at least a living wage and career progression opportunities. Currently, just over one-third of NHS staff have been trained with foundation level dementia training, and levels of training among social care staff remain low, at around 6-7%. Problems with inadequate wages, contracts and time allocated to provide care persist and often prevent paid carers from carrying out their tasks effectively and with meaningful human interaction. [155] [162]

4.2C COMMUNITY INTERVENTIONS

Cross-sector partnership working has been encouraged by the *Prime Minister's Challenge on Dementia 2020*, and by previous policy documents, with the aim of developing and delivering dementia care and support, risk reduction and dementia-friendly communities. This has helped to galvanize joint working between multiple organisations such as the Alzheimer's Society, NHS England and Public Health England. These initiatives may have an important role in managing some of the risks, and alleviating the symptoms of dementia. In the wider community, initiatives such as Dementia Friends, 'dementia friendly' community, and Intergenerational Schools Projects have raised public awareness and supported communities and businesses to become more dementia friendly, helping those with dementia diagnoses to remain engaged and included. However, these are downstream initiatives, on a relatively small scale, and although they contribute to reducing some of the stigma, discrimination and isolation experienced by people with dementia and their carers, they do not address some of the factors which increase risk of dementia, such as poor quality employment, poor housing, poverty, and neighbourhood degradation.

4.2D THE CARE ACT

Some aspects of the Care Act (2014) came into force in April 2015, including the right to request a Personal Budget, national eligibility criteria for receiving care, and the right to defer the sale of a home until after death. Local authorities are also obligated to put

in place preventative measures and services which will delay or prevent an older person's need for care in the future. In practice, this means that local authorities should, during interactions with an older person or their carer, identify ways in which their needs can be supported to reduce reliance on formal care. If this approach, along with other community-based services, is adequately funded and resourced, there is considerable potential to positively impact on the quality of life of older people. [163]

4.2E PERSONAL BUDGETS

Personal health budgets were first trialled in October 2014. [164] Older people receiving 'continuing care' now have the option of a Personal Budget for their healthcare, in addition to a Personal Budget for their social care and support needs. This is intended to provide older people with more choice and control over their healthcare options. There are several ways of managing these budgets, including direct payments to the individual which are then used to procure services, often in the community. Various problems with the uptake of Personal Budgets have been highlighted such as reluctance to use them, fluctuating and often crisis needs of older people, limited public knowledge and lack of support for families and carers. However, 70% of older people surveyed reported positive outcomes from receiving Personal Budgets, including remaining independent and being treated with dignity and respect. Between 50 and 59% reported positive impacts on their mental wellbeing, and older people who felt their views were fully incorporated into their care packages reported better outcomes. [165]

Councils who reported positive outcomes noted that Personal Budgets, when managed well with enough time given to social workers to provide support, can improve quality of life through, for example, supporting people to employ carers from the same cultural background and who speak the same language. However, people with dementia are among groups who are not receiving the potential benefits from Personal Budgets. [166] The Alzheimer's Society reports that there is a lack of appropriate support to enable people with dementia to access Personal Budgets, that local markets are not always equipped to provide the variety of services required, and that 'substantial and critical eligibility criteria' often mean that a number of older people are not eligible for social care services until they reach crisis point, at which point a Personal Budget is no longer appropriate. [167]

PART 2. SUMMARY

Part 2 of this report has examined the relationship between social isolation and loneliness, physical exercise and mental stimulation, and the prevalence of poor mental health, MCI and dementia, demonstrating inequalities in these areas in later life can further widen health inequalities in these conditions. Further, government policy and health and social care provision also influence and can widen the unequal incidence and prevalence of poor mental health, MCI and dementia. Social isolation, and in particular feelings of loneliness, lack of mental stimulation and physical inactivity, are known to increase the risk of poor mental health, MCI and dementia and there are social determinants in later life that make social isolation, physical inactivity and lack of mental stimulation more likely for those in lower socioeconomic positions. [139]

People from households with the lowest income are 30% less likely to take part in physical activity. [66] Women, people from BAME communities, carers, people with a history of unemployment or unstable, poorly paid employment, manual workers, and people living in areas of deprivation are at a greater risk of isolation, physical inactivity and lack of mental stimulation because of the environments and circumstances in which they live. Poverty and low income, living alone, caring responsibilities, living in poor housing conditions or degraded neighbourhoods, lack of access to green space and learning opportunities prevent older people from remaining socially connected, physically active and mentally stimulated in later life, increasing their risks of developing poor mental health, MCI and dementia.

Similarly, poverty, lack of education, and a lack of social connectedness can result in a lack of resources and ability to cope with poor mental health, MCI and dementia, and a higher dependence on health and social care which is inadequately funded and characterised by unhelpful divisions. The *Prime Minister's Challenge on Dementia 2020* and the *No Health Without Mental Health* strategy paper both prioritise diagnosis and treatment, and although they acknowledge the need for preventative community-based interventions, there is insufficient focus on the social determinants of poor mental health, MCI and dementia. Preventative action to address the social determinants of poor mental health, MCI and dementia should be explicitly identified in government policy, and adequate funding provided to ensure it is achieved.

PART 3:

IMPROVING MENTAL HEALTH, DELAYING ONSET OF DEMENTIA AND COGNITIVE DECLINE AND REDUCING INEQUALITIES

5 INTERVENTIONS TO ADDRESS SOCIAL ISOLATION, PHYSICAL ACTIVITY AND MENTAL STIMULATION

Chapters 5 and 6 assess specific policy and interventions designed to address social isolation and social connectedness, income, wealth and living standards, physical activity, and mental stimulation. In chapter 6 we suggest policy recommendations and provide example actions, to enable the Department of Health and other government departments, Public Health England and local agencies to take action on the social determinants of poor mental health, cognitive impairment and dementia.

Key Messages

- There are a wide range of successful interventions combating isolation and loneliness in older people. More action is needed at national level to highlight the impact of social isolation and loneliness.
- Upstream interventions which focus on creating the social, financial and physical environments which enable older people to live active and productive lives will make a significant contribution to preventing poor mental health, decreasing the risk, delaying onset, and limiting the impact of cognitive impairment and dementia.
- Several initiatives, such as the introduction of free 'green gyms' in parks and outdoor leisure spaces, and mentoring projects, have supported older people to be socially connected and remain active in older life. However, lack of public transport, deteriorating and under-maintained streets, public toilets, seating areas and green spaces, prevent older people from remaining physically active and socially connected.
- A lack of government funding has resulted in a limited range of learning opportunities for older people. Older people living in deprived areas may experience difficulties accessing educational or mentally stimulating activities appropriate to their needs and experience that could help prevent or delay poor mental health, MCI and dementia.
- Initiatives that attempt to promote physical activity without taking account of the physical environment in which people live are likely to experience difficulties in engaging older people.

5.1 SOCIAL ISOLATION AND SOCIAL CONNECTEDNESS

Successive UK governments have introduced policy initiatives to combat social exclusion, isolation and loneliness, with a specific focus on people aged over 65. In 2010, the Government's White Paper *Healthy Lives, Healthy People* specified actions for local and central government to work alongside businesses and voluntary groups to develop opportunities for older people to become more active in their communities. [168] Several high profile campaigns driven by voluntary sector organisations such as Age UK, and the Campaign to End Loneliness, have highlighted the prevalence and impact of loneliness in older age, and coordinated initiatives to promote social connectedness and combat isolation. Although programme evaluations have demonstrated that some initiatives such as LinkAge Plus have worked well to alleviate issues experienced by isolated older people, there is less evidence of initiatives that address some of the main drivers of social isolation such as the local environment, access to green spaces and poor housing.

Interventions which are most likely to be successful are those that take account of the individual nature, circumstances and needs of older people, and the communities in which they live. For example, interventions which facilitate engagement, such as the provision of transport for geographically isolated individuals, interpreters for non-English speakers, or activities closer to, or in the home, for sensory impaired older people, are likely to have more success than generic activities specifically designed to combat loneliness.

Evidence and practice from the United States shows that interventions aimed at a personal, group and institutional level, with coordination facilitated between all three, proved effective in combating isolation. [169] [170] However, without action to address wider issues such as access to green spaces, energy inefficient housing, and poverty and deprivation, an increased risk of developing mental ill health, cognitive impairment or dementia, at an earlier age and at a faster pace, will still exist for lower socioeconomic groups.

Below are examples of initiatives (from the UK and Europe) which aim to combat isolation, increase participation and mental stimulation and improve social connectedness. Specialised group activities can be cost effective and can have high rates of success in combating loneliness. Community engagement, volunteering, intergenerational contact and friendship circles have been found to reduce loneliness in older people. [171] [172] It is noteworthy that the loss of a service, once embedded, has been found to have a worse impact than never receiving a service at all. Feelings of loss then accompany returned feelings of isolation and loneliness. Patchy or unreliable services have similar negative effects. [171]

Case Study 1: Active at 60 programmes

From March to December 2011 the Department for Work and Pensions (DWP) funded grants for Active at 60 programmes, allocating funding based on indices of deprivation, number of pension-aged older adults and other factors to encourage recruitment of volunteers over the age of 60 to engage with other older adults. The aim was to facilitate social networks and support older people to become more active. [173] The Community Development Foundation provided £1 million to community organisations enabling older people to become involved in community volunteering.

Ninety-one per cent of community organisations involved in the Active at 60 initiative continued the role after the programme had finished. Eighty-one per cent of older people recruited planned to continue their role. Forty-one per cent of groups extended the variety of roles and activities they offered following the programme, providing a greater focus on roles and activities which would accommodate older people. Older participants who were interviewed stated that the initiative had improved their wellbeing and mental health. The programme acknowledged that providing encouragement and transport for older people was an essential part of their engagement. [174]

Case Study 2: LinkAge Plus

In 2006 the Department for Work and Pensions released £10 million over two years to fund a number of LinkAge Plus pilot schemes to create strategic working links between local government, voluntary and community sector agencies to improve the collaboration of services for older people, ensuring they received support and advice from a single place. [175]

The LinkAge Plus pilots ran from 2006 until 2008 in Devon, Gateshead, Gloucestershire, Lancashire, Leeds, Nottinghamshire, Salford and Tower Hamlets. There was a clear focus on joining up and avoiding duplication and providing a single point of entry for a range of services. A government report on LinkAge Plus expenditure found that combining the costs and benefits of these services in LinkAge Plus areas with the holistic approach to service delivery increased the value to £2.65 per £1 invested. Each LinkAge pilot utilised the funding differently depending on local need. The programme was designed, and in some instances, delivered, by older people and took a preventative approach to older people's health and wellbeing. Evaluations have noted the particular benefit experienced by previously isolated black and minority ethnic community elders in boroughs such as Tower Hamlets who have accessed a range of activities through outreach workers. All LinkAge Plus programmes secured ongoing funding from a variety of sources including local authorities and Primary Care Trusts and continue to provide preventative services for better health outcomes for older people. [174]

Case Study 3: The Campaign to End Loneliness

The Campaign to End Loneliness is a network of national, regional and local organisations and individuals who implement research, policy and good practice through community action, with an aim of reducing loneliness for older people. Established in 2010 and launched in 2011, it consists of five lead partner organisations and 1,000 supporters. The campaign has been successful in raising awareness of the prevalence and health implications of loneliness in old age, and in building good relationships with key influencers in the Department of Health. Surveys have shown that awareness of the campaign among MPs is high. However, despite concerted efforts by the campaign, success in influencing service provision and funding has been limited. The campaign lobbied newly formed Health and Wellbeing Boards, encouraging them to measure levels of loneliness through their strategic assessment process, and to implement measures to combat loneliness experienced by older people through their joint health and wellbeing strategies. However, an evaluation carried out by the Charities Evaluation Service found that, out of 128 Health and Wellbeing Boards, only 33 (rated as gold and silver in the report) had measurable data, actions and targets around combating loneliness in older people. [176]

Case Study 4: The European Innovation Partnership on Active and Healthy Ageing

The European Innovation Partnership on Active and Healthy Ageing is a pilot initiative which aims to address the needs of ageing populations, including tackling wider social determinants such as housing and the wider environment. The Partnership has an overarching aim of increasing lifespan by two years by 2020, to be realised through three main objectives: 'enabling EU citizens to lead healthy, active and independent lives while ageing, improving sustainability and efficiency of social and healthcare systems, and boosting and improving the competitiveness of the markets for innovative products and services'. It brings together key stakeholders including end users, public authorities and industry and provides a platform for numerous European countries to promote and share successful initiatives addressing both the health issues experienced by older people and their main drivers. For example, a Spanish project involves researching housing for elderly people that will extend active and independent living, improve social inclusion and participation. [177] The Partnership has also developed an Action Plan on 'Prevention and early diagnosis of frailty and functional decline, both physical and cognitive, in older people'. The Action Plan aims to 'shift the approach from reactive disease management to [...] anticipatory care and management of functional decline'. [177]

Case Study 5: The Retired and Senior Volunteer Programme (CSV Coventry)

Community Service Volunteers (CSV) is the UK's largest volunteering and training charity. Its Retired and Senior Volunteer Programme (RSVP) in Coventry ran a project designed to tackle social isolation and improve wellbeing among older people, funded by the Big Lottery Reaching Communities Programme. Volunteers attended training and disseminated information about the programme to other volunteers. The project found that older volunteers who took a lead on the project were more likely to stay engaged.

One evaluation of the project found that:

- Two-thirds of respondents felt better about themselves
- Over half felt more positive about life
- Participants valued having somewhere to go, having a sense of purpose, and sharing skills
- Participants enjoyed keeping their brains active which improved mental wellbeing
- 89% of participants made new friends
- 66% felt more involved in their community [178]

Case Study 6: Shared Lives

There are 12,000 Shared Lives carers in the UK. They share their family and community life with someone who needs some support to live independently. Shared Lives carers support disabled adults, older people with dementia, people with mental health problems, care leavers, disabled children in transition to adulthood, and parents who have learning disabilities. Homeshare, a project run by Shared Lives, involves matching someone who needs some companionship or a little help to carry on living in their own home, with someone who is willing to give help and who needs accommodation. There are 118 Homeshare schemes in the UK. [179]

Case Study 7: Housing for Help Scheme, Austria

The Housing for Help scheme in Austria was started in 1994 and is funded and coordinated by a partnership between the student union of the University of Graz and an older people's association. The scheme matches students looking for accommodation with older people who own large houses or flats and are in need of practical assistance. Students are housed for free in return for practical care and assistance. Intergenerational relationships are built and the scheme reduces social isolation and disconnectedness. [180] The project is particularly aimed at older people with health problems, who are socially isolated or have poor access to services, and the very old.

Case Study 8: Buddy Care/Pink Buddies, Netherlands

Initially set up in 1984 by the Schorer Foundation, the aim of Pink Buddies was to address the isolation, loneliness and depression disproportionately experienced by older gay, lesbian and transgender men and women, acknowledging that many of them would have grown up during a time when homosexuality was overtly taboo. Volunteer buddies support older companions to develop a positive self identity in addition to providing social, emotional and practical support. This can include accompanying older people to hospital appointments, going for walks, and visiting them at home. The relationships traditionally last for between six months and one year. An evaluation of the project found that 80% of older people participating felt the project was of great value to them, and 74% stated that they felt less lonely. The project is funded through a variety of private funds, local authority grants and sponsors. [181]

Case Study 9: Preventative home visits to older people in Denmark

The programme of preventative home visits to older people in Denmark includes individualised health checks alongside other aspects of wellbeing and provides an opportunity to address individual needs that help older people to remain independent. Furthermore, it reaches older people who are not normally in contact with the health system. In Denmark's largely decentralised health system, these home visits are the responsibility of local authorities. The relevant law was first enacted in 1995, and set out that '[t]he local council shall offer preventative home visits to all citizens having reached the age of 75 and living in the municipality'. Visits are mainly carried out by district nurses, but several other health professionals and social workers also have roles.

Assessments have shown the positive effects of the preventative home visits on the functional health status of older people; a three-year prospective randomised controlled follow-up study showed that training of home visitors was associated with improved functional ability of older people. [182]

5.2 INCOME, WEALTH AND LIVING STANDARDS FOR OLDER PEOPLE

In the autumn of 2014 the Department for Work and Pensions announced that the basic State Pension would rise at double the rate of inflation. The 'Triple Lock' policy sees all pensioners receive a 2.5% increase from April 2015, an increase of £2.85 per week, and the implementation of a policy which guarantees that pensions will rise every year in line with either inflation, wages or prices, depending on which is highest. However, people on low income, in manual trades and without a private pension will be hit hardest by the proposed increase to the state pension age, rising to 67 between 2026 and 2028. Additionally, continued low interest rates on savings undermine pension increases for those who have been able to save.

Although a large proportion of older people could benefit from flexible and sustained participation in the labour market, there are a relatively small number of employers addressing the employment and retention needs of older workers. Older workers are often perceived as being difficult to train, unable to adapt to modern technology, and overly cautious, with a lack of relevant skills and qualifications and a perceived lack of return on training investment. [183]

Interventions incorporating building skills for later life, such as preventing the de-skilling of older workers, or addressing work-related health problems, should also support older people to overcome some of the social, practical and mental/physical health issues which prevent them from accessing appropriate employment. This should include special provision for workers who are most at risk of exclusion, including women who have few qualifications and limited work experience due to caring responsibilities, and workers who are unemployed due to work-related health issues. [183]

Further, poor quality employment can be a major cause of ill health. Increasing the state pension age without addressing older age discrimination and examining and implementing broader health, disability, caring and work-related policies will risk exacerbating existing work-related health issues or pushing older people into unsuitable, low paid work, leading to poverty and social exclusion. [183] Research by the Equality and Human Rights Commission in 2010 found that a significant proportion of older workers were reluctant to approach their employer with health-related issues or to request more manageable working arrangements. [184] There are a wide range of interventions, examples of which are detailed below, which can mitigate some of these issues including job retention schemes which focus on early intervention, supporting uptake of benefits among carers, and improving working conditions for those in manual trades.

Case Study 10: European Foundation for the Improvement of Living and Working Conditions

The European Foundation for the Improvement of Living and Working Conditions presented a variety of case studies looking at the inclusion of older workers, in particular those workers whose roles and daily duties were unsuitable to older age. Companies addressed this issue by reorganising the distribution of work and responsibilities, adapting working time schedules and providing training.

Example – Realkredit
Danmark: Recruitment of
employees over 50

Realkredit Danmark is a large financial institution in Denmark. It has 1,200 employees and serves 60,000 customers. Previous solutions to an ageing workforce had relied on early retirement and making older employees redundant. Regulatory change, lowering of interest rates, and increased customer service needs led to new implementation policies. An initiative to recruit employees aged 50 and over was introduced to fill a customer service need, including matching the age of customers to employees, drawing on previous experience and training, gaining local knowledge and experience and achieving greater stability in the workplace.

A total of 1,400 applicants responded, with an age range of 48–59 years. The firm found that initial negative or moderate reactions to the employment of older staff soon changed once the competencies and problem-solving ability of new recruits was shown. [185]

Case study 11: Lloyds Bank

Following the implementation of the Equality Act in 2010, Lloyds Bank implemented a new initiative intended to ensure the inclusion, retention and progression of workers with both minor and major disabilities. Lloyds Bank found that incorporating a personal development programme, including assertiveness training, supported employees to understand their disability and get the right support to ensure career progression. Employees are encouraged to volunteer for the programme, which is inclusive of those who are severely impaired and those with minor conditions who may not yet be covered by the Equality Act. No one is asked to prove their disability and Lloyds believes that working with employees with minor conditions at early stages prevents conditions from worsening.

Lloyds recognises that there are issues with disclosure and identifying which employees require support. Despite this, around 19,500 employees have signed up for developmental support, around 20% of its overall workforce, and while Lloyds acknowledges that the programme is costly to run, it delivers robust business benefits for the bank. The programme enables the bank to retain talent, avoid wasting experience and spending money on recruitment and has become an essential part of its retention strategy. [186]

Case Study 12: Healthy Workplaces Project

The Trades Union Congress (TUC) in the North of England has set up a Healthy Workplaces Project in partnership with around 200 employers and the NHS. Ninety per cent of the employers and employees stated that the scheme helped organisations to initiate health and wellbeing programmes, with 40% of employers noting a fall in sickness absence, 90% reporting that their organisation was now a better place in which to work, and 50% reporting better relationships between management and staff. A key factor in ensuring the initiative was successful was the introduction of the North East Better Health at Work Award and the recruitment of workplace ‘health advocates’. [187]

Initiatives to ensure the uptake of benefits at a local level are among the most effective in ensuring that pensioners entitled to Pension Credit, and other benefits, receive their full entitlement. Targeting information campaigns at those with the lowest uptake of benefits (for example, older people from BAME groups), using key trigger points for providing up to date information, and simplifying applications, have all improved uptake. Ease of access to advice and support services is fundamental. [188]

5.3 PHYSICAL ACTIVITY

In February 2014 the Government announced its Moving More, Living More initiative to promote more physical activity across the UK and promised to recognise and tackle the barriers faced by people who are physically inactive. The initiative acknowledges that people over the age of 65 are the most inactive cohort in the UK, and that disability is one of the main barriers to engagement in physical activity. However, local authorities, responsible for the maintenance and development of the local environment, and experiencing cuts in funding, find it difficult to ensure local environments are age-friendly. Maintaining roads and pavements, supplying housing which is close to shops and amenities, ensuring bus stops have shelters and seats, and providing well maintained and accessible public toilets, all contribute to making local areas accessible for older people.

Initiatives that attempt to promote physical activity without taking account of the physical and social environments in which people live are likely to experience difficulties in engaging older people. There is an increased risk of low participation and low rates of physical activity rates for older people in areas that have experienced closure of local amenities such as park services and funding cuts for maintenance of public spaces and support for older people. [189]

Case Study 13: Hyde Park Senior Playground

A 'senior playground' has been developed in London's Hyde Park by the Knightsbridge Association and was opened in 2010, financed by Westminster Council and the Royal Parks. Based on the UK's first senior playground, opened in Blackley, Manchester, in 2008, the playground aims to promote social engagement and is a free resource, making it accessible to older people on low incomes. The area provides physical exercise equipment including a cross trainer, body flexer and sit-up bench, enabling older people to take part in both aerobic and strength exercises. It is based in an area surrounded by trees, shrubs and flowers, providing a calm and tranquil area for exercise. [163]

Case Study 14: Activity Friends

Activity Friends (also known as Senior Peer Mentoring) is modelled on an American programme designed to help people aged over 50 years old to achieve a healthier lifestyle by incorporating more physical activity into their lives. The schemes run in five areas of Nottinghamshire. People over 50 years old are recruited and trained as 'Activity Friends' volunteers, who reach out to their peers in the local community to encourage and support them in participating in some form of physical activity. [190] Funding for each individual scheme is secured from a variety of sources. However, despite significant success of the programmes some have had to close due to a lack of ongoing funding. For example, Rushcliffe Activity Friends announced its closure in 2013 due to a lack of funding, despite noting a range of positive outcomes with both clients and volunteers, including improved dementia and depression symptoms, and physical health issues. [191]

Case Study 15: Belfast City Council

Belfast City Council initially explored the potential of becoming an age-friendly city through developing an All Party Reference Group on Older People. The Belfast Strategic Partnership (BSP) was formed after the Lord Mayor signed a declaration committing Belfast to the process of becoming age friendly, and worked closely with the Healthy Ageing Strategic Partnership which supported the BSP to consult widely with diverse representatives of older people in Belfast. This information was used in conjunction with statistical data gathered from the Northern Ireland Statistics and Research Agency and Neighbourhood Information Services to establish an evidence base for action, based on key themes and priorities for older people. Concerns were raised around issues such as maintenance of public toilets and pavements, outdoor seating, home heating and crime and safety.

The Belfast Strategic Partnership developed the Draft Age Friendly Plan 2014-17, which included:

- An arts festival for older people, working collaboratively with housing providers, developing age-friendly outdoor spaces, and providing a toolkit for business and organisation to promote intergenerational participation and inclusion.
- A Lifelong Learning City Charter for Belfast through Belfast Strategic Partnership.
- A toolkit to reduce the impact of poverty in Belfast focusing on benefits, nutrition and fuel poverty which was produced by Belfast Health Development Unit, Belfast City Council and the Public Health Agency to be promoted with older people.
- Initiatives to improve the income level of older people through Age NI Advice and Advocacy Service and the Make the Call Campaign through the Department of Social Development.
- Support for over-50s to get back into work.
- Work with community and voluntary organisations to counteract social isolation and put people in touch with local support and services.
- Increasing older people's usage of parks by improving the facilities management and activities available in their parks with Greater Belfast Seniors Forum and local areas forums to explain current provision/ options on housing and to discuss issues that will influence future planning and use of space. [192]

Case Study 16: Dementia Adventure

The Dementia Adventure Trust is a registered charity dedicated to supporting people to live well with dementia through access to the outdoors and nature. The trust was funded by the Innovation, Excellence and Strategic Development Fund in 2013/14 to provide a range of activities for people experiencing dementia and their carers, including short breaks and holidays in green spaces, some of which are underwritten by the trust for those participants with limited means. It also provides training to other organisations about how to support people with dementia, and has been commissioned by Natural England to consult people with dementia and their carers about their engagement with natural space, with the aim of developing innovative interventions to improve engagement. The Dementia Adventure Trust also participates in research programmes. [193]

5.4 MENTAL STIMULATION

Chapter 4 set out evidence describing the importance of cognitive reserve and the potential to increase cognitive reserve even in later life. Older people living in poverty, and with debilitating illness or caring responsibilities, will face multiple barriers to inclusion in education or other social or professional activities that are mentally stimulating. Public sector funding for education has focused much less on low-level lifelong learning in recent years, and education policy has focused on ensuring the UK remains competitive in the global economy, resulting in a reduction of courses which may attract older learners with no qualifications. [194] As a result, *informal* learning for older learners is beginning to flourish, as can be seen in initiatives such as University of the Third Age (U3A) which has at least 670 active groups nationally and around 190,000 older users. [195] These groups make an important contribution to engaging older learners in mentally stimulating activities and have the added value of promoting social connectedness.

Evaluations of such programmes should assess how and if these types of volunteer-led interventions are taken up in more deprived areas. The Department of Health and other departments should advocate on behalf of older learners, highlighting the positive impact of mental stimulation on cognitive decline and dementia, and ensuring that both formal and informal educational providers meet the needs of older learners.

Case Study 17: The Centre for the Older People's Agenda

The Centre for the Older People's Agenda was established by Queen Margaret University and the Royal Bank of Scotland. The partnership's main aim is to improve the quality of life of older people through research and education programmes. The Centre recognised that older people are often excluded from learning, and further and higher education courses often do not reach out to older people. The Centre designed a series of courses aimed at older people, two of which enabled older people to develop skills to design and carry out their own research into their needs, and to develop confidence in speaking in different situations to ensure their opinions are heard at, for example, public meetings. The project's evaluation found that older people gained confidence in expressing their opinions, increased their awareness of social and political issues, and were encouraged to continue participating in mentally stimulating activities. [196]

Case Study 18: Open Age

Open Age is a charity led by users and supporting older people to develop and maintain physical and mental health through pursuing their interests. Over 200 mentally, physically and socially stimulating activities are delivered from Open Age hubs across London each week, run from a range of settings including community centres, sheltered housing, libraries, church halls and residential settings. Open Age runs the Link Up Project and is funded by the NHS and local councils. Project workers aim to identify and support older people who are most vulnerable to social isolation and non-engagement in activities. Open Age workers offer a range of support including one-to-one confidence building, accompaniment to first sessions, home visits and meetings in the community, advice and links to transport options designed for older people with physical mobility issues. Activities have also been facilitated over the phone for those unable to leave their home, for example a telephone book club. [197]

Key Literature

Integration of health and social care: A review of literature and models. Implications for Scotland (Robertson, 2011)

This review provides European examples of integrated health and social care models and analysis of factors which either impede successful integration or promote it. It is noteworthy that there is little evidence presented regarding the outcomes of patients using services within integrated health and care systems. This is not an oversight of the analysis, but rather due to a lack of data about patient outcomes. However, the review is able to present good examples of integrated health and social care working well to promote interdisciplinary training and practice, and the benefits of pooled budgets, alongside the opportunity to identify duplications in services and funding. For example, the rural Danish region of Skaevinge has provided integrated health and social care services to the elderly since the 1980s.

The programme employs 136 people encompassing 13 different professions. A single point of entry provides services which have led to improvements to the health and wellbeing of older people in the area and reduced costs, despite an increase in the elderly population. Intermediate care has reduced hospital re-admissions by up to 40%. In addition, there have been no delayed discharges from hospital and no waiting times for accommodation. [198]

6 RECOMMENDATIONS

As described in Chapter 5, current government strategy on cognitive impairment and dementia prioritises diagnosis and treatment, and prevention strategies focus on individual behaviours and medical interventions. However, the Department of Health is well placed to highlight the significant impact of social determinants – particularly those that reduce or obstruct social connectedness, physical activity and mental stimulation, on the risks of incidence and progression of poor mental health, cognitive impairment and dementia – and to take action to improve them. Delaying onset and progression has potentially significant implications for the need and cost of care interventions.

Key Messages

- Investing in initiatives which improve the economic, social and physical environments in which older people live can prevent poor mental health, and has the potential to delay the onset of MCI and dementia by almost two years, representing a saving of £52 billion.
- Current government policy lacks a focus on the social determinants of poor mental health, MCI and dementia. Strategies to prevent the rising number of older people experiencing poor mental health, MCI and dementia can focus on three key stages in later life: pre-retirement working life, post-retirement, and later old age.
- The Department of Health, Public Health England and other government departments such as the Department for Work and Pensions can work with employers, trade unions and other local government agencies to ensure people are enabled to prepare financially and psychologically for retirement, embedding healthy living practices, such as active travel and social connectedness, into working life.
- The Department of Health and Public Health England can work with local authorities, town planners, and housing and care providers to ensure they incorporate age-friendly considerations into their local planning, development and decision-making.
- The Department of Health and Public Health England can raise awareness around the social determinants of depression, MCI and dementia, and work with GPs and older age service providers to ensure they can identify and treat later life depression, and facilitate social connectedness and physical and mental activity in later life.

The recommendations in this section are organised around the key drivers we have identified throughout the report which impact on mental health, cognitive impairment and dementia.

Overarching recommendations and specific interventions are suggested, at three key points during the later life course: pre-retirement, post-retirement and later old age.

The overarching policy interventions are:

1. SOCIAL CONNECTEDNESS

Social isolation should be prioritised by national and local government departments and authorities as it is a significant driver of poor mental health, cognitive decline and dementia, and action should focus on addressing the social determinants of isolation in older age and improving social connectedness.

2. PHYSICAL ACTIVITY

National and local government departments and local authorities should develop policies and action which focus on access to green spaces and improving and maintaining local environments to standards which enable and support older people to take part in physical activity.

3. MENTAL STIMULATION

Government and local authorities should prioritise action on the social determinants which prevent older people from accessing mentally stimulating activities and environments, including financial poverty, fuel poverty, social isolation and exclusion.

For each driver, actions are recommended which can be

initiated either independently, or in partnership, by local authorities, government departments and third sector agencies.

6.1 SOCIAL CONNECTEDNESS

6.1A PRE-RETIREMENT

The Department of Health and Public Health England should collaborate with the Department for Work and Pensions, trade unions, and private sector organisations to ensure older workers are prepared financially and psychologically for their retirement. This includes healthy retirement and broader workplace schemes encouraging flexible retirement, social connectedness, the upskilling of older people in manual trades, and highlighting the risks of poor mental health and loneliness in relation to the development of cognitive impairment and dementia.

The Department of Health and Public Health England should highlight the risks associated with low paid, poor quality employment, such as badly managed 'zero hour contracts', and the transient nature of various trades in industries such as construction, care and hospitality, and the barriers these conditions create to appropriate employer support around healthy working practices, financial and psychological preparation for retirement and good mental and physical health.

The Department of Health, Public Health England, trade unions and employers should promote safe working practices, good mental health and supported returns to work, through disseminating good working practices and adequate training and support for employers.

The Department for Work and Pensions, Department of Health and Public Health England should work with employers to ensure a variety of appropriate, flexible retirement and part-time employment options are available to older people and that an extended working life is a healthy choice rather than a determinant for poor mental health, MCI and dementia.

6.1B POST-RETIREMENT

The Department of Health and Public Health England should prioritise social isolation and loneliness as they are key drivers for poor mental health, MCI and dementia, and work collaboratively with local authorities, Health and Wellbeing Boards and initiatives such as the Campaign to End Loneliness to address the social determinants of social isolation and loneliness in older age.

The Department of Health and Public Health England should develop and disseminate training to town planners, architects, local housing authorities and other agencies to ensure local environments, housing and services are accessible to older people.

The Department of Health and Public Health England should encourage local authorities, services, Health and Wellbeing Boards and other community agencies to involve older communities in the planning and development of services, the local environment and community cohesion.

6.1C LATER OLD AGE

The Department of Health and Public Health England should work to raise awareness of the prevalence and risks of poor

mental health in late old age, in particular loneliness, its links with the conversion of MCI to dementia, and to challenge the acceptance of depression and poor mental health as being inevitable parts of ageing. They should support GPs, other NHS staff and third sector providers to enquire about, identify and address the causes of poor mental health through referrals to appropriate services.

The Department of Health and Public Health England should work closely with the Dementia Platform UK and other national healthy ageing research initiatives, highlighting the impact of social determinants of poor mental health, MCI and dementia, in particular social isolation, and ensure that cost-effective interventions are sought through current research strategies alongside medical interventions for prevention and treatment.

The Prime Minister's Challenge on Dementia 2020 urgently needs to give greater focus to the social determinants of MCI and dementia to develop strategies which address the key drivers for social isolation, and therefore reduce the inequalities in and overall prevalence of MCI and dementia.

Funding for carer breaks and support, older age housing and care settings, and improvements to local environments should be ring-fenced to ensure that allocated funding is dedicated to interventions which support older people and enable them to stay socially connected and to flourish.

Public Health England can provide impetus and guidance to local agencies to set up strategic partnerships between the Environment Agency, local authorities, education providers, the voluntary sector, Health and Wellbeing Boards and NHS Trusts

to facilitate better town planning, service design and delivery and social connectedness.

The Department of Health and Public Health England should ensure that funding is available to develop the physical environments of residential care settings and hospitals to ensure they maximise social connectedness, physical activity and mental stimulation and utilise the evidence of improved health outcomes to leverage funding for scaling up adaptations to the local environment.

6.2 PHYSICAL ACTIVITY

Interventions which focus solely on the individual taking up and maintaining exercise programmes without addressing age specific environmental and social barriers to physical exercise will have limited impact. Evidence clearly demonstrates that proximity to well maintained and safe green space results in physical and mental health benefits, and is associated with improved health outcomes. Notably, 'income related inequality in health is less pronounced where people have access to green space'. [66] The National Planning Practice Guidance (2014) acknowledges that, 'active and healthy lifestyles' are made possible through 'good urban design, good access to local services and facilities; green open space and safe places for [...] food growing, and [...] accessible by walking and cycling and public transport' and is 'adaptable to the needs of an increasingly elderly population and those with dementia and other sensory or mobility impairments'. [199]

6.2A PRE-RETIREMENT

The Department of Health and Public Health England should work with local authorities to encourage active travel to and from work by providing safe cycle paths,

developing and maintaining green spaces and ensuring adequate public transport.

Employers can support and promote physical activity in the work place through awareness campaigns, providing adequate breaks, changing facilities and showers, promoting after work sporting clubs, and ensuring work-promoted physical activities are inclusive of older people with disabilities.

The Department of Health and Public Health England can work with trade unions and the Health and Safety Executive to ensure that work place practices are appropriate to the physical needs of older people, preventing physical disabilities which lead to mobility restrictions and inactivity.

6.2B POST-RETIREMENT

The Department of Health and Public Health England should work collaboratively with other government departments, town planners, housing providers and other agencies to highlight the risks and costs of widening health inequalities in poor mental health, MCI and dementia if basic needs of older people are not met. This includes facilitating adequate standards of living to enable older people to make healthy choices regarding health behaviours, including becoming more physically active.

The Department of Health, Public Health England and the Department for Business, Innovation and Skills should work collaboratively with trade unions and employers ensuring low skilled, manual workers remain mentally stimulated and healthy throughout their working lives, promoting lifelong learning through to retirement.

The Department for Work and Pensions, Department of Health and Public Health England and the Department of Innovation and Skills should utilise current research, such as the Foresight *Future of Ageing* series of evidence reviews, and address the gap in basic skills experienced by those in manual trades, fostering a disposition to engage in learning, and promoting the diversification of skills in the older age workforce.

The Department of Health and Public Health England should work closely with local authorities, developing initiatives which improve and maintain local environments and green spaces and enable older people to take part in physical activity, improving their mental and cognitive health.

6.2C LATER OLD AGE

The Department of Health, Public Health England and the NHS should provide guidance and support to Health and Wellbeing Boards, the Department of Communities and Local Government, the Fire Service, and the Environment Agency to set up strategic partnerships and work collaboratively on town planning and maintenance, event planning, and the design of new and existing accessible green spaces. Bringing together information from Health and Wellbeing Boards, local councils and frontline services will help to identify which population groups are most vulnerable to inactivity and the barriers they face.

The Department of Health and Public Health England should highlight the impact of budget cuts on the local environment and ensure that impact assessments include measuring reduced levels of physical activity in older people.

6.3 MENTAL STIMULATION

Policies which promote flexible, appropriate and mentally engaging employment opportunities for older people are important in supporting their ongoing cognitive function, as are policies which promote continued mental stimulation after retirement and into later old age.

Policies must consider educational disengagement, or reluctance to engage in mentally stimulating activities, influenced by factors such as poor transport links, environments which create barriers to engaging in mentally stimulating activities, and lack of activities. Many of the actions to improve social connectedness and physical activity detailed above will impact positively on older people's access to general mental stimulation through social interaction, in addition to specific interventions designed to improve cognitive functioning.

6.3A PRE-RETIREMENT

The Department of Health and Public Health England should work collaboratively with trade unions, the Department for Business, Innovation and Skills, and employers to ensure older workers in low skilled, manual trades are encouraged and facilitated to engage with later life learning, increasing their skills and employment options and enabling them to remain mentally stimulated. The prevention of cognitive decline and dementia can be used to promote learning initiatives.

6.3B POST-RETIREMENT

The Department of Health and Public Health England should work with the Department for Business, Innovation and Skills to highlight the links between cognitive health, mental wellbeing and mental stimulation and the lack of engagement in ongoing

learning from older people in lower socioeconomic groups.

The Department of Health and Public Health England should promote the use of various interventions which encourage the engagement of lower socioeconomic groups in lifelong learning, including funding third sector learning initiatives, utilising agencies that are already engaged with 'hard to reach' groups, adapting the provision of education to the needs of a diverse and older cohort, and providing specialised later life education advisors.

6.3C LATER OLD AGE

The Department of Health and Public Health England can highlight the lack of engagement of the very old in education, and how barriers such as the physical environment, appropriateness of courses, poverty and discrimination can prevent older age learning.

The Department of Health and Public Health England should work collaboratively with the Department for Business, Innovation and Skills and the Department of Education to raise awareness and promote the health benefits of lifelong learning, in particular for cognitive functioning, and the delay or amelioration of cognitive impairment and dementia symptoms.

The Department of Health and Public Health England can utilise evidence and evaluations of capital funding projects which adapt local environments, hospitals and care settings to maximise the mental stimulation and educational engagement of older people to leverage funds which will promote the mental stimulation of older people.

PART 3 SUMMARY

More collaborative action is needed at a national level to support local interventions that address issues of social isolation, lack of access to learning opportunities, and physical inactivity in later life. Without greater and better focused action on social determinants, the higher risks of developing poor mental health, mild cognitive impairment or dementia and at an earlier age for lower socioeconomic groups will continue. Strategies for action can focus on three key stages of later life: pre-retirement, post-retirement and later old age. Strategies that help people prepare financially for later life through access to good quality employment, that integrate an ‘age-friendly and equity lens’ into local housing and planning, and that prioritise social connectedness and lifelong learning, will significantly contribute to addressing the social gradient found in the prevalence and experience of poor mental health, cognitive impairment and dementia.

CONCLUSION

There is not an equal likelihood of having good physical and mental health in later life in England. Risks for poor physical health and poor mental health are higher for people in lower socioeconomic groups, some BAME groups and for women. The focus of this report is inequalities in poor mental health, cognitive impairment and dementia. Sixty thousand people die each year from symptoms directly attributable to dementia, and 25% of older people are diagnosed with depression, rising to 40% in residential care homes.

These health outcomes are partly influenced by factors earlier in life such as poor employment and educational attainment, poor quality housing and living in areas of deprivation. They are also profoundly influenced by experiences in later life. Significantly – and the focus of this report – social isolation, lack of mental stimulation and physical activity before and after retirement and in later old age exacerbate risks of poor mental health, cognitive impairment and dementia.

In 2014, 1 million older people reported not speaking to anyone in over a month and the total number of older people living alone in older age is set to increase. At the same time levels of participation in social and cultural activities decrease with age, only 18% of adults aged 65–74 years old attend adult education courses, compared with 61% of 20–24 year olds and 31% of 55–64 year olds, and in 2006 1.2 million older people were found to be excluded on multiple indicators. Further,

older people living in households with the lowest incomes are 30% less likely to take part in physical activity. Social isolation, and low levels of mental stimulation and physical activity, drive poor mental health, cognitive impairment and dementia, and drive significant inequalities in these outcomes.

This report has examined the links between social isolation, loneliness, levels of physical exercise and mental stimulation in later life and the risk of cognitive impairment, dementia and poor mental health. It demonstrates that these increase the risk and worsen the symptoms of poor mental health, cognitive impairment and dementia. However, poor mental health is not an inevitable part of growing older, and it is possible to lower the risk, delay the onset and ameliorate the symptoms of cognitive impairment through action on the societal factors that drive social isolation, physical inactivity and a lack mental stimulation in older age. Yet there is insufficient awareness or action on those factors which contribute to such widespread prevalence and inequalities in risks.

There is an economic, as well as a social justice case, for addressing the social factors driving poor mental health, cognitive impairment and dementia. Caring for people with dementia costs £26 billion per year in health and social care, and more in informal care from family members. Postponing the onset of dementia by just two years has the potential to save £52 billion. Developing policy and interventions which create the physical and economic environments that enable all older people to be active, socially connected and remain 'producers, consumers and investors' [200] in their own communities will drive economic development and save costs to the public purse. Preventative programmes which enable older people to fully contribute could result in a net economic contribution reaching £8 billion by 2030. [200] There is also a legal requirement to take action. Local authorities now have a legal obligation under the Health and Social Care Act 2012 to demonstrate they give 'due regard to the reduction of inequalities'. [201]

This report has set out a series of recommendations on the most effective ways of taking action to reduce inequalities in mental health, cognitive impairment and dementia. These are primarily focused on reducing social isolation, improving mental and physical activity and improving health and social care. Our recommendations relate to specific national and local organisations that have clear responsibilities to act including the Department of Health, Department of Communities and Local Government, Department for Work and Pensions and Public Health England. The report has also made recommendations for employers, planners, Clinical Commissioning Groups, Health and Wellbeing Boards, the Fire Service, the Environment Agency and trade unions.

Currently and historically, Government policy places greater emphasis on diagnosis and access to treatment rather than addressing the main drivers for the inequalities found in poor mental health, cognitive impairment and dementia. Without focusing on the social factors which drive these conditions, the inequalities found in poor mental health and risks of cognitive impairment and dementia will not be addressed and the burden of ill health will continue to fall disproportionately – and unnecessarily – on the less advantaged.

APPENDIX 1. METHODOLOGY

Assessment of the evidence base and recommendations were made through a combination of desk-based research and consultation with experts, policy-makers and practitioners. The desk-based research entailed a review of published and unpublished material, described in the table below, subject to review.

DESK-BASED RESEARCH: SOURCES	CONSULTATION
<ul style="list-style-type: none"> Fair Society, Healthy Lives [24] and background task group reports WHO European Review and background paper on older people Journal articles and other academic publications Reports by non-governmental organisations including think tanks and charities Policy documents 	<ul style="list-style-type: none"> Academic experts on health inequalities in older people and associated areas covered in the report Charities/organisations for older people or associated with relevant social determinants of health, including AgeUK, BITC and Citizens Advice Local and national government representatives from several departments

SCOPE

In scope:

- Assessment of health inequalities among older people and their social determinants over the life course.
- Contemporary social determinants impacting on health inequalities in older age, with a focus on mental health and cognitive impairment and dementia.
- Focus on social isolation, mental stimulation and physical activity.
- The impact of health and social care interventions on social determinants of mental health and cognitive impairment and dementia.
- Mitigating action on mental health and cognitive impairment and dementia for older people.

Out of scope:

- Policy recommendations and proposals for action throughout the life course.
- Primary research, for example research which gathers and analyses data collected first hand from source.
- Systematic literature reviews.

Further research will be recommended if there are clear evidence gaps.

STAKEHOLDERS

AREA	HEALTH AND CARE	WORK AND PENSIONS	SOCIAL ISOLATION
Government department/national body	Department of Health Public Health England NHS England	Department for Work and Pensions	Department for Communities and Local Government Department of Transport
Local organisations/workforces	Clinical Commissioning Groups Local health and care services Health and Wellbeing Boards Social care Local authority public health		Local authorities

APPENDIX 2. KEY LITERATURE

Blackfriars Consensus on Promoting Brain Health: Reducing risks for dementia in the population (2014)

The UK Health Forum and Public Health England hosted a meeting of public health practitioners, researchers, policy-makers and voluntary and community representatives in January 2014, at which a consensus was agreed that prevention and risk reduction strategies for dementia should be included into current strategies for non-communicable diseases. Within this strategy there is an acknowledgement that 'protective factors also play a part' in interventions to address risk factors including 'social engagement'. Social isolation is named as a protective and risk factor that is 'amenable to change', and the Consensus argues that 'targeted action' on 'upstream, social, economic and environmental factors' can impact on the prevalence of dementia. [3]

Age UK: Agenda for Later Life and Health (2015)

Age UK has released figures relating the funding reductions experienced by health and social care in the community to poorer outcomes. Since 2010/2011, 24.9% has been cut from social care budgets, while during 2009–2014 spending on GPs and hospital based doctors increased (by 19.9% and 41% respectively). [202] Age UK also reports that hospital re-admissions for older people increased from 201,571 older people in 2010/11 to 204,709 older people in 2011/2012, as did delayed discharge, up by 2%, due to a lack of social care provision (from 494,688 days in 2012/13 to 504,112 days in 2013/14). The number of people receiving social care at home decreased between 2011/12 and 2012/13 (from 414,780 to 384,600). Reports of loneliness increased by 3%, up from 770,000 in 2013 to 1.06 million in 2014. [148]

Healthy Working Lives: Mentally Healthy Retirement – Guidance For Human Resources (HR) professionals and employers (2013)

The Scottish Centre for Healthy Working Lives has produced guidance for employers which promotes a healthy approach to retirement. It includes various actions which promote a mentally healthy environment for older people and employees with imminent retirement plans. The guidance supports businesses to develop strategies, including training and raising mental health awareness among staff and managers, and to identify and reduce work-related stress. Employers and managers are encouraged to monitor equal opportunities data regarding pay, promotion and conditions according to age. The guidance also provides information around flexible retirement planning and advocates independent financial advice. [203]

Department for Work and Pensions: Age Positive (2013) Age Positive is a DWP initiative that provides advice and guidance for employers who wish to support, retain, retrain or promote the health of workers over the age of 50. The document provides clear guidance and information which discredits myths around older people in work, including mistaken beliefs that older employers take employment opportunities away from younger people, and that older people are harder to train or are unproductive. [204]

The Consumer Rights Act 2015, the Consumer Rights (Payment Surcharges) Regulation, and Addressing the Poverty Premium by Consumer Futures (2013)

The Consumer Futures report Addressing the Poverty Premium details the 'poverty premium' placed on low income households by utility companies such as water, telecommunications, light and heating. It calculates that customers who are seen as unprofitable are likely to pay at least 10p extra on every £1 spent, as providers neglect their needs. However, the Consumer Rights Act and the Consumer Rights (Payment Surcharges) Regulation state that 'a trader must not charge consumers, in respect of the use of a given means of payment, fees that exceed the cost borne by the trader for the use of that means'. Additionally, the British Standard Institution voluntary standard BS 18477: 2010 Inclusive Service Provision can be used by regulators and policy-makers to ensure that those who are most vulnerable to paying higher prices or are vulnerable due to their circumstances are better provided for within the sector and do not pay higher fuel, energy or communications bills. The Department of Health can work to ensure that poverty, and its impact on social isolation and social connectedness, and subsequent health inequalities, is highlighted within relevant departments to provide impetus to addressing the issue of fuel poverty experienced by older people. [205]

Joseph Rowntree Foundation: A Minimum Income Standard for the UK in 2014

This research publication examines what goods and services are needed to maintain an adequate level of living standard, and the gaps between current incomes and the income needed to secure appropriate goods and services. The report highlights the increase in cost of living and the concurrent decreasing value of wages and notes the changing needs of pensioners, including the needs for computers and Internet access. Needs for taxis has also increased due to worsening public transport links. [206]

World Health Organisation (WHO): Global Age Friendly Cities: A guide (2007)

The WHO has produced a guide to developing cities and environments that are 'age friendly'. This includes guidance on outdoor spaces and buildings, transportation, housing, social participation, respect and social inclusion, civic participation and employment, and communication and information with the understanding that age-friendly cities promote active ageing and maximise opportunities for healthier lifestyles. For this view to become a reality it is recognised that cities need to adjust their structures and services to accommodate the needs of a diverse, ageing population and to work across sectors. The publication recommends a 'bottom up participatory approach' which includes the views of older people, their carers and their service providers. It identifies enabling aspects of cities, and barriers to inclusion, such as lack of access to green spaces, lack of seating and opportunities to rest, and inadequate pavements. Strategic partnerships between public health bodies, local council planning departments, and older-age third-sector service providers can ensure that the needs of older people are incorporated into town planning and maintenance. [207]

Transport for London and Age UK: Older People's Experience of Travel in London (June 2009)

This report details the barriers older people face to accessing transport in London and the negative impact that this has on the participatory behaviours of older people, their emotional wellbeing and their levels of engagement in mentally stimulating activities. Local health departments should highlight the links between social determinants, such as access to appropriate transport and levels of engagement, and their impact on mental health, cognitive decline and dementia. [208]

NIACE: Learning for Older People in Care Settings. A Guide for Learning Providers (2014)

This publication provides a clear case for why older people in care settings should be engaged in learning, a strategic approach for taking initiatives forward, and a number of case studies demonstrating the success of programmes in providing a wide range of activities, and improving the learning, engagement and quality of life of older age care residents. [209]

GLOSSARY

Cognitive decline

Cognitive decline is the process of deterioration of cognitive functioning. Cognitive decline is thought to occur along a continuum, ranging from 'normal' 'age related' decline in cognitive functioning to faster decline associated with a pathological process of dementia. 'Rates of cognitive decline' describe the speed at which the process of cognitive decline is experienced.

Cognitive functioning

Cognitive functioning refers to the activities of the brain that enable knowledge including memory, language, attention, problem-solving and reasoning.

Dementia

Dementia describes a set of symptoms which can include difficulties with problem-solving, language, thinking and memory loss and can affect daily living. Dementia can also be mood- or behaviour-altering. Dementia occurs as a result of damage to the brain either through diseases such as Alzheimer's or through stroke. Different people will experience different symptoms, depending on which parts of the brain have been damaged and which type of dementia is diagnosed. Dementia is a progressive disease, which means that the symptoms worsen over time. Diseases that cause dementia include Alzheimer's disease, Vascular dementia, dementia with Lewy Bodies and Frontotemporal dementia.

Indices of Multiple Deprivation

The English Indices of Multiple Deprivation calculate levels of deprivation in various small areas or neighbourhoods in England. The Indices are published by the Department of Communities and Local Government.

Loneliness

Loneliness refers to the subjective experience of feeling that the quantity or quality of social relationships is inadequate, leading to feelings of sadness, anxiety and depression.

Mental health

Mental health, or 'good' mental health, is defined by the World Health Organisation as 'a state of well-being in which every individual realises his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community'. [7] There are many people who do not reach the threshold for a diagnosis of a mental disorder but whom, under the definition of the WHO, have poor mental health. Mental illness, or common mental disorders, include depressive and anxiety disorders. [8]

Mild cognitive impairment (MCI)

Mild cognitive impairment describes a stage of cognitive decline which includes difficulties with memory, language, and day to day functioning, but is not severe enough to be diagnosed as dementia. Older people can experience MCI as a result of depression, anxiety or medication use. Other forms of MCI can be an indicator for later life dementia. Between 5 and 20% of people experiencing MCI will go on to develop dementia. [20, 78]

Modifiable risk indicator

A risk indicator in health is a condition which is known to increase the risk of developing a specific health outcome. A modifiable risk indicator is a condition which can be changed to reduce the risk.

Prodromal

Prodromal refers to the early symptoms of a disease or health condition.

Social connectedness

Social connectedness refers to the number, quality and frequency of connections a person has with family, friends, colleagues, acquaintances and their community. People who are socially connected will be engaged with a number of family and friends and their community, and will subjectively rate the nature and quality of their relationships as adequate to their needs.

Social determinants

The social determinants of health are the conditions in which people are born, grow, work, live and age. This can include the conditions of housing, the local and wider environment, access to services and resources, in addition to social and economic policies, cultural and social norms, and political systems.

Social gradient

The social gradient in health means that inequalities in health outcomes are experienced by everyone, from the lowest quintile to the highest. People in the lowest quintile will experience worse health outcomes than people in the highest quintile because of their socioeconomic position and the circumstances in which they are born, grow, live, work and age.

Social isolation

Social isolation is experienced when an individual has an inadequate quality and quantity of social relations with other people at the different levels at which human interaction takes place (individual, group, community and the larger social environment). [210]

Social patterning

Social patterning refers to recording and evaluating the changes in social circumstances in which people are born, live, work and age and how these changes impact on health outcomes.

REFERENCES

- 1 The London School of Economics and Political Science & Kings College London, *Dementia UK: The Second Edition* 2014 November
- 2 Robineau, D. and Statistics from Nuffield Trust, *Ageing Britain: two-fifths of NHS Budget is spent on over 65's in Guardian* 2016.
- 3 Public Health England and UK Health Forum, *The Blackfriars Consensus Statement*. 2014.
- 4 Department of Health, *No health without mental health - A cross-government mental health outcomes strategy for people of all ages* 2011: London.
- 5 Department of Health. *Delivering better mental health outcomes for all ages*. 2011; Available from: <https://www.gov.uk/government/publications/delivering-better-mental-health-outcomes-for-people-of-all-ages>.
- 6 Department of Health. *No Health without mental health Mental health dashboard*. 2013; Available from: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/265388/Mental_Health_Dashboard.pdf.
- 7 World health Organisation. *Health topics, Mental health*. 2015 2/4/2015]; Available from: http://www.who.int/topics/mental_health/en/.
- 8 World Health Organization, *Social Determinants of Mental Health*. 2014.
- 9 *Mental Health Foundation. Mental Health Statistics - Men and Women*. Available from: <http://www.mentalhealth.org.uk/help-information/mental-health-statistics/men-women/>.
- 10 National Institute for Health and Care Excellence, *Health and Social Care Quality Programme, Briefing Paper, Mental wellbeing of older people in residential care* 2013.
- 11 Chew-Graham, C., et al. *Management of Depression in Older People: Why This is Important in Primary Care*. 2014 Available from: <http://www.rcgp.org.uk/clinical-and-research/clinical-resources/-/media/Files/CIRC/Mental%20Health%20-%202014/3%20%20Managing%20Depression%20In%20Older%20People.ashx>.
- 12 Naylor, C., et al., *Long Term Health Conditions and Mental Health. The Cost of Co Morbidities*. 2012 (Feb).
- 13 Cooper, C., et al., *Modifiable Predictors of Dementia in Mild Cognitive Impairment: A Systematic Review and Meta-Analysis*. American Journal of Psychiatry, 2015. **172**(4): p. 323-334.
- 14 Innes, A. and J. Manthorpe, *Developing theoretical understandings of dementia and their application to dementia care policy in the UK*. Dementia, 2013. **12**(6): p. 682-696.
- 15 Alzheimer's Society. *Statistics*. 1/4/2015]; Available from: <http://www.alzheimers.org.uk/statistics>.
- 16 Alzheimer's Society. *Mild cognitive impairment - Fact Sheet*. 1/4/2015]; Available from: http://www.alzheimers.org.uk/site/scripts/download_info.php?fileID=1773.
- 17 Department of Health, *Dementia: A State of the Nation Report on Dementia Care and Support in England*. 2013.
- 18 Alzheimer's Society, *What is mild cognitive impairment (MCI)*. 2015.
- 19 Ray, S., S. Davidson, and Age UK, *Dementia and Cognitive Decline. A review of the evidence*. 2014.
- 20 Alzheimer's Society, *What is Alzheimer's Disease? Fact Sheet*
- 21 *Department of Health, Improving care for people with dementia* 2010 - 2015
- 22 Alzheimer's Society. *Dementia Diagnosis Rates*. 1/4/2015]; Available from: http://www.alzheimers.org.uk/site/scripts/documents_info.php?documentID=2165.
- 23 The Institute of Health Equity, *Marmot Indicators 2015. A preliminary summary with graphs*. 2015 (October).
- 24 The Marmot Review Team, *Fair Society Healthy Lives*. 2010, UCL: London.
- 25 Dekhtyar, S.W., H. Scott, K. Goodman, A. Koupil, I. Herlitz, A. , *A Life-Course Study of Cognitive Reserve in Dementia - From Childhood to Old Age* American Association for Geriatric Psychiatry 2015.
- 26 Kiernan, K. and M.C. Huerta, *Economic deprivation, maternal depression, parenting and children's cognitive and emotional development in early childhood*. THE BRITISH JOURNAL OF SOCIOLOGY, 2008. **Volume 59, Issue 4, pages 783-806, December 2008**.
- 27 International Centre for Lifecourse Studies in Society and Health, *Life gets under your skin*. 2012.
- 28 The Marmot Review Team, *The Health Impacts of Cold Homes and Fuel Poverty*. 2011, UCL: London.
- 29 UCL Institute of Health Equity, *Local action on health inequalities: Fuel poverty and cold home - related health problems*. 2014: London.
- 30 Shelter, *Chance of a lifetime - The impact of bad housing on children's lives*. 2006: London.
- 31 The Marmot Review Team, *The Impact of Adverse Experiences in the home on the health of children and young people, and inequalities in prevalence and effects*.
- 32 Maschi, T., et al., *The Aftermath of Childhood Trauma on Late Life Mental and Physical Health: A Review of the Literature* SAGE, 2012.

- 33 The Royal College of Psychiatrists, *No health without public mental health: the case for action*. 2010.
- 34 McGloin, J. and C. Spatz Widom, *Resilience among abused and neglected children grown up*. *Development and Psychopathology*. 12, 2001: p. 1021-38.
- 35 Gibby-Smith, B., *Correlations of grade point averages at a rural college with reports of abuse in rural families*. *Psychological Reports*. , 1995(77(2)): p. 619-21.
- 36 Kinard, E., *Psychosocial resources and academic performance in abused children*. *Children and Youth Services Review*, 1999. 21: p. 351-76.
- 37 Solomon, C. and F. Serres, *Effects of parental verbal aggression on children's self-esteem and school marks*. *Child abuse & neglect*, 1999. 23: p.339-51.
- 38 Shira, A., *Greater age-related decline in markers of physical, mental and cognitive health among Israeli older adults exposed to lifetime cumulative adversity*. *Aging & Mental Health*, 2013.
- 39 Stern, Y., *The Concept of Cognitive Reserve: A Catalyst for Research*. *Journal of Clinical and Experimental Neuropsychology*, 2003. 25(5): p. 589-593.
- 40 Scarmeas, N. and Y. Stern, *Cognitive reserve and lifestyle*. *J Clin Exp Neuropsychol*, 2003. 25(5): p. 625-33.
- 41 Richards, M. and A. Sacker, *Lifetime Antecedents of Cognitive Reserve*. *Journal of Clinical and Experimental Neuropsychology* 2003. 25(5): p. 614-624.
- 42 Dekhtyar, S.W., S. Scott, K. Goodman, A. Koupil, I. Herlitz, A *A Life Course Study of Cognitive Reserve in Dementia - From Childhood to Old Age*. 2015.
- 43 Piachaud, D., et al., *Report of Task Group 9 - Social inclusion and social mobility*. 2009.
- 44 Min, K.B., et al., *Precarious employment and the risk of suicidal ideation and suicide attempts*. *Preventive Medicine*, 2015. 71: p.72-76.
- 45 Kivimaki, M. and et al, *Job strain as a risk factor for coronary heart disease: a collaborative meta-analysis of individual participant data*. *The Lancet*, 2012. 380: p. 1491-1497.
- 46 Roberts, G. and R. Bell, *Social Inequalities in the leading causes of early death. A life course approach*. *Institute of Health Equity and Department of Health* 2015.
- 47 Allen, J., *Older People and Wellbeing*. 2008, Institute for Public Policy Research.
- 48 Harris, J., et al., *Health, mental health and housing conditions in England*. 2010, eaga Charitable Trust: London.
- 49 Tunstall, R. and et al, *The links between housing and poverty*. 2013, Joseph Rowntree Foundation.
- 50 Buck, D. and F. Frossini, *Clustering of unhealthy behaviours over time. Implications for Policy and Practice*, *The Kings Fund*. 2013.
- 51 The Health and Social Care Information Centre (HSCIC), *Statistics on Smoking: England*, 2012 2012.
- 52 Dalby, K. and Kings College London, *Never too old to quit: Smoking Cessation services and older smokers*,.
- 53 The Mental Health Foundation, *Smoking and Mental Health*
- 54 Alzheimer's Society. *Am I at risk of developing dementia?* 1/4/2015]; Available from: http://www.alzheimers.org.uk/site/scripts/documents_info.php?documentID=102.
- 55 Drink Aware. *Binge Drinking* 2015; Available from: <https://www.drinkaware.co.uk/understand-your-drinking/is-your-drinking-a-problem/binge-drinking>.
- 56 Office for National Statistics, *Adult Drinking Habits in Great Britain* 2013.
- 57 Institute of Alcohol Studies. *Older people's drinking habits: Very little, very often*. 1/4/2015]; Available from: <http://www.ias.org.uk/Alcohol-knowledge-centre/Alcohol-and-older-people/Factsheets/Older-peoples-drinking-habits-Very-little-very-often.aspx>.
- 58 The Royal College of Psychiatrists. *Alcohol and Older People*. 2012 1/4/2015]; Available from: <http://www.rcpsych.ac.uk/healthadvice/problemsdisorders/alcoholandolderpeople.aspx>.
- 59 The Royal College of Psychiatrists, *Alcohol and Depression*
- 60 Alzheimers Society, *Excessive drinking could increase risk of early-onset dementia*. 2013
- 61 DrugScope. *It's about time -Tackling substance misuse in older people* 2014.
- 62 Wadd, S. and S. Galvani, *The Fogotten People. Drug Problems in Later Life* 2014.
- 63 Hulse, G., et al., *Dementia associated with alcohol and other drug use Int Psychogeriatr*, 2005. 17(1:S1): p. 109-27.
- 64 Institute of Health Equity, *Local Action on health inequalities: Improving Access to green spaces*. *Health Equity Evidence Review* 8. 2004 (September).
- 65 Help The Aged, *Policy Statement Physical Activity*. 2008.
- 66 UCL Institute of Health Equity, *Local action on health inequalities; Improving access to green spaces*. *Health Equity Evidence Review* 8. 2014 September
- 67 Alzheimer's Society. *Regular physical activity reduces risk of dementia in older people*. 2012; Available from: https://www.alzheimers.org.uk/site/scripts/news_article.php?newsID=1382.
- 68 Fox, K., *The influence of physical activity on mental well being*,. *Public Health Nutrition*, Volume 2, Supplement, March 1999, pp 411 – 418 1999.
- 69 Potter, C. and S. Ulijaszek, *Predicting adult obesity from measures in earlier life*. 2012
- 70 National Obesity Observatory, *Adult Obesity and Socio Economic Status*. 2010.
- 71 Public Health England Obesity Knowledge and Intelligence Team. *Health Inequalities*. 2012; Available from: http://www.noo.org.uk/NOO_about_obesity/inequalities#d6886.

- 72 National Obesity Observatory, *Obesity and Mental Health* 2011.
- 73 Kane, A. *How Fat Affects Arthritis*. 1/4/2015]; Available from: <http://www.arthritistoday.org/about-arthritis/arthritis-and-your-health/obesity/fat-and-arthritis.php>.
- 74 Patel, P.J. and J.A. Batsis, *Obesity in the older adult*. *OA Elderly Medicine*, 2013. **01;1(1):5**.
- 75 *Black Country Growth Deal*. Available from: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/398149/01_Black_Country_Growth_Deal.pdf.
- 76 Frechette, J.D. and M.E. Marraccini, *Role of Nutrition in the Prevention of Cognitive Decline*.
- 77 Guerchet, M.D., *Nutrition and dementia, A review of the available research*. *Alzheimer's Disease International* 2014.
- 78 Alzheimer's Research UK, *All About Dementia*.
- 79 Mental Health Foundation, *Black and Minority Ethnic Communities*.
- 80 Sharp, S., *Dementia Does Not Discriminate, The experiences of black, Asian, and minority ethnic communities*. 2013. p.17-19.
- 81 Alzheimer's Research UK. *Oestrogen and diabetes linked to increased dementia risk*. 2014; Available from: <http://www.alzheimersresearchuk.org/oestrogen-and-diabetes-linked-to-increased-dementia-risk/>.
- 82 Alzheimer's Society, *Learning Disabilities and Dementia Fact Sheet*.
- 83 BMJ, *Health of young and elderly informal carers: analysis of UK census data*. *BMJ* 2003; **327**-1388 2003.
- 84 The Princess Royal Trust for Carers, *Always on call, always concerned. A survey of the experiences of older carers*. 2011.
- 85 Kawachi, I. and L.F. Berkman, *Social ties and mental health*. *J Urban Health*, 2001. **78(3)**: p. 458-67.
- 86 Office of the Deputy Prime Minister, *A Sure Start to Later Life - Ending Inequalities for Older People*. 2006: London.
- 87 Bolton, M., *Loneliness - the state we're in* 2012, Age UK: Oxfordshire.
- 88 Age U.K, *Over 1 million older people in UK feel lonely*. 2014.
- 89 Office for National Statistics, *Living in Britain 2001: Supplementary Report, People aged 65 and over*. 2003: London.
- 90 Rohde, N., et al., *Estimating the Mental Health Effects of Social Isolation* Springer, 2015.
- 91 Cacioppo, J. and L. Hawkley, *Perceived social isolation and cognition*. 2009.
- 92 Holt-Lunstad, J., T.B. Smith, and J.B. Layton, *Social relationships and mortality risk: a meta-analytic review*. *PLoS Med*, 2010. **7(7)**: p. e1000316.
- 93 Bassuk, S.S., T.A. Glass, and L.F. Berkman, *Social disengagement and incident cognitive decline in community-dwelling elderly persons*. *Ann Intern Med*, 1999. **131(3)**: p. 165-73.
- 94 Vitaliano, P., et al., *Does caring for a spouse with dementia promote cognitive decline? A hypothesis and proposed mechanisms*. *The American Geriatrics Society*, 2011. **59(5)**: p. 900-8.
- 95 Wilson, R.S., et al., *Loneliness and risk of Alzheimer disease*. *Arch Gen Psychiatry*, 2007. **64(2)**: p. 234-40.
- 96 Hawkley, L., R. Thisted, and J. Cacioppo, *Loneliness Predicts Reduced Physical Activity: Cross Sectional and Longitudinal Study*. 2009 (May).
- 97 Holwerda, T., et al., *Feelings of loneliness, but not social isolation predict dementia onset results from the Amsterdam. Study of the Elderly (AMSTEL)*. *J Neurol Neurosurg Psychiatry* 2014. **2014;85: 135-142**.
- 98 International Psychogeriatrics Association, *Lifestyle and late life cognitive health: sufficient evidence to act now?* 2012. **24:5, 683-688**.
- 99 Barber and e. al, *Lifestyle and late life cognitive health: sufficient evidence to act now*. *International Psychogeriatrics* 2012.
- 100 Bosma, H. and e. al., *Engaged lifestyle and cognitive function in middle and old-aged, non-demented persons: a reciprocal association?* *Zeitschrift fur Gerontologie und Geriatrie* 2002 **35**: p. 575-581.
- 101 Wang, H., et al., *Late-Life Engagement in Social and Leisure Activities Is Associated with a Decreased Risk of Dementia: A Longitudinal Study from the Kungsholmen Project* 2002.
- 102 Verghese, J. and e. al., *Leisure activities and the risk of dementia in the elderly*. *New England Journal of Medicine*, 2003. **348**: p. 2508-2516.
- 103 Barnes, M., et al., *The Dynamics of Ageing, Evidence from the Longitudinal Study of Ageing, 2002-10 (WAVE 5)*. 2012, Institute for Fiscal Studies London.
- 104 Hill, K., L. Sutton, and D. Hirsh, *Living on a Low Income in Later Life. Age UK and Centre for Research in Social Policy, Loughborough University* 2011.
- 105 Craig, R. and J.E. Mindell, *Health Survey for England 2005. Volumes 1-4: The health of older people*. (2007).
- 106 Age U.K, *How we can end pensioner poverty*. 2014: London.
- 107 Hopton, J. and S. Hunt, *Housing conditions and mental health in a disadvantaged area in Scotland*. *Journal of Epidemiology and Community Health*, 1996.
- 108 Macintyre, S., et al., *What features of the home and the area might help to explain observed relationships between housing tenure and health? Evidence from the west of Scotland*. *Health Place* **9**:207-18, 2003.
- 109 U.K Government. *Retirement age*. 2/4/2015]; Available from: <https://www.gov.uk/retirement-age>.
- 110 O'Hara, D.J., R. Buckingham, A. Weyman, A. *Extending Working Lives Research Paper* 2012.

- 111 Acas. *Acas Policy Discussion Paper Zero Hours* 2014 (May); <http://www.acas.org.uk/media/pdf/6/n/Acas-Policy-Discussion-Paper-Zero-Hours-May-2014.pdf>. Available from: <http://www.acas.org.uk/media/pdf/6/n/Acas-Policy-Discussion-Paper-Zero-Hours-May-2014.pdf>.
- 112 <https://www.gov.uk/government/collections/income-related-benefits-estimates-of-take-up--2>.
- 113 Crawford. R. Tetlow, G., *Financial circumstances, health and well-being of the older population in England*
THE 2008 ENGLISH LONGITUDINAL STUDY OF AGEING (Wave 4) Chapter 2, Employment, Retirement and Pensions. 2008.
- 114 The Poverty Site. *Older people in low income*. 2/4/2015]; Available from: <http://www.poverty.org.uk/64/index.shtml>.
- 115 The Audit Commission, *Support for carers of older people, Independence and well-being* 5. 2004: London.
- 116 Travers, A.F., *Caring for older people*. *Carers*. BMJ, 1996. **313**(7055): p. 482-6.
- 117 Select Committee on Work and Pensions, *Fourth Report: Carers income and benefits*. 2008.
- 118 Social Care Institute for Excellence. *Assessing the mental health needs of older people*. 1/4/2015]; Available from: <http://www.scie.org.uk/publications/guides/guide03/law/policy.asp>.
- 119 Office for National Statistics, *Full story: The gender gap in unpaid care provision: is there an impact on health and economic position?* 2013.
- 120 Walker, A., et al., *Growing Older in a Black and Ethnic Minority Group*. 2004.
- 121 Office for National Statistics, *Statistical Bulletin, Families and Households*, 2013. 2013.
- 122 Campaign to End Loneliness, *Loneliness Research*
- 123 Alzheimer's Society, *People with dementia living alone*. 2010 - 2012.
- 124 Aldridge, F. and A. Tuckett, *Narrowing Participation*, The NIACE 2009 Survey on Adult Participation in Education. 2009, NIACE.
- 125 Walker, A. and S.e. Northmore, *Growing Older in a Black or Ethnic Minority Group*. 2006, Age Concern: London.
- 126 Green, M. and P. Rossall, *Age UK Digital Inclusion Evidence Report*. 2013.
- 127 Help The Aged, *Unequal Ageing, Briefing 2: Place*. 2008: London.
- 128 Pereira, F.B., *The Gender Gap in Community Participation*. *Americas Quarterly*, 2012.
- 129 Osborne, K., F. Baum, and A. Ziersch, *Negative consequences of community group participation for women's mental health and well-being: Implications for gender aware social capital building*. *Journal of Community & Applied Social Psychology*, 2009. **19**(3): p. 212-224.
- 130 Beach, B. and S.M. Bamford, *Isolation: the emerging crisis for older men*. 2014.
- 131 Cambell, C. and C. MacLean, *Ethnic identities, social capital and health inequalities: factors shaping African-Caribbean participation in local community networks in the UK*. 2002 (August)
- 132 Midkiff, K., *Use it or Lose it? What Predicts Age-Related Declines in Cognitive Performance in Elderly Adults?* *McNair Scholars Journal*, 2004. **8**(1): p. Article 7.
- 133 Coe, N.B., et al., *The effect of retirement on cognitive functioning*. *Health Econ*, 2012. **21**(8): p. 913-27.
- 134 Liberati, G., A. Raffone, and M.O. Belardinelli, *Cognitive reserve and its implications for rehabilitation and Alzheimer's disease*. *Cognitive processing*, 2012. **13**(1): p. 1-12.
- 135 Hultsch, D.H., C. Small, B.J. Dixon, R.A. , *Use it or lose it: engaged lifestyle as a buffer of cognitive decline in ageing?* . *Psychol Aging* 1999. **14**(2): p. 245-263.
- 136 Adam, S., et al., *Occupational activity and cognitive reserve: implications in terms of prevention of cognitive aging and Alzheimer's disease*. *Clinical Interventions in Aging*, 2013. **2013**:8: p. 377-390.
- 137 Sherratt, K., A. Thornton, and C. Hatton, *Music interventions for people with dementia: a review of the literature*. *Aging & Mental Health*, 2004. **8**(1): p. 3-12.
- 138 Stern 2003 quoted in Liberati, G., A. Raffone, and M. Belardinelli, *Cognitive reserve and its implications for rehabilitation and Alzheimer's disease*. 2012.
- 139 National Institute of Adult Continuing Education (NIACE), *Supporting more older people into learning*. 2012.
- 140 Strawbridge, W.J., et al., *Physical activity reduces the risk of subsequent depression for older adults*. *American Journal of Epidemiology*, 2002. **156**(4): p. 328-334.
- 141 Law, L.L., et al., *Effects of combined cognitive and exercise interventions on cognition in older adults with and without cognitive impairment: a systematic review*. *Ageing research reviews*, 2014. **15**: p. 61-75.
- 142 Ahlskog, J.E., et al. *Physical exercise as a preventive or disease-modifying treatment of dementia and brain aging*. in *Mayo Clinic Proceedings*. 2011. Elsevier.
- 143 Horne, M., et al., *Perceived barriers to initiating and maintain physical activity among South Asian and White British adults in their 60's living in the United Kingdom: a qualitative study*. *School of Nursing, Midwifery and Social Work*, The University of Manchester 2013.
- 144 Hastings, A., et al., *The Cost of the Cuts. The Impact on Local Government and Poor Communities*, *The Joseph Rowntree Foundation*. 2015.
- 145 Jones, H., et al., *Adult participation in sport, Analysis of the Taking Part Survey*. 2011 (August).
- 146 National Audit Office, *Enhancing Urban Green Space* 2006.
- 147 Chen, Y.-M., *Perceived barriers to physical activity among older adults residing in long-term care institutions*. *Journal of Clinical Nursing*, 2010. **19**(3-4): p. 432-439.
- 148 Age UK, *Agenda for Later Life* 2015

- 149 Barker, K. and The Kings Fund, *A new settlement for health and social care* 2014.
- 150 Cornwell J. et al and The Kings Fund, *Continuity of Care for Older Hospital Patients. A Call To Action*. 2012.
- 151 The Care Quality Commission, *The State of Health Care and Adult Social Care in Britain* 2012/13.
- 152 Knapp, M., D. McDaid, and M. Parsonage, *Mental health promotion and mental illness prevention: The economic case*. 2011.
- 153 Joint Commissioning Panel for Mental Health, *Guidance for commissioners of older peoples mental health services* 2013.
- 154 Denning, T. and A. Milne, *Depression and mental health in care homes for older people*. *Quality in Ageing and Older Adults*, 2009. 10(1): p. 40-46.
- 155 Demos and The Commission on Residential Care, 'A vision for care fit for the 21st Century'. 2014.
- 156 Dementia Action Alliance. 2015; Available from: http://www.dementiaaction.org.uk/members_and_action_plans/69-department_of_health.
- 157 Public Health England, *From evidence to action: opportunities to protect and improve the nations health* 2014 (Oct).
- 158 The National Institute for Health and Care Excellence (NICE), *Dementia, disability and frailty in later life - mid-life approaches to delay or prevent onset*, <https://www.nice.org.uk/guidance/NG16/documents/disability-dementia-and-frailty-in-later-life-midlife-approaches-to-prevention-draft-guidance2>, Editor. 2015.
- 159 Smith, S., J. Waterall, and F. Burden, *An evaluation of the performance of the NHS Health Check programme in identifying people at high risk of developing type 2 diabetes* *BMJ Open* 2013;3:e002219 doi:10.1136/bmjopen-2012-002219 *Diabetes and endocrinology*, 2013.
- 160 Department of Health, *The Prime Minister's challenge on dementia* 2020. 2015.
- 161 Carers UK. Carers UK responds to the publication of guidance on care funding 2013; Available from: <https://www.carersuk.org/news-and-campaigns/press-releases/carers-uk-responds-to-the-publication-of-guidance-on-care-funding>.
- 162 BBC. *Thousands of care workers 'miss out on minimum wage'*. 2015 (February); Available from: <http://www.bbc.co.uk/news/uk-31258205>.
- 163 Age U.K., <http://www.ageuk.org.uk/home-and-care/the-care-act/>.
- 164 NHS. *About personal health budgets*. Page last reviewed 26.01.2015; Available from: <http://www.nhs.uk/choiceintheNHS/Yourchoices/personal-health-budgets/Pages/about-personal-health-budgets.aspx>.
- 165 Routledge, M. and S. Carr, *Improving Personal Budgets for Older People A REVIEW PHASE ONE REPORT*. 2013.
- 166 Morris, J., *Independent Living Strategy: A review of progress* 2014.
- 167 Alzheimer's Society, *Position Statement - Personalisation found at*:http://www.alzheimers.org.uk/site/scripts/documents_info.php?documentID=1557.
- 168 Department of Health, *Healthy Lives, Healthy People*. 2010.
- 169 Davidson, S.R., P. , *Age UK Evidence Review. Loneliness in Later Life*. Revised 2014 (July).
- 170 World Health Organisation, *Global Age Friendly Cities*. A Guide 2007.
- 171 Davidson, S. and Age UK, *Evidence Review. Loneliness in Later Life* 2014.
- 172 Hill, M., *Is volunteering really open to all* 2014.
- 173 Community Development Foundation, *Report Outcomes of the Active at 60 Community Agent Program*. 2012.
- 174 Davis, H. and K. Ritters, *Department of Work and Pensions Link Age Plus national evaluation: End of Project Report*. 2009.
- 175 <http://linkageplus.co.uk/about-us/company-history/>.
- 176 Cupitt, S., *Charities Evaluation Service Campaign to End Loneliness Impact Report the first three years achievements* 2013.
- 177 <https://webgate.ec.europa.eu/eipaha/initiative/index/show/id/387>.
- 178 Matters, V. *Older People Available from*: <http://volunteermatters.org.uk/volunteering-matters/retired/>.
- 179 <http://www.sharedlivesplus.org.uk/homeshare-case-studies?highlight=WyJjYXNlIiwic3R1ZHZhkiLCJjYXNlIHN0dWR5I1I0>.
- 180 Hoff, A., *Tackling poverty and social exclusion of older people: Lessons from Europe*. 2008: Oxford Institute of Ageing Oxford.
- 181 HealthPROElderly Project, *Buddy care for homosexual elderly people / Pink buddies*.
- 182 Hendriksen, C. and M. Vass, *Preventative home visits to elderly people in Denmark* 2005.
- 183 Walker, A., *Active strategies for older workers in the UK. Active strategies for older workers*. Brussels: ETUI, 2002: p. 403-435.
- 184 Equality and Human Rights Commission, *Working Better over 50* 2010 (January)(January 2010).
- 185 European Monitoring Centre on Change. *Inclusion of ageing workers: Four company case examples*. 2015; Available from: <http://www.eurofound.europa.eu/observatories/emcc/articles/working-conditions/inclusion-of-ageing-workers-four-company-case-examples>.
- 186 Uttley, H., *Why Lloyds Disability Programme's Essential to Retention*. 2014.
- 187 Trade Union Congress, *Work and well being: A trade union resource* 2013.
- 188 The Campaigns Team Age UK, *How we can end pensioner poverty*
- 189 Tinker, A. and J. Ginn, *An Age Friendly City - How far has London Come* 2015.
- 190 Department of Health and Department of Work and Pensions, *Activity Friends (Senior Peer Mentoring)*.

- 191 Rushcliffe Community Voluntary Service. *Closure of Activity Friends*. Available from: <http://www.rushcliffecvs.org.uk/projects-projects-72/activity-friends-projects-99/384-closure-of-activity-friends.html>.
- 192 Belfast Strategic Partnership, *Age Friendly Belfast A City Where Older People Live Life to the Full Summary Plan 2014 - 2017*. 2014.
- 193 Dementia Adventure. Available from: <http://www.dementiaadventure.co.uk/>.
- 194 Fullick, L., *Poverty Reduction and Lifelong Learning* 2009.
- 195 Universities UK, *Active ageing and Universities: engaging older learners* 2010.
- 196 Queen Margaret University. *Course helps older people and health professionals shape policies and services*. Available from: http://www.qmu.ac.uk/marketing/press_releases/educpart.htm.
- 197 Available from: <http://www.openage.org.uk/>.
- 198 Robertson, H., *Integration of health and social care: A review of literature and models Implications for Scotland*. 2011, Royal College of Nursing in Scotland. Available at: http://www.rcn.org.uk/__data/assets/pdf_file/0008/455633/Hilarys_Paper.pdf.
- 199 *Department for Communities and Local Government. National Planning Guidance - Health and Wellbeing* 2014; Available from: <http://planningguidance.planningportal.gov.uk/blog/guidance/health-and-wellbeing/what-is-the-role-of-health-and-wellbeing-in-planning/>.
- 200 Local Government Association, *Ageing: The Silver Lining. The opportunities and challenges of an ageing society for local government*. 2015 (June).
- 201 Buck, D. and The Kings Fund. *Tackling health inequalities: we need a national conversation*. 2014 Available from: <http://www.kingsfund.org.uk/blog/2014/02/tackling-health-inequalities-we-need-national-conversation>.
- 202 Age UK, *Spend on social care tumbles* 2015.
- 203 Chartered Institute of Personnel and Development (CIPD). *Mentally healthy retirement Guidance for human resources (HR) professionals and employers HealthyWorkingLives*. 2013; Available from: <http://www.healthscotland.com/uploads/documents/20909-HWLRetirementReportFinal.pdf>.
- 204 Department for Work and Pensions. *Age Positive*. 2013; Available from: <https://www.gov.uk/government/collections/age-positive>.
- 205 HIRSCH, D. and Consumer Futures, *Addressing the poverty premium: approaches to regulation*. 2013.
- 206 Davis, A. and The Joseph Rowntree Foundation. *A minimum income standard for the UK in 2014* 2014; Available from: <https://www.jrf.org.uk/report/minimum-income-standard-uk-2014>.
- 207 World Health Organisation, *Global Age Friendly Cities: A Guide. Ageing and Life Course, family and community health*. 2007
- 208 Age UK London, Greater London Forum for Older People, and Transport for All. *On the buses 2011 (September)*; Available from: <http://www.ageuk.org.uk/brandpartnerglobal/londonvpp/documents/id111566%20london%20transport%20report%20final%20lr.pdf>.
- 209 (NIACE), N.I.f.A.C.L. *Learning for Older People in Care Settings. A Guide for Learning Providers* 2014; Available from: <https://www.niace.org.uk/sites/default/files/resources/A%20guide%20for%20learning%20providers.pdf>.
- 210 Zavaleta D, Samuel K, and M. C., *Social isolation: a conceptual and measurement proposal. POPHI Working Paper No 67*. Oxford Poverty and Human Development Initiative, 2014.

