Briefing paper

Older people and the social determinants of health

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**Key messages:**
- The cumulative experience of unequal social, economic and environmental circumstances throughout life contribute to health inequalities in older age.
- Many of the social determinants that influence the health and wellbeing of older people in later life are amenable to change.
- Preventative interventions, such as improving access to good quality environments, employment, housing, and social connectedness, are likely to see health benefits throughout the life course including in later life and are likely to ease demand on health services.
- Clear opportunities exist for doctors and other health professionals to become active in helping to address the social determinants of health through social prescribing, advocacy at a local and national policy level, working in partnership with communities and organisations, and integrating legislative levers, such as the Health and Social Care Act, 2012 and the Social Value Act, 2012 into NHS strategic frameworks and working practices.

**Introduction**

**Later life inequalities**

Older people from lower socio economic groups will likely experience worse health than those from higher socio economic groups and poor health will begin earlier in life.¹ The latest IHE (Institute of Health Equity) Marmot indicators (IHE 2015) clearly demonstrate men living in the most deprived areas in the UK can expect to live 16.5 years less than men living in the least deprived local authorities. For women in the UK the difference is 11.6 years.² This is largely due to social, economic, and environmental inequalities experienced across the life-course. Health inequalities can be widened, and additional inequalities created, once people reach old age, again influenced by social, economic and environmental determinants. Social class inequalities are found in the leading causes of early mortality among 65-74 year olds as well as older ages. This is not only unfair and unjust, but also very costly. Poor health and health inequalities create significant economic costs, estimated in 2009 at between £31-33 billion in lost productivity, £20-32 billion in lost taxes and higher welfare payments, and £5.5 billion in direct NHS healthcare costs, in the UK every year.³

In this paper we first explore early life social, economic and environmental factors which shape health in later life, and then assess the impact of these factors during later life, and make proposals for action – with a focus on actions health professionals can take.

**Life course drivers for ill health in later life**

The cumulative experience of social, economic and environmental circumstances throughout life impact on health in older age and people from lower socioeconomic groups are more likely to experience health harming social, economic, and environmental circumstances which lead to poorer health outcomes. These can start as early as the pre-natal period and early childhood and continue throughout life.⁴ ⁵

**Prenatal and early childhood**

Disadvantaged mothers are more likely to have babies with low birth weight which impacts on infant brain development.⁶ Foetuses adapting to low levels of nutrients permanently change their structure and metabolism which heightens risks of various diseases in later life, including coronary heart disease, stroke, diabetes and hypertension.⁷ Maternal depression and economic deprivation can collectively and separately diminish cognitive and emotional development in children lessening school readiness, and affecting educational attainment and school grades.⁸ Conversely, higher educational attainment and higher cognitive scores
are associated with less risky health behaviours (e.g. smoking, alcohol and substance misuse), better health outcomes, and longer life expectancy, with less limiting, long term illness in older age. In the UK, figures suggest that only 52% of children have reached a good level of development by the age of five, and are school ready.

**Childhood: School and home life**

Adverse childhood experiences also impact on health outcomes in later life.

Around half of the English population have experienced one or more ACE’s (adverse childhood experiences), such as abuse or neglect, experience of domestic violence, mental ill health, criminality or parental separation. ACE’s increase the risk of premature mortality in later life and a range of illnesses, including cancer, heart disease, lung disease, liver disease, stroke, hypertension, diabetes, asthma, and arthritis. The experience of childhood trauma is significantly associated with poor mental health in later life. The greater number of ACE’s a child is exposed to increases the risks of poor outcomes in a range of life chances including health and life expectancy.

Children from disadvantaged areas, living in poverty, and who experience family stress and/or or poor and harmful parenting are more likely to experience ACE’s. Between 2013 and 2014 there were 3.7 million children living in poverty, around 28% of children in the UK.

Housing conditions experienced in childhood may affect health in later life as well as during childhood. Children living in cold homes are more than twice as likely to develop a variety of cardiovascular and respiratory illnesses. Poor housing conditions, including overcrowding, are also linked to childhood/adolescent depression, slower physical growth and slower cognitive development and limited educational attainment. A report published by The Children’s Society in 2014 found that around 3.6 million children thought their home was too cold in the previous winter, and around 1.3 million said their homes were damp or had mould.

Higher cognitive development in childhood, maintained in adulthood, provides a greater ‘cognitive reserve’ to draw on in later life enabling people to cope better with the onset of mild cognitive impairment and dementia. Higher cognitive development provides older people with a wider range of skills, abilities, and knowledge and can delay onset and symptoms of cognitive impairment or dementia. Therefore, low educational attainment can have long lasting consequences on health, limits the resources needed to cope with poorer health outcomes in later life, and effects lower socio economic groups disproportionately. By age 11, around 25% of children from the poorest quintile in the UK have not reached the expected level of achievement at Key Stage 2, compared to around 97% of children from the highest quintile.

**Employment and income**

Being unemployed is damaging to health, and increases the risk of mortality, even for those in higher socio economic positions. The causal relationship between loss of employment or long term unemployment and poor health outcomes are mediated through issues such as increased tobacco use and alcohol consumption, and increased psychosocial stress and poor mental health. Loss of employment can also result in long term earning losses, loss of psychosocial assets, social withdrawal, family disruption and lower levels of attainment and achievement in children of unemployed parents. Unemployment, associated with low income and poverty increases the risk of a variety of harmful social determinants of health, including poor housing conditions, debt, social isolation, fuel poverty, inadequate diet, and lack of access to green space all of which increase the risk of mortality. Other research has demonstrated the negative impact of involuntary job loss on older worker’s physical functioning and mental health. However, not all work is protective of health. Poor work conditions, including exposure to hazards and the physical impact of manual labour and inconsistent work, cause high risk of poor mental health and physical health, including musculoskeletal problems, increased rates of long term illness, increased medication use, and lower recovery from illness. Poor quality work, and unemployment have also been linked to suicide and other causes of premature mortality such as cardiovascular disease. 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.
unemployment, prevents financial preparedness in later life, increases risk of early retirement, reduces standards of living in older age, and affects levels of social connectedness and physical activity for older people. Between 2014 and 2015, around 2 million people in the UK were believed to have an illness or condition, either caused or exacerbated by current or previous job roles and around 4.7 million work days were lost due to workplace injury in 2013 – 14.

**Housing**

Around 34% of older people in England live in non-decent homes, and those on low income are less likely to heat their homes adequately and more likely to experience fuel poverty and cold homes. Living in a cold home is a predictor of poor mental and physical health, independent of other predictors such as education or income. Mould in the home, cold homes, and fuel debt are all indicators for experiencing common mental disorders. There is a strong relationship between cold temperatures and cardiovascular and respiratory diseases, lower dexterity and higher levels of accidents in the home and minor ailments such as cold and flu. Fuel poverty negatively affects dietary choices. Although the means of measuring prevalence of fuel poverty has been changed recently, it is estimated that 2.3 million English households were in fuel poverty, costing the NHS around £1.36 billion in related illness. In the UK, Excess Winter Deaths exceed the number of deaths caused by alcohol, Parkinson’s disease, or traffic accidents every year. In the year 2014/15 there were 36,000 Excess Winter Deaths in the over 75’s age group. The impact of fuel poverty on older people is explored further in the later section relating to Social Isolation.

**Green space**

Access to well-maintained green space impacts positively on both mental and physical health, and can offset the negative health impacts of poverty and low income. Access to green space is not evenly distributed across England. People living in the most deprived areas are less likely to live close to well-maintained green space and less likely to experience the health related benefits of green space. For example, the risk of adverse cardiovascular events might be increased by physical inactivity, by particulate air pollution, by social isolation and by heat-waves. Lower rates of all-cause mortality and circulatory disease mortality have been demonstrated in areas with greater access to good quality green space.

**Later life drivers for ill health and increased mortality**

**Employment and income**

Physical and mental ill health, poor working conditions, redundancy, caring responsibilities and financial circumstances are all key indicators for unemployment and early retirement in later life and are all socially graded. In England, older people living on low pensions and incomes can experience a gap between their financial resources and what is needed for healthy living, resulting in worse health and earlier mortality. In the Health Survey for England 2005, older people from lower socio economic groups report worse general health, lower levels of fruit and vegetable consumption and higher levels of mobility problems and lower-limb impairment. Similarly, the incidence of ischemic heart disease for older people is higher in the most deprived areas in England. Diabetes prevalence and uncontrolled hypertension are also inversely related to income. Findings reported in the British Medical Journal found that people from lower occupational grades also experience a steeper decline in physical health than those occupying higher grades. Inequalities are also found in self-reported health between occupational grades, and this inequality worsens with increasing age. Inadequate income and living standards are also closely related to social disconnectedness and/or isolation in later life, leading to poor mental and physical health.

**Social Isolation**

One million older people in England report not speaking to anyone in over one month. Social isolation is a key driver for poor mental and physical health in later life. Social isolation can cause loneliness, anxiety and stress and is a predictor for cognitive decline, impairment and dementia, even when controlling for symptoms of depression. Older people with weak social ties have a 50% higher risk of mortality than those who are socially connected. Social isolation and loneliness are significantly influenced by poverty. Care givers are particularly vulnerable to social isolation and loneliness because of loss of earnings, leisure time, and the disability or symptoms of the care recipient. Social engagement in later life
is protective against cognitive decline and dementia and can influence levels of physical activity, healthy eating, and other positive health behaviours.\textsuperscript{57}

Older people on a 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 people were more likely to invite friends into their homes after improvements to warmth and energy efficiency had been made.\textsuperscript{56,59} Older people are more likely to be fuel poor as they spend longer in their homes and require more heating throughout the winter months and are also often on lower incomes than other age groups.\textsuperscript{60} Older people are also more vulnerable to colder temperatures, cardiovascular disease, trips and falls and respiratory illness during the winter months. Therefore older people living in a cold home have higher levels of mortality and morbidity than those in warm homes. In 2014/15 there were 36,300 excess winter deaths amongst people over the age of 75, while not all of these will relate to poor housing and cold homes, cold housing has been estimated to cause approximately 20\% of excess winter deaths.\textsuperscript{79,60,61}

**Local environment**

The quality of the local environment influences the health and mortality rates of older people. The risk of traffic accidents, and serious injuries, increases with age and older people have particular concerns about crossing busy roads with heavy traffic. Concerns over traffic inhibits social interaction and use of community facilities, and can lead to older people feeling excluded from public spaces.\textsuperscript{62} A lack of appropriate amenities, lack of access to well maintained and resourced (toilets, cafes, walkways) green space, real or perceived crime levels, excess traffic, degraded pavements and roads, and lack of appropriate transport, can lead to low levels of physical activity and social interaction in older people.\textsuperscript{32,63}

Older people living in poorer, deprived areas of England, will be disproportionately affected by these issues leading to socio-economic inequalities in the prevalence of illness and disease associated with low levels of physical activity and social isolation, including poor mental health, cognitive decline and impairment, and dementia.\textsuperscript{64}

**Black and Minority Ethnic Older Communities**

BME (black and minority ethnic) communities in England are likely to have higher rates of poverty, poorer housing and neighbourhood conditions, lower education levels, and higher stress levels.\textsuperscript{65} These determinants have an impact on the prevalence of disease within BME communities.

For example, BME 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 the population across the UK as a whole. BME groups in the UK are living longer, and the number of BME people over 80 is expected to almost triple. However, there is also higher incidence of risk factors such as high blood pressure, diabetes, stroke and heart disease \textsuperscript{66} and there is a greater risk of BME communities experiencing poor health associated with socioeconomic circumstances throughout life and in older age, increasing the risks of poor mental health, cognitive impairment and dementia. Experience of racism, exclusion, and poverty are significant drivers for poor mental health outcomes in minority ethnic groups.\textsuperscript{67}

Cancer, including lung cancer, causes the highest number of premature deaths among older adults.\textsuperscript{69} One in four black men in the UK will be diagnosed with prostate cancer, compared to a national average of one in eight, and death rates for black males with prostate cancer in the UK is 30\% higher than white men.\textsuperscript{69,70}

**Gender**

The income of women in retirement in England is, on average, around 57\% of men’s.\textsuperscript{71} Fewer women (60\%) have pensions than men (80\%) and less women continue to work part time after retirement than men. Women tend to live longer with more limiting long term illnuses, affecting their ability to continue in employment. Single female pensioners are more likely to live in poverty and are more likely to reduce fuel use because of low income, exacerbating existing physical and mental health issues\textsuperscript{72} and increasing the risk of social isolation, poor standards of living, and low levels of mental stimulation.
Women in England are more likely to experience poor mental health. Although there is under diagnosis of depression in men, in later life women are more likely to become carers, experience the death of a spouse, move into residential care, or experience physical ill health, due to their longer life expectancy. All these events heighten the risk and likelihood of poor mental health. Women make up two thirds of all people currently with dementia in the UK, women’s longer life expectancy, and other gender specific social determinants, including low income and lower levels of access to education and employment throughout the life course, clearly increase risk of cognitive impairment and dementia.

Carers
There are around 3 million carers over the age of 50 in the UK and over 75% have some form of health concern themselves, with more than a quarter of older carers rating their health as ‘not good’. Older carers experience specific issues relating to their caring responsibilities, including lack of respite breaks, missed or cancelled treatment for existing health concerns, deteriorating physical and mental health, and a lack of physical exercise. Depression and social isolation are two particular and common issues for carers, increasing the risk of mild cognitive impairment and dementia. A separate briefing paper in this series on Supporting carers further explores some of these issues.

Proposals for action
Social determinants across the life course accumulate, inter-relate, and impact on the health and wellbeing of people in later life. Therefore, action on the social determinants of health, throughout the life course is needed to ensure that the social gradient found in life expectancy and healthy life expectancy is addressed. Interventions, such as improving access to good quality environments, employment, housing, and social connectedness, are likely to see health benefits throughout the life course including in later life. Many of the social determinants that influence the health and wellbeing of older people in later life are amenable to change and have the potential to improve health outcomes for older people. Ways that health professionals can support action on social determinants throughout life and particularly for older people, are described in the section relating to ‘the role of medical professionals’ below.

Pre-natal and early childhood
Breast feeding, good maternal mental health and educational attainment, stable households, adequate family income and decent, warm 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, and able to build the skills, abilities and knowledge, known as cognitive reserve, to improve life chances over the life course and to protect against cognitive decline and dementia in later life.

School and home life
Early intervention and prevention is recommended, rather than reactive action once ACE’s have already been identified. Action can be taken to address the risk factors of ACE’s such as programs that promote social inclusion, or that work with families experiencing poverty, and can support improved parenting, and mitigate the stress and psychological impact of poverty. Holistic and flexible services work best to respond to the needs of families experiencing adversity.

Working life
Creating accessible, good quality and well paid employment will promote healthy living standards, and good work-life balance. Employer’s adherence to equality legislation, preventative measures to mitigate mental and physical health problems at work, flexible employment options, access to affordable childcare and improved working options for single and co parents will improve access to employment and conditions of work. Additionally, policies that promote financial preparedness in later life, the importance of social connectedness, and active travel to and from work, can all improve health outcomes in later life.
Later life

Employment options that take account of the needs of older people, in particularly those with disabilities, caring responsibilities, long term unemployed, and those with training needs can have a positive impact on the likelihood of older people accessing employment and improving their income in retirement. Flexible, part time options are beneficial post-retirement age.

Services that promote the health, wellbeing and independence of older people and, in so doing, prevent or delay the need for more intensive or institutional care, make a significant contribution to ameliorating health inequalities.80

Reducing social isolation in later life and increasing mental stimulation through improved housing conditions, age friendly environments, services and communities, improved living standards, and better access to life long learning opportunities can improve physical and mental health, including delaying the onset of cognitive decline by up to 1.75 years.81–83

Access to green space and physical exercise can prolong years of living independently, increase life expectancy, reduce the risk of disability, and impact on the general quality of life of older people, lowering the incidence of diabetes, cancer, migraine and poor mental health, and reduce risks of cognitive decline and dementia.84,85

Consideration of the role of medical professionals – including actions that doctors can take.

Clear opportunities exist for doctors and other health professionals to become active in helping to address the social determinants of health, either through collaboration with representative organisations, through direct actions with patients and communities, or through influencing local decision making and contributing to the evidence base.86 Further reports provide additional analysis and recommendations regarding the role of health professionals in taking action on the social determinants of health. These include 'Working for Health Equity: The Role of Health Professionals' by the UCL Institute of Health Equity, 'Social Determinants of Health – What Doctors Can Do' by the British Medical Association, ‘How doctors close the gap. Tackling the social determinants of health through culture change, advocacy and education’ by the Royal College of Physicians and ‘Doctors for Health Equity’, due to be published in September 2016, by the UCL Institute of Health Equity.

Recommendation 1 – Workforce education and training

Health professionals can improve their knowledge and action on the social, economic and environmental factors which shape health by ensuring that knowledge and action is better incorporated into health professional training and education. Whilst recognising that the training and education curricula for health professionals is already crowded, training and education should also aim to improve the communication, partnership and advocacy skills of the workforce, and incorporate placements in organisations both within and external to the health service.87 Opportunities to either improve existing training content, or imbed best practice regarding action on the social determinants of health, rather than add additional modules or appendixes to existing curricula, should be developed.

Recommendation 2 – Working with individuals and communities

Health professionals can build relationships of trust and respect with individuals, enabling them to take detailed and accurate social histories, and to refer patients to organisations outside of the health service to address the social determinants of health. Increasing the use of social prescribing will help address the root causes of health inequalities. Health professionals can also work collaboratively with communities, utilising patient social history information, to help health and other organisations better understand the needs of their local population, improve the uptake of services, and promote patient empowerment and self-efficacy.87
Recommendation 3 – NHS organisations
The NHS commissioning power can be used to the advantage of local communities, promoting employment opportunities, including through social value procurement. NHS organisations can also utilise their role as managers and employers to ensure that staff employed by the NHS have good quality work with the appropriate training and support. The NHS can also promote a culture of fairness and equality through ensuring that strategies to facilitate action on health inequalities are implemented at every level throughout NHS organisations.

Recommendation 4 – Working in partnership
Partnerships can be developed with organisations within the health sector and with external bodies. Within the health sector partnerships should be ‘consistent, broad and focused on the social determinants of health.’ Partnerships with organisations outside the formal health service, such as the partnership initiated in 2010 between Turning Point, a third sector substance misuse rehabilitation organisation and Camden and Islington NHS Foundation Trust, should be extended and facilitate integrated work to address the social determinants of health. Clinical Commissioning Groups are well placed, as locally based consortia, to incorporate health equity and social value into commissioning decisions, and to measure progress against them.

Recommendation 5 – Workforce as advocates
Health professionals, where appropriate, can act as advocates for their patients, ensuring they have access to the most appropriate services to address the root causes of their physical and mental health needs. Health professionals can also work as advocates on a local and national policy level, sharing local population information and needs, and working to improve the social, economic and environmental conditions of patients. Health professionals can also advocate for change within the health profession, helping to create a greater focus on the social determinants of health and preventative strategies that reduce inequalities.

Recommendation 6 – Using legislation
The Health and Social Care Act 2012, the 2012 Social Value Act and the Equality Act 2010, which includes age as a characteristic protected against victimisation, discrimination and harassment, provide opportunities to tackle health and other inequalities. Health professionals can use these Acts as levers to ensure that the reduction of inequalities in health outcomes is integrated into the strategic framework of the NHS, and into its working practices, and incentivised and monitored appropriately.
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