



Working together to improve health and wellbeing in Cheshire and Merseyside



The Case for Change

Evidence based interventions for public health and the health and social care system across Liverpool City Region

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Foreword

There has been a great amount of work looking into the health challenges facing the residents of the Liverpool City Region. We know that while local people are living longer, many of these extra years are spent in poor health due to largely preventable long term conditions.

A growing elderly population in the region creates opportunities as well as challenges. Poor health reduces the contributions that older people are able to make to their communities and accelerates declines in health and wellbeing associated with ageing. However this need not be the case and this report aims to be the start of a process of identifying evidence based actions that can be adopted across the City Region to tackle these issues. These actions align closely with the steps needed to sustain and improve the NHS through the options outlined in the NHS England Five Year Forward View. By taking action now and focusing on the health of adults in the decades before retirement (ages 50 to 74 years) we can increase the opportunities for all residents of the City region to live well into older age. Creating environments that promote healthy ageing for all and supporting access to the key assets of jobs, homes and friends are important goals towards delivering positive change and progress to the health of local people, both young and old.



AM-11.

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Introduction

A large amount of work has examined the key challenges to the state of health among the residents of the Liverpool City Region (hereafter referred to as the 'City Region', covering the local authorities of Halton, Knowsley, Liverpool, Sefton, St. Helens and Wirral). It is clear that while people in the City Region are living longer, many people are spending these extra years of their life in poor health due to the burden of preventable long term conditions. Numerous challenges to health and wellbeing occur throughout the lifecourse and changes are needed to reduce the impact of chronic disease in the population and to reduce their prevalence through prevention. To ensure that all people and communities in the City Region have equal opportunities to be healthy, further action is required to tackle the social determinants of health.

This report aims to be the start of a process of identifying evidence based actions that can be adopted across the City Region to address these issues. The new powers, responsibilities and resources acquired through devolution present additional opportunities to develop a sustainable health and social care system based on this evidence of 'what works'. Alongside this better use of technology and data will bring new opportunities to improve health and to change the way health and social care are delivered in the City Region. The initial focus of The Case for Change is on older people, with topics that represent major challenges facing our health and social care system. Actions are needed throughout the lifecourse but as older people account for such a substantial proportion of the demand on the health and social care system, concentrating on the decades before retirement (ages 50 to 74 years) can be expected to deliver substantial change. The report includes examples of local practice and initiatives from across the City Region; as we move forward with this work we will look to build on these and identify further examples.

Going forward there are a range of additional areas that could and should be considered – such as mental health, respiratory conditions – and the range of issues impacting on children, young people and their families. These areas will be considered in subsequent versions of this report.

This **Introduction** highlights cross cutting themes to maximise community and system resilience which could be taken forward in the development of a local strategy to improve the health of our local residents, and reduce the demand on the health and social care system.

Section One

Section One of the report provides a brief overview of health in the City Region, focusing on adults and older people. Further detailed information is contained within the Joint Strategic Needs Assessments of each Local Authority.



Section Two

Section Two of the document considers evidence based actions and interventions for a range of issues, along with examples of good practice. While many of the actions will be well known and underway locally, consideration should be given to the scale and intensity at which they are taking place.



Section Three

Section Three of the report looks to the future, and the challenges and opportunities for the City Region.

It is important to acknowledge that this report is merely a starting point, and will form part of a wider evidence base that helps shape the future priorities and actions across the City Region.

Key actions: Maximising Community Resilience

This diagram summarises the key actions to maximise community resilience and deliver opportunities for healthy ageing for all residents in the City Region. In this context community resilience refers to the ability of a community to use its assets to improve the community's social and physical environments and health and wellbeing of its residents to adapt to an ageing population and the associated challenges of co-morbidities and long term conditions.

Jobs	Housing	Community, Family & Friends
Create good quality jobs through partnerships with local enterprise groups, employment services providers and third sector organisations.	Invest in healthy homes schemes and integrated housing care and support.	Embed initiatives that aid social participation and combat loneliness and social isolation within age friendly strategies.
Take an assets-based approach to promoting healthy and active ageing in the workplace.	Adopt the principles of WHO Age-friendly cities to create an age-friendly city region.	Recognise the potential economic benefits from the informal work of older people and maximise potential advantages.
Support local delivery of the Workplace Wellbeing Charter and support health protection and promotion and workplace design as good practice in age management.	Address the housing needs of older people. Deliver adaptations in the home environment.	Build public support for informal caregiving. Support the health and wellbeing needs of those who care for older people.

Key actions: Maximising System Resilience

This diagram summarises the key actions to maximise system resilience and deliver opportunities for healthy ageing for all residents in the City Region. In this context system resilience refers to the ability of the public health, health and social care system to adapt to an ageing population and the associated challenges of co-morbidities and long term conditions.

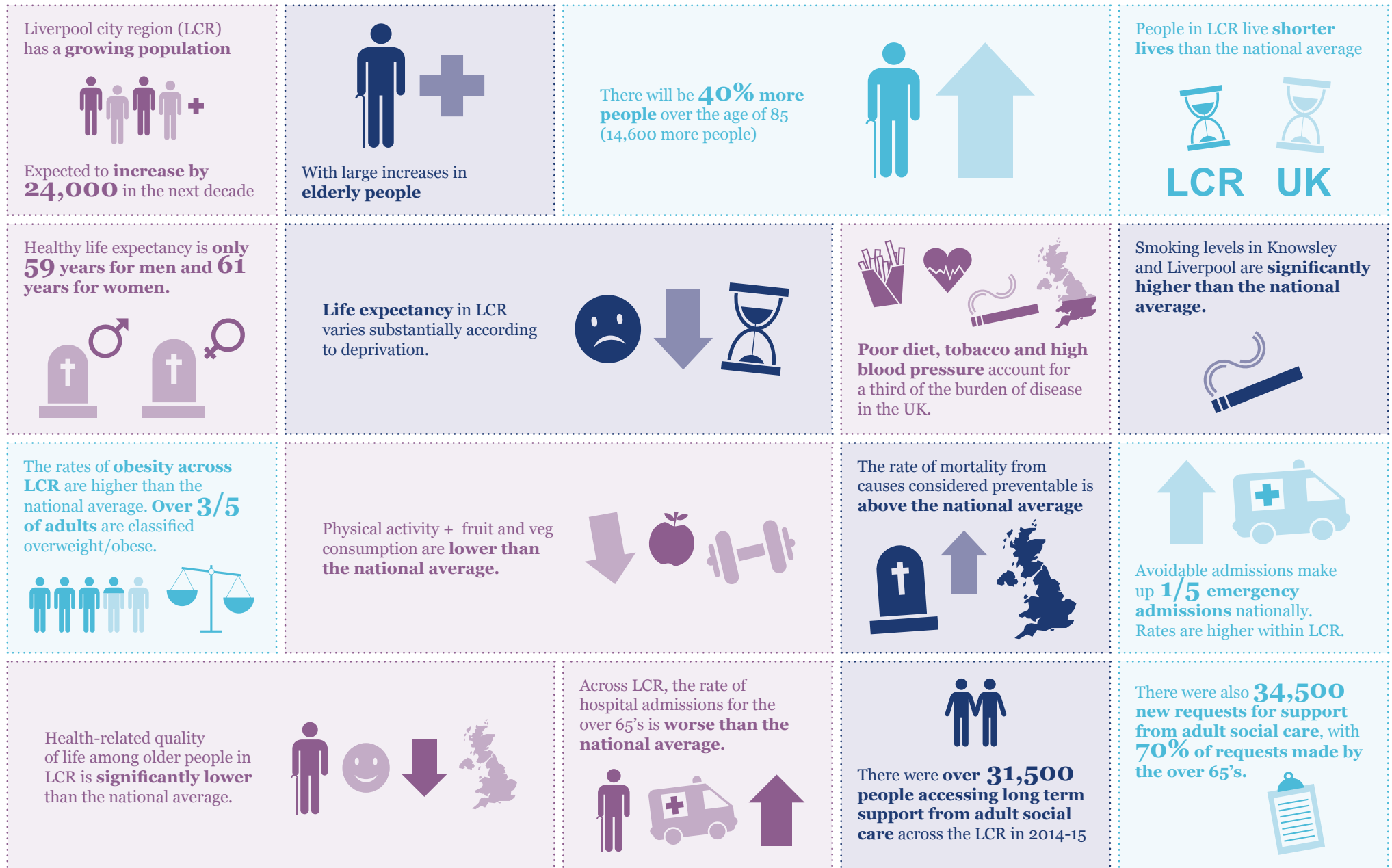
Prevention	Technology	Place based approaches
Develop and implement preventative services at scale. Deliver evidence based approaches that promote independence, resilience and self-care.	Strengthen understanding of demand on the health and social care systems by linking into the development of data management systems within the City region.	Build joined up health and social care systems. Develop solutions that draw on the full assets and resources of an area by using assets-based approaches.
Develop broad partnerships to deliver awareness raising campaigns and to support wider efforts to promote healthy lifestyles.	Invest in technological support for older people (e.g. telehealth, telemedicine), such as the technology-based provision of care in the community and to facilitate evidence based models of care.	Provide the structures and services to support healthy active ageing through the development of an age-friendly City region.
Recognise that there are a variety of influences on healthy active ageing. Connect and empower communities to unlock reserves of resilience and self-sufficiency.	Drive forward the development and early adoption of digital and mobile technology for offering personalised support.	Build resilience in communities and enable them to rely less on external support.

Section 1: Overview of health and wellbeing in the City Region

This section begins by describing the demographic profile of the residents of the City Region in order to identify key challenges to the state of health and key health priorities for adults and older adults. Four priority areas are considered in detail: dementia, falls among older adults, emergency admissions among older adults and long term conditions (long term conditions and co-morbidities; high blood pressure; and diabetes). Although the focus has been given to these issues to reflect some of City Region's own priorities, it is important to recognise that these are not the only health and wellbeing issues for the City Region and that data from national profiles and indicators is used to identify other important priorities.

Whilst the focus of this report is adulthood – and particularly the decades before retirement (ages 50 to 74 years) – it is important to acknowledge that patterns of health and disease are influenced by past and present, social, economic, environmental and cultural experiences. Influences in early life, through gestation, childhood and adolescence affect health outcomes and the risk of chronic disease in adulthood and older age [1]. The health and wellbeing of children, young people and their families in the City Region will be considered in a future version of this report.

Summary overview of health and wellbeing in the City Region



1.1 Demographic challenges

The City Region is home to just over 1.5 million people. The population across the region as a whole has grown by 33,000 since 2001 and is projected to increase by a further 24,000 by 2024. However this increase is not uniform across the City Region with the number of residents in both Sefton and Knowsley declining over the same period.

An ageing population: The population of the City Region is slightly older than the national average at 40.3 years (39.6 years nationally). The number of people aged 60 years and over is projected to increase substantially over the next decade by 65,000 people. This is particularly marked in those over 85 years where a 40% increase is projected (14,600 more people).

Life expectancy: People in the City Region live shorter lives than the national average (Figure 1) and spend a greater proportion of their life living with disability or poor health. Life expectancy in the region has increased by around three years since 2001. However the gap in life expectancy between the City Region and the national average has widened in recent years. Among adults aged 65 years and over in the City Region, life expectancy is between one and two years lower than the national average.

In addition to increasing the length of life, it is also important that there is a focus on improving the quality of life. Healthy life expectancy is a population based measure which describes not only the longevity of

life but whether those additional years are healthy. Healthy life expectancy in the City region (i.e. the years expected to be spent in a healthy state) is 59 years for men and 61 years for women. Thus on average, people in the City Region are spending a quarter of their life in ill-health.

Deprivation: Deprivation is significantly associated with poor health outcomes from childhood through adult life to old age. People living in more deprived communities experience poorer health and require more complex care from a younger age. The City Region is ranked as the most deprived area of the country with almost a third of people living in the 10% most deprived neighbourhoods in England. Life expectancy in the City Region varies substantially according to deprivation. Male life expectancy is between 10 and 12 years greater for those in the least deprived areas compared with the most deprived and female life expectancy is between 7 and 10 years greater. This difference varies by local authority with the greatest difference in life expectancy seen in Sefton and Wirral (Figure 2).

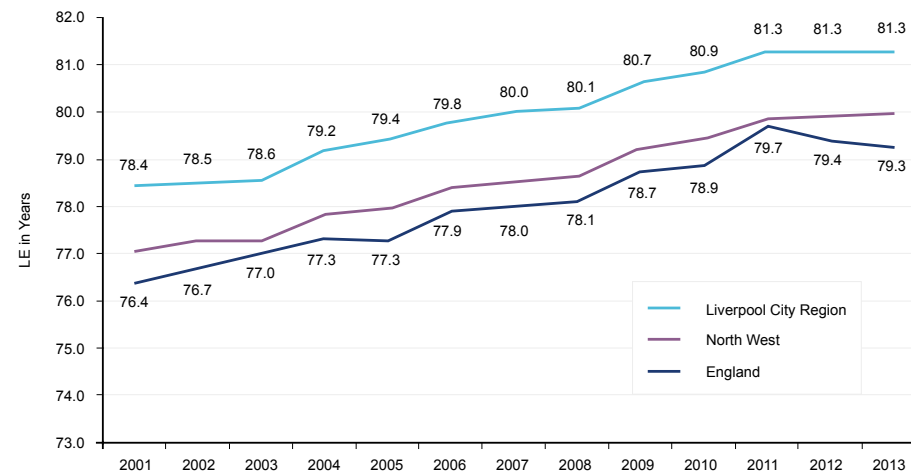


Figure 1: Life Expectancy in the City region. Source: ONS mid-year resident population estimates and 2012 sub-national population projections

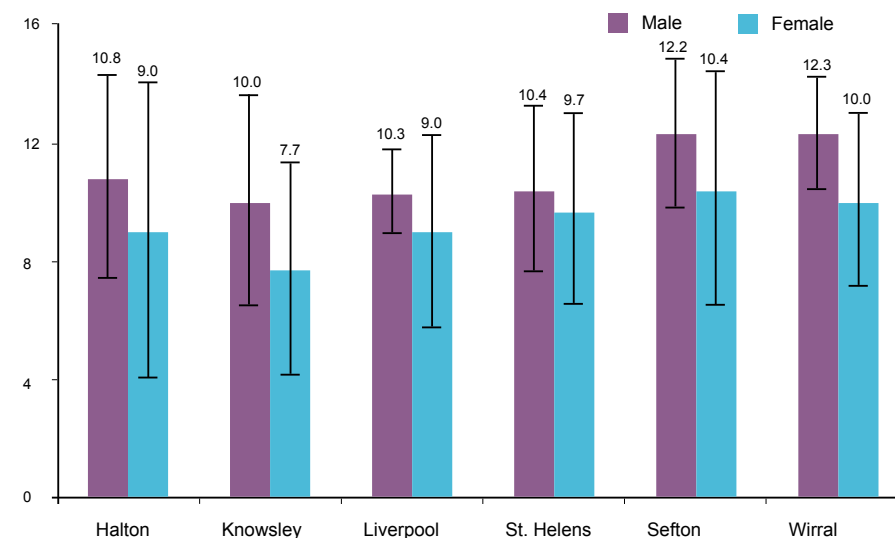


Figure 2: Slope index of inequality in life expectancy at birth based on local deprivation deciles. Source: PHE: Public Health Outcomes Framework

1.2 Healthy adulthood

Health drivers in the city region

The Marmot Review in 2010 [2] led to greater recognition of the wider determinants of health across Government and local authority areas. Access to, and the quality of healthcare received, has a relatively limited impact on our health, with environment, socio-economic circumstances, behaviours and genetics being the major drivers. The 'fuzzy pie chart' shows the range of values that have been suggested for the extent to which these drivers contribute to an individual's health and their interaction (Figure 3; [3]). Preventive action can be taken to make a difference for many of these drivers. It should be pointed out that for some populations, access to healthcare is also an important issue. For example a recent health needs assessment of people with learning disability in Cheshire and Merseyside showed that access was a driver in reduced health outcomes and early mortality [4, 5].

Health and risk factors

The way we live our lives has a major impact on our health. The Global Burden of Diseases study [6] demonstrates the impact of poor diet, obesity, lack of exercise, smoking, high blood pressure and too much alcohol on our health. **Dietary risks, tobacco and high blood pressure** together account for a third of the burden of disease in the UK, underlining the importance of prevention in improving health and wellbeing.

Unhealthy diet and physical inactivity are major risk factors for overweight and obesity as well as many chronic health conditions including cardiovascular disease (CVD), diabetes, high blood pressure and some cancers. Rates of obesity across the City Region are higher than the national average. Over three fifths of adults are classified as overweight or obese; ranging

from 64% of adults in Liverpool to 76% in Halton [7]. Rates of physical activity and fruit and vegetable consumption are lower than the national average. Up to a third of adults in the City Region are physically inactive, ranging from 38% in Liverpool to 24% in Wirral, and less than half of adults are meeting the recommended 5-a-day target for fruit and vegetable consumption [7].

Smoking prevalence in the City Region is mixed; it is significantly higher than the national average in two local authorities (Knowsley and Liverpool) and no different in the remaining four [7].

Disease and poor health

Adults in the City Region spend approximately a quarter of their life in poor health. The rate of mortality from causes considered preventable is above the national average for all local authorities in the City Region ranging from 280 per 100,000 in Liverpool to 211 per 100,000 in Wirral. Rates of mortality from preventable causes are consistently higher among males. The number of people diagnosed with long term conditions within the City Region is above national levels for all main conditions. Nationally, treatment for long term conditions is estimated to take up around £7 in every £10 of total health and social care expenditure. Long term conditions are more prevalent in older people and in more deprived groups [8]. The conditions with the highest prevalence in the City Region are high blood pressure (15%, ranging from 239 to 181 per 100,000) and diabetes (6.6%, 85,434). The prevalence of mental health and neurological conditions is also higher than the national average with the prevalence of depression at just above 8% (107,653) [9].

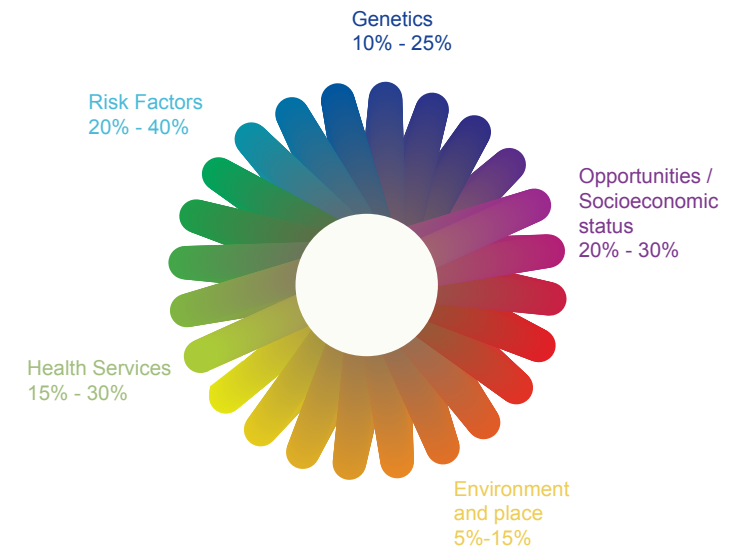


Figure 3: What determines health? Source: Harris-Roxas, 2014 [3]

1.3 Healthy ageing

A growing elderly population

The growing elderly population in the City Region (Figure 4) emphasises the need to ensure good health and wellbeing for older adults [10]. The likelihood of older people in the City Region spending their later years in good health and wellbeing will vary across the region. This variation is dependent not only on older people's physical and mental health but on a range of wider social and environmental determinants.

Health and risk factors

Numerous factors affect older adults physical and mental health including: social isolation and loneliness, participation within families and the wider community, poverty, personal safety and being a victim of crime, poor quality housing and poorly maintained physical environments [11]. Among older people in all local authorities in the City Region, **health related quality of life** is significantly lower and overall **deprivation** and **income deprivation** significantly higher, than the national average [7, 12]. Of all older adults in the City Region, 44% live in the most deprived 5% of Lower Super Output Areas (LSOAs).

The **effects of winter cold** provide a key example of how wider social determinants impact upon older people's physical health. Ill health and death rates increase among older people in cold weather and cold homes due to poor heating and insulation cost the NHS more than £1.36 billion every year [13]. The rate of **excess winter deaths** can vary quite dramatically from year to year. The three year excess winter death index for 2011-14 in local authorities in the City Region was similar to the national average. For those aged over 85, the three year index was similar to the national average of 22.3 in all local authorities except in Liverpool, where the index was significantly higher, at 31.5 [7].

Box 1: Illness and poor health

Across the City region, compared to the national average:

- Rates of hospital admissions for over 65s are significantly worse
- Rates of emergency admissions for over 65s are significantly worse
- Rates of all-cause mortality in the over 65s are significantly worse; majority of areas have significantly worse rates of circulatory, respiratory and Chronic Obstructive Pulmonary Disease (COPD) related deaths.
- Higher rate of emergency readmissions within 28 days of discharge among adults for over 75s.

Older People's Wellbeing Atlas, 2013 [12] ; HSCIC, 2015 [65]

Across the City region in 2014-15 there were:

- 34,500 new requests for support from adult social care; 70% of requests were made for the over 65s.
- Over 31,500 people accessing long term support from adult social care. More than half of clients were accessing personal care support (52.7%), with 16% receiving learning disability support and 12% receiving mental health support.

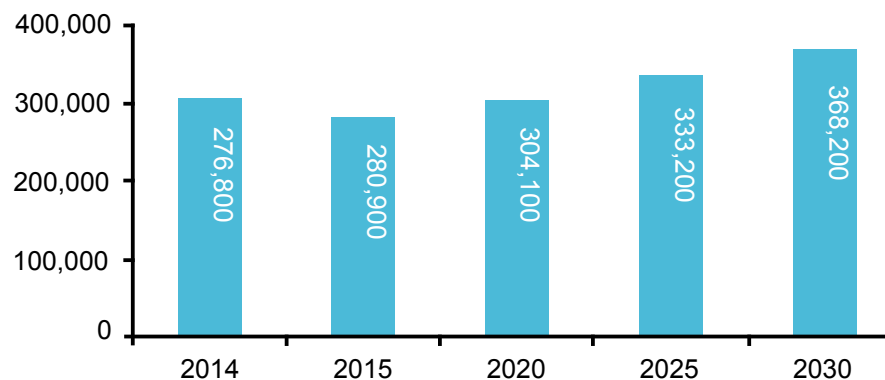


Figure 4: Population aged 65 years and over, projected to 2030 in the City region.
Source: POPPI, 2015

Older people are the most frequent and costly users of both health and social care. Use is highest among those with complex multiple needs, long term conditions and functional, sensory or cognitive impairments. Nationally, dementia accounts for more health care expenditure than heart disease and cancer combined [7].

Section 2: Evidence based approaches for reducing impacts on adult health and social care services

This section reviews the evidence base for effective and cost-effective large scale interventions. The overarching aim is to identify evidence on approaches that will promote independence, resilience and self-care and reduce reliance on the health and social care system across four key topic areas relating to older adults:

- Dementia risk reduction and support;
- Reducing falls amongst older adults;
- Reducing emergency admissions amongst older adults;
- Supporting those with long term conditions to remain independent and in their own homes.

These topic areas have been identified as some of the key drivers of demand in the public health, health and social care system. However, we recognise that there are a range of additional areas that could and should be considered moving forward; such as mental health, respiratory conditions, and the range of issues impacting on children, young people and their families. These will be covered in subsequent versions of this report.

In addition, the first part of this section reviews evidence on approaches that tackle upstream prevention factors that contribute to the need for health and social care support in relation to the four topic areas. Health is shaped by where you live, work and play, and there are many opportunities for partners from outside of the health and social care sectors to contribute to improved health and wellbeing in the decades before retirement (ages 50 to 74 years).

2.1 Upstream prevention

To be able to make the most of the opportunities arising from an ageing population, changes are needed to reduce the impact of chronic diseases and to reduce their prevalence through prevention. Working alongside the health and social care sector, there is a clear role for partners from a range of sectors covering where residents of the City Region live and work to help them to maximise their health and wellbeing as they age. The focus of this report is on creating an environment that supports healthy or 'active' ageing in the decades before retirement for all.

The Challenge for the City Region

Adults in the region face numerous challenges to their health and wellbeing as they age, from the conditions in which they live and work and how these influence their lifestyles. Figure 5 shows the variety of influences ("determinants") on what the World Health Organisation (WHO) has termed 'active ageing'.

Social and physical environments: Older people who live in poorly maintained physical environments are less likely to get out and about and are therefore more prone to social isolation and loneliness, depression, reduced fitness and increased mobility problems. Within the City Region a significant proportion of older adults live within deprived areas. For older people, location, including proximity to family members, services and transportation can mean the difference between positive social interaction and isolation [14]. Social isolation and loneliness in old age are linked to declines in wellbeing [14].

Healthy behaviours: Multiple unhealthy behaviours are prevalent among adults in the City Region (see Section 1). However, people can benefit from adopting a healthier lifestyle at any stage of life, including in later life. Not smoking, drinking responsibly and engaging in

physical activity and healthy eating in older age can prevent disease and functional decline, extend longevity and enhance quality of life [14].

Economic contribution: Older people are assets to their communities and the region. The Chartered Institute for Personal Development predicts that over the next ten years employers will become more reliant on older people [15]. The active and productive contribution that older people can and do make to the economy via formal and informal work, unpaid activities in the home and through voluntary work needs recognition and support. Older people can also benefit from the opportunities for voluntary work by increasing their social contacts and psychological wellbeing [14].

What can be done?

Supporting older people to enjoy long and healthy lives, to feel safe at home and connected to their community are important goals for prevention [16]. Interventions delivered throughout the lifecourse affect people in older age and contributions are needed from all parts of the system – from employers, housing, the environment, social care, public health and health care. In this section we draw on work by The King's Fund that has highlighted those areas where local government can most effectively contribute to improving the health and wellbeing of older people [16, 17]. These areas align closely with the areas that older people themselves value (see Box 2).

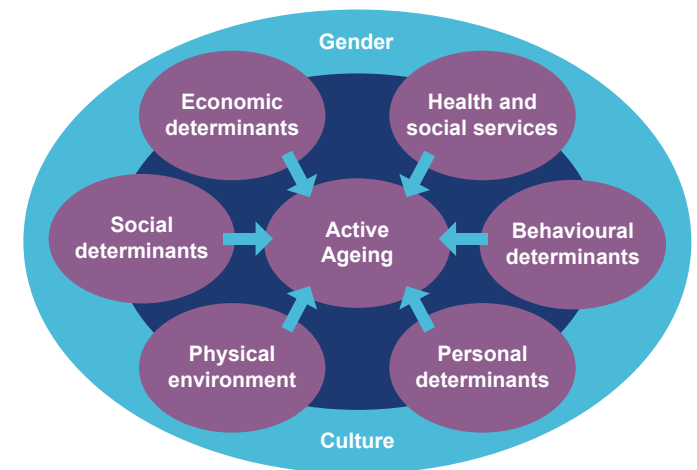


Figure 5: WHO determinants of active ageing. Source: [10]

Box 2: What do older people value when it comes to their wellbeing?

- Comfortable and secure homes
- Adequate income
- Safe neighbourhoods
- The ability to get out and about
- Friendships and the opportunity for learning and leisure
- Ability to keep active and healthy
- Good, relevant information

Allen & Gatsby, 2010 [20]

Actions to improve the social and living conditions of older people

Comfortable and secure homes: It is crucial to meet the housing and care needs of older people to enable them to live independently and important to recognise the potential value of housing in preventing the need for costly institutional care [18]. The devolution plans for the City Region involve a drive for action by planners to provide the right housing stock to meet needs, with homes that are fit for the lifecourse [19]. Investment in **healthy homes schemes** and **integrated housing care and support** can all help to reduce dependence and enhance self-care among older people [20-22].

Healthy homes schemes – such as the award-winning Liverpool model [23] and other partnership projects [24] – have demonstrated that making homes safer and warmer and addressing unmet needs with service link-ups is an effective prevention strategy, which deals with problems at source. Excess winter deaths are linked with fuel poverty and evidence considered by NICE suggests a strong need for strategic approaches [25], for example with single points of access to advice and large-scale work with energy companies. The Devolution Bid deals specifically with energy and fuel costs [19] and devolution is expected to present opportunities for deals and negotiations around **cleaner, cheaper energy bills** for the domestic market in the City Region.

It has been calculated that over 10 years the Liverpool Healthy homes scheme stands to deliver £55 million savings to the NHS and wider society and prevent 1,000 hospital admissions a year. Other studies have also documented the savings that housing based solutions can make when compared to admission to long term care [21]. For example, a delay of just one year to long term residential care can save £28,080. Older people report that **adaptations in the home environment** have great impacts on their quality of life. Simple, low-

cost alterations can deliver direct returns in terms of prevention and cost. For example, living in a home with adaptations reduces an older person's risk of falling by 2 to 3 times [26], with the cost of a grab rail less than 1% of the average cost of the care associated with a hip fracture. In Liverpool, the City Council and the Clinical Commissioning Group are at the forefront of linking with the local technology industry on health related **technological interventions**. Joint working through devolution will present opportunities for game-changing interventions in dementia, falls and long term conditions to be tested on a large scale. Examples include aiding the self-management of long term conditions, home adaptations to keep people safe and system linkages to enable patient-centred care.

Age friendly neighbourhoods and communities:

Addressing the wider environmental and social determinants of health is possible through adoption of the principles of **WHO Age-friendly cities** (see Box 3) and through long term investment in **age friendly neighbourhoods** and dementia friendly environments. Successful change can be brought about through the adoption of a 'total place' or a whole system approach at a neighbourhood level [27]. Initiatives that aid social participation and combat loneliness and social isolation should be embedded within age friendly strategies [28]. Planning decisions such as reducing the availability of gambling outlets and cheap alcohol can help to promote healthy lifestyles. Improved public transport links are part of an age-friendly neighbourhood and can help to combat social isolation [29].

Box 3: World Health Organisation Age-friendly cities

A checklist of essential age-friendly city features has been developed for self-assessment of a city's strength and deficiencies. The checklist covers the following aspects:

- Outdoor spaces and buildings
- Transportation
- Housing
- Social participation
- Respect and social inclusion
- Civic participation and employment
- Communication and information
- Community and health services

The full checklist is available from www.who.int/ageing/age_friendly_cities_material/en/

Actions to promote individual health and wellbeing

Promoting health and wellbeing: Local authorities, primary care and voluntary organisations should collaborate to deliver **awareness-raising campaigns** such as the recently launched Get up and Go guide, as part of work focused on wellness [30]. Adopting healthy behaviours in older age reduces disability [31] and enables people to make simple adjustments and lifestyle changes, helping to maintain independence and promote self-caring. All strategies and interventions to promote healthy lifestyles should include and be accessible to older people [16]. The social dimension of many health-promoting activities also enhances mental wellbeing and social inclusion as people age. NHS England has recently identified **wellness programmes** amongst promising ‘blue skies’ approaches to reduce healthcare demand and cost, and has backed this up with its holistic Practical Guide to Healthy Ageing. Public Health England (PHE) and NHS England have collaborated to describe the ‘family’ of **community-centred approaches to health and wellbeing**. The Rotherham Social Prescribing Pilot, which provided GPs with a non-medical option that can operate alongside existing treatments, identified 20% reductions in inpatient admissions, emergency department attendance and outpatient appointments, and total NHS cost reductions of £552,000 in year one [32]. Connected and empowered communities can unlock reserves of resilience and self-sufficiency in individuals and entire neighbourhoods. Evidence from economic evaluations is growing to suggest these approaches are value for money [33, 34]. In line with national guidance, older people should be encouraged to **take up appropriate vaccinations** and to **participate in national screening programmes**.

Actions to recognise and support the economic contribution of older people

Closer cooperation is needed with those outside of the public health, and health and social care system to recognise and value the contribution that older people make to their communities. According to the Office for Public Management (OPM) an **asset-based approach to healthy and active ageing** can highlight such contributions by looking at the resources available in both the public and private sector [35].

Employment helps to connect people to society but poor health, chronic diseases and lifestyle factors are associated with being out of the labour market [36]. The push to encourage people to work longer highlights the need to include employers and workplaces in the prevention of ill health and in providing support to those with health problems to enable them to remain in the workforce. According to the Department for Work and Pensions, the benefits of employing older workers as part of the workforce are clear. Employers from all sectors, and companies of all sizes, report benefiting from a broader range of skills and experience, opportunities for mentoring new recruits, and transfer of skills, reduced staff turnover, and improved staff morale [37]. The Local Government Association (LGA) suggests that councils are well placed to support older people who want to continue to participate actively in the labour market and they highlight **health protection and promotion and workplace design** as one of the dimensions of good practice in age management in the workplace [38]. In response to the Marmot Review [2], PHE highlight the need to create **good quality jobs** for local populations to reduce health inequalities [39] – high quality working conditions are required to enable older workers to reconcile work and family duties and help maintain their physical and mental health. Local authorities working with local enterprise

partnerships, employment services providers and third sector organisations should encourage jobs where workers are valued, receive a living wage as minimum, have opportunities for promotion, and are protected from adverse conditions [39].

Disability and long term health conditions can have a negative impact on employment status and quality, with the onset of a disability strongly linked to declining income and increasing unemployment. Premature departure from the workforce can lead to poverty and ill health, with obvious potential pressures on social care and health services [38]. Health is the largest predictor of movement back into employment so tackling the health needs of older people with long term illness or disability is important if they are to remain in the workforce. Employment of people with long term conditions can be supported through the delivery of **individually tailored advice and guidance** and the **effective management of disabilities and long term health conditions** [40] but the LGA highlight that **special provision** is needed to support older people to enable them to retain and regain jobs [38]. Employment and skills is a priority area under the Devolution Deal for the City Region. The Deal proposes action to transform back-to-work support through the co-design and co-commissioning of employment services and through piloting new ways of working [19].

Older people also make a large contribution through informal work such as volunteering, caring activities within the family and other forms of civic engagement. **Volunteering** has a positive impact on and can improve well-being among older people [41]. Box 4 provides an example of local practice by a third sector organisation that seeks to empower older people and improve their health and wellbeing. The crucial role of carers in maintaining the independence and wellbeing of older people is recognised and older people themselves are increasingly taking on this role [16].

A key strategic priority of the World Health Organisation's strategy for healthy ageing in Europe is to **build public support for informal caregiving**. WHO Europe suggest that this is the single most important public policy measure to contribute to the future sustainability of health and social care in ageing populations [42].

WHO Europe recommend that the following actions are taken:

- Design strategies for training older adults in self-care and for training informal caregivers, and adapt self-care training programmes;
- Disseminate good practice and foster international exchanges of information, including on gender-responsive practices that do not overburden women; and
- In cooperation with other international organizations, strengthen the evidence base and advocate for the improvement of international systems for reporting on the family situation and informal caregiving and carrying out evaluation and trend analysis [42].

Box 4: Local examples of good practice, quoted in the Local Government Association's 'Ageing: the silver lining' (2015).

OPERA (Older Persons Enabling Resource & Action) – Sefton

Sefton OPERA are a registered charity delivering a wide range of health and wellbeing activities for Older and Vulnerable People in Sefton. They also work with young people to provide work placement opportunities, volunteering and accreditation. They work locally with youth clubs and schools to develop intergenerational projects that help build a better understanding between young and old in local communities. The aim of OPERA is to empower older people to make their own choices with regard to their own health and wellbeing. They do that by delivering a wide variety of activities, information days, e.g. Falls Prevention Awareness Day, Services Available to Older People Day. Training is also provided to give people confidence, build self-esteem and reduce the isolation of many older people.

Key initiatives:

- Improving health and wellbeing – providing a wide range of health and wellbeing activities including, arts and craft, computer training, Zumba, learn to swim, drop in pamper sessions, complimentary therapies, tai chi & meditation, stress awareness programmes.
- Volunteering development – offering a range of training for young and older volunteers. Training and empowerment of older people.
- Intergenerational work – breaking down barriers between young and older people in local communities.

Summary of interventions for upstream prevention

Evidence based intervention

Housing, Planning, Environment and Transport

Provide safe, healthy, warm homes. Action would include tackling fuel poverty and planning for age-friendly housing and neighbourhoods (including good public transport links), using the latest technological interventions.

Make planning decisions that limit the opportunities for harmful behaviours (such as excess gambling and alcohol consumption) and increase opportunities for leisure pursuits and exercise.

Employment

Use the opportunities presented by devolution to create healthy workplaces, good quality jobs and 'back to work support' for local people, across a huge workforce reach.

Health and Wellbeing

Promote individual health and wellbeing, using collaborative approaches across local authorities, primary care and voluntary organisations, to deliver **awareness-raising campaigns** such as the 'Get up and Go' guide, promoting social interaction and physical activity, as part of work focused on wellness. Also develop initiatives such as social prescribing.

Action by who/ level

At City Region level, using the opportunities presented through devolution. Action would take place across combined local authorities, plus primary care and other health services, contracted services and the voluntary sector. Also at local authority level.

Impact

Healthier, happier communities, with reduced demand on local health and social services.

Healthier workforce with reduced staff turnover and improved staff morale. High quality working conditions enable older workers to reconcile work and family duties and help maintain their physical and mental health.

Improved health and wellbeing and social inclusion.

2.2 Dementia risk reduction and support

Why focus on dementia

It is estimated that more than 800,000 people in the UK have dementia. This is projected to increase to over 1 million by 2021 and over 2 million by 2051 [43]. In the City Region, 12,501 people were known by their General Practice to have dementia in 2014-15, equivalent to 0.8% of the population [9]. Predicted levels are much higher (Figure 6), as a significant number of those living with dementia are yet to be identified. As well as the huge personal cost, the overall economic impact of dementia in the City Region is estimated to be over £400m per year [43]. The King's Fund reported that the economic impact of dementia is more than stroke, heart disease and cancer combined [44].

Early diagnosis and intervention is important in increasing the quality of life and life expectancy of people with dementia, as too often, diagnosis of suspected dementia occurs late in the illness or at a time of crisis, usually when the opportunities for management of the condition have passed [44].

What can be done?

Alongside a focus on dementia risk reduction, it is important to support people with dementia to live well, so as to reduce its impact on individuals, as well as their families and carers [45]. All agencies should be brought together to develop **one integrated commissioning plan** for dementia based on a clear understanding of the needs and views of people with dementia and their carers across the City Region. The plan should take into account the views of people with dementia and their carers (see local example in Box 7) [45].

Actions to reduce the risk of dementia

PHE have recently produced guidance on midlife approaches to reduce dementia risk [46]. This is supported by NICE guidance on midlife approaches to delay or prevent the onset of dementia, disability and frailty in later life [47].

Tackling the wider determinants of health will help to reduce the risk of dementia and assist in the support and management for people with dementia. Having pleasant, safe and easily navigable outdoor spaces encourages older people and those with dementia to get out and about and can have a significant impact on health and wellbeing [17, 48]. Local authorities can work to create **dementia friendly communities**, planning street design and working with shops to create safe spaces. The accessibility of the built environment can be improved through simple measures such as reviewing the height of kerbs, the availability of seating and toilets and the availability and accessibility of green spaces. Access to public transport can be improved by actions such as dementia awareness training for customer-facing transport staff (including taxi drivers) [48]. Encouraging older people to be socially active can help to reduce dementia risk by improving mood, relieving stress, reducing the risk of depression and reducing loneliness [46].

People's risk of dementia can also be reduced by supporting them to live **healthier lives** and **managing pre-existing conditions** that increase their risk of dementia, such as depression or diabetes [47, 49]. In middle-aged and older people, **modifiable risk factors for dementia such as** smoking, excessive alcohol consumption, obesity, lack of physical exercise, type 2 diabetes, hypertension and raised cholesterol should be reviewed. Keeping the brain active and challenged throughout life may also help reduce dementia risk [46].

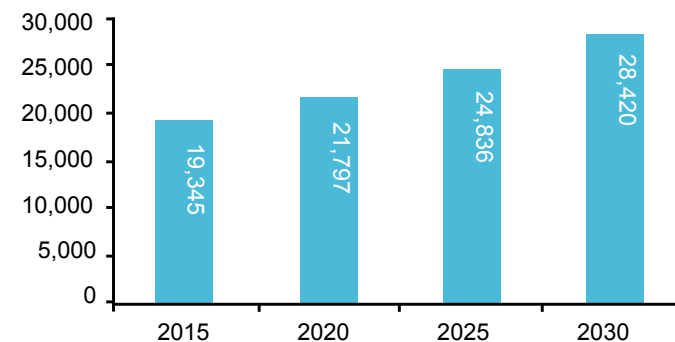


Figure 6: Population of over 65s predicted to have dementia in the City region. Source: POPPI, 2015

Box 5: The economic case for risk reduction and support

Estimated savings from preventing or delaying dementia for one year would be £15,000 per person with dementia. For every 1% of the population for whom dementia could be delayed for a year, a saving of £60 million per annum could be achieved [47].

Investing in early diagnosis and interventions that provide care and support for people with dementia can help prevent crises, avoid unnecessary hospital admissions and reduce the use of residential care [44].

The NICE commissioning guide [45] estimates that each 10% reduction in unplanned hospital admissions may save £14,000 per 100,000 population. The guide provides a link to a commissioning tool which can be used locally to estimate potential savings that may result from a reduction in hospital costs.

Focusing particularly on avoiding or delaying the onset of dementia for people within **ten years of retirement age** will mean more people can enjoy a healthy and independent life for longer, with increased social wellbeing [47, 49]. This risk reduction approach is backed by the recent Blackfriars Consensus Statement, drawn up by a group of organisations and experts from across the dementia and public health community [50].

NICE recommended that current messages for promoting healthy lifestyles be updated so they have a greater focus on the fact that such behaviours may prevent or delay the onset of dementia. They also recommend the addition of a dementia component to the health check for ages 40-64, which would be estimated to require an additional 5 minutes of contact time with a practice nurse. PHE is piloting this approach [46]. Currently, health checks are offered to people between the ages of 40 and 74, but dementia advice is only added for people aged between 65 and 74 [47].

PHE's Dementia Intelligence Network (DIN) has launched the first dementia profile tool. Local authorities and Clinical Commissioning Groups will be able to use the tool to promote dementia risk reduction, prioritising local risk factors for dementia [46].

Actions to improve early identification and management of dementia

Using social marketing to bring about positive **changes in attitudes, beliefs and knowledge** towards dementia would encourage people with dementia and their carers to seek help and enable **early referral** for a diagnosis, so that support and treatment can begin where necessary [44, 45, 51]. **General practice has a key role** in enabling early intervention, starting with a basic dementia screen [51]. Consideration should also be given to providing in-reach dementia screening services in care homes, which has been an important development in some areas [44]. GPs should hold a **register** of people with **possible dementia** so they can be regularly reviewed in primary care [45]. The focus should be given to communities across the City Region where there is a large gap between numbers diagnosed and expected prevalence of dementia, in addition to targeting at risk groups. The possibility of data sharing between primary care and social care for people identified with dementia should be considered, so that they receive appropriate support.

Evidence considered by NICE [45] supports the commissioning of **dementia diagnosis services**. Once potential symptoms of dementia have been identified, there should be **rapid referral to a specialist** in the dementia diagnosis service/ memory assessment service, preferably close to the person's home. The initial management of dementia would also take place here [45]. An **early diagnosis** can enable health and social care teams and the individual and their carers to **maintain the independence** of people with dementia for as long as possible [51]. Also, in certain types of dementia, early diagnosis can lead to **drug treatments** which can help to slow the progress of the disease if caught early enough [44, 51].

Box 6: Effective behavioural and social interventions for dementia

- Aromatherapy
- Multi-sensory stimulation
- Therapeutic use of music and/or dancing
- Animal-assisted therapy
- Massage
- Exercise
- Reminiscence therapy
- Cognitive behavioural therapy

Source: National Institute for Health and Care Excellence/ Social Care Institute for Excellence 2006 [51]

Actions to promote independence

Following diagnosis, a **holistic assessment** is required, covering medical, psychological and social care needs and also an **assessment for co-morbidities** such as depression or anxiety [44]. **Joint working** across all health and social care agencies is required, and should include service users and their carers in developing an individually tailored **combined care plan**. Re-assessments should be made at regular intervals [51]. Access to **information and education about self-management** is vital (as with other long term conditions) [44].

Evidence highlights the need for adequate access to **high-quality home care, occupational therapy services and re-ablement services** to support as many people as possible with dementia to remain in their own home [45]. Key to the delivery of **high-quality home care** is ensuring that service contracts allow home care workers long enough to complete their work without compromising the quality of their work or the dignity of the person, and to allow sufficient travel time between appointments [52]. **Activities of daily living (ADL)** skill training can maximise independent activity [51]. The use of assistive technology and **adaptive aids**, such as memory aids, visual prompts and signs and bathing equipment, can also help [51]. **Activity plans** are important, enabling people with dementia to be able to participate in leisure activities and exercise and to maintain relationships [45]. It is important to find solutions that can be integrated into the person's normal routine with minimum disruption and always involve the person in decisions about which product or solution to use, and take their opinions on board.

Increased access to **behavioural and social interventions** (see Box 6) can reduce the inappropriate use of antipsychotic drugs, with potential savings in medication and hospital costs.

Within **care homes**, there is a need for explicit **leadership for dementia** [53]. People in the later stages of dementia should be assessed by primary care teams to identify and plan their **end of life care** [45].

Actions to support carers

Family carers are the most important resource available for people with dementia. **Help for carers** is essential in supporting those with dementia to remain independent and in their own homes [53]. Evidence suggests the need for carers to be offered access to:

- Peer support groups
- Training/awareness raising
- Psychological therapies if required
- A comprehensive range of respite/short-break services, in the person's own home wherever possible [51].

Further work should also be undertaken to identify those who are carers for friends and family with dementia.

Staff awareness training

All staff working with older people in primary care and other health sectors, social care and voluntary sectors need to have access to **dementia care/ awareness training** and continuous professional development [51, 53].

Box 7: Local examples of good practice, quoted in the NICE commissioning for dementia care guide

Carer-defined quality outcomes in Liverpool.

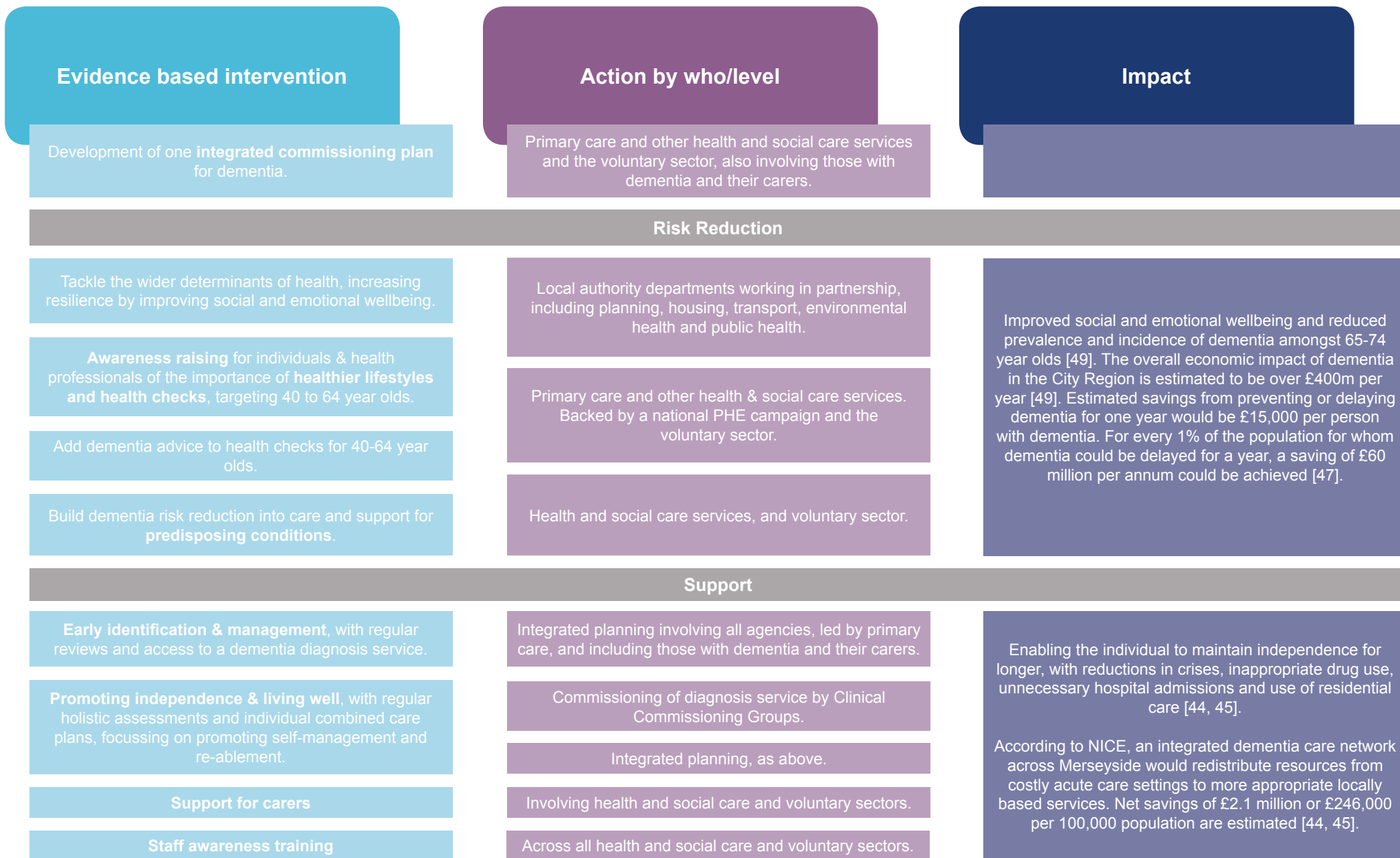
Following discussions and listening exercises, a set of quality outcomes for carers were constructed and incorporated into service specifications, which are monitored to ensure compliance.

Quality and productivity case study – integrated whole system services for people with dementia in NHS Merseyside.

A business case has been made for an integrated dementia care network across Merseyside. The network will support the redistribution of resources from costly, inappropriate acute care settings (general hospitals and mental health units) to more appropriate locally based services and services in people's own homes. Estimated net savings of £2.1 million or £246,000 per 100,000 population are estimated, providing all service changes are implemented across the area.

National Institute for Health and Care Excellence, 2013 [45]

Summary of interventions for dementia risk reduction and support



2.3 Reducing falls amongst older adults

Why focus on falls amongst older adults?

Each year one in three people over the age of 65 and half of people over the age of 80 have a fall [54]. In the City Region, with the exception of Sefton, rates of falls amongst the elderly are significantly higher than the English average (Figure 7). Falls can result in life-changing consequences for older people and their families, often leading to increased dependence on others for care or even a move into a residential care setting. The estimated cost of falls to the NHS alone is over £2.3 billion per year, reflecting the severity of these impacts [54]. A comparison of the care costs in the 12 months before and after a fall showed that community care costs increase 160%, social care costs 37% and acute hospital costs 37% [55]. Consequently, investment in falls prevention is flagged as a public health priority [56].

What can be done?

Falls in older people are common and costly, but also at least partially preventable. The first challenge is to identify people at risk and to offer preventative interventions to avert or delay a first event, which could include, a long term life-course approach to targeting frailty, as well as more short-medium term steps to address specific risk factors and strengthen self-caring skills. Secondly, hospital and community health, social and other support services need to be organised to provide the greatest protection from loss of independence and avoidable reliance on social care services, unnecessary days in hospital, and further falls or readmissions.

Actions to reduce fall risk

Preventative interventions for people at risk of falling: Addressing the **wider determinants of health** through investment in **healthy homes schemes, integrated housing care and support and longer-term planning**, including the development of **age friendly neighbourhoods and communities**, can all help to reduce dependence and enhance self-care before and after a fall (see Section 2.1)[20-22]. Local authority awareness raising campaigns such as ‘Get up and Go’ (see Section 2.1) [30] can help to promote healthier lifestyles. For example dance classes can help to increase physical as well as social and emotional wellbeing [57]. Also, the development of specific strategies and programmes around safer homes have been shown to reduce falls by up to 30%. This has involved joint working, between the local NHS, housing agencies, and local authority social care and housing departments [48].

Targeted preventative action aims to prevent or delay a first fall and to reduce the likelihood of a second or subsequent fall. People who have had a fall should be immediately referred to a **specialist falls service** and undergo in-depth multifactorial risk assessment covering physical health, medication and home safety. This should link to an individualised plan that includes strength and balance training [54]. **Early identification and intervention** is essential - older people should be asked routinely about their history of falls and fear of falling by community health and social care and other support service professionals [54]. Services such as **fracture liaison clinics** are also effective [16]. Most falls take place in the home [58]. Basic falls risk assessment can often fall within in the remit of organisations outside of health and social care who have contact with older people in the community, for example the enhanced role of firefighters in Cheshire and Merseyside (see Box 8) and in Bury and Salford [59].

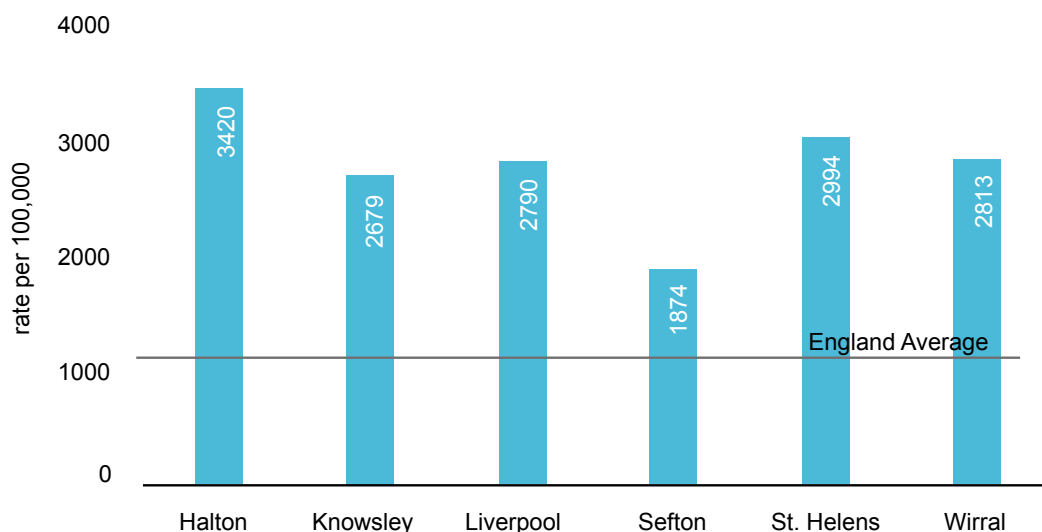


Figure 7: Injuries due to falls in people over the age of 65, 2013/14. Source: PHE fingertips

Key components of effective community falls prevention programmes are **therapeutic exercise, home safety assessment and improvement, and rapid access to specialist assessment** [54, 60]. Focusing on individuals' concerns and underlying anxieties with an emphasis on positive outcomes such as independence rather than falls avoidance helps to improve coping and resilience [54, 61]. Reduced muscle strength and balance is a key modifiable risk factor and prevention programmes must be faithful to the evidence base to ensure the greatest benefit [62].

Integration and whole system approaches: In order to deliver impactful change an integrated, co-ordinated and coherent single system for falls prevention needs to be in place. Where this has been achieved the results have been impressive [60, 63]. Critical to success are (i) a system-wide understanding of the value and achievability of falls prevention, (ii) a committed multi-stakeholder approach with participation from primary and secondary care, a specialist falls service, local authority and other community services and the voluntary sector, and (iii) a simple, single system to manage first-line risk assessment, triage and onward referral according to individual need.

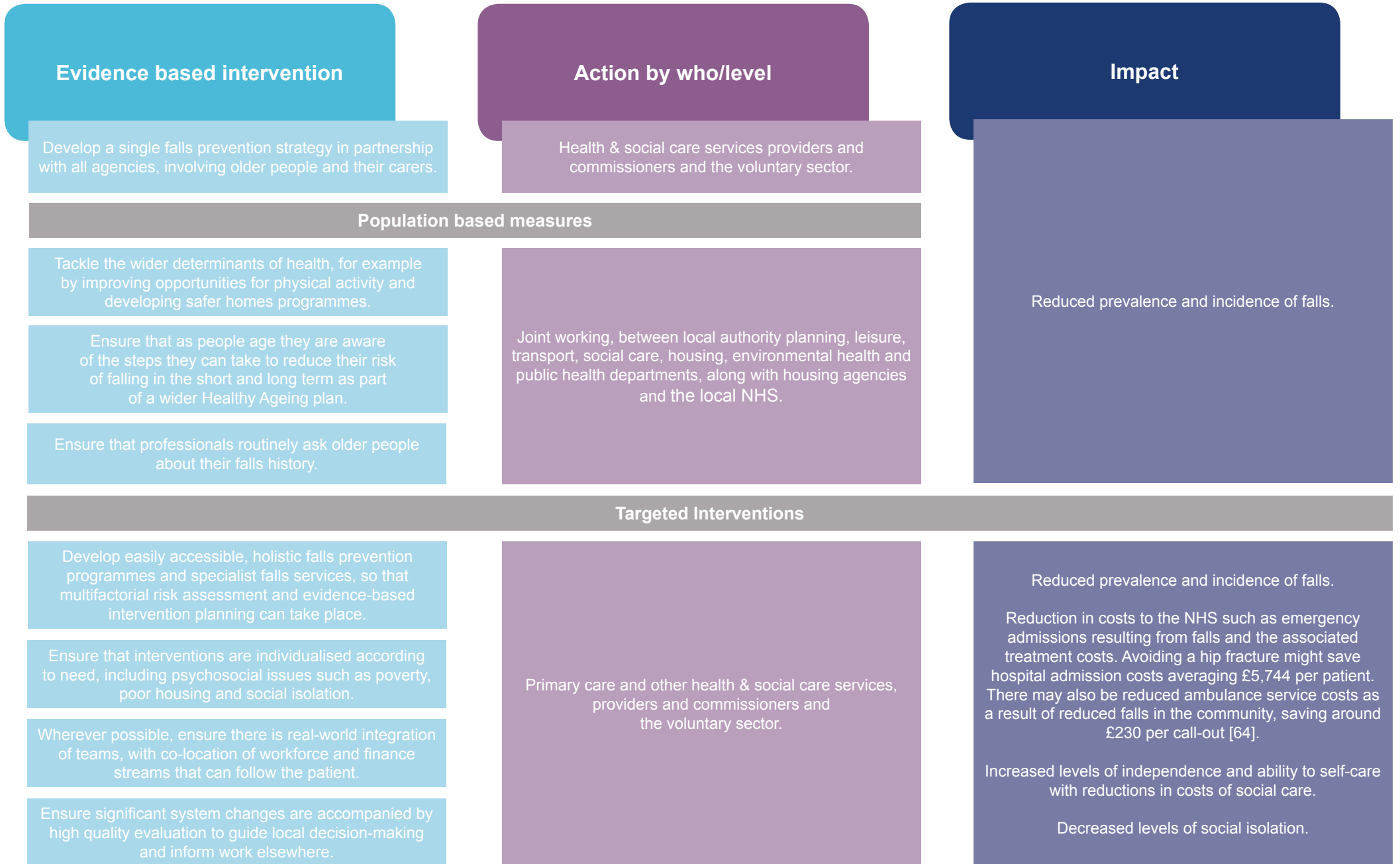
Box 8. Cheshire and Merseyside Fire Service 'Safe and Well' checks

In Cheshire and Merseyside, the 'home fire safety check' has been developed into a 'safe and well' visit which is soon to be rolled out across the area. Through this scheme, the fire and rescue service will be an active and engaged partner, assisting local authority and health commissioners in improving health outcomes in areas such as slips, trips and falls, winter warmth, carbon monoxide, crime prevention and supporting those who are socially isolated.

Merseyside Fire and Rescue Service, Home Safety Strategy 2015 – 2018.

http://info.wirral.nhs.uk/document_uploads/CurrentVersion/MFRS_Home_fire_safety_checks_08-08-15.pdf

Summary of interventions for falls risk reduction



2.4 Reducing emergency admissions amongst older adults

Why focus on emergency admissions amongst older adults?

The annual crude emergency admission rate in England in people aged 65 and over is around 23,600 per 100,000 population (just under 1 in 4). Many people remain in good health as they age, but for others unplanned hospital stays can become a frequent event [12]. In the City Region, emergency admissions rates are higher in each local authority than the national average. Ambulatory care sensitive (ACS) admissions are those for which emergency admission is deemed preventable. ACS conditions account for around a fifth of all emergency admissions and older people make up a disproportionate number of those admitted. In the City Region unplanned hospitalisation for chronic ACS conditions and emergency admissions for acute conditions that should not usually require hospital admission is above the national rate in each of the clinical commissioning groups [65].

An unplanned admission to hospital can be precipitated by a multitude of complex factors, but often the challenges of multiple long term conditions and associated difficulties in managing 'activities of daily living' are involved [66]. Frail older people, are especially vulnerable to sudden deteriorations in their health and ability to self-care and the picture can be complicated further if they also have a caring role. An increasing prevalence of frailty and long term conditions is one of the many factors behind the rise in emergency admissions [67]. A third of people over the age of 75 have two or more long term conditions, which increases demand for and the costs of providing emergency care, partly through longer hospital stays [68]; 43% of emergency admissions and 80% of hospital stays over two weeks are in people over the age of 65 [16]. Improvements in ACS admissions management through implementation of best practice from top-

performing areas have been estimated to deliver annual national savings of between £96 million and £238 million [69].

What can be done?

Preventing emergency hospital admissions and readmissions in older people requires action across the whole patient journey, from holistic support to live and age well right through to advanced care planning and end of life care. This can only be achieved when partners, agencies and older people's representative come together to collectively find local solutions to shared challenges. Interventions to prevent emergency admissions in older people essentially fall into three groups:

1. Those that are aimed at maintaining good health and slowing the extent and rate of functional decline;
2. Those that focus on getting the best from services and support in the community to minimise risk of preventable admissions for an 'ambulatory care sensitive condition'; and
3. Those that take place 'at the hospital door', either by avoiding unnecessary admissions or by ensuring inpatient and post-discharge care is directly aimed at limiting loss of independence, length of stay, and other possible harms as far as possible.

No single approach will deliver meaningful impacts on population-wide emergency admission rates [70, 71]. Local strategies need to reflect local assets and patterns of need, and recognise that providing enough real alternatives to acute hospital care will require major reconfiguration of local health and social care systems. It is vital that efforts around admission avoidance are more than matched with action on prevention (see Section 2.1).

Actions to reduce emergency admissions

Action to tackle the wider determinants of health will help to reduce the risk of emergency admissions, for example by supporting healthy living (see Section 2.1 and the example of social prescribing in Rotherham). Action to promote warmer and safer homes will help older people to stay well. Providing support for those most in need to access and benefit from warm home funding and related schemes such as the 'Green Deal' are examples of actions that can be taken by local authorities. It is also possible to encourage landlords to keep homes warmer by advising them on how to save energy [48]. As with dementia and falls, the development of age friendly neighbourhoods and communities can all help to reduce dependence and keep people well at home.

Avoiding preventable admissions: Reducing ACS admissions is one of seven 'quality ambitions' set down in NHS England's 'Any Town' call to action [70-72]. Of particular relevance are actions targeted at: reducing variability in primary care prescribing and referral; enabling self-management for people with long term conditions assisted by telehealth and telecare technologies; multi-disciplinary case management and well-co-ordinated care; fully integrated dementia pathways, and a community-based palliative care service. Care co-ordination and rapid access to out of hospital services are crucial to support self-management, respond to changing health and social needs and avert or manage rapid deterioration. 'Early adopter' ideas which show potential include rapid access doctor-at home services and electronic palliative care co-ordination. The **House of Care model** has been developed to bring together the overarching themes of good, day to day care for people with long term conditions – support for individuals and carers to self-manage, health and care professionals working in

partnership to deliver joined up, person-centred support, and evidence-based systems and interventions [73].

Hospital-led interventions: Rapid access to expertise and clinical leadership are recurrent themes in hospital-centred interventions. Some doubt has been raised as to the cost effectiveness of providing geriatric consultant support within emergency departments [70], so this arrangement is best partnered with shared use of comprehensive geriatric assessment and ‘discharge to assess’ models, (see also Box 9). The in-hospital approach seeks to deliver emergency care that is discharge focused from the very beginning and aims to reduce length of stay and maximise functional recovery, often with input from community re-ablement and rehabilitation teams [66, 67, 71]. Care that is led by teams who specialise in co-ordinating complex health and social care in partnership with older people is safer, and results in better quality discharge planning and lowered risk of readmission. Other benefits are, appropriate onward referral to community-based services, more timely conversations about end of life planning and greater use of personalised health plans to reduce avoidable admissions in the future [16]. Close links with community and primary care services, including rehabilitation and re-ablement, as well as the wider voluntary sector services, help to make the most of hospital-focused initiatives. Other best practice examples include common assessment tools, protocols and processes, in-reach and out-reach working arrangements, integrated multi-disciplinary team meetings (primary and secondary, social and health), shared information including patient-held notes, such as the ‘This is Me’ booklet for patients with dementia, and pooling of health and social care budgets to reduce delays to discharge [70, 71].

Improving the quality of care and support to care homes is highlighted as a priority in the NHS Five Year Forward View, with a reduction in avoidable emergency admissions seen as a key impact. The North West Surrey Clinical Commissioning Group have delivered impressive results using geriatrician outreach [74]; (see Box 9). The combined market power of the City Region could be used to explore developing contracts for geriatrician outreach across the patch.

Integration is the keystone of transformative change: in preventing emergency admissions amongst older people [66, 71]. None of the interventions outlined above can be realised without a **whole system approach** to service commissioning and provision, including sharing of strategies, human, financial and other resources and patient information. The challenge is to reassemble the current, often fragmented service components into a coherent network. This network would support healthy ageing and offer self-care and management in place of care dependence. It would use planned management and early intervention to prevent or delay emergency admissions. The ‘family’ of commissioners and providers, which has previously led on health service development for older people, will benefit from expanding its boundaries and connecting directly with the assets, knowledge and skills contained across council services. This would be particularly beneficial within the third and voluntary sector and local communities themselves.

The scale of re-organisation needed to produce a system which primarily delivers planned prevention rather than reactive treatment should recognise ‘quick wins’ that are tried and tested. However, ‘quick wins’ alone will not deliver population wide shifts in activity. A major challenge to commissioners and policy-makers seeking to reduce emergency admissions in older people is the challenge of working with an evidence base where successful interventions are so context specific. High impact changes and guiding principles are emerging, but there is also tremendous scope for breaking new ground. Calls for a ‘practice-based evidence’ approach are well placed [20, 70], meaning that decision-making and innovation will often rely on a thorough understanding of local need coupled with courageous systems leadership.

Box 9: North West Surrey Clinical Commissioning Group - Geriatrician input into nursing homes reduces emergency hospital admissions

Nursing homes with the highest emergency admission rates were selected for the first phase. Elderly care consultants visited the homes and worked with staff and primary care colleagues to help reduce unnecessary emergency admissions. Discussions led to four interventions being agreed:

- Medical advisory meetings with GPs
- A telephone advice line
- Administration of intravenous antibiotics and fluids at the care homes
- Delivery of end of life care at the care homes

Outcomes

Within 3 months emergency admissions had halved and this effect was replicated at another six care homes when the intervention was expanded.

250 bed days were saved during the study period compared to the previous year, thanks in part to consultants receiving early warning of care home admissions and prioritising rapid discharge for these patients.

This is a promising example of bringing expertise to where it is needed to support early intervention and prevent avoidable admissions, but demands strong partnership working and team-building capabilities from professional groups within primary, secondary and social and community care services. Investing in these building blocks may be an important first step to ensuring successful duplication of schemes such as this.

Source: Lisk et al., 2012 [74]

Summary of interventions for emergency admission risk reduction

Evidence based intervention

Tackle the wider determinants of health, for example with action to promote warmer and safer homes.

Adopt a population based approach that recognises the need for primary, secondary and tertiary prevention to tackle demand in the short, medium and long term.

Ensure that older people's health and social needs are identified, shared and acted upon to produce jointly owned, local action plans that foster wellbeing and independent living.

Ensure older people are actively involved and empowered at every step.

Develop a single emergency admission prevention strategy in partnership with all agencies, involving older people and their carers.

Develop a shared understanding of core conditions that are ambulatory care sensitive and an appreciation of evidence-based admission prevention and avoidance approaches.

Share patient information appropriately within the limits of information governance to improve individual continuity of care and enable whole system analysis, integration and efficiencies.

Wherever possible, ensure there is real-world integration of teams, with co-location of workforce and finance streams that can follow the patient.

Ensure significant system changes are accompanied by high quality evaluation to guide local decision-making and inform work elsewhere.

Action by who/level

Joint working between health and social care providers and other local authority departments including planning, housing, environmental health and public health.

Primary care and other health & social care services, providers and commissioners and the voluntary sector.

Impact

Reduced A&E visits and hospital admissions.

The Liverpool Healthy Homes scheme, for example, has been estimated to lead to £55 million savings to the NHS and wider society over 10 years and prevent 1,000 hospital admissions a year [23].

Within 3 months of introducing a geriatrician service into nursing homes, emergency admissions had halved [74].

2.5 Supporting those with long term conditions to remain independent and in their own homes

2.5.1 Multiple long term conditions (co-morbidities)

Why focus on long term conditions and co-morbidities?

People are now living longer but in poorer health [75], often with long term and complex conditions. More than 15 million people in England – 30% of the population – have one or more long term conditions. A long term condition is one that cannot be cured but can be managed with the use of medicines or other therapies, for example diabetes, arthritis and asthma, or a number of cardiovascular diseases and also conditions such as HIV/AIDs and certain cancers [76, 77].

Nationally, the overall prevalence of long term conditions is projected to remain relatively stable over the next 10 years, however the prevalence of comorbidities (people living with two or more long term conditions) is expected to increase by more than 50% [78].

Individuals with long term health conditions require substantial resources from health services. The Department of Health estimates that they account for around 70% of total health spending [79]. A recent review of self-care by Liverpool Council noted that nationally, long term health conditions are responsible for 80% of GP consultations and 67% of acute hospital admissions [80, 81]. Nevertheless, an estimated 80% of care for people with long term health conditions is undertaken by the patients themselves, or by their carers [80, 81]. The growing need for social care will mean that by 2022, public expenditure on long term care will rise by 94% to £15.9 billion [79].

Variation in the management of long term conditions is a major contributory factor to the health inequality gap. Socio-economic factors also play a part. Many people of working age, particularly those from lower socio-economic groups, now have multiple long term conditions [75]. For example, data from 2006 shows that those from unskilled occupations (52%) are more likely to suffer from long term conditions than groups from professional occupations (33%) [8].

Locally, the number of people diagnosed with long term illnesses within the City Region is above national levels for all main conditions (see Section 1.2.3).

Mental health and wellbeing: Co-morbidities commonly involve a mental health problem. People with long term conditions are two to three times more likely to experience mental health problems than the general population. At least 4 million of the 15 million people in England with a long term physical health condition also have a mental health problem. At least £1 in every £8 spent by the NHS on long term conditions is linked to poor mental health and wellbeing (a conservative estimate) [76].

There are wider economic costs, with evidence that people with long term conditions and mental health needs are less likely to be in employment than those with physical illness alone. There is also evidence that the productivity of those in employment is reduced, and that absenteeism levels are high. There is also an increase in the likelihood that other family members have to take time off work to provide informal care and support [76].

What can be done?

The Department of Health [78] has identified two distinct population groups at risk of co-morbidity:

- Younger, socially deprived populations, with greater exposure to risk factors. In particular smoking, obesity, alcohol and physical inactivity due to challenging personal, occupational and societal factors throughout the life course.
- The older population whose comorbidity is mainly driven by increased life expectancy and longer exposure to risk factors over the course of their life.

The Department of Health noted that these different groups require very different interventions and support. It was noted that prevention (both primary and secondary prevention) and action on the wider determinants of health are more important for the first group, while support to maintain independence and day to day activities are more relevant to the latter.

Action on the wider determinants of health to promote wellbeing and prevention: The Department of Health has identified a range of actions for the promotion of wellbeing and prevention relating to comorbidities [78]. These include using **community based approaches**; promoting protective factors; reducing risk factors; and diagnosing and treating long term conditions effectively to prevent disease-related complications. Key partners who have been identified to deliver these actions include local authority health and wellbeing boards and Clinical Commissioning Groups. Action on the wider determinants of health is important. This involves creating healthy environments working across the lifecourse including education, housing, and

employment sectors [78]. For example, local authorities can champion and improve the take-up of 'supported employment' and job retention schemes which could help those with multiple long term conditions to remain at work as long as possible. They can support and challenge local businesses to implement NICE evidence on healthy workplaces, and to do more to help employees lead healthier lives by signing up to the Responsibility Deal's health at work network. Particular focus should be on the collective pledges in the Responsibility Deal on chronic conditions, mental health at work, occupational health, healthier food and behaviours, health checks, and young people in the workplace [17]. Action on warmer, safer homes and access to green and open spaces and active travel, covered earlier in this report, will also help to increase wellbeing and minimise the effects of long term conditions.

Integrated care and transformational change:

The King's Fund note the need to transform health care for people with long term conditions from a system that is largely reactive – responding mainly when a person is sick – to one that is much more proactive, and focuses on supporting patients to **self-manage** [82]. Over 90% of people with long term conditions say that they are interested in being more active self-carers, and over 75% would feel more confident about self-caring if they had help from a healthcare professional or peer [79]. Despite this, many people with long term conditions have limited knowledge of, or influence over their care [79].

The changes being proposed by the King's Fund [82] would see people with long term conditions assuming a more **active role**, being encouraged to become both more knowledgeable about factors affecting their condition and more actively involved in decisions about their care. For this to work, local communities need to have multiple resources that can be used to help people

live healthier and more fulfilled lives, **transforming the relationship between patients and clinicians**. The King's Fund found that recent integrated care pilot schemes fall short on full transformational change, with the management and care of long term conditions still tending to be seen as the clinician's responsibility rather than a collaborative endeavour with active patient involvement and effective self-management support [82].

A proposed **Liverpool model of self-care** emphasizes the importance of client/patient involvement. One of the basic principles of the model is that the number of individuals who can self-manage can be maximised through the systematic transfer of knowledge and care planning [80]. The evidence review that this model was based on noted that self-care interventions for chronic diseases can be categorised along a continuum. The continuum ranges from passive information provision by providers (e.g. educational leaflets, electronic information) and fostering of technical skills (e.g. home measurement of blood pressure, tools to identify 'warning symptoms') at one end, to interventions that aim to actively support behaviour change (e.g. increased exercise) and self-efficacy (e.g. motivational sessions) at the other end [80].

For people with more than one long term condition, **integrated care** is especially important, with all the agencies involved working together with the individual, exploring the possibilities for self-management. A review by the King's Fund found evidence that integrating primary and social care reduces admissions [44].

NICE have recently produced draft guidelines for the **social care of older people with multiple long term conditions** [77]. They noted that in order to integrate health and social care planning, provision will need to be made for community-based multidisciplinary support for older people with multiple long term conditions.

The health and social care practitioners involved in the team might include, for example, a community pharmacist, physical or occupational therapist, a mental health social worker or psychiatrist, and a community-based services liaison [77].

Box 10: Examples of integrated working with cost-savings for co-morbidities

- As a result of the Transforming Community Services programme, many mental health trusts have taken on new responsibilities for providing community services for people with physical health problems – to a total value of £2 billion. This creates opportunities for developing more integrated ways of working.
- In the year following a cognitive behavioural therapy (CBT)-based disease management programme for angina, patients had reduced anxiety levels and needed 33% fewer hospital admissions – saving £1,337 per person.
- Including a psychological component in a breathlessness clinic for COPD in Hillingdon Hospital led to reduced A&E use and hospital admissions, with savings of £837 per person – around four times the upfront cost.

Source: Naylor et al., 2012 [76]; National Institute for Health and Care Excellence, 2009 [83]

Integration of physical and mental health care:

There is a need to recognise the role of emotional and mental health problems in reducing people's ability and motivation to manage their physical health [76]. This is important in order for transformational change to succeed, as such change hinges on the encouragement of self-management. Mental health services are generally commissioned separately from services for physical health conditions, and the needs of co-morbid patients are often not considered in either process [76]. More integrated and collaborative forms of care are required. This would help to reduce the need for referral to expensive secondary care [76, 83]. Key elements of the **collaborative care model** include:

- A case manager responsible for co-ordination of different components of care;
- A structured care management plan, shared with the patient;
- Patient education and support for self-management;
- Introducing collaborative care arrangements between primary care and mental health specialists, which can improve outcomes with no or limited additional net costs;
- Integrating psychological interventions into chronic disease management frameworks;
- Investing in enhanced forms of psychiatric liaison services in acute hospitals;
- Providing health professionals of all kinds with basic mental health knowledge and skills.

As multiple comorbidity develops much earlier in lower socio-economic groups, integrated responses will need to bring in different balances of medical, care and social models of health to match people's circumstances [75]. To keep up with these changing needs, the health and social care system needs to be better integrated with other public services and the communities they serve [75].

Summary of interventions to support those with multiple long term conditions to remain independent and in their own homes

Evidence based intervention	Action by who/level	Impact
Promotion of wellbeing and prevention		
Action on the wider determinants of health, including creating healthy environments and reducing inequalities in education, housing, and employment.	Local authority departments including housing, planning, transport, jobs/employment, environmental health, public health and national government.	Reduced prevalence and incidence of multiple long term conditions.
Using community based approaches; promoting protective factors; reducing risk factors; and diagnosing and treating long term conditions effectively to prevent disease complications.	Primary care, local authority health and wellbeing boards and Clinical Commissioning Groups.	
Integrated care and transformational change		
Use care planning involving a named care coordinator who will liaise with all health and social care services involved with the individual. Identify how the individual can be helped to manage their own care, including how to manage their conditions; medicines management; and support in taking part in any hobbies and interests, which will also assist in minimising social isolation.	Local health & social care services, voluntary sector, and involving people with long term conditions and their carers.	Enabling the individual to maintain independence for longer, with reductions in co-morbidities; social isolation; inappropriate drug use, unnecessary hospital admissions use of residential care. Two examples of integrated care led to reduced hospital admissions, with savings of £837 and £1,337 per person [76].
Support carers, offering them an individual assessment of their needs (in line with the Care Act 2014).		
Integrate health and social care planning, with provision for community-based multidisciplinary support for older people with multiple long term conditions. Adopt collaborative care arrangements between primary care and mental health specialists.		
Prevent social isolation by supporting people to maintain links with family, friends and community. Fund and collaborate with community enterprises and services to help people to remain active in the home and engaged in the community, including when people are in care homes.		
Train health and social care practitioners so they can better meet the needs of people with multiple long term conditions.		

2.5.2 High blood pressure (hypertension)

Why focus on high blood pressure?

High blood pressure (BP) is the most common long term condition in the UK, affecting more than one in four adults. It has no symptoms, yet it is the second biggest risk factor (after smoking) for premature death and disability [84]. High BP contributes to a range of diseases including heart attacks, stroke, heart failure, vascular dementia, eye disease, and kidney disease [85]. All of these can lead to a significant burden of long term illness, loss of independent function, dependence on carers and inability to work. As a result, high BP contributes significantly to the unsustainable demands and financial strain currently facing health and social care systems; it is the largest local primary care disease register and accounts for 12% of visits to GPs in England [85]. Local hospitals deal with high numbers of emergency admissions for heart attacks and strokes [86]. The need for long term health and social care of those with dementia and those surviving heart attacks and strokes is increasing.

High BP is gaining widespread recognition both nationally [85] and locally as an ideal condition on which to focus action. The impact it is having on individuals, communities and services is not inevitable, and the scope to make a positive difference is huge. By tackling high BP we can improve and save lives, and reduce pressure on health and social care services in a sustainable and cost-effective way.

What can be done?

There is good evidence that with better prevention, detection, and management, the number of people

developing high BP in the first place can be significantly reduced. This evidence suggests that the impact of high BP in those in whom it is diagnosed can also be reduced.

High BP is often preventable, and relatively small population-level changes in average BP can have significant impacts on BP-related outcomes. Key modifiable risk factors include being overweight or obese, eating too much salt, drinking too much alcohol, and being physically inactive. These risk factors are common in the City Region (over two thirds of people are obese or overweight, one third are physically inactive, and up to one third of people smoke), so actions that support and empower the population to lead healthier lifestyles are vital.

Although nearly 240,000 people across the City Region are on local GP registers for high BP, it is estimated that the true prevalence is almost double, around 425,000. Nearly 200,000 people are likely to have high BP but are unaware and untreated [87], leaving them at increased risk of serious medical complications. High BP can be treated through lifestyle changes and medication, yet only four in ten UK adults with high BP know that they have it and have it under control [85]. There is unwarranted variation in clinical care received between different local areas [88]. The UK also lags behind other developed nations in controlling high BP, so we know that change is achievable. It is estimated that more than 500 heart attacks and strokes could be avoided in the City Region every year if all of those with high BP were identified and managed to target.

Actions to reduce high blood pressure

Numerous actions can be taken to reduce the risk of high BP and to treat it effectively when it occurs. These actions would reduce the onset of conditions

mentioned above, enhance self-care, reduce unplanned admissions, and support people to remain independent for longer. Each recommendation (below) has a robust evidence-base with support for action from a variety of UK organisations including PHE, the British Hypertension Society, and the Royal College of General Practitioners [85]. Actions can be categorised into three themes: prevention, early detection, and better management.

No single action or organisation can do this alone. We need transformational changes in the way we work, and we need all partners to work together across the wider healthcare economy. Key partners include (but are not restricted to) local government, health care commissioners, health care providers, individuals and families, voluntary and community sector, employers, academic organisations, and national agencies.

Box 11: The economic case for tackling high BP

Nationally over ten years it is estimated that more than a billion pounds could be saved from health and social care spend if we improve how we tackle high BP:

- £850m savings from prevention approaches that achieve a reduction in the average population BP
- £120m savings from improved detection of high BP
- £120m savings from improved management of high BP

Source: Public Health England, 2014 [85]

Actions to prevent high blood pressure

Local government is ideally-placed to tackle high BP through its influence on the **wider determinants of health**, i.e. by creating an environment that supports healthy-living through use of local-planning, transport, schools, environmental health, licensing, and policy powers; and by leveraging their influence with local organisations in all sectors [85]. For example, local authorities can use NICE guidance [89] to design and implement policies that promote cycling and walking as forms of travel or recreation. This reduces the risk of hypertension, cardiovascular disease and obesity, and leads to better general health. Further, joint commissioning of effective cycling and walking interventions with Clinical Commissioning Groups is expected to deliver savings for NHS budgets. Actions can be strengthened by working with employers to promote cycling to work, with improvements in health and wellbeing resulting in lower absenteeism rates [17]. Local authorities can work with their communities to develop strategic plans for green space within broader neighbourhood plans, helping to stimulate physical activity in local communities. Access to green space – particularly for lower socio-economic groups – could also be prioritised in planning developments [17].

The Local Government Association suggests that local authorities consider employing eligibility criteria in planning policy (for example, ensuring that new homes should be within specific distances from bus stops and ‘walkable’ distances from local shopping centres). They also suggest action on food outlet regulation, working with takeaways and the food industry to make food healthier, through information, training and awards schemes, and by regulating the number and concentration of outlets [17].

Box 12: Local examples of good practice:

The Cheshire and Merseyside Cross-Sector Strategy to tackle High Blood Pressure

A newly formed Cheshire and Merseyside Blood Pressure Partnership Board is jointly driving the direction and implementation of a cross-sector system-wide strategy to tackle high BP. Over the next five years this work will build on the local climate for change and commitment to cross-sector partnership working to adopt and adapt best practice in the prevention, identification and management of high BP. Key priorities include:

- A radical shift towards prevention as set out in the NHS England Five Year Forward View through healthy policy, supportive environments, and collaborative commissioning to empower healthy living and self-management;
- Improving identification of high BP by raising awareness and improving access to BP testing in non-traditional settings, (e.g. Merseyside Fire and Rescue Service ‘Safe and Well’ visits);
- Optimising clinical management through local clinical leadership, development of a local BP pathway, insight work, and a workforce education and training programme (Health Education North West, NICE, British Heart Foundation);
- Increasing the role community pharmacies play in high BP detection and management, e.g. through the Healthy Living Pharmacies programme (200 pharmacies by July 2016);
- Using intelligence and data to drive action and evaluate impact, (led by PHE North West team);
- Adopting innovative and interconnected technologies, and work with partners in industry to support implementation of the BP strategy (led by North West Coast Academic Health Science Network).

Source: Public Health England, 2014 [85]

Local health promotion

All local projects to promote healthy eating, reduce salt intake, reduce child and adult obesity, and improve physical activity levels will help to reduce population blood pressure and will help to prevent the development of hypertension, or hypertension-induced disease. The work of Liverpool’s Strategic Physical Activity and Sport Alliance is recognised and endorsed world-wide by the International Olympic Committee, UNESCO, and the World Health Organization.

Source: www.tafisa.net/index.php/programs-events/tafisa-3ac-with-the-support-of-ioc

PHE note that the most sustainable and cost effective solution to tackling high BP is a whole population approach that is proportionate to the level of disadvantage, and focuses on the early years [85]. This approach will also help to reduce the inequalities associated with high BP [2, 85].

Locally-tailored policies, including NICE-recommended behaviour-change approaches [90] are needed that support the population across the City Region to:

- Eat less salt;
- Reduce excess weight;
- Eat more fruits, vegetables and low-fat dairy products;
- Be more physically active;
- Drink less alcohol;
- Stop smoking;
- Reduce stress.

Actions to improve early-detection of high blood pressure

Earlier detection of high BP allows it to be managed appropriately before it causes complications and other long term conditions. PHE [85] recommends several evidence-based ways to achieve this, which should be guided by local insight work:

- Improving uptake of existing offers for early detection (including NHS health-checks and local initiatives);

- Creating new, locally tailored case-finding initiatives for high-risk groups;
- Opportunistic testing and onward referral in a wide range of settings including: general practice, hospital inpatients and outpatient departments, pharmacies, and trained community champions;
- Improving clinical leadership, engagement, and education so more individuals are diagnosed via other clinical interactions;
- Testing blood pressure in non-traditional community settings to reach those who are unlikely to see their GP;
- Particular focus should be given to high-risk groups and to communities where there is a large gap between numbers diagnosed and those expected;
- Improved data sharing between health (particularly primary care) and other sectors increases the capacity to detect and treat more people with high BP and to address inequalities.

Actions to improve management of high blood pressure

Through lifestyle changes and appropriate medications, blood pressure can be reduced to normal levels, preventing long term conditions like heart disease, reducing resultant unplanned hospital admissions, and lessening the burden of long term conditions on health and social care services. We need to embed clinical excellence within a wider cross-sector strategy of distributed responsibility to make sure that

the right people receive the right intervention at the right time. This will also help to relieve mounting pressures on general practice. Evidence-based recommendations focus on resourcing GPs to follow relevant NICE recommendations [85, 91] through:

- Local **clinical and system leadership**;
- Implementation of a clear evidence-based, well-resourced **pathway for management** of high BP;
- **Supporting professionals** (with communication, tools and incentives) to bring practice nearer to treatment guidelines where this falls short;
- Supporting all patients with high BP to adhere to lifestyle change and medication, e.g. through **self-monitoring and pharmacy support**;
- Use of **telehealth solutions** in improving the management of anti-hypertensive medications [92, 93].

The short, medium and long term impacts of a cross-sector systems approach are outlined in Box 13.

Box 13. Impact of a cross-sector systems approach to high blood pressure

Short Term (12-18 months)

- Increase in public awareness of high BP and the lifestyle factors that influence it.
- Initial increase in the incidence of high BP due to case finding, but a higher proportion of BP recordings will be from non-GP sources, and a reduced gap between observed and expected prevalence of high BP.
- Evidence of better clinical care (e.g. increased adherence to NICE quality standards for hypertension).
- A better understanding across the system of where the biggest return on investment lies in terms of improving health outcomes for given resources (driving a shift towards prevention).

Medium Term (18-36 months)

- High BP identified as a priority by more Health and Wellbeing Boards.
- Healthier lifestyles as measured by increased physical activity and reduced obesity rates.
- Reduced unwarranted variation / inequalities between Clinical Commissioning Groups and across the region.
- Improved cost effectiveness, with more Clinical Commissioning Groups demonstrating low spend, high effectiveness as risk factors are identified and managed at an earlier stage.
- Prevention of cardiovascular events and long term conditions.
- Reduction in unnecessary hospital admissions related to high BP (and cardiovascular diseases).
- High levels of patient satisfaction.
- People remain independent for longer.

Longer Term (36 months +)

- Widespread evidence of healthy policy to promote supportive environments.
- An increase in the proportion of patients controlling their BP through lifestyle.
- Accelerated fall in mortality rates from heart disease, stroke, heart failure and chronic kidney disease when compares to similar areas.
- Primary care (quality and outcomes framework) prevalence/ incidence for diseases related to high BP, including stroke, coronary heart disease, and chronic kidney disease will be lower than expected.
- Reduced health inequalities measured in terms of hospital admissions and mortality from cardiovascular diseases.
- Reduced burden on social care as a result of less BP related illness.
- Increased life expectancy and healthy life expectancy.
- Higher Return on Investment.

Summary of interventions for high blood pressure

Evidence based intervention	Action by who/level	Impact
Actions to prevent high blood pressure		
<p>Tackle the wider determinants of health, including promoting active travel, taking action on food outlets, and improving access to green spaces.</p> <p>Support communities to eat less salt, reduce excess weight, be more active, drink less alcohol, stop smoking, and reduce stress.</p>	<p>Local authority departments including transport, planning, environmental health, public health and national government.</p> <p>Commissioners and providers of local public health services.</p>	<p>PHE estimated that nationally, £850m savings could be made from prevention approaches [85].</p>
Actions to improve early detection of high blood pressure		
<p>Improve uptake of existing offers for early detection.</p>	<p>Local level - commissioners and providers of local public health services.</p>	<p>PHE estimated that nationally, £120m savings could be made from improved detection of high BP [85].</p>
<p>Create new, locally tailored case-finding initiatives for high-risk groups, and in groups where there is a large gap between numbers diagnosed and those expected.</p>		
<p>Provide opportunistic testing in a wide range of settings including general practice, hospitals and pharmacies.</p>		
<p>Improve data sharing between health and other sectors, to increase the capacity to detect and treat more people with high BP.</p>		
Actions to improve management of high blood pressure		
<p>Implement a clear, evidence-based, pathway for management of high BP.</p>	<p>Local level - commissioners and providers of local public health services.</p>	<p>PHE estimated that nationally, £120m savings could be made from improved management of high BP [85].</p>
<p>Support all patients with high BP to adhere to lifestyle change and medication, e.g. through self-monitoring and pharmacy support.</p>		
<p>Use telehealth solutions to improve medication management.</p>		

2.5.3 Diabetes

Why focus on diabetes?

Diabetes is a condition where the amount of glucose in the blood is too high because the body doesn't produce enough insulin. Insulin is required to help glucose enter the cells in the body [94]. Adults with diabetes have an excess risk of a range of complications including major vascular disease – heart attack and stroke – and microvascular disease – kidney disease, amputation and retinopathy. Type 2 diabetes results in 22,000 early deaths each year [95]. Those particularly at risk are lower socio-economic groups and people of South Asian, African-Caribbean, black African and Chinese descent.

Diabetes affects 6% of adults (diagnosed and undiagnosed). Currently, there are an estimated 3.5 million adults in the UK with a diabetes diagnosis, and an estimated 549,000 people who have the condition, but don't know it [96]. A further five million people in England (more than 1 in 10 of the population) have blood sugar levels indicating a high risk of developing Type 2 diabetes [95]. Currently around 90% of adults diagnosed with diabetes have type 2 diabetes [94].

Due to the ageing population, sedentary lifestyles and increasing numbers of overweight and obese people, it is estimated that by 2025, five million people in the UK will have diabetes [94]. In the City Region, levels of diabetes recorded in 2013/14 were significantly higher than the national average in all local authorities except Liverpool, where it was significantly lower (Figure 8).

Diabetes care is estimated to account for at least 5% of UK healthcare expenditure, and up to 10% of NHS expenditure [96].

What can be done?

Alongside a focus on diabetes risk reduction, it is important to support people with diabetes to live well, reducing its impact on individuals and their families (see Section 2.1). All agencies should be brought together to develop one **integrated commissioning plan** for diabetes based on a clear understanding of needs and views of people with diabetes across the City Region.

Actions to reduce the risk of diabetes

Diabetes prevention programmes can significantly reduce the progression to type 2 diabetes and lead to reductions in weight and glucose compared with usual care [95]. NICE found that interventions to identify and manage people at risk of diabetes are cost effective [97].

In 2011 and 2012, NICE published guidance documents which together provide a comprehensive approach, combining population-based primary prevention of diabetes with interventions targeted at those who are at high risk. The recommendations identify the need for tailored, community led responses to diabetes prevention [98, 99].

Tackling the wider determinants of health to promote healthy diet and physical activity:

Evidence considered by NICE, supports the use of incentives that encourage retailers and caterers to promote healthier food and drink options. Local authorities and NHS organisations, as well as local employers, should develop policies to help prevent employees from being overweight or obese and encourage employees to be more physically active. Providing open or green spaces gives people local opportunities for walking and cycling. Planning regulations can be used to maximise the opportunities to be physically active. Training for those involved in promoting healthy lifestyles is required to deliver

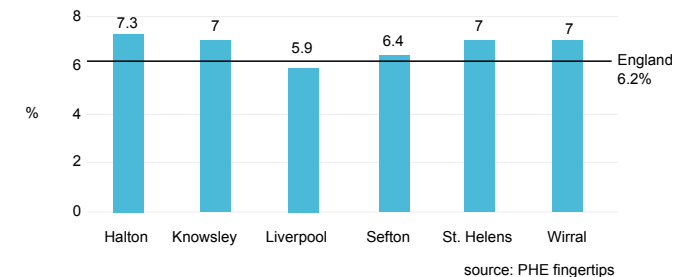


Figure 8: Prevalence of QOF-recorded diabetes in the population (adults aged 17+), 2013/14. Source: PHE Fingertips

Box 14. The economic case for risk reduction and support

According to a NICE (2014) report, in the UK, **direct savings of around £8.8 billion** (£2,588 per person with the disease, based on 3.4 million diagnosed cases) could be made **by preventing type 2 diabetes**. This includes diagnosis, lifestyle interventions, ongoing treatment, management and complications.

Indirect savings of around at £13 billion (£3,412 per person with the disease, based on 3.4 million diagnosed cases) could also be made, by taking into account factors including mortality, sickness, presenteeism (loss of productivity from those who remain in work), and informal care. These **costs** are predicted to almost **double by 2035**.

Even more potential savings could be made if earlier preventive activities take place with high risk populations including black, Asian and other minority ethnic children.

Source: National Institute for Health and Care Excellence, 2014 [97]

health promotion interventions in a non-judgemental way, and to meet age, gender, language and literacy needs [98, 99].

As mentioned in Section 2.5.1, local authorities can also take on the role of champion in improving the take-up of 'supported employment' and job retention schemes which could help those with conditions such as diabetes to remain at work as long as possible [17].

Conduct local joint strategic needs assessments to develop local strategies: Local communities at high risk of developing type 2 diabetes should be identified and communities' knowledge of risk factors, as well as their cultural, language and literacy needs assessed. Successful local interventions and gaps in service provision should also be identified, as well as local resources that could help promote healthy eating and physical activity. Local strategies should also involve consultation with local health professionals working closely with communities at high risk of developing type 2 diabetes. The potential health impact of all new policies on the key risk factors should be assessed and strategies on type 2 diabetes integrated with other strategies to prevent non-communicable diseases (such as cardiovascular disease and certain cancers) [98, 99].

Communities identified to be at high risk of type 2 diabetes need cost-effective **physical activity, dietary and weight management interventions** which take into account religious beliefs, cultural practices, age, gender, language, socio-economic group and ethnicity. Where appropriate, lay and peer workers can be trained in how to plan and deliver community-based health promotion activities, and identify 'community champions' [98]. Information should be disseminated locally to groups at higher risk of type 2 diabetes, through local newspapers, online social media and local radio channels, local shops and businesses and community groups [98, 99]. Locally, in many parts of

the City Region, a clinical pathway for people identified with prediabetes has been developed, using local trainers to provide lifestyle advice and services (Box 16).

Evidence suggests the need for commissioners and providers of local public health services to work in partnership with other local authority departments, including adult social care, education, environmental health, planning and public transport. Broader delivery of actions that address the wider determinants of diabetes risk should also involve local authorities working with the health and voluntary sectors, and in some cases the commercial sector [98, 99].

Actions to improve the management of diabetes

Many areas of the health care system play a role in the management of diabetes and NICE guidelines [100] note that multiple risk factors and wide ranging complications make diabetes care complex and time consuming. Necessary lifestyle changes, the complexities and possible side effects of therapy make patient education and self-management important aspects of diabetes care. NICE guidelines recommend that the key priorities for managing diabetes in adults are:

- **Individualised care** Adopt an **individualised approach to diabetes care** that is tailored to the needs and circumstances of adults with type 2 diabetes. This is especially important in the context of multi-morbidity.
- **Patient education** Offer **structured, evidence based education** that suits the needs of the individual patient. Education should be quality assured, audited regularly, and be delivered by trained educators, who offer patients written information. It should support the person and their family members and carers in

Box 15. The risk factors for developing Type 2 diabetes include:

- Aged over 40
- Male
- Asian or black ethnic background
- A family history of diabetes
- An increased BMI and/or waist circumference
- Ever had high blood pressure, a heart attack or a stroke
- Socioeconomic deprivation

Source: Public Health England, 2015 [95]

developing attitudes, beliefs, knowledge and skills to self-manage diabetes.

- **Dietary advice** Advice should be integrated with a personalised diabetes management plan, including other aspects of lifestyle modification, such as **increasing physical activity and losing weight**. A 2012 review [101] found that diet interventions were cost effective in managing obesity, with one high quality trial reporting a cost of £750 per QALY gained, for example. NICE estimated that the cost of people being overweight or obese (in 2007) was almost £16 billion [34], whilst inactivity costs the NHS over £1 billion [102].
- **Blood pressure management** Measure blood pressure at least annually in an adult with type 2 diabetes without previously diagnosed hypertension or renal disease. Offer and reinforce preventive lifestyle advice and add medications if lifestyle advice does not reduce blood pressure to below 140/80 mmHg.

- **Blood glucose management** Involve adults in decisions about their blood glucose target and consider short-term self-monitoring of blood glucose levels in adults with type 2 diabetes.
- **Drug treatment** For adults with type 2 diabetes, discuss the benefits and risks of drug treatment, as well as the options available.
- **Identify and manage long term complications** Prevent or delay complications by keeping blood glucose levels, blood pressure and cholesterol levels as normal as possible.

The Diabetes UK website provides resources and tools for improving diabetes care in a range of settings, including; inpatient and hospital care, prisons, pregnancy care, children and young people and ambulance services [103].

Box 16: Examples of good/shared practice

Knowsley –

GPs refer those diagnosed with borderline diabetes to health trainers/ lifestyle advisors: <http://www.knowsley.gov.uk/pdf/borderline-diabetes.pdf>

Sefton –

Sefton has been selected as a first wave site for the next phase of roll out of the NHS Diabetes Prevention Programme (NDPP) in 2016. A referral system will be set up using GP practice registers as the main source of referrals into the new programme. http://modgov.sefton.gov.uk/moderngov/documents/s65525/HWB_OS%20ASC%20March%2016_%2002.pdf

DAWN – Diabetes appointments via webcam in Newham

This project aimed to deliver web-based consultations, in order to deliver more effective and efficient care for people with diabetes, whilst improving patient experience. Clinical outcome measures suggest that there is greater compliance with medication and self-management amongst patients who have more than two such on-line appointments. The project found that there is little difference in the age and ethnicity of those using the webcam for follow-up appointments and patients described a number of reasons for preferring on-line appointments. Early evidence suggests web-based appointments can be used as part of outpatient services to improve patient experience and provide better access to effective care, with the potential to improve longer term efficiency. By using readily available video conferencing software, this service

model could be easily replicable across the majority of outpatient care. <http://personcentredcare.health.org.uk/resources/dawn-diabetes-appointments-webcam-newham>

PROCEED – Preconception care for diabetes

Women with diabetes are two to four times more likely to give birth to a baby with an abnormality, and five times as likely as women without diabetes to experience a stillbirth. Effective preconception care improves outcomes, but nationally only a third of women access this care. Derbyshire, with funding from the Health Foundation's SHINE programme, which piloted the first 'Teams Without Walls' integrated, community-based, user-centered approach to the redesign of preconception care. The project engaged with more women from traditionally hard-to-reach groups, particularly young adults and South Asian women from low socio-economic groups. Quality of care was not compromised by changing from a consultant-led to a nurse-led service, which is spread across a wider geographical area. Missed appointments decreased from 18% to 5%, and women who received this care were more likely to conceive on recommended doses of folic acid, and had reduced length of stay before and after delivery. The stillbirth percentage was reduced from 6% to 0%. PROCEED saved £61,000 during its' first year. The main impact of PCC was through reducing birth defects, outpatient activity, and length of stay. <http://patientsafety.health.org.uk/resources/proceed-preconception-care-diabetes>

Summary of interventions for diabetes

Evidence based intervention	Action by who/level	Impact
Risk reduction/prevention		
<p>Develop local joint strategic needs assessments. Integrate strategies for cardiovascular disease, cancer and other non-communicable diseases.</p>	<p>Local level - commissioners and providers of local public health services and other local authority departments, including adult social care, education, environmental health, planning and transport. Also involve people with diabetes.</p>	<p>Direct savings of around £8.8 billion (£2,588 per person with diabetes) could be made in the UK by preventing type 2 diabetes. Indirect savings of around of £13 billion (£3,412 per person with diabetes) [97].</p>
<p>Tackle the wider determinants of health, promoting a healthy diet and physical activity. For example by encouraging retailers and caterers to use incentives to promote healthier options; employers to develop policies to help prevent employees from being overweight or obese; and use planning regulations to maximise opportunities to increase physical activity, with active travel and access to green and open spaces.</p>	<p>Local authority departments, including environmental health, planning, jobs/employment and transport. Also including the NHS and voluntary sectors and in some cases the commercial sector. Local, regional and national action and campaigns. Commissioners and providers of local public health services.</p>	
<p>In communities where there is a high risk of developing diabetes commission accessible weight management programmes (NHS or non-NHS providers) and disseminate information through local media and other outlets.</p>		
Diabetes Management		
<p>Provide individualised care.</p>	<p>Healthcare providers and commissioners. Local level.</p>	<p>Improvements in the management of diabetes.</p> <p>NICE [34] estimated that the cost of people being overweight or obese (in 2007) was almost £16 billion, whilst inactivity costs the NHS over £1 billion [102]. A 2012 review [101] found that diet interventions were cost effective in managing obesity, with one high quality trial for patients with diabetes reporting a cost of £750 per QALY gained, for example.</p>
<p>Offer patient education, including information to support self-management.</p>		
<p>Offer advice on diet and increasing physical activity. For adults with type 2 diabetes who are overweight, set an initial body weight loss target of 5–10%.</p>		
<p>Prevent or delay complications by monitoring blood pressure, blood glucose and drug treatment Discuss the benefits and risks of treatments, and the options available.</p>		
<p>Identify and manage long term complications.</p>		

Section 3: Conclusions

This report has outlined a range of key actions that need to be taken to address the challenges to the health and social care system from the high and rising burden of ill health among the older population. An ageing population presents opportunities as well as challenges but too many older people in the region are spending their lives living with a disability or in poor health. This reduces the contributions that they are able to make to their communities and increase declines in health and wellbeing associated with ageing. However this need not be the case and consequently the case for change is clear.

In addition to interventions to address specific pressures facing the health and social care system in the City Region, this report indicates a number of cross cutting themes that can help to maximise both community and system resilience.

Maximising community resilience through:

- Improving access to high quality employment for local residents, and supporting those with long term conditions to remain in work.
- Improving the quality of housing, enabling people to remain within their own homes for longer.
- Action to support community, friends and families.

Maximising system resilience through:

- Implementing prevention initiatives at scale, which promote independence, resilience and self-care.
- Utilising technological advances to support system integration, and to provide technology-based care within the community.
- Adoption of an age-friendly city region approach that draws on the local assets and resources.

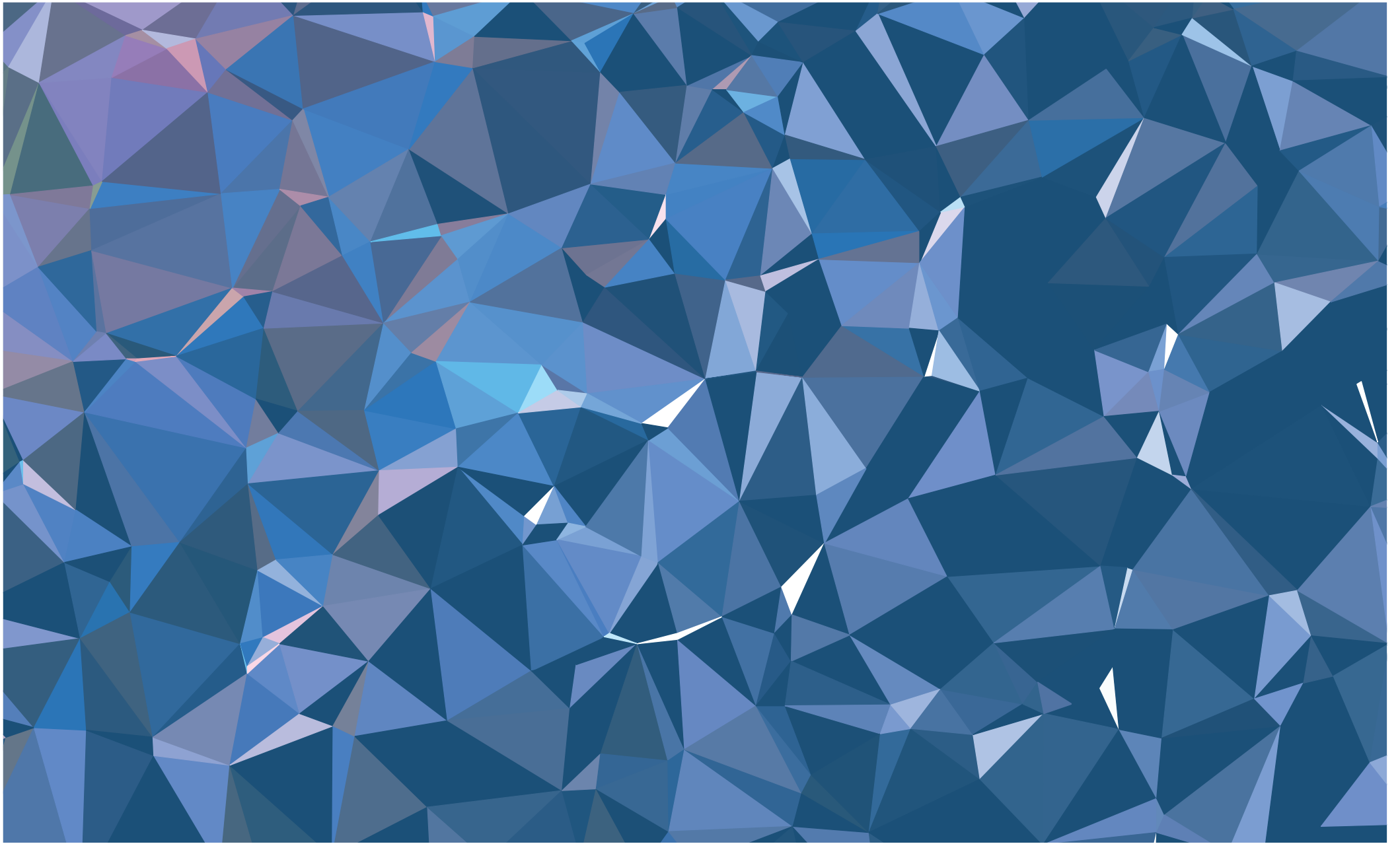
In this report we have focused on the older population of the City Region and on four topic areas that have been identified as some of the key drivers of burden on the health and social care system. There are other key areas, such as mental health, respiratory conditions, and the range of issues impacting on children, young people and their families where a case for change can also be made. Further versions of this report will consider these areas.

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