

# Solihull Falls Prevention Needs Assessment and Service Review

February 2016



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## Executive Summary

### Why are falls an issue for Solihull?

Falls are a major public health issue facing older people. They represent the most frequent and serious type of accident in people aged 65 and over, they are the main cause of disability and the leading cause of death from injury among people aged over 75. Falls destroy confidence, increase isolation and reduce independence and significantly impact on long-term outcomes.

Data from the Public Health Outcomes Framework (PHOF) indicate that Solihull has a significantly higher rate of people over the age of 65 who experience injurious falls and numbers appear to be increasing along with the size of the older population. The population in Solihull aged 65 or over is estimated to increase by an average of 2.0% per year, with the largest increase is projected to be among those aged 85 years and over (+43%), with an additional 2,500 residents in this age band projected by 2022. In addition the 70 to 84 year-old population is expected to increase by a further 6,300 (28%). Therefore, falls is becoming an increasingly important issue for Solihull and it is for this reason that this Falls Needs Assessment and Service Review has been produced.

The majority of fractures in older people occur as a result of a fall from standing height, these fragility fractures commonly affecting the pelvis, wrist, upper arm or hip. Research suggests that almost half of all women and one in six men experience a painful and disabling fragility fracture in later life.

According to the PHOF, in Solihull in 2013/14 there were a total of 1,092 people aged over 65 who were admitted to hospital with injuries due to falls. Between 2012/13 and 2013/14 the directly standardised rate (DSR) increased from 2,062 per 100,000 residents to 2,396 per 100,000 residents; significantly above the national average. The falls injury rate for Solihull residents aged 80 and over saw an even higher increase from 5,597 per 100,000 residents in 2012/13 to 6,294 per 100,000 in 2013/14, again significantly higher than the national figure.

Fall-related injury is an issue that disproportionately affects women with the rate for females being 2,793 DSR per 100,000 residents and 1,999 for males. This is likely to be due to osteoporosis (thinning and weakening of the bones), which primarily affects older women because of as a result of the hormonal changes that occur following the menopause (and can also develop in men).

A common and serious outcome of a fall is fractured neck of femur (broken hip). In 2013/14, there were 268 counts of people aged 65 and over in Solihull who suffered this debilitating injury. Hip fractures can have long-term consequences with only one in three sufferers return to their former levels of independence, and one in three end up leaving their own home and moving to long-term care. Hip fractures are almost as common and costly as strokes and the incidence is rising.

Falls and their consequences cost the Solihull health and social care economy greatly. Solihull CCG has spent some £7 million each year on around 2,400 falls-related events in 2013/14 alone. These figures do not include a number of associated unknown costs such as GP time treating people who have fallen.

### **What can we do to reduce falls?**

The key issue of concern is not simply the high incidence of falls in older people, but the combination of a high incidence and a high susceptibility to injury. Bone health is therefore considered alongside falls in this JSNA because osteoporosis increases bone fragility and susceptibility to fracture, particularly as a result of a fall (NICE CG161).

Osteoporosis is a disease characterised by low bone mass and structural deterioration of bone tissue, with a consequent increase in bone fragility and susceptibility to fracture. Osteoporosis leads to over 300,000 patients presenting with fragility fractures to hospitals in the UK each year. Because of increased bone loss after the menopause in women, and age-related bone loss in both women and men, the prevalence of osteoporosis increases markedly with age, from 2% at 50 years to more than 25% at 80 years in women. If people at risk can be identified, treatments and therapies are available. Guidance on assessing people at risk was updated in 2012 (NICE CG 146)

In addition, NICE guidance on falls prevention lists key recommendations and interventions that have a proven evidence-base to reduce both the incidence of falls and peoples' resilience to them should they experience one. Overall, supervised exercise has the strongest evidence for primary falls prevention for older people, but it must incorporate adequate intensity and duration of strength and balance training.

GPs and other health and social care professionals should regularly speak to older people about their experience of falls to identify those at risk using evidenced-based recommended risk assessment tools. Patients presenting for medical attention following a fall or who give a history of recurrent falls should be offered a multifactorial falls risk assessment (including vision assessment, bone health assessment and medication review). There is a very strong evidence base for the efficacy of multifactorial intervention programmes that include strength and balance training and home hazard assessment/intervention.

There are a number of health and social care services and pathways within Solihull through which people who would benefit from a multifactorial falls intervention, could be identified. These potential assets need to be investigated thoroughly to ensure a joined up approach to addressing falls in Solihull.

## **Local actions to address the issue of falls**

Falls prevention and fracture liaison services for Solihull are currently provided by Heart of England NHS Foundation Trust and coordinated through community teams based at Heartlands Hospital. Solihull CCG approved a revised Falls business case for 2015 which proposed the implementation of a fully multifactorial approach to falls and fragility fracture prevention and management comprising a Home Hazards service, extension of existing postural stability exercise classes, expansion of the community-based specialist falls team and fracture liaison, together with a DEXA scanning services to identify people with osteoporosis.

This package of services aspired to deliver a 10% reduction in savings from the current falls spend, however these savings have as yet not been realised and falls, and their cost, have continued to increase in Solihull. There is the need for the CCG and Local Authority to work together to analyse why this is the case, to review all current falls-specific services within Solihull, and to devise a plan to make the investment made in falls services and prevention achieve their planned outcomes.

This integrated Falls Needs Assessment and service review aims to inform this process and provide recommendations for future actions that will deliver reductions in the number of falls. In Solihull we are working to improve the coordination of local services currently commissioned by the CCG and Solihull Metropolitan Borough Council (SMBC), together with partner organisations and voluntary services, and to take action to increase awareness and prevent falls wherever possible. This work needs to occur in both home and community settings to reduce resultant fractures or other injuries in our population of older people.

From September 2015, project leads from SMBC and Solihull CCG set up a multi-stakeholder Falls Steering Group inviting representatives from the range of falls-relevant services within Solihull to join the group. On-site service visits and informal interviews were also undertaken to gain information and aid understanding of falls services. This allowed us to map out current falls services and to identify and explore current gaps and issues gained during the engagement process.

## **The key issues and gaps identified in the review:**

- **Workforce issues:** A key reason associated with the underperformance of the commissioned falls pathway was as a result of delays and problems recruiting to post the planned staff required to deliver the service. Effectively, there was no Fracture Liaison Service operating within Solihull during this period despite its commissioning. This issue has only recently been resolved. The planned staff is now in post and it is hoped that improved outcomes will begin to materialise.

- **Limited integration between NHS and Council falls-services:** There was often a lack of awareness among relevant service providers of the proposed falls pathways and processes, as well as the range of other relevant services that people at risk of falls could be referred to. For example, representatives from NHS primary care and community falls staff were not aware of many council provided services that help reduce the impact of falls (e.g., assistive technology and home assessment services for fallers or public health physical activates programmes specifically aimed at older people to maintain fitness and independence)
- **Fragmentation of Solihull's falls services:** While many of the NICE recommendations to reduce falls were in place in Solihull, falls-relevant services commissioned by the CCG and SMBC often exist and develop in isolation from each other. More joined-up working, coordination and incorporation of these services into the pathway would help to improve efficiency and outcomes.
- **Lack of awareness in primary care of falls pathway:** The existing falls pathway was poorly communicated within primary care and did not specify the key NICE recommendation that older people in contact with healthcare professionals should be asked about history of falls and risk-assessed. As a result there were low numbers of older people being assessed in primary care and referred to falls, thereby missing out on effective interventions, e.g. osteoporosis assessment and subsequent treatment.
- **Low attendance at fracture liaison service:** This was considered due to poor communication to, and understanding by, patients and their carers of the importance of the service and the fact that it was based outside Solihull locality at Heartlands Hospital, which although close to the Birmingham-Solihull boundary, raises possible accessibility/acceptability issues from basing the service outside Solihull borough.
- **Lack of clinical leadership/ownership:** The steering group has experienced difficulty in securing the required level clinical leadership and buy-in, particularly from primary and secondary acute care. This is necessary to ensure the falls service is communicated across all stakeholders and performs effectively. Lack of clinical leadership was identified as a further key reason why the pathway and services did not deliver.

In spite of the issues identified however, these scoping interviews and steering group meetings highlighted that within Solihull, there are some well performing falls prevention-relevant services across health and social care and the voluntary sector (e.g. postural stability classes provided by Age UK and home hazard and technology services). There are also services currently in development that have the potential to make a positive impact on falls reduction (e.g. the Solihull Making Every Contact Count and Healthy Living Pharmacies initiatives).

## **The key recommendations from this needs assessment:**

### **1) Wider stakeholder engagement and working with partnership working is needed to promote falls services/pathways so as to improve integration and raise awareness:**

As well as GPs, acute and community health falls services providers, there needs to be involvement with other key stakeholders in the Solihull falls service, including community pharmacists, opticians, podiatrists, ambulance services and care homes as well as relevant voluntary community services and public/patient-carers representation. These stakeholders have an important role in prevention from asking about falls, conducting medication reviews, vision testing and feet and footwear health checks.

Work closely with Local Authority planning and housing departments to ensure future policies align with an active and healthy ageing environment, efficiently target preventative resources, map injury hotspots and ensure known hazards are addressed promptly.

Use community groups and voluntary sector to raise issues and promote action regarding fall hazards for pedestrians e.g. pavements, neighbourhood gritting etc.

Raise awareness of healthy and active ageing, ensuring everyone recognises falls are not an inevitable part of growing old.

These could be achieved through organising falls engagement events with general awareness-raising through local public campaigns.

### **2) Improve uptake and access to falls services**

Falls prevention to be a key public health issue within the Making Every Contact Count and Solihull Healthy Living Pharmacies programme to ensure that providers are supporting the wider prevention agenda and a strategic approach is taken to optimise use of preventative and primary care services

All health and social care professionals should promote the use of proactive basic falls risk assessment and routinely older people about falls in the past year. They should all know how to refer into the falls pathway. This should be supported by provision of training sessions to professionals and monitoring of referrals. The issues of falls should be addressed in competency frameworks, induction, CPD and training.

Re-orientate evidence-based falls prevention services to meet needs and areas for targeted intervention highlighted in this falls needs assessment, e.g. piloting delivery of falls prevention services in alternative settings: postural stability classes in housing association sheltered schemes and care homes for both residents and wider community and improving access and



participation among older persons living in Solihull's more deprived regeneration areas.

### **3) Improving falls-related clinical outcomes in primary and secondary care**

Consideration needs to be given to improving identification and treatment of people with osteoporosis *before* they experience a fracture. This includes raising awareness among the public about the importance of diet and exercise in maintaining healthy bones, and be aware of the risk factors for osteoporosis.

Where people are prescribed bone sparing agents it is important to ensure that they are taking their prescription. Clinicians and carers should regularly review whether people prescribed these drugs are using them appropriately, and to ensure that they are aware of why they are taking them.

Dementia pathways and the specific needs of people with dementia need to be considered when developing falls prevention interventions and services – and equally falls prevention advice and interventions needs to be considered for people diagnosed with dementia.

### **4) Service review and commissioning**

CCG and Public Health should continue to work closely together to ensure the design and commissioning of Fracture Liaison Service and falls prevention services are based on best-evidence models and to continue to seek out examples of best practice in falls and fracture services

Pathway should include coordination of acute and urgent care services with community services in order to help prevent further falls and restore independence, and link these and build upon existing commissions, such as with Solihull's Integrated Community Teams (particularly so with the Shirley-based team since Solihull's highest rates of falls occur in Urban West Solihull)

Commissioners should continue to work with West Midlands ambulance service and residential care homes to assess local policies, procedures and pathways in relation to falls to address the number of calls outs and subsequent transfers to A&E/hospital admissions within Solihull. Consider scoping the possibility of piloting alternative models of emergency falls response in both care home and community (e.g, a "Falls Pick-Up" service using a community call-out vehicle) to inform future commissioning intentions.

Need to support the consistent use of a common assessment tool (e.g. FRAT) by all professionals with a pathway that allows all professionals across health and social care and voluntary organisations to refer those identified at risk of falls. Enhance service uptake with single point of access and reciprocal referral processes between these services.



## **5) Improving data and intelligence**

Ensure local falls and fragility fracture data, and subsequent sharing of data is robust and available to help inform commissioning decisions, through improved coding of falls in A&E, including location of fall and cause (including alcohol related falls attendances) and the use of telecare assistive technology data to gather intelligence around risk.

Support strengthened links between services and monitoring of local falls service provision by collecting referrals data and develop a robust reporting system for falls in institutions and support sharing of information between health and social care.

Details of the number of falls assessments and referral sources should be provided to commissioners via a central data dashboard.

Commissioners of NHS and local authority services should incorporate falls prevention as a key quality indicator/outcome in monitoring provider services and introduce a standardised way of recording and reporting information about falls in care homes

## **6) Establish links with other public health preventative services and public engagement**

Continue to integrate falls-related initiatives by public health into the overarching falls agenda, such as the alcohol and dementia strategy, fuel poverty, NHS Health Checks programme, weight management and physical activity services.

Consideration should be given to raising awareness among professionals to assess falls risk for people under their care, and to refer to appropriate preventative services where appropriate

Consider ways to explore the views and experiences of older people in Solihull to support this needs assessment and to ensure that services are developed in line with the views of service users.

## **Conclusions:**

This needs assessment and review of services has identified specific critical factors that led to the underperformance of the existing Solihull falls pathway and services. Key issues included lack of integration across relevant stakeholder organisations, inadequate communication of the service and poor clinical leadership and engagement. Despite this, Solihull has many aspects of a well-functioning falls and fracture prevention service in place along with many assets and resources required

to make the service deliver impactful outcomes. Attention given to the recommendations in this report should help to achieve this goal.

## 1. Introduction

### What are falls?

Falls are commonly defined as 'inadvertently coming to rest on the ground, floor or other lower level, excluding intentional change in position to rest in furniture, wall or other objects'<sup>1</sup>. The population of focus in this needs assessment and review of falls services is people aged 65 years and over living in Solihull, because this is the most at risk population for falls.

Falls and fall-related injuries are a common and serious problem for older people. People aged 65 and older have the highest risk of falling, with 30% of people older than 65 and 43% of people older than 80 falling at least once a year.<sup>2</sup> Because falls have the greatest impact on people in older age groups the focus will be on those aged 65 and over.

The human cost of falling includes distress, pain, injury, loss of confidence, loss of independence and mortality. When someone had a bad fall it also affects their friends, family and carers. Falls are estimated to cost the NHS more than £2.3 billion per year; and therefore falling has an impact on quality of life, health and health and social care costs.<sup>3</sup>

A fall is a significant event with high personal cost to the individual and their carer. A third of older people develop a fear of falling that negatively impacts on their quality of life.<sup>4</sup>

Falls are a huge cost for health and social care services. Falls and fractures in over 65s account for over 4 million bed days each year in England alone and are the cause of 40% of ambulance call-outs to older people's homes.<sup>5</sup>

Falls are a major precipitant of people moving from their own home to long-term nursing or residential care.<sup>6,7</sup> Up to 14,000 people die annually in the UK as a result of a fall and fractured neck of femur with a cost to health and social care of £6 million daily.<sup>8</sup>

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<sup>1</sup> WHO Global Report on Falls Prevention in Older Age, 2007.

<sup>2</sup> Department of Health (2005) *Health Survey for England: Health of Older People*. Health and Social Care Information Centre.

<sup>3</sup> NICE (2013) *Falls: assessment and prevention of falls in older people*. NICE Clinical Guideline 161. National Institute for Health and Care Excellence

<sup>4</sup> American Geriatric Society/ British Geriatric Society Clinical Practice Guideline: *Prevention of Falls in Older Persons 2010* Accessed online at <http://www.medcats.com/FALLS/frameset.htm> 13<sup>th</sup> December 2015

<sup>5</sup> Hospital Episode Statistics Inpatient Data 2013 Available from <http://www.hesonline.nhs.uk>

<sup>6</sup> Audit Commission United They Stand: Coordinating Care for Elderly Patients with Hip Fracture (2000) Available from <http://www.audit-commission.gov.uk>

<sup>7</sup> Department of Health *Improving outcomes and supporting transparency Part 2: Summary technical specifications of public health indicators 2012*

[http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH\\_132358](http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_132358)

<sup>8</sup> Department of Health (2001) National Service Framework for Older People

[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/198033/National\\_Service\\_Framework\\_for\\_Older\\_People.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/198033/National_Service_Framework_for_Older_People.pdf)

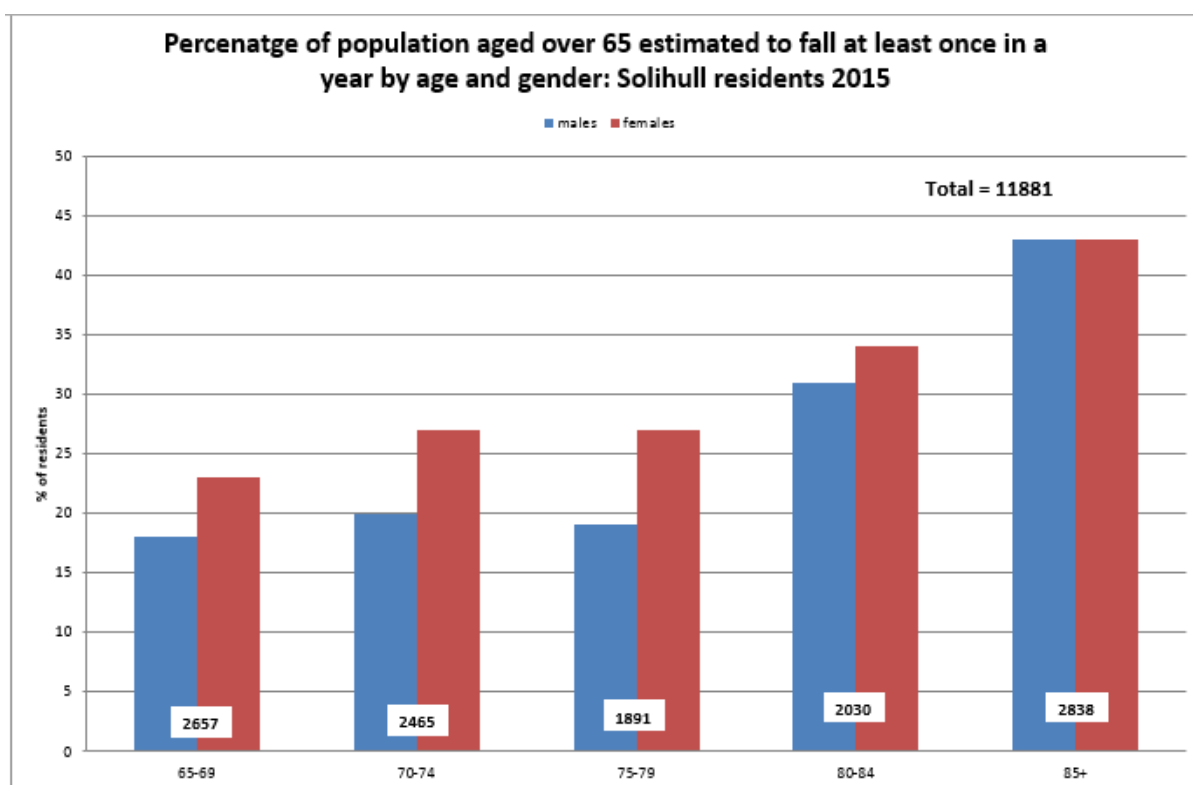
Falls therefore, represent a significant public health challenge, with incidence increasing at about 2% per annum. Increased rates of people falling, and the severity of the consequences, are associated with growing older and the rising rate of falls is expected to continue as the population ages. In England, the number of people aged over 65 is expected to rise by a third by 2025. Preventing older people from falling is a key challenge for Public Health; however it is not the preserve of one agency as the consequences of a fall and resultant fragility fracture cuts across all local agencies working with older people. Most fall do not result in serious injury. However, there is often a psychological impact. Evidence suggests that approximately 25 percent of people aged 75 or over unnecessarily restrict their activities because of fear of falling. Due to consequences of falls such as fractures and fear of falling, the physical, psychological and social functional abilities decrease which can have a considerable impact on perceived quality of life.

Falls are not an inevitable part of getting older and early prevention is important as a person who falls is at greater risk of future falls with potentially more serious consequences.

## 2. The local context

Anyone can fall but this is a particularly damaging event for older people. Prevalence estimates of the number of people experiencing at least one fall in 12 months can be applied to the Solihull population (see figure 1).

An estimated 11,881 people aged 65 and over fell at least once in 2015 and this is expected to rise to an estimated 15,952 in the next 15 years<sup>9</sup>. With an ageing population, the number of people aged 65 and over falling at least once a year is expected to increase by 34% in Solihull between 2015 and 2030.



The rate of admissions for injuries due to falls in people aged 65 and over is higher than both the West Midlands and England average. While the rate of permanent admissions to local authority care homes for over 65s in Solihull is similar to the national average, this is of particular relevance as people living in residential care are twice as likely to fall compared to community residents and often experience recurrent falls.

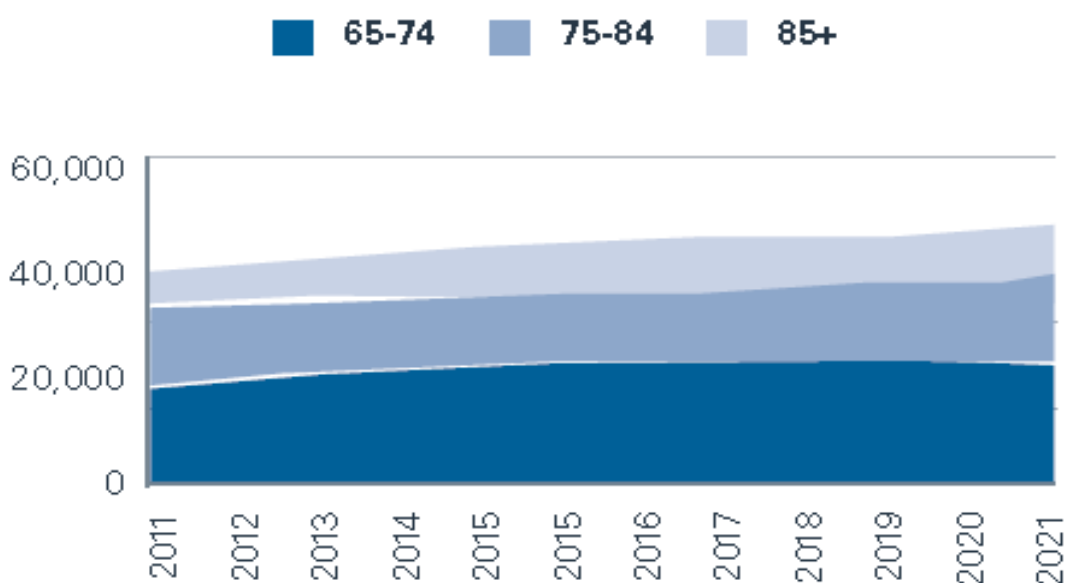
The graph above demonstrates the scale of people in Solihull estimated to experience at least one fall every year. It also shows that in most age groups women report experiencing more falls than men (apart from the 85+ group).

<sup>9</sup> Based on population figures by the Office for National Statistics (ONS) 2012-based subnational population projections for Local Authorities <http://www.poppi.org.uk/>

In 2015 there are approximately 43,900 people aged over 65 in the borough, some 21% of the total population. Over the next five years, this is expected to rise to 47,300 (22% of population) and to 56,600 (25%) by 2030.

	2014	2015	2016	2017	2018
Total population	209,200	210,300	211,400	212,500	213,700
Population aged 65 and over	43,300	43,900	44,700	45,300	46,000
Population aged 85 and over	6,300	6,500	6,800	7,100	7,300
Population aged 65 and over as a proportion of the total population	20.70%	20.87%	21.14%	21.32%	21.53%
Population aged 85 and over as a proportion of the total population	3.01%	3.09%	3.22%	3.34%	3.42%

Age-demographic change in Solihull aged 65 and over for the period 2011 – 2021

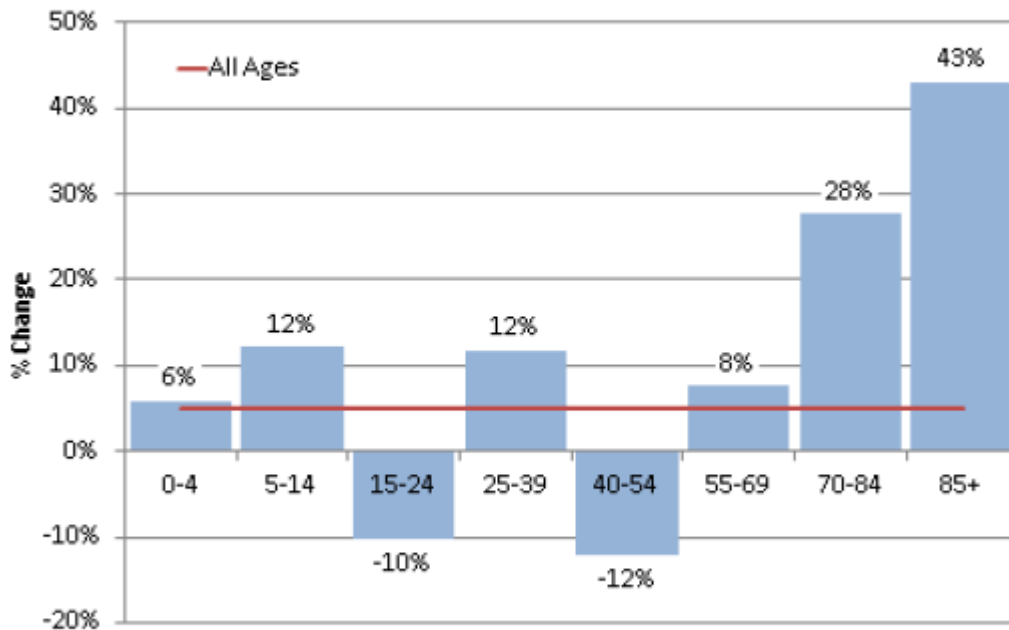


Of particular relevance to falls prevalence is the expected rise in Solihull's population aged 85 and over, as this age group is particularly vulnerable. From 2014-2018 numbers in this age group in Solihull are expected to rise from 6,300 to 7,300, making up 3.5% of the total population.

On average the population in Solihull aged 65 or over is estimated to increase by an average of 2.0% per year (1.1% 65 to 74, 2.2% 75 to 84 and 3.9% 85 and over). In percentage terms over this ten year period since the 2011 census, the largest increase is projected to be among those aged 85 years and over (+43%), with an additional 2,500 residents in this age band projected by 2022. In addition the 70 to 84 year old population is expected to increase by a further 6,300 (28%).

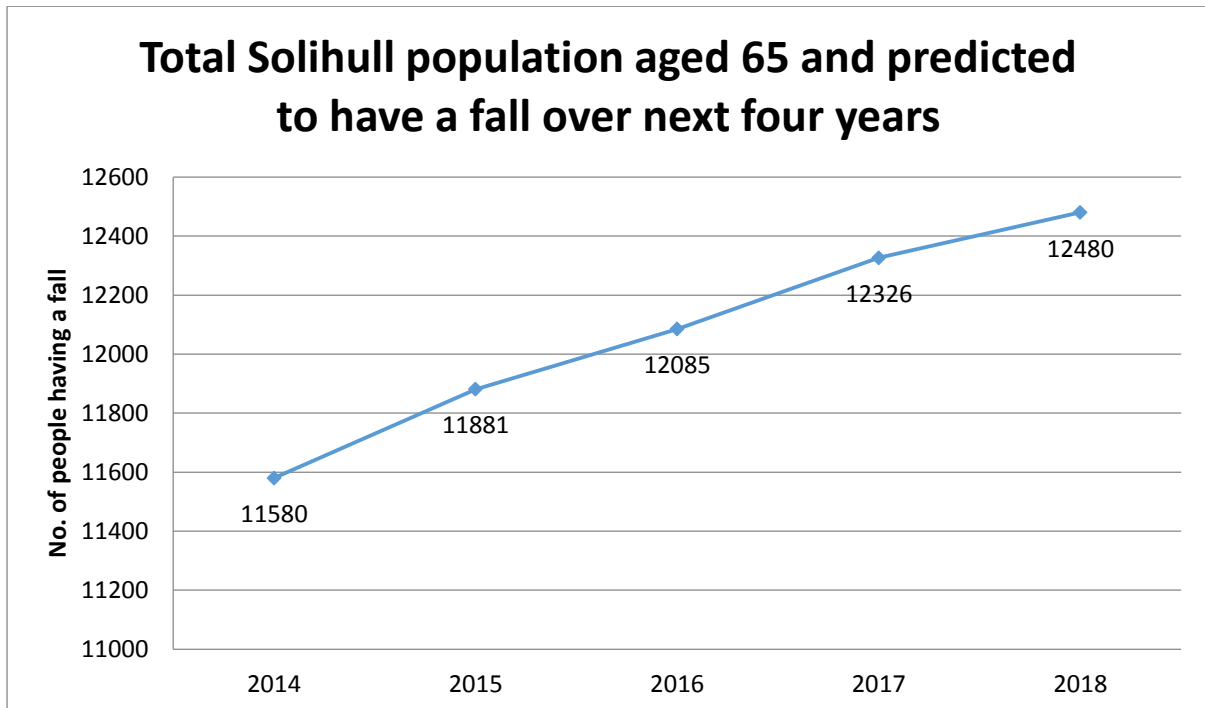


## Projected Population Change in Solihull by Age Band 2012-2022

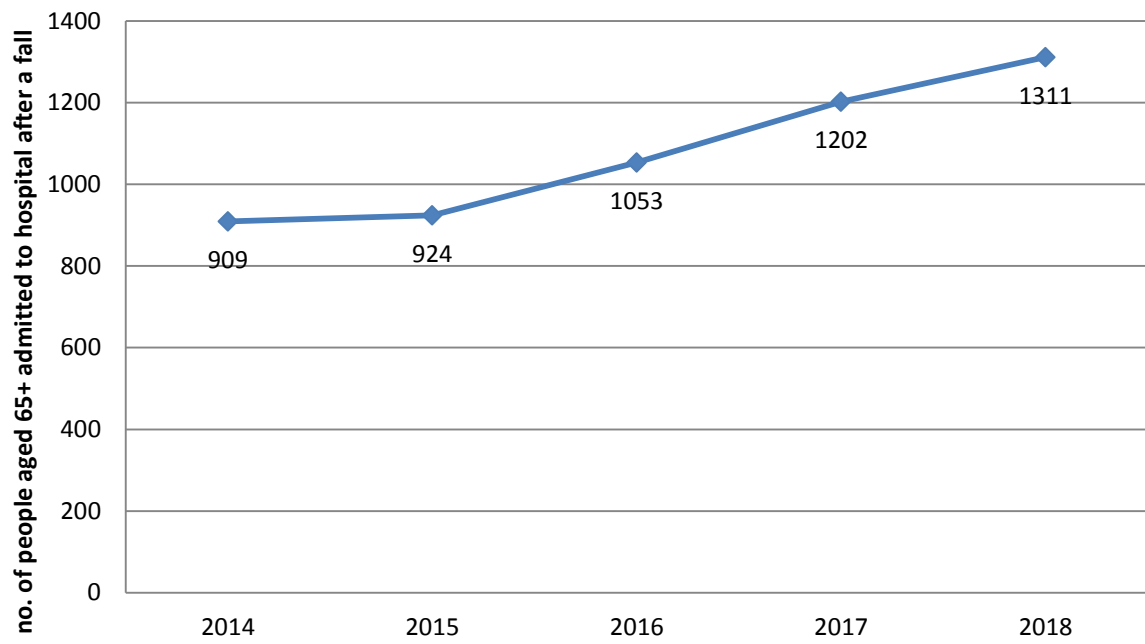


Source: ONS Sub National Population Projections 2012

The impact of this older population growth on falls incidence can be seen in Figure x below which shows the projected numbers of older people in Solihull suffering falls over the next three years.



## Total Solihull population aged 65 and over predicted to be admitted to hospital after a fall



### 3. Who is at risk and why?

Over 200 causes for falls have been identified in research and often these interact.<sup>10</sup> At the individual level, medical conditions and changes associated with ageing can cause falls. For example low blood pressure, heart arrhythmias, previous stroke, Parkinson's, incontinence and cognitive and visual impairment.

#### 3.1 Risk factors

A number of variables associated with increased risk of falling have been categorised into intrinsic and extrinsic. Intrinsic risk factors are those that present within the individual including mobility, strength, gait, medicine use and sensory impairment. Extrinsic risk factors are those that are external to the individual including hazards within the home environment.<sup>11</sup>

The following are the risk factors:<sup>12</sup>

- Previous fall – 50% of those who fall will have another fall within the next 12 months
- Increasing age
- Environmental hazards, e.g. loose or slippery floor covering
- Musculoskeletal problems especially affecting the lower extremities, e.g. weakness, arthritis
- Dizziness
- Abnormality of gait or balance
- Visual impairment
- Neurological disease, e.g. Parkinson's disease, Stroke
- Cognitive impairment, e.g. Dementia (including Alzheimer's disease), Delirium
- Cardiovascular problems: e.g. orthostatic hypotension; carotid sinus hypersensitivity; vasovagal syncope; postural hypotension (associated with increased morbidity and mortality, in part due to the increased incidence of falls)
- Drug therapy – hypnotics, sedatives, diuretics, antihypertensive

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<sup>10</sup> Manchester JSNA Falls [http://www.manchester.gov.uk/download/downloads/id/22710/jsna\\_in\\_depth\\_report\\_falls\\_prevention\\_in\\_older\\_people](http://www.manchester.gov.uk/download/downloads/id/22710/jsna_in_depth_report_falls_prevention_in_older_people)

<sup>11</sup> Guidelines commissioned by the NICE (NICE), 2004: <http://www.nice.org.uk/nicemedia/pdf/CG021fullguideline.pdf>

<sup>12</sup> Map of Medicine 2011; Falls in elderly people.

- Polypharmacy (four or more medications).

WHO categorized risk factors into four:<sup>13</sup>

- **Behavioural:** Multiple medication use, excess alcohol intake, lack of exercise, inappropriate footwear
- **Biological:** age, gender, race, chronic illnesses (e.g. Parkinson, arthritis, osteoporosis)
- **Environmental:** poor building design, slippery floors and stairs, loose rugs, insufficient lighting, cracked or uneven sidewalks
- **Socioeconomic:** low income and education levels; inadequate housing; lack of social interaction, limited access to health and social services, lack of community resources.

Multiple medications can cause drug interactions, poor compliance or side effects. A lack of exercise can result in muscle weakness and balance problems. Social and community networks are important and social isolation is associated with an increased risk of falls.<sup>14</sup>

Wider environmental factors - housing and living conditions (e.g. cold, damp housing, poor lighting and uneven paving) - can put individuals at an increased risk of falls, with the most common causes including; stairs, wet or recently polished floors, rugs or carpets that are not properly secured and reaching for storage areas (e.g. cupboards)<sup>15</sup>

An approach that encourages healthy, active ageing to prevent falls should consider the influence of individual, lifestyle (nutrition and exercise) and wider social determinants.

### 3.2 Osteoporosis

In older women, falls can be particularly troublesome because osteoporosis (thinning and weakening of the bones) is a widespread problem with 2% of women aged 50 years and by the age of 80, 25% of women<sup>16</sup>. This is reflected in the higher incidence of emergency admissions for falls injuries in older women in Solihull particularly in those aged over 80 who are more than twice as likely to be admitted to hospital for a

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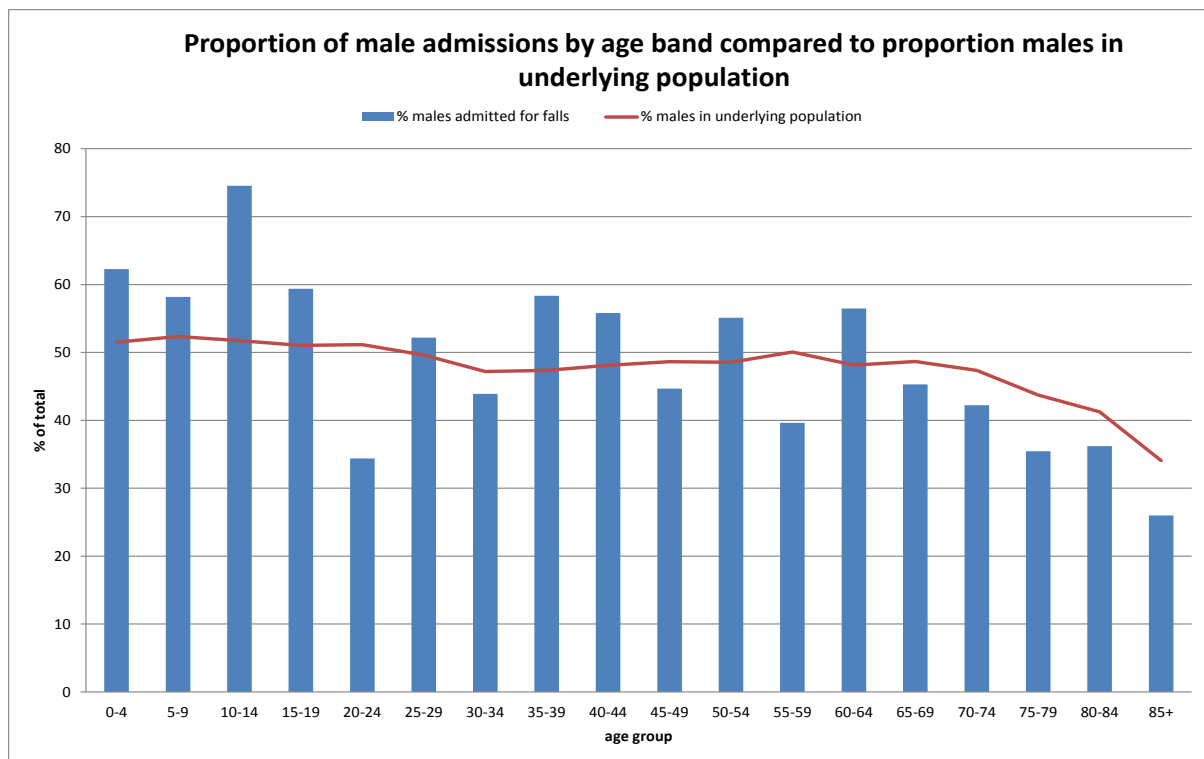
<sup>13</sup> WHO Global Report on Falls Prevention in Older Age, 2007.

<sup>14</sup> Faulkner K.A. Cauley J.A. Zmuda J.M. Griffin J.M. Nevitt M.C Is social integration associated with the risk of falling in older community-dwelling women? The Journals of Gerontology Series A Biological Sciences and Medical Sciences (2003) 58: M954–M959 Retrieved from <http://biomed.gerontologyjournals.org/cgi/content/full/58/10/M954>

<sup>15</sup> <http://www.evidence.nhs.uk/topic/falls>

<sup>16</sup> NICE (2008) Clinical Guidance 161: *review of treatments on secondary prevention of osteoporotic fragility fracture in postmenopausal women*

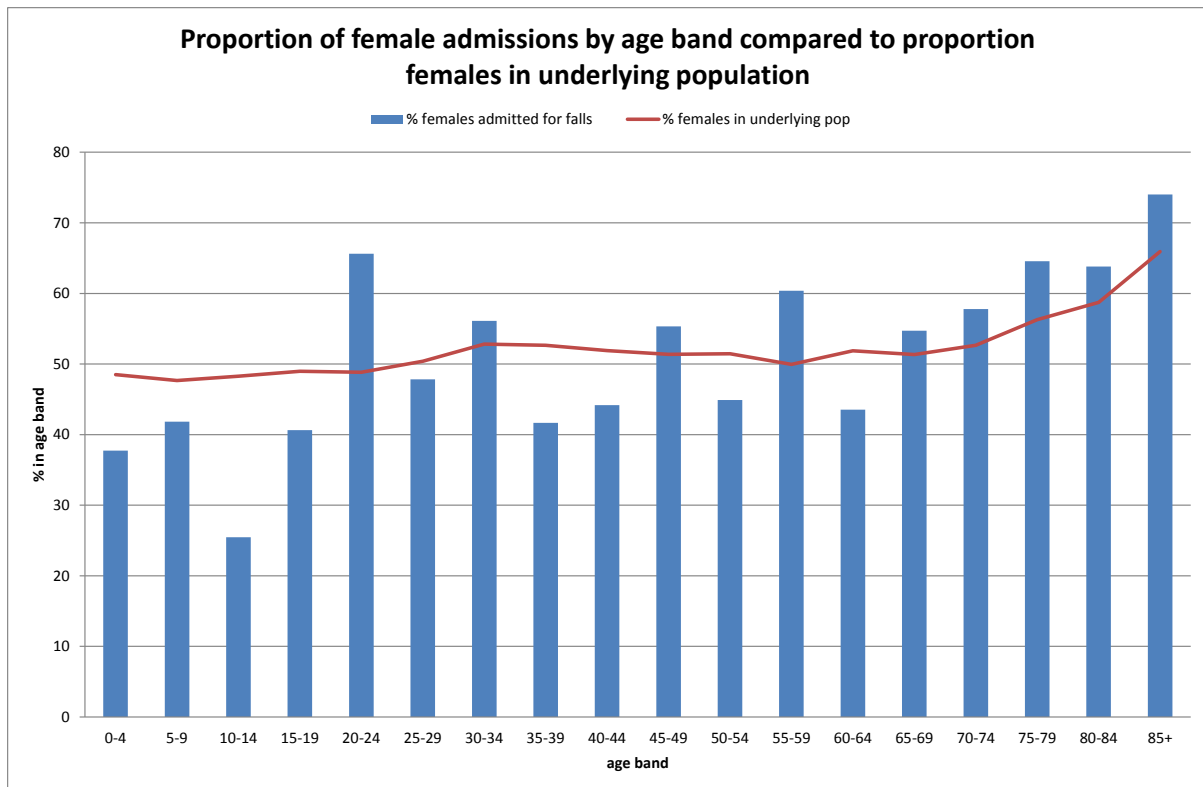
falls injury as their male counterparts (figure 4)<sup>17</sup>. Other explanations are that women's muscle mass declines faster than that of men<sup>18</sup>, older women, especially those over 80, are more likely to live alone and they often use a greater multitude of medications putting them at risk of falls<sup>19</sup>.



<sup>17</sup> The Royal Society for Prevention of Accidents. (2013) The Big book of accident prevention. <http://www.rospa.com/bigbook/index.html#p=18>

<sup>18</sup> Auyeung TW, Lee SWJ, Leung J, Kwok T, Woo J. (2012) Age-associated decline of muscle mass, grip strength and gait speed: A 4-year longitudinal study of 3018 community-dwelling older Chinese Geriatrics & Gerontology International DOI: 10.1111/GGI/12213

<sup>19</sup> Herman M, Gallagher E, Scott V.J. *The evolution of senior's falls prevention in British Columbia Victoria*, British Columbia: Ministry of Health; 2006



Osteoporosis can develop in men as well as women -especially in people who smoke, drink excessive amounts of alcohol or take steroid medication - but older women are most at risk because the condition often develops as a result of the hormonal changes that occur following the menopause.

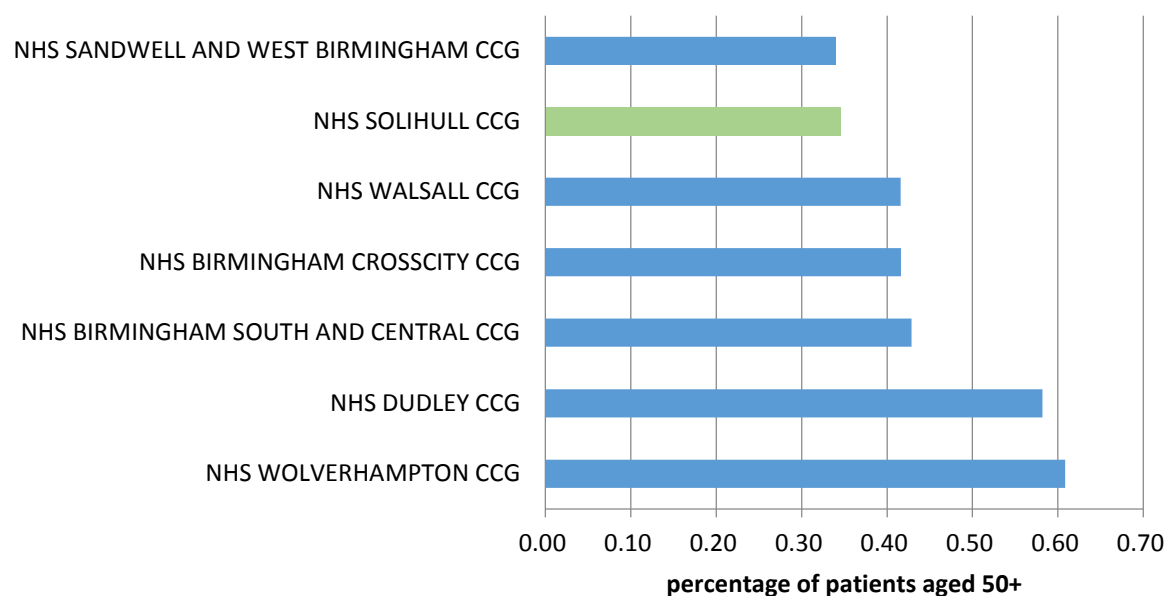
Those with osteoporosis are more likely to experience a bone fracture if they fall. Bone mineral density can be measured by a DXA scan (Dual Energy X-ray Absorptiometry). Medications are available to increase bone mass and/or reduce the risk of future fractures, and are commonly co-prescribed with calcium and vitamin D supplements. Appropriate lifestyle measures to improve bone health and/or reduce fracture risk include increased exercise, smoking cessation and moderation in alcohol consumption<sup>20</sup>.

GPs return information on the prevalence of osteoporosis via the Quality Outcomes Framework (QOF) system. They record patients aged between 50 and 74 years, with a fragility fracture, in whom osteoporosis is confirmed on DXA scan. In Solihull, 316 people are registered as having osteoporosis. This is just 0.35% of the population aged over 50<sup>21</sup>.

<sup>20</sup> Hippisley-Cox, J. et al (2007) *Evaluation of standards of care for osteoporosis and falls in primary care*. Health and Social Care Information Centre

<sup>21</sup> BMA (2014) *Quality Outcomes Framework for 2013/14*. NHS Employers.

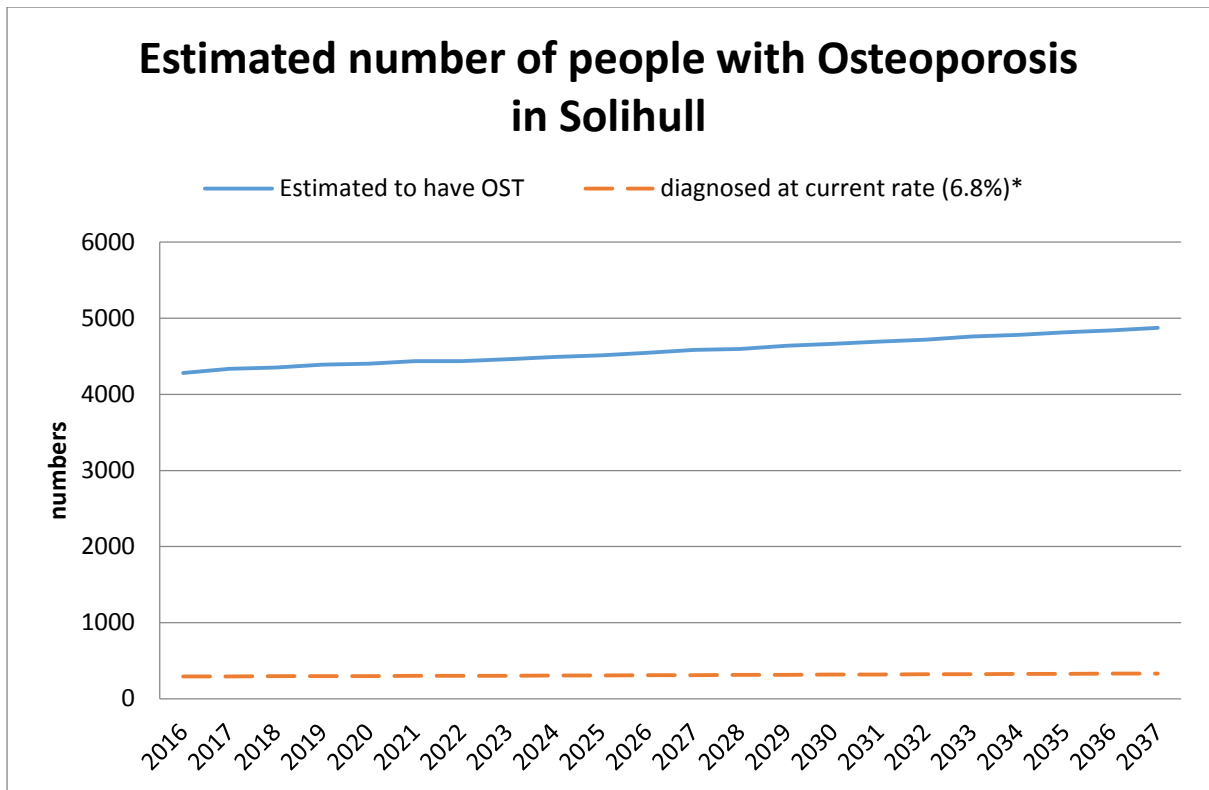
## Recorded prevalence of osteoporosis Birmingham and Black Country Area Team



Other research uses broader criteria to identify people suffering from osteoporosis (such as those receiving osteoporosis treatment drugs); one study estimated that 7% of women aged over 45 suffer from osteoporosis and 1% of men. Applying this to the Solihull population it is estimated that around 4,623 people have osteoporosis in Solihull<sup>22</sup> Another study found that as much as 30% of post-menopausal women have osteoporosis. As this is a condition that largely affects older people, the incidence will rise as the older population increases.

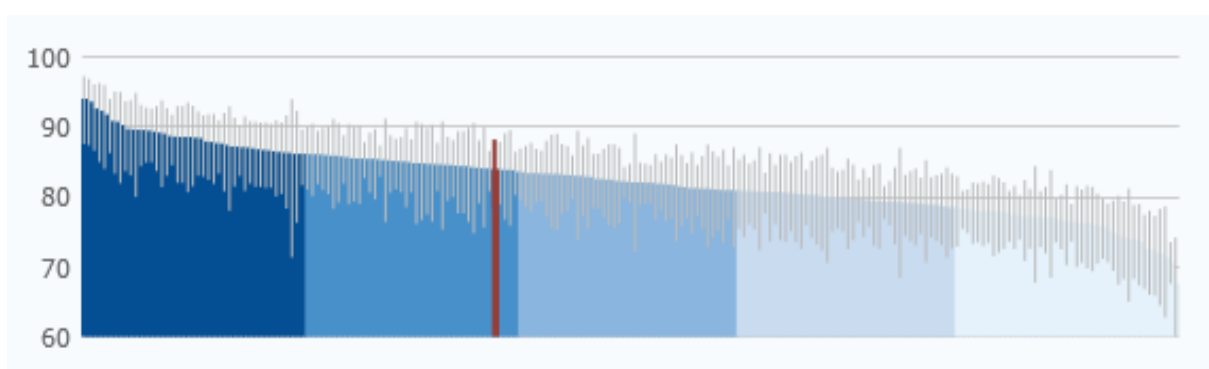
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<sup>22</sup> Hippisley-Cox, J. et al (2007) *Evaluation of standards of care for osteoporosis and falls in primary care*. Health and Social Care Information Centre



Data from the GP Quality Outcomes Framework (QOF) suggests that almost all patients recorded as suffering from osteoporosis and having had a fragility fracture in Solihull aged 50-74 are also being treated with an appropriate bone-sparing agent. However the percentage of osteoporosis patients aged over 75 receiving treatment is generally lower, at 83.9%. This is also seen in the regional and national averages (see figure 6)<sup>23</sup> It is worth noting that these figure refer to relatively low numbers, particularly for the 50-74 age group.

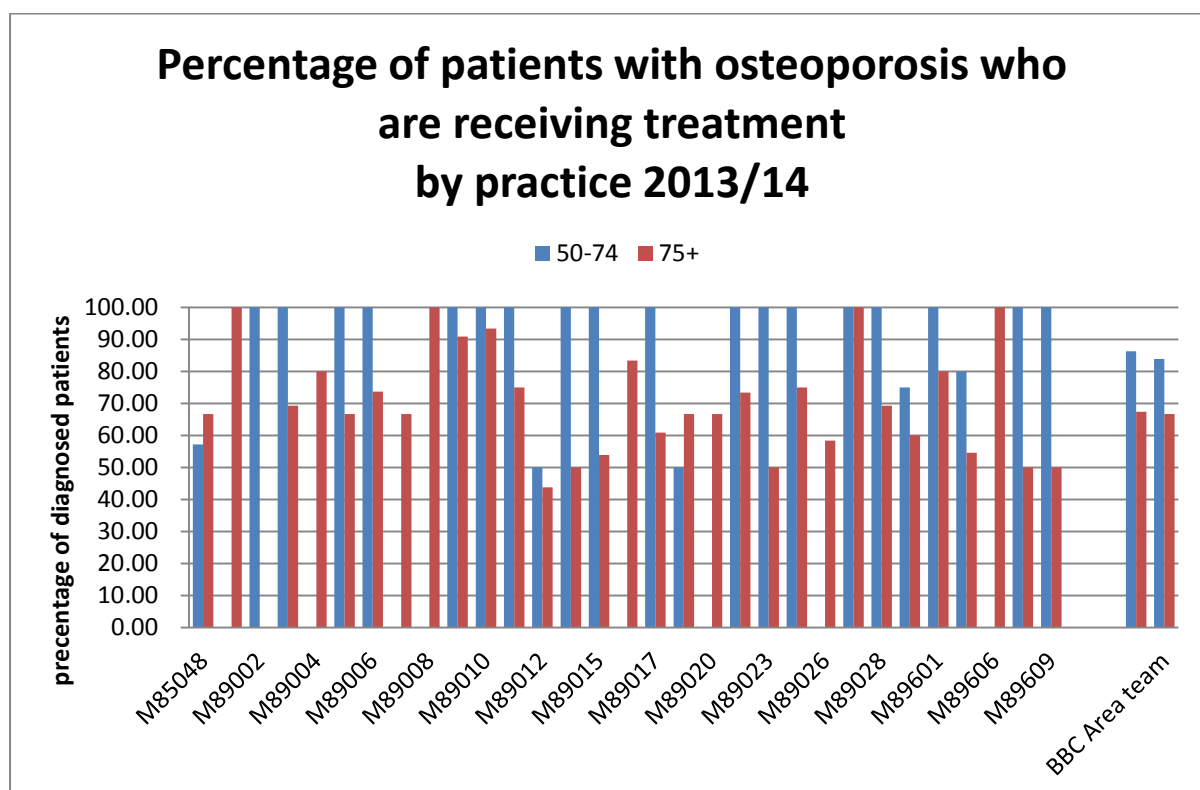
Percentage of patients aged 75 years and over with a fragility fracture on or after 1 April 2012 who were treated with a bone-sparing agent (excluding exceptions) by CCG, 2013/14 (Solihull-red line)



<sup>23</sup> BMA (2014) *Quality Outcomes Framework for 2013/14*. NHS Employers. Available from: <http://www.hscic.gov.uk/qof>



Percentage of Patients with Osteoporosis who are receiving treatment by Solihull GP practice 2013/14



### 3.3 Multiple Medications (Polypharmacy)

Taking medicines for chronic illnesses both to treat symptoms and to prevent diseases getting worse is common in older people. The average number of medicines prescribed for people aged 60 years and over in England has almost doubled from 21.2 to 40.8 items per person per year over the past decade.<sup>24</sup>

Polypharmacy is, however, associated with negative health outcomes including adverse drug reactions, poor adherence and geriatric syndromes, for example urinary incontinence, cognitive impairment and impaired balance leading to falls.<sup>25</sup>

### 3.4 Substance Misuse-Alcohol

Alcohol consumption among middle and older age groups is lower than for younger age groups, however in recent years there has been a small but steady increase in the amount of alcohol consumed by older people. The trend is consistent across different surveys and different consumption measures<sup>26</sup>

<sup>24</sup> HSCIC (2007) *Prescriptions Dispensed in the Community, Statistics for England, 1996-2006*. Health and Social Care Information Centre

<sup>25</sup> Hajar ER, Cafiero AC, Hanlon JT. Polypharmacy in elderly patients. *American Journal of Geriatric Psychiatry* 2007;5(4):345-51.

<sup>26</sup> Smith, L. and Foxtrot, D. (2009) *Drinking in the UK: An exploration of trends*. Joseph Rowntree Foundation

Research demonstrates a correlation between alcohol consumption and falls, and alcohol use can accelerate the loss of postural control<sup>27</sup>. It is estimated that 12% of falls in males over the age of 64 and 4% of females are attributable to alcohol.<sup>28</sup> If an average of 8% is used, we can estimate there are around 950 preventable alcohol related falls among older people each year in Solihull.

It is difficult to quantify the level of harmful drinking in Solihull itself because most individuals will not have had direct contact with health care or treatment services with regards to the quantity of alcohol they consume. An approximation of these numbers can be deducted using data on trends published by Public Health England between 2002 and 2012. Based upon an estimated Solihull population of 209,890 (Mid-2014 ONS):

- Almost 4178 individuals will be admitted to hospital with an alcohol-related condition
- Around 44914 people will regularly drink above the lower-risk levels
- Over 1045 will be moderately or severely dependent on alcohol.

It is further challenging to break this down to over 65's. Robinson and Harris 2011 estimate that 20% of men and 10% of women aged 65 and over are drinking alcohol in harmful quantities.<sup>13</sup> Applying this information as well as the General Lifestyle Survey to the over 65 population in Solihull, we can estimate that:

- 16,011 could be drinking as frequently as, 5 or more days in a week
- 13,847 could be drinking quantities above the recommended intake
- 3846 men and 2404 women may be drinking at harmful levels

Around 68% of harmful drinkers have alcohol dependence. Fourteen off the 6250 estimated harmful drinkers, 4250 people over the age of 65 will be alcohol dependant. This equates to 2615 men and 1635 women.

Further information on the broader issues with regards to alcohol in Solihull can be found in the Solihull Substance Misuse Needs Assessment 2014-

Misuse of legal and illicit drugs amongst older adults is increasingly being recognised as an issue<sup>29</sup>; prescription drug use is high amongst this group and there may be a significant number who are being inappropriately or over prescribed. There is also an aging cohort of opiate users with specific health and care needs. Older adult who misuse drugs, like those misusing alcohol, are likely to be group at increased risk of experiencing falls, although little is known about the issue at present.

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<sup>27</sup> Nelson DE. et al. Alcohol as a risk factor for fall injury events among elderly persons living in the community *Journal of American Geriatric Society* (1992) 40(7): 658-61

<sup>28</sup> Jones, L. et al (2008) *Alcohol Attributable Fractions for England*. Centre for Public Health, Liverpool John Moores University.

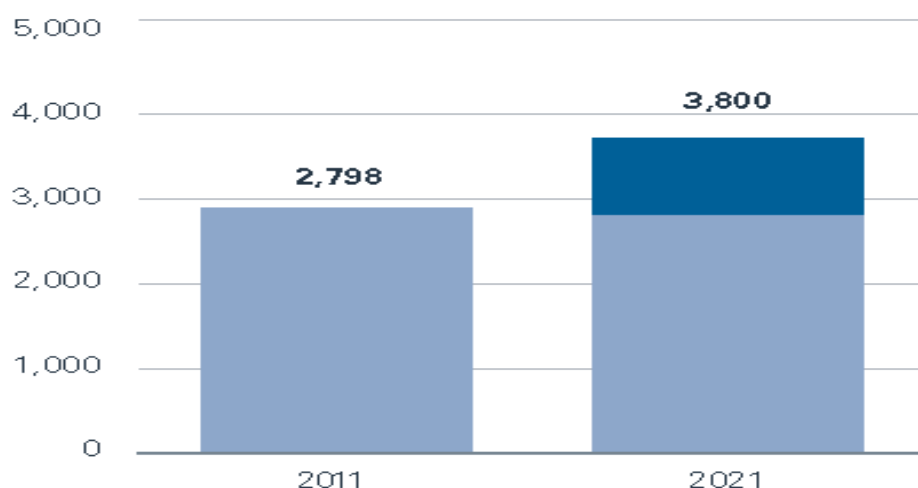
<sup>29</sup> Solihull Drug and Alcohol Needs Assessment 2015

### 3.5 Dementia

People with dementia are four to five times more likely to experience falls than older people without significant cognitive impairment.<sup>30</sup> Individuals with a level of cognitive impairment with or without the diagnosis of dementia are an increasingly large group.

There are estimated 3,376 cases of dementia (based on QOF Dementia register 2014) in Solihull<sup>31</sup>, and this represents a diagnosis rate of 47.6%. Falls and fractures are the most common reason for dementia sufferers to be admitted to hospital<sup>32 33</sup>. Amongst older hip fracture patients, 19% have dementia.<sup>34</sup> Over the next five years, an estimated 3,800 people in Solihull will be living with dementia.

Estimated growth\* in the number of people living with dementia in Solihull in the period 2011 to 2021



People with dementia experience changes to their physical, mental and emotional functioning that make them more at risk of falling including; confusion, disorientation, memory loss, restlessness, agitation, behaviour that challenges and lack of judgment and insight.

Falls reduction strategies for people with dementia are largely the same as those for other older people in general with allowance being made for the person's cognitive impairment. Ensuring a safe environment, supervision, treatment of medical

<sup>30</sup> van Doorn C, et al. (2003) *Dementia as a risk factor for falls and fall injuries among nursing home residents*. J Am Geriatr Soc 2003; 51: 213-1218.

<sup>31</sup> Solihull CCG : Meeting The Dementia Challenge, Provisional 2013-14 data

<sup>32</sup> Alzheimer's Society *Counting the cost: Caring for people with dementia on hospital wards* (2009)

<sup>33</sup> Voisin T, Sourdet S, Cantet C, Andrieu S, Vellas B. Descriptive analysis of hospitalisation of patients with Alzheimers disease: a two year prospective study of 686 patients from the REAL.FR study Journal of Nutrition, Health and Aging (2009) 13(10): 890-892

<sup>34</sup> Seitz DP, Adunuri N, Gill SS, Rochon PA. Prevalence of Dementia and Cognitive Impairment Among Older Adults with Hip Fractures Journal of the American Medical Directors Association (2011)

problems, minimising drug use and encouraging activity may help reduce damage from falling, at the same time maintaining quality of life.

Some individuals may require re-orientation regularly to their surroundings and may require visual cues to reduce their risk of falling, for example, pictures on doors to identify toilets or bedrooms. The physical environment generally can have a huge impact such as lighting, floor coverings and safe outside spaces<sup>35</sup>

### 3.6 Care home residents

Care home residents are particularly high risk for falls as they are more likely to suffer cognitive impairment such as dementia and multiple long-term health conditions. It has been estimated that nursing home residents have approximately twice the rate of older people living in the community.<sup>36</sup>

### 3.7 Personal Impacts of falls

The majority of people who fall will not even sustain a serious injury, but for an older person a fall can have serious effects on confidence and independence. Fear of falling, loss of confidence and decreased mobility can all lead to increased social isolation and have a significant impact on their wellbeing<sup>37</sup>

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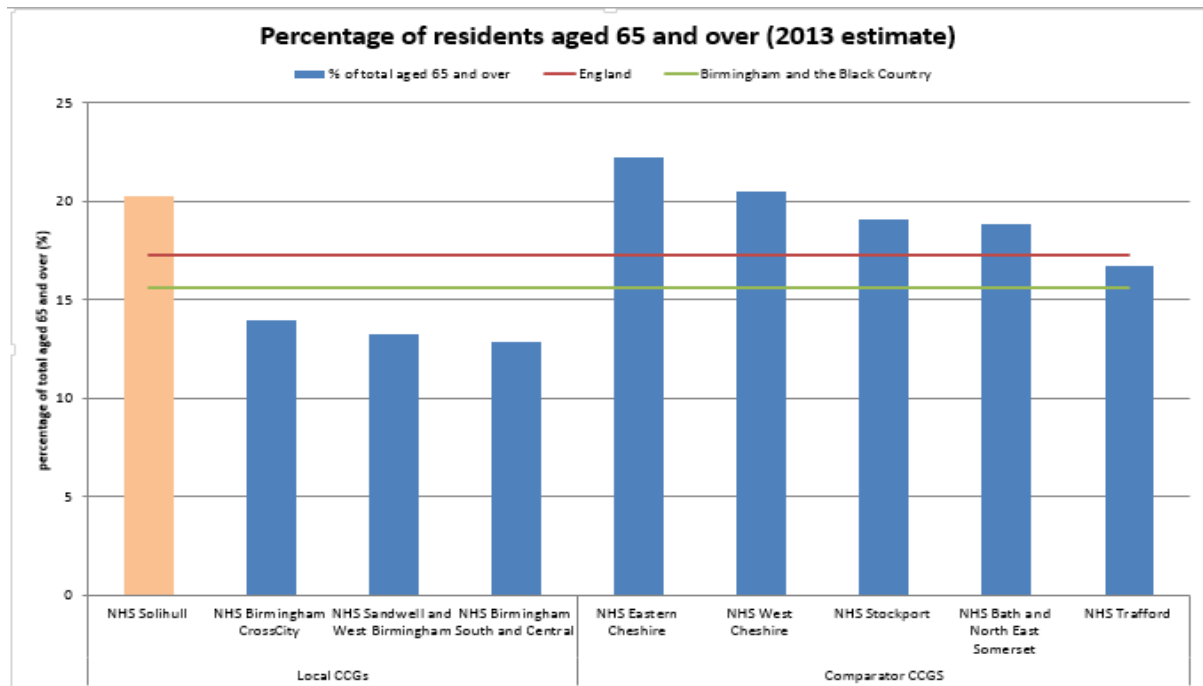
<sup>35</sup> NHS Scotland (2011) *Managing Falls and Fractures for Older People in Carehomes: Good practice self-assessment resource*. NHS Scotland.

<sup>36</sup> *ibid*

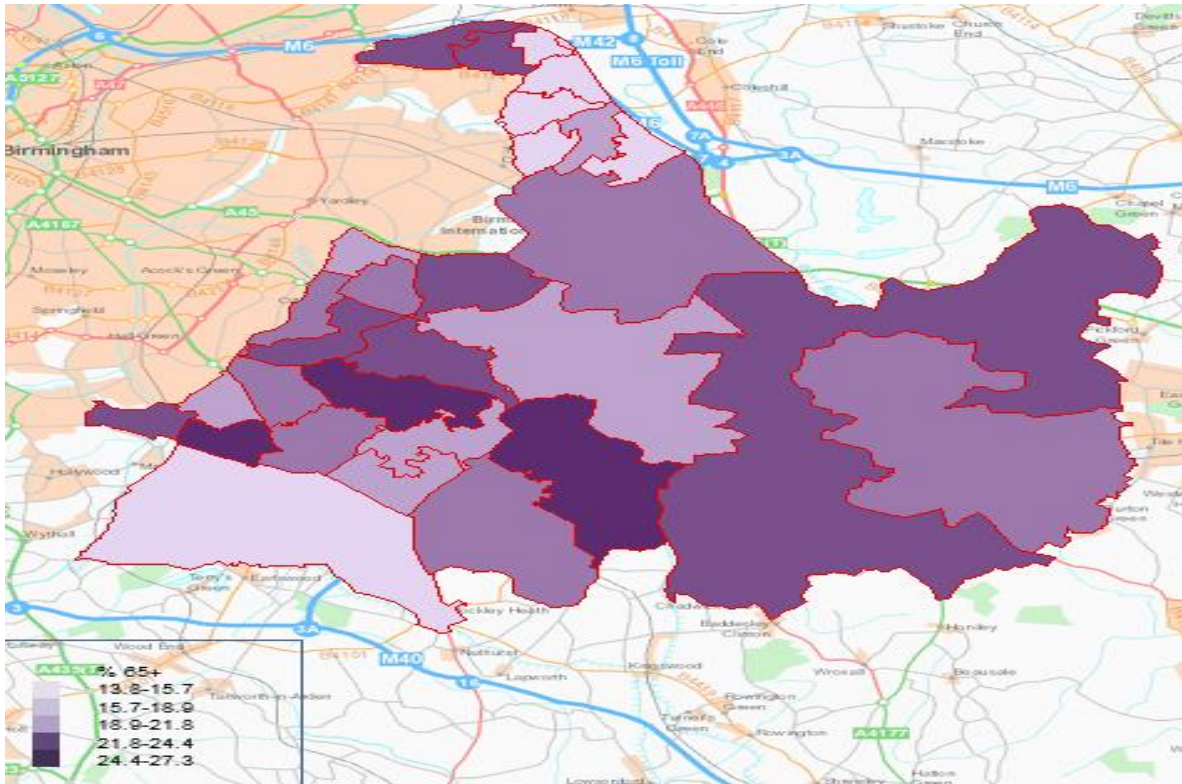
<sup>37</sup> Zijlstra, G. A., et al. "Interventions to reduce fear of falling in community-living older people: a systematic review." *Journal of the American Geriatrics Society* 55.4 (2007): 603-615.

## 4. Level of need in Solihull

Solihull has a higher proportion of older people compared to the England average.



The map below shows the age-distribution within Solihull at MSOA level (figure 3), highlighting that the Urban West area of Solihull has the highest concentrations of people aged over 65.



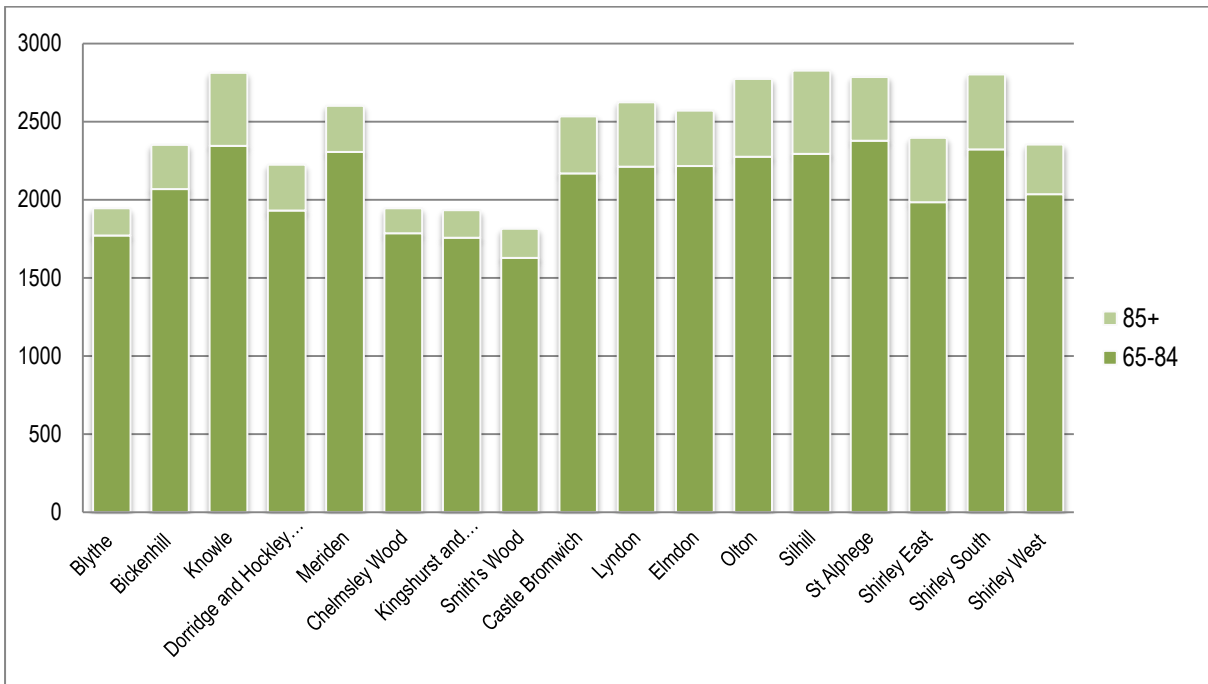
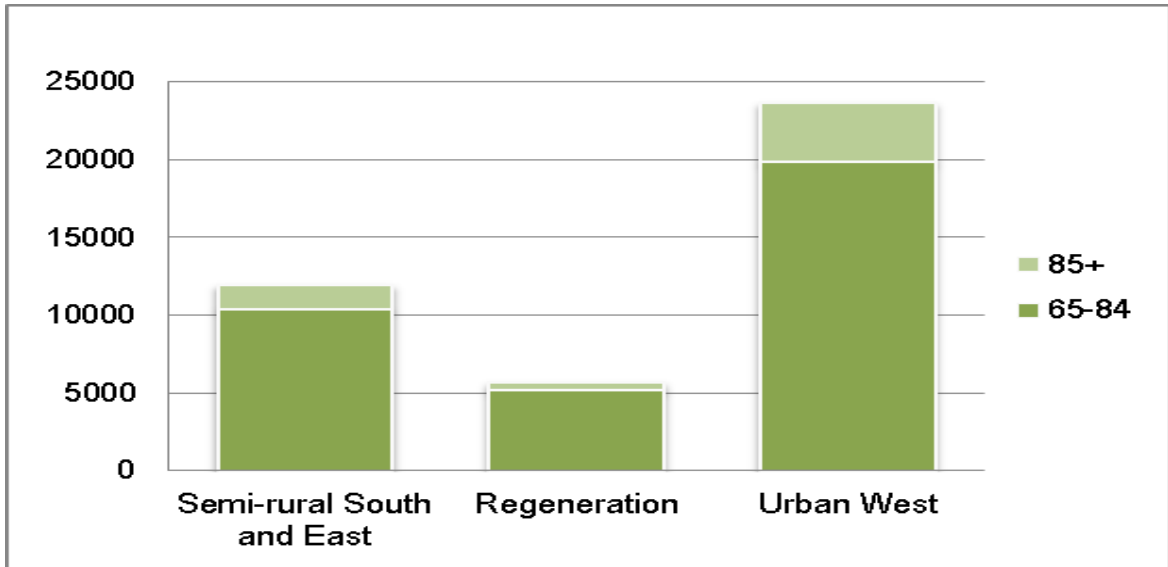
Solihull currently consists of 17 wards that are commonly combined into three broader geographical areas:

**Semi-rural South and East:** Blythe, Bickenhill, Knowle, Dorridge & Hockley Heath and Meriden.

**Regeneration:** Chelmsley Wood, Kingshurst & Fordbridge and Smith's Wood.

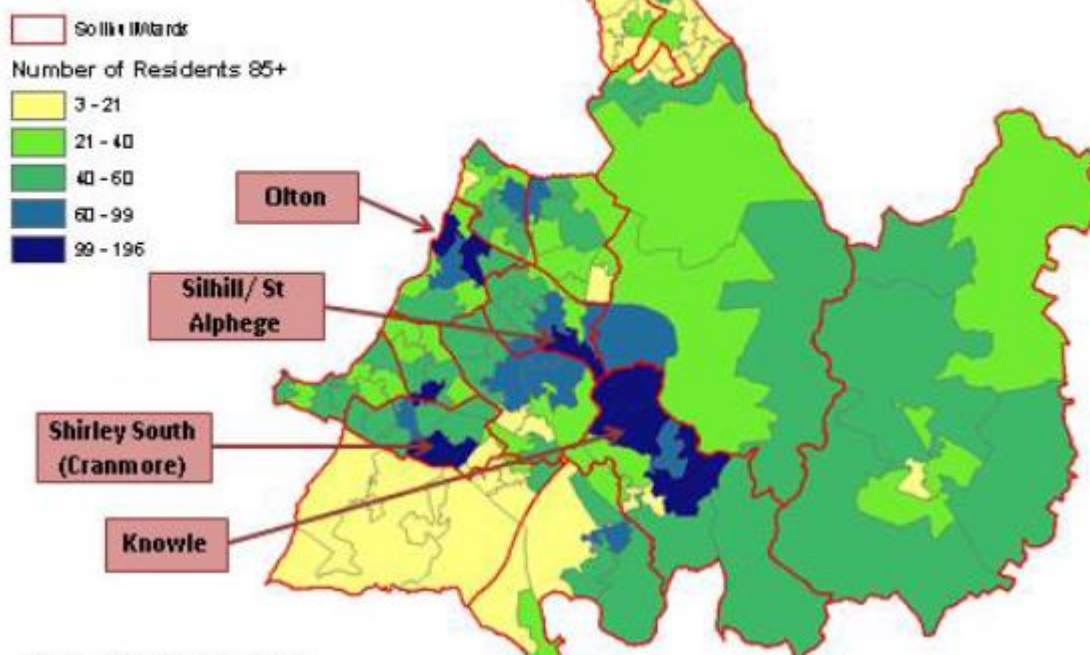
**Urban West:** Castle Bromwich, Lyndon, Elmdon, Olton, Silhill, St Alphege, Shirley East, Shirley West and Shirley South.

The proportion of over 65's in each ward and wider geographical area tends to vary. The majority of older residents populate the Urban West, with the fewest in the Regeneration wards. Knowle (Semi-rural), Silhill (Urban West) and Shirley South (Urban West) currently have the most residents over 65



This age-area distribution within Solihull's Urban West locality is also seen in residents aged 85 and over (the most at risk of experiencing injurious falls). This pattern correlates closely with the location of the borough's residential and nursing care homes for the elderly.

## Residents Aged 85 Years and Over



To understand the full extent of the burden of falls and falls-related injuries in the borough is difficult. Data from a number of different sources has been used to inform this Needs Assessment. Data is collated and most complete for hospital admissions with hip fractures. Hospital admissions for fall-related injuries are collated but there are issues with coding at hospitals as not every admission or attendance will be coded as a fall but rather the injury sustained.

Ambulance call-outs for falls have been used as a proxy measure of the burden on health services. Many more falls may be dealt with in primary care but this data is not accurately recorded or collated. In addition, far more individuals will fall but not seek support from health or social care services but be at greater risk of a more serious fall in the future with greater cost to both the individual, family and health and social care services.

### 4.1 Fall-related Injury

The majority of fractures in older people occur as a result of a fall from standing height. These are low trauma fragility fractures commonly affecting the pelvis, wrist, upper arm or hip. Currently, almost half of all women and one in six men experience a painful and disabling fragility fracture in later life.<sup>38</sup>

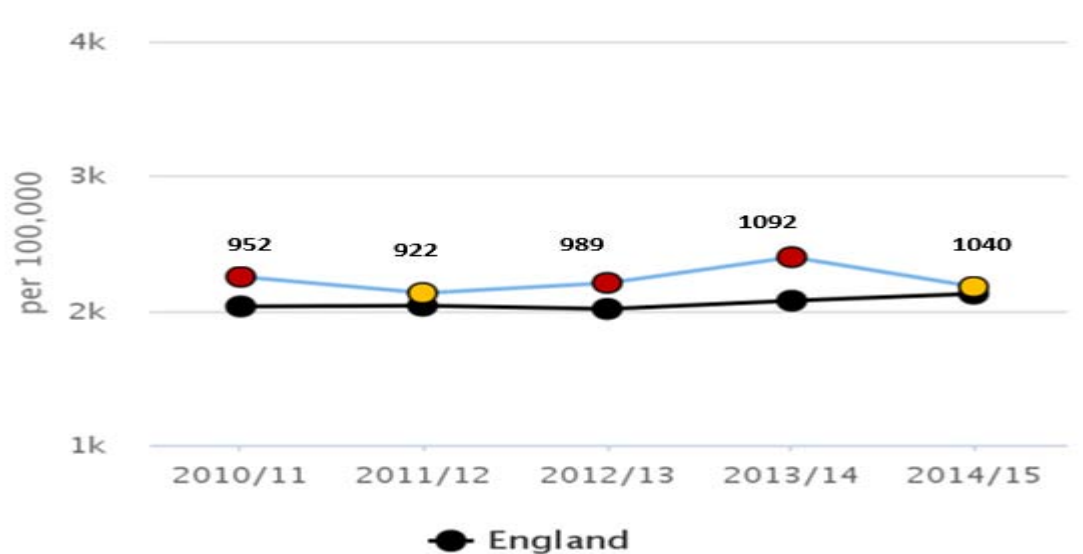
<sup>38</sup> DoH (2009) *Falls and Fractures: Effective interventions in health and social care*. Department of Health.



Hip fractures remain the most serious consequence of a fall and the most common cause of accident-related death in older people. In Solihull in 2014/15 there were 1,794 people aged over 65 who were admitted to hospital with injuries due to falls, 237 of these had suffered hip fractures. This rate of falls-related injuries in Solihull was significantly higher than the England average between 2012-14. The rate of hip fracture hospital admissions in Solihull is not significantly higher than the national average.

The overall trends shows a decrease during the period 2012-15 in the numbers of Solihull residents aged 65 and over experiencing hip fracture. However, for those Solihull residents aged 80 and over in particular, there has been a continuous significantly higher rate of hospital admissions from other injuries and non-hip fractures due to falls than that of the national average.

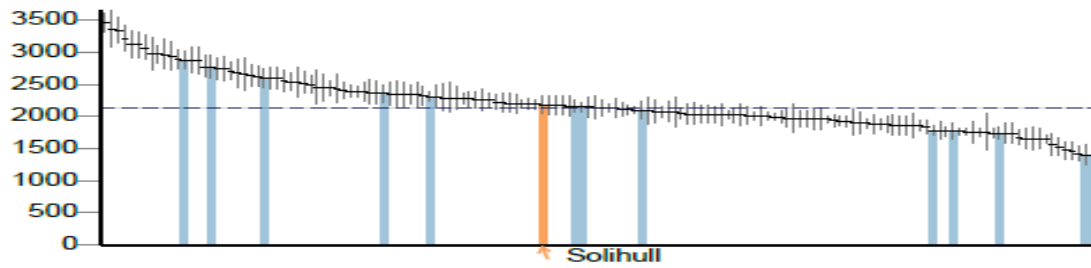
Injuries due to fall requiring hospital treatment in Solihull residents (male and female) 65 years and over (Trend line showing Directly Standardised Rate, per 100,000 with actual counts given. Red=statistically significantly worse than regional and national figures)



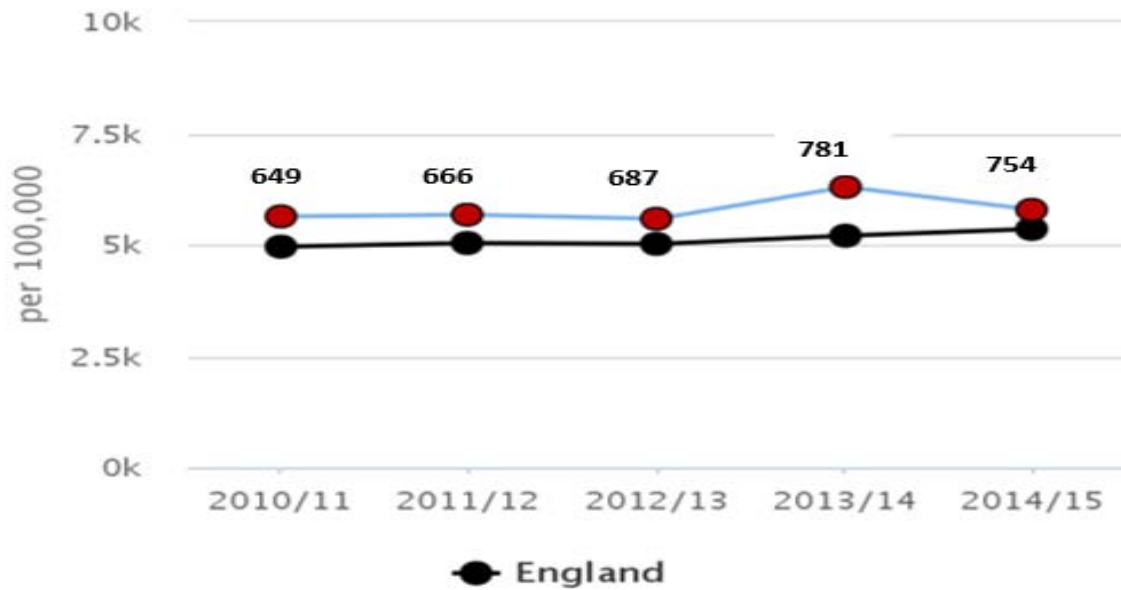
Period		Count	Value	Lower CI	Upper CI	West Midlands	England
2010/11	●	952	2,250	2,102	2,405	1,910	2,030
2011/12	●	922	2,129	1,986	2,279	1,939	2,035
2012/13	●	989	2,205	2,062	2,353	1,951	2,011
2013/14	●	1,092	2,396	2,249	2,550	2,069	2,072
2014/15	●	1,040	2,176	2,040	2,318	2,130	2,125

Source: Calculated by West Midlands Knowledge and Intelligence Team from data from the Information Centre for Health and Social Care - Hospital Episode Statistics (HES) and Office for National Statistics (ONS) - Mid Year Population Estimates

Key    England value and confidence interval    ↑ Solihull    Other local authority in West Midlands



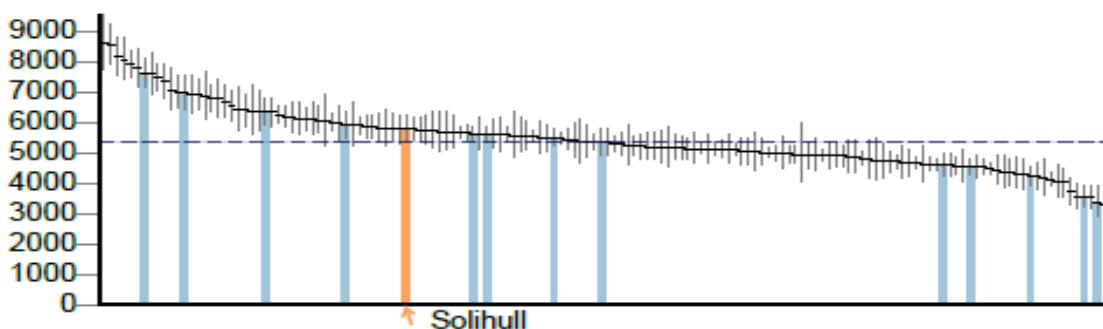
Injuries due to fall requiring hospital treatment in Solihull residents (male and female) 80 years and over (Trend line showing Directly Standardised Rate, per 100,000 with actual counts given. Red=statistically significantly worse than regional and national figures)



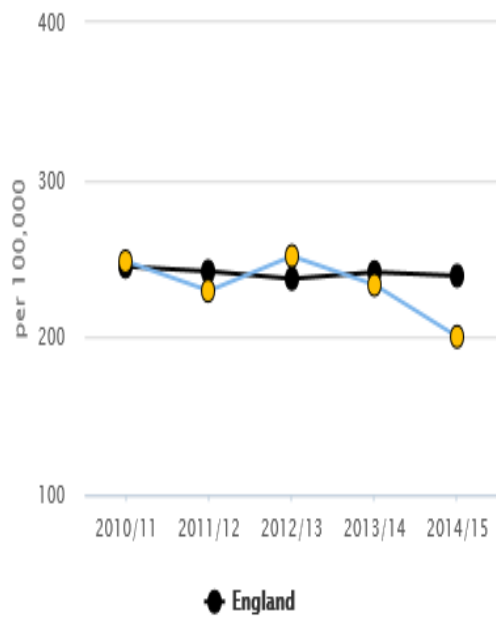
Period		Count	Value	Lower CI	Upper CI	West Midlands	England
2010/11	●	649	5,631	5,176	6,114	4,641	4,953
2011/12	●	666	5,670	5,215	6,152	4,867	5,034
2012/13	●	687	5,579	5,141	6,042	4,863	5,015
2013/14	●	781	6,294	5,831	6,781	5,219	5,198
2014/15	●	754	5,780	5,351	6,232	5,415	5,351

Source: Calculated by Public Health England: Knowledge and Intelligence Team (West Midlands) from data from the Health and Social Care Information Centre - Hospital Episode Statistics (HES) and Office for National Statistics (ONS) - Mid Year Population Estimates

Key — England value and confidence interval    ↑ Solihull    ■ Other local authority in West Midlands



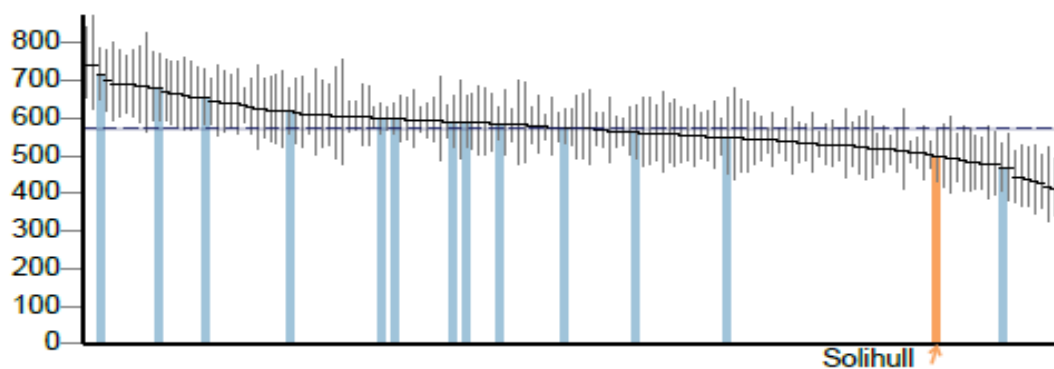
Falls-related hip fractures in Solihull residents (male and female) aged 65-79 (Trend line showing Directly Standardised Rate, per 100,000 with actual counts given. Red=statistically significantly worse than regional and national figures)



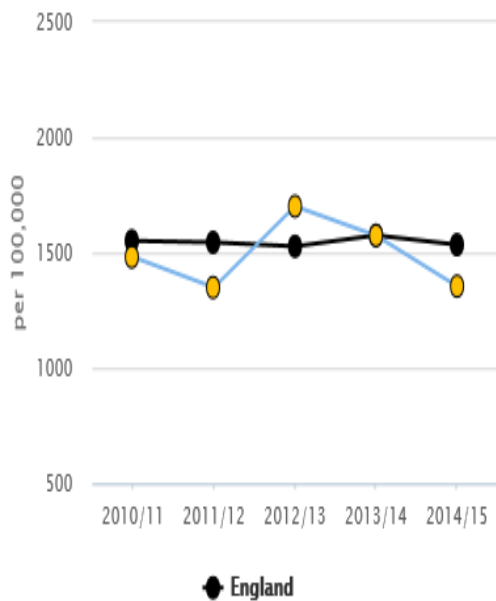
Period	Count	Value	Lower CI	Upper CI	West Midlands	England
2010/11	71	248	194	314	250	245
2011/12	65	230	177	293	244	242
2012/13	73	252	197	317	243	237
2013/14	67	233	181	297	241	241
2014/15	61	200	153	258	248	239

Source: Calculated by Public Health England: Knowledge and Intelligence Team (West Midlands) from data from the Health and Social Care Information Centre - Hospital Episode Statistics (HES) and Office for National Statistics (ONS) - Mid Year Population Estimates

Key: --- England value and confidence interval    ↑ Solihull    ■ Other local authority in West Midlands

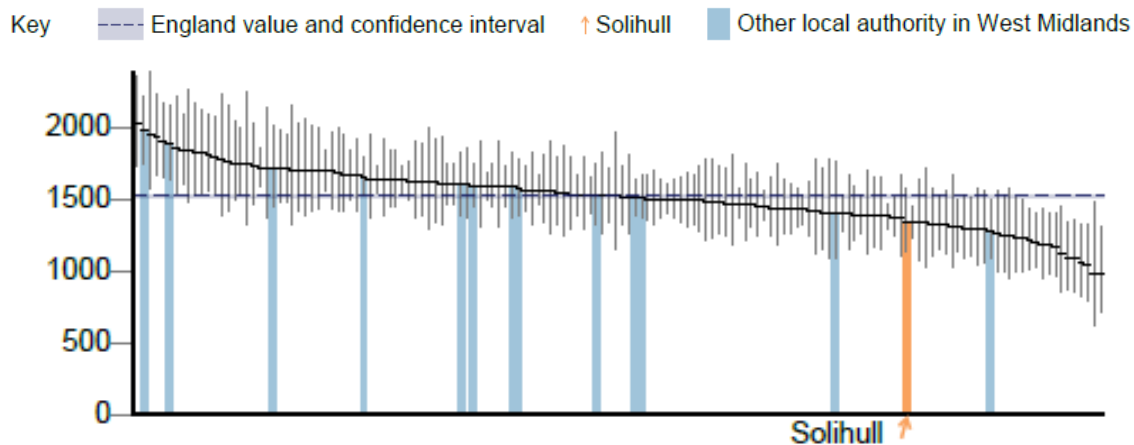


Falls-related hip fractures in Solihull residents (male and female) aged 80 and over (Trend line showing Directly Standardised Rate, per 100,000 with actual counts given. Red=statistically significantly worse than regional and national figures.



Period	Count	Value	Lower CI	Upper CI	West Midlands	England
2010/11	177	1,482	1,259	1,730	1,577	1,551
2011/12	164	1,349	1,137	1,588	1,571	1,545
2012/13	210	1,701	1,463	1,965	1,589	1,528
2013/14	201	1,575	1,352	1,822	1,597	1,575
2014/15	176	1,355	1,152	1,582	1,597	1,535

Source: Calculated by Public Health England: Knowledge and Intelligence Team (West Midlands) from data from the Health and Social Care Information Centre - Hospital Episode Statistics (HES) and Office for National Statistics (ONS) - Mid Year Population Estimates



A hip fracture costs the NHS alone £12,137. 1 in 3 end up leaving their own home and moving to long-term care resulting in social care costs to the local authority on average of £3,879 over 2 years.<sup>39</sup> Hip fractures remain the most common cause of accident-related death, with a 20% mortality rate within 4 months and a 30% mortality rate within a year.

The rate of admissions for falls injuries in females aged 65 and over was significantly worse than the England average in 2013/14. More women than men are admitted for falls across all age groups. Potential reasons are discussed previously in this report.

<sup>39</sup> Chris Moran *Make the first fracture the last – preventing fragility fractures*: Chris Moran Commissioning Assembly Secretariat 2014  
[http://www.commissioningassembly.nhs.uk/pg/cv\\_blog/content/view/133178/network](http://www.commissioningassembly.nhs.uk/pg/cv_blog/content/view/133178/network)

Of particular relevance is that 11,163 females over 65 live alone in Solihull compared to just 5,144 men.<sup>40</sup>

The table below shows how the numbers of over 65s who live alone in Solihull is predicted to increase over the next three years:

	2014	2015	2016	2017	2018
Males aged 65-74 predicted to live alone	2,200	2,220	2,280	2,280	2,280
Males aged 75 and over predicted to live alone	2,788	2,924	2,958	3,026	3,128
Females aged 65-74 predicted to live alone	3,570	3,660	3,720	3,750	3,750
Females aged 75 and over predicted to live alone	7,381	7,503	7,564	7,747	7,869
<b>Total population aged 65-74 predicted to live alone</b>	<b>5,770</b>	<b>5,880</b>	<b>6,000</b>	<b>6,030</b>	<b>6,030</b>
<b>Total population aged 75 and over predicted to live alone</b>	<b>10,169</b>	<b>10,427</b>	<b>10,522</b>	<b>10,773</b>	<b>10,997</b>

## 4.2 Fall-related Mortality

On average at least 23 people a year in Solihull die because of an accidental fall (where it is recorded as the original underlying cause of death). This is for all ages. The directly standardised rate for Solihull is not significantly different to the regional and national average.<sup>41</sup>

Hip fractures remain the most common cause of accident-related death in older people - 20% of people die within four months and 30% within a year.<sup>42</sup> Dying as the result of a fall is far more common in people aged over 75 than the 65-74 age groups. Even when the overall higher number of deaths in the older age group is taken into account, there still gives a far higher *rate* of fall-related deaths for the over 75s.

## 4.3 Seasonal variation

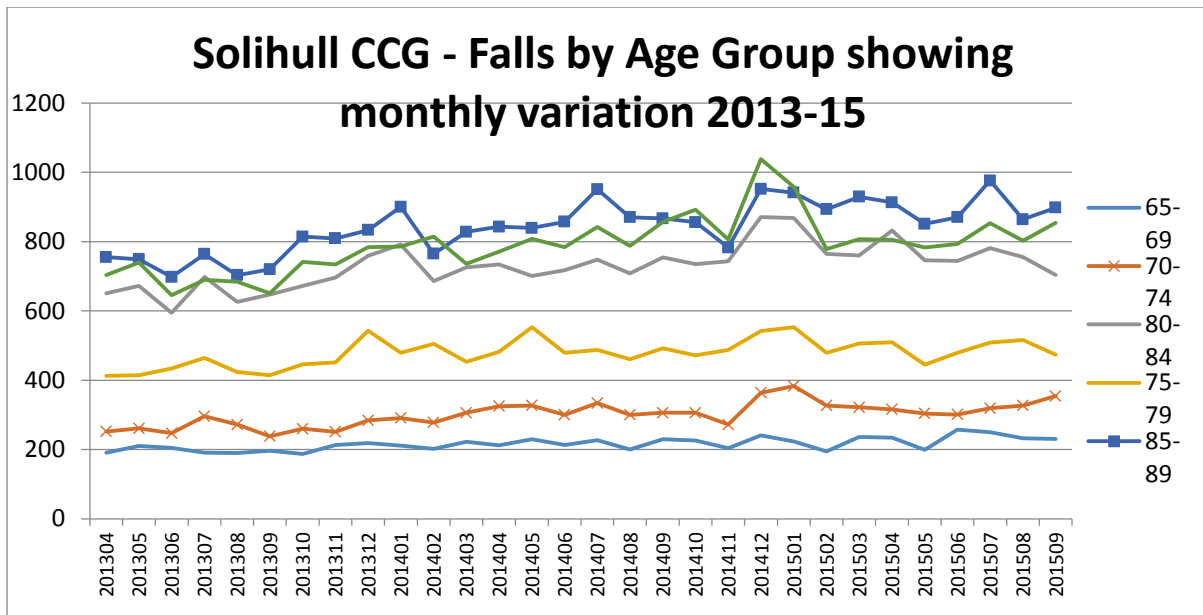
Whilst there is no clear pattern in hospital admissions for falls by month in Solihull, there are some spikes of activity during both the winter and summer months. Evidence suggest that falls in older people, particularly those aged 80 and, increase during very cold winter and very hot summer temperatures<sup>43</sup>

<sup>40</sup> POPPI *People aged 65 and over living alone, by age and gender, projected to 2030*

<sup>41</sup> The NHS Information Centre (2014) *Mortality from accidental falls (ICD10 W00-W19): directly standardised rate*. Compendium of Population Health Indicators (nww.indicators.ic.nhs.uk)

<sup>42</sup> DoH (2009) *Falls and Fractures: Effective Interventions in health and social care*. Department of Health

<sup>43</sup>

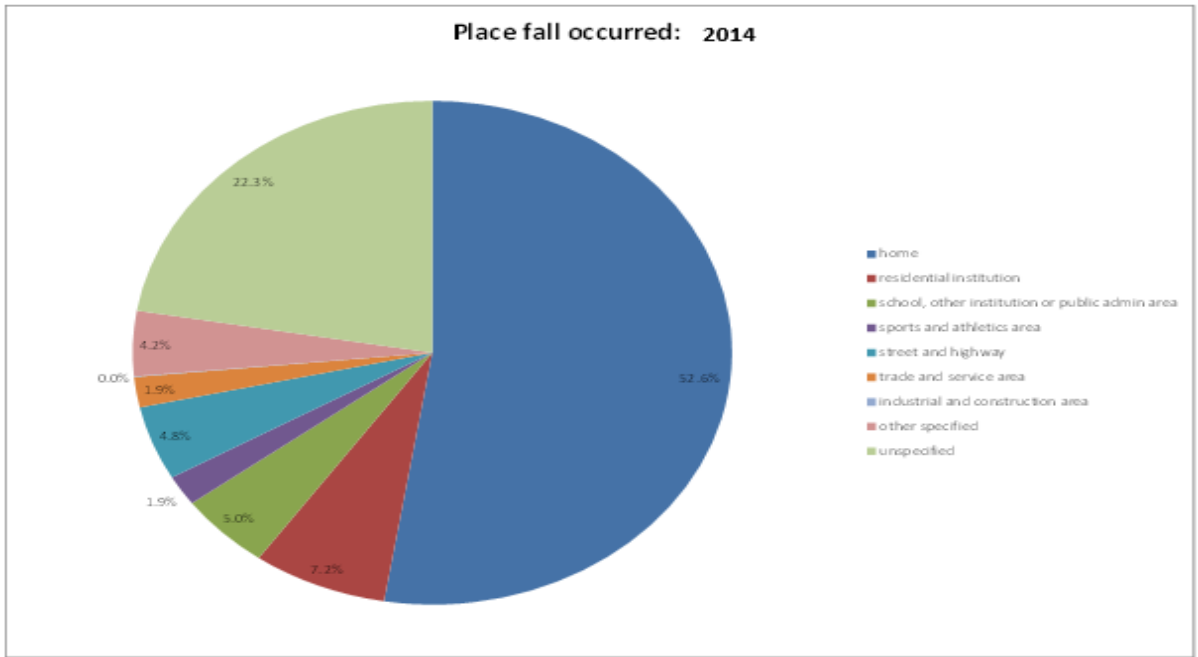


#### 4.4 Location of falls

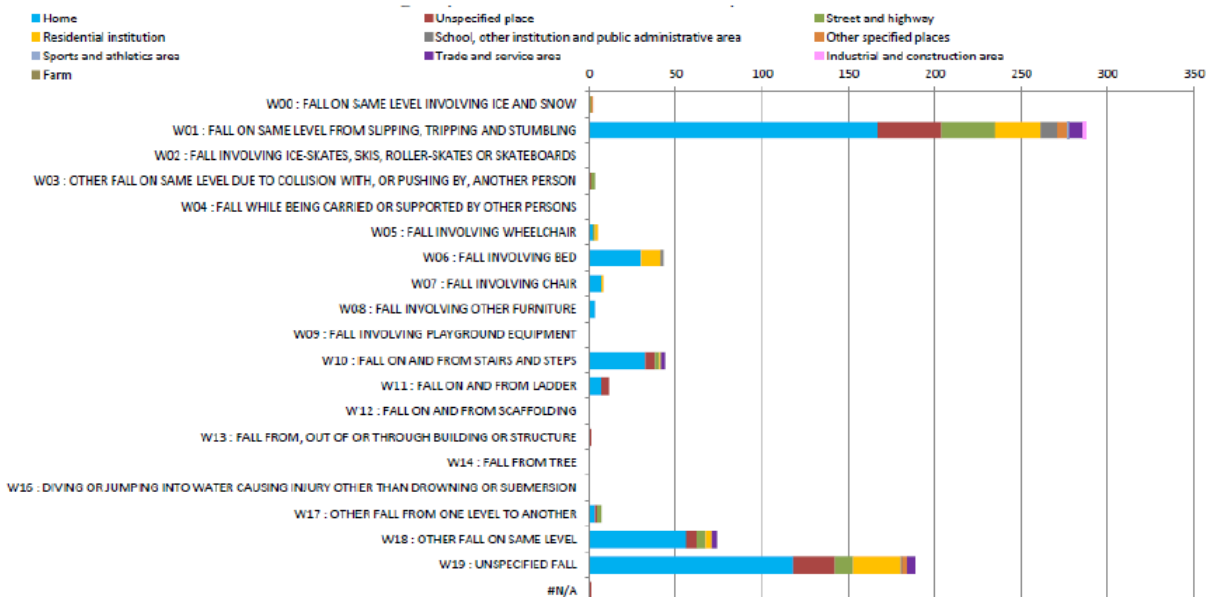
- Location of a fall is not always accurately recorded. Figures x shows that falls that are admitted to hospital have most often occurred in the home.
- A report by the Trauma and Injury Intelligence Group looking at injury attendances across national Accident and Emergency Departments in 2012/13 suggested just over half of all injury attendances occurred in the home, with the most serious falls happening on the stairs<sup>44 45</sup>.
- Although private dwellings are most frequently given as admission source, this does not necessarily mean that the fall has happened at home. However examination of the supplementary coding does show that 53% of falls do occur at home. A further 22% are unspecified. The largest category of the remaining 25 % is residential institutions (7%) followed by schools and other public areas (5%) and street and highway (5%).

<sup>44</sup> Critchley K.A. *Injury Attendances across Lancashire Accident and Emergency Departments 2012/13* Trauma and Injury Intelligence Group: Liverpool John Moores University; 2013 Accessed online 6 Nov 2014 <http://www.cph.org.uk/wp-content/uploads/2013/11/Injury-attendances-across-Lancashire-Accident-and-Emergency-Departments.pdf>

<sup>45</sup> Royal Society for the Prevention of Accidents Accidents to Older People ROSPA; 2011 <http://www.rosipa.com>



- One-fifth of falls occur in a public place. Outdoor falls occur amongst the more active older people and are influenced by outside extrinsic factors e.g. uneven pavements<sup>46</sup>.



The table below shows the most frequent place and cause of recorded falls in Solihull during 2014 for different age-groups.

<sup>46</sup> Li W, Keegan T.H.M, Sternfeld B, Sidney S, Quesenberry C.P, Kelsey J.L. *Outdoor falls among middle-aged and older adults: a neglected public health problem* American Journal of Public Health (2006) 96(7); 1192-2000



Falls of particular interest 2014			
Type	Place	Age group 1	Age group 2
on same level slipping, tripping or stumbling	Home	85+	65+
	Street or highway	75+	
involving bed	Home	75+	0-4
	Residential institution	85+	
involving chair	Home	75+	
involving other furniture	Home	75+	
involving playground equip	Other specified	5-9	
	Unspecified	5-9	
on or from stairs and steps	Home	75+	
from one level to another	Home	5-9	
other fall on same level	Home	65+	0-14
	Residential institution	75+	
	School, other institution or public admin area	70+	
unspecified fall	Home	80+	60+
	Residential institution	80+	
	Unspecified	60+	20-39

#### 4.5 A&E attendances – falls

Based on CCG data, approximately 50-70 admissions per month occur for falls. A&E records for falls are unfortunately inadequate, as falls are coded as ‘other injuries’. We know that there are approximately three times as many A&E attendances as hospital admissions for falls<sup>47</sup>; therefore we estimate falls-related A&E attendances are approximately 200 per month.

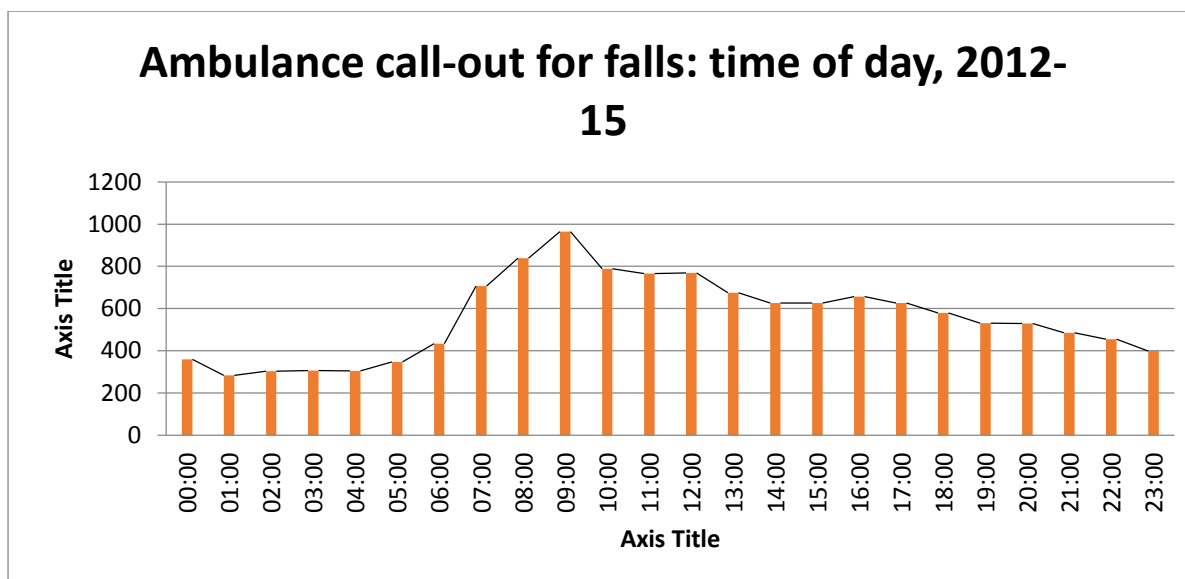
#### 4.6 Ambulance call-outs for falls

Where is the greatest need?

In 2015 ambulances were called to attend 4,250 falls of people aged over 65. This made up 14% of *all* ambulance call-outs to all age groups in Solihull, and therefore comprises a significant part of the work carried out by the ambulance trust. It is not possible at present to say how many individuals these incidents relate to, and how many are the same people falling multiple times. WMAS attends more calls to falls in certain areas of the borough than others, with high numbers in the Urban West locality. (see map below). This finding closely correlates to the higher concentration of residential care homes located in this area of the borough.

<sup>47</sup> Scuffham P. Chaplin S. Legood R. Incidence and costs of unintentional falls in older people in the United Kingdom Journal Epidemiology and Community Health (2008) 57: 740-744





## 4.7 Deprivation and falls

Using local data it is possible to see a gradient of inequality with more ambulance call-outs for falls in over 65s in the more deprived areas of Solihull. People living in one of the 20% most deprived areas of Solihull are at approximately 85% increased risk of falls. If we could eliminate this inequality, 1,850 ambulance call-outs could have been prevented between 2012/13 to 2014/15 with potential to realise savings for health and social care.

Parts of the borough in the regeneration north and urban west areas are relatively deprived compared to the rest of England and we suspect that factors contributing to falls, such as poor health, poor nutrition, poor housing and other social and environmental issues, are more prevalent in some groups of our older residents.

- 7,917 households are fuel poor in Solihull<sup>48</sup> and the over 65s make up 50% of these households. Cold, damp housing reduces mobility and dexterity thus increasing the risk of falls.
- Undetected visual impairment is more likely in deprived populations<sup>49</sup>. Some ethnic groups are at greater risk of diabetes or glaucoma and this can be undetected due to a reticence to attend for routine eye examinations<sup>50</sup>.

Interestingly, the Public Health Outcomes Framework provides evidence for inequalities across England in hospital admissions for falls injuries but not for hip fractures. This could explain why the deprived parts of the borough, has a worse status for falls injuries but not hip fractures.

<sup>48</sup> Solihull Fuel Poverty 2014

<sup>49</sup> A New Ambition for Old Age: Next steps in implementing the National Service Framework for Older People (2006) Department of Health

<sup>50</sup> Kenyon C. McToal L. Rapid Assessment and Community Rehabilitation Team – Falls Review: 2012/13

## 4.8 Falls in care homes

Solihull's rate of permanent admissions to care homes in people aged 65 is not significantly different to the national average, with 598.2 permanent admissions per 100,000 per year in 2013/14.<sup>51</sup> We know that people living in residential care are twice as likely to fall compared to community residents and often experience recurrent falls highlighting a notable area for targeted improvement.

In 2013/14 40% of ambulance call-outs were for falls. 10-20% of institutional falls result in a hip fracture and 30% of people that are admitted to an acute hospital for a fall come directly from a care home.<sup>52</sup>

In the Urban West locality, where a large volume of ambulance call-outs for falls is made, there are a number of adults in care (residential, nursing care, extra care and sheltered housing), mainly in St Alphege, Olton and Shirley.

Variation in ambulance call-outs for falls exists across care homes. Further research has been commissioned to better understand the differences. Research in other areas has concluded a number of internal (e.g. care home policies and procedures) and external factors (e.g. healthcare professionals' advice) contribute to this.<sup>53</sup>

Older people in residential care and nursing homes may have undetected visual impairment and eye disease despite NHS domiciliary sight tests being available free of charge to those unable to attend community optometric practice.<sup>54</sup>

### Transfer to other healthcare providers

Around a half of ambulance call-outs for falls in Solihull are not conveyed to hospital. This proportion is greatest in the older age group (80+). This suggests that many ambulance call-outs could be dealt with differently and raises the potential for a 'pick up service', provided by Solihull's Integrated Community Teams.

## 4.9 Cost of falls to Solihull

Preventing falls is a cost effective use of resources as the cost and consequences of a fall are considerable. It is estimated that treating falls cost Solihull health and social care services more than £xmillion every year. This is on top of the obvious personal impacts and hidden costs to people experiencing falls and their family, friends and carers

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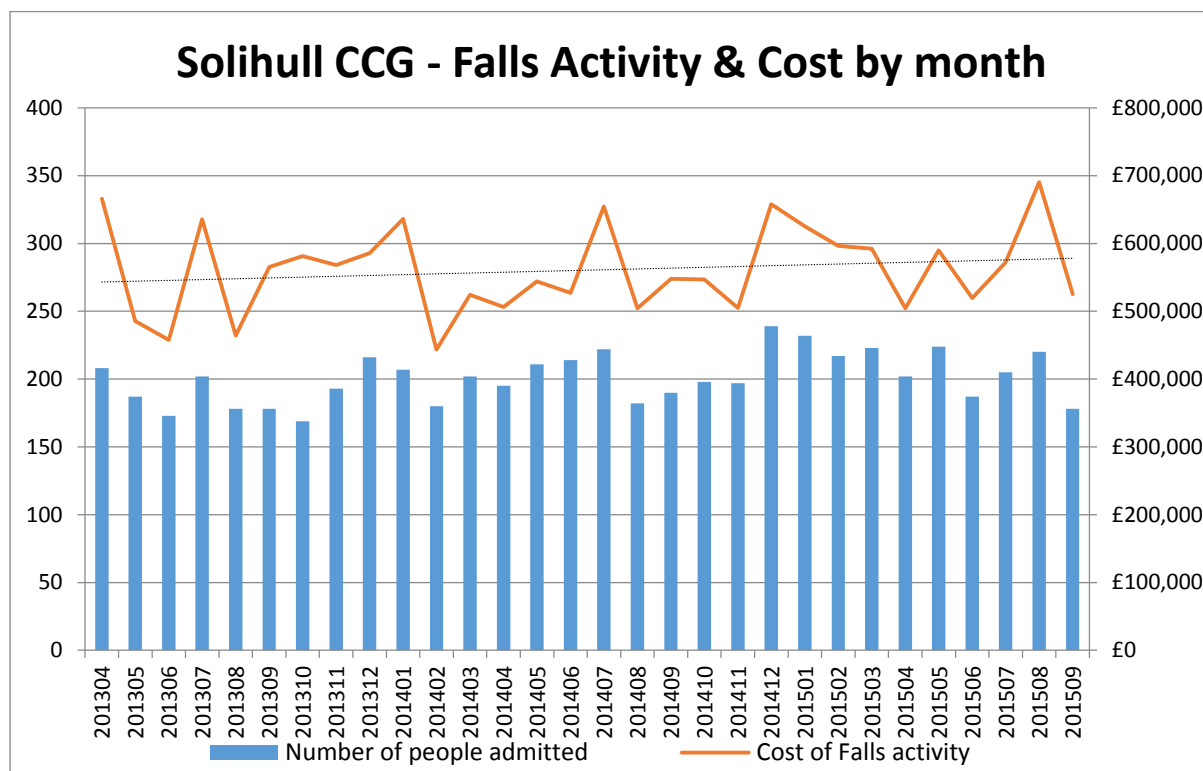
<sup>51</sup> Health and Social Care Information Centre Adult Social Care Outcomes Accessed online at <http://asconf.hscic.gov.uk/Outcome/323>

<sup>52</sup> British Orthopaedic Association The Care of Patients with Fragility Fracture British Orthopaedic Association: London; 2007

<sup>53</sup> ICE North West Ambulance Service: Final Insight Summary Report July 2013

<sup>54</sup> Freeman EE, Munoz B, Rubin G, et al. Visual field loss increases the risk of falls in older adults: the Salisbury eye evaluation Invest Ophthalmol Vis Sci (2007) 48(10): 4445-50.

The table below shows the monthly expenditure spent on falls by Solihull CCG, showing an upward trend between over the last three years.



Cost to the CCG can be further broken down into costs from falls resulting in fractured hips (FNoF) and falls related other fractures and injuries in 50-64 years olds and those aged 65 and over.

65+ yrs	Fall - FNoF		Falls – other fracture		Falls – without fractures		Total cost
	Activity	Costs	Activity	Costs	Activity	Costs	
13/14	190	1,114,807	281	1,033,764	1873	4,628,840	6,777,411
14/15	193	1,197,458	279	906,423	2094	4,833,558	6,937,439
15/16 (7m)	89	549,706	203	711,338	1170	2,713,522	3,974,566

50-64 yrs	Fall - FNoF		Falls – other fracture		Falls – without fractures		Total cost
	Activity	Costs	Activity	Costs	Activity	Costs	
13/14	11	31,737	37	125,703	120	208,003	365,443
14/15	4	18,654	43	110,981	133	278,601	408,236
15/16 (7m)	8	63,038	23	56,039	78	142,788	261,865

In 2013/14, falls related activities amounted to 2630 in-patient episodes, approximately 3.4% of all in-patient spells, and cost the local health economy close to £7m alone

Further costs would be incurred from ambulance call outs, admissions to care homes following serious falls, falls treated by GPs and other rehabilitation services and adaption to homes. In Solihull, the cost to the health economy of hospital admissions for falls and fractures far outstrip the amount of resources allocated to falls prevention.

## 5. Evidence for interventions that work in falls prevention

There is a wealth of evidence that group and home-based exercise programmes and home safety interventions reduce rate of falls and risk of falling.

### 5.1 NICE guidance prevention of falls in the community – NICE CG161 (2013 /2004)

The NICE guideline for prevention of falls in the community CG161 is based on previous evidence from the original guideline in 2004. It recommends that older people should be screened for risk of falling in an opportunistic manner when presenting in primary care, secondary care and other settings. More detail on tests used to assess risk of falling in the community is provided in Appendix 2.

Further assessment and intervention is indicated for those individuals who report a fall in the last year and have a gait or balance problem. NICE identified the essential elements of a falls assessment to be gait/balance, osteoporosis risk, medication review, home hazard and vision.

NICE concluded that individualised multi-factorial interventions should include interventions on strength and balance training, home-hazard intervention, modification or withdrawal of medications, and referral for correction of visual defects.

NICE set out a series of standards for the service and suggested specialist falls services should be linked operationally to bone health (osteoporosis) services.

#### Osteoporosis - NICE CG146 (2012)

This guideline recognises the importance of osteoporosis as a risk factor for hip fracture.<sup>55</sup> It recommends that women aged 65 years or over and men aged 75 years or over should be opportunistically assessed for the risk of fracture using FRAX or QFracture. For those people whose fracture risk is in the region of an intervention threshold, clinicians should consider measuring bone marrow density with a DXA scan to inform treatment.

### 5.2 Evidence for the benefit of exercise in preventing falls

The most recent Cochrane systematic review of interventions for preventing falls in older people living in the community states that well-designed exercise programmes, even in the very old and frail, can reduce the risk of falls.<sup>56</sup>

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<sup>55</sup> NICE CG 146 (2012) Osteoporosis: assessing the risk of fragility fracture <http://www.nice.org.uk/guidance/cg146>

<sup>56</sup> Gillespie LD, Robertson MC, Gillespie WJ, Sherrington C, Gates S, Clemson LM, Lamb SE. Interventions for preventing falls in older people living in the community. Cochrane Database Syst Rev. 2012 Sep 12;9:CD007146. doi: 10.1002/14651858.CD007146.pub3.

As well as exercise, the review found evidence of effectiveness for a number of different approaches to falls prevention, some with all older people living in the community and others in particular subgroups. This evidence may not be applicable to older people with dementia as most included studies excluded them from participation. The review is summarised here:

- There is strong evidence that certain exercise programmes prevent falls. Group exercise classes and exercises individually delivered at home reduce rate of falls and risk of falling. Tai Chi as a group exercise reduces risk of falling, but is less effective in people at higher risk of falling. Overall, exercise programmes aimed at reducing falls appear to reduce fractures.
- Multifactorial interventions integrating assessment with individualised intervention, usually involving a multidisciplinary team, are effective in reducing rate of falls but not risk of falling.
- Home safety interventions reduce rate of falls and risk of falling. These interventions are more effective in people at higher risk of falling, and when delivered by an occupational therapist. An anti-slip shoe device for icy conditions significantly reduced winter outside falls in one study.
- There is limited evidence for the effectiveness of interventions targeting medications (e.g. withdrawal of psychotropic medications, educational programmes for family physicians).
- Vitamin D does not appear to prevent falls in all older people living in the community, but appears to be effective in people who have lower Vitamin D levels before treatment.
- In people with severe visual impairment, there is evidence from one trial for the effectiveness of a home safety assessment and modification intervention. Expedited eye cataract surgery for people on a waiting list significantly reduces rate of falls compared with waiting list controls. Older people may be at increased risk of falling while adjusting to new spectacles or major changes in prescription.
- In one study, rate of falls was reduced in people with disabling foot pain receiving "multifaceted podiatry" (customised orthoses, footwear review, foot and ankle exercises, fall prevention education in addition to "usual podiatry care").
- Evidence from three studies for effectiveness of cardiac pacing (e.g. pace makers) in people with increased sensitivity of the carotid sinus and a history of fainting and/or falls.
- The evidence relating to the provision of educational materials alone for preventing falls is inconclusive.

A more recent systematic review found that falls prevention exercise programmes for older people not only reduce the rates of falls but also prevent injuries resulting from



falls in older people living in the community.<sup>57</sup> The protective effect seems most pronounced for the most severe fall related injuries: the estimated reduction is 37% for all injurious falls, 43% for severe injurious falls, and 61% for falls resulting in fractures.

### **How does exercise prevent falling?**

All exercise programmes that have proved to be effective for falls prevention emphasise balance training.

Most exercise programmes are multicomponent and include balance and other types of exercise such as gait and functional training, strengthening exercises, flexibility, and endurance. There is evidence that these types of interventions can improve reaction time, gait, muscle strength, coordination, and overall physical functioning as well as cognitive functions.<sup>58 59</sup> It is thought that regular exercise prevents injury following a fall not only by improving balance and decreasing the risk of falling, but also by improving cognitive functioning, and the speed and effectiveness of protective reflexes (such as quickly extending an arm or grabbing nearby objects)<sup>60</sup>

### **Community or home based exercise - The Otago exercise programme**

Systematic reviews have looked at both home based and community based exercise programmes and found both to be effective. The Otago exercise programme is a widely used home-exercise programme, combining strength and balance retraining exercises to prevent falls in older, community-dwelling people. It has been shown in a systematic review of seven trials, involving 1503 participants, to significantly reduce the risk of death over 12 months and significantly reduced fall rates.<sup>61</sup>

A recent randomised controlled trial from France, the Ossébo trial, looked at community based exercise classes for older women aged 75-85 years.<sup>62</sup> These classes consisted of weekly, supervised, group sessions of progressive balance training for two years. The classes were supplemented by individually prescribed home exercises. The intervention group was found to have significantly reduced injurious falls compared to the control group. At two years, women in the intervention group also performed significantly better on all physical tests and had significantly better perception of their overall physical function.<sup>63</sup>

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<sup>57</sup> El-Khoury F, Cassou B, Charles MA, Dargent-Molina P. The effect of fall prevention exercise programmes on fall induced injuries in community dwelling older adults: systematic review and meta-analysis of randomised controlled trials. *BMJ*. 2013 Oct 29;347:f6234. doi: 10.1136/bmj.f6234.

<sup>58</sup> Barnett A, Smith B, Lord SR, Williams M, Baumann A. Community-based group exercise improves balance and reduces falls in at-risk older people: a randomised controlled trial. *Age Ageing* 2003;32:407-14.

<sup>59</sup> Fitzharris MP, Day L, Lord SR, Gordon I, Fildes B. The Whitehorse No Falls trial: effects on fall rates and injurious fall rates. *Age Ageing* 2010;39:728-33.

<sup>60</sup> Quant S, Maki BE, Verrier MC, McIlroy WE. Passive and active lower-limb movements delay upper-limb balance reactions. *Neuroreport* 2001;12:2821-5.

<sup>61</sup> Gardner MM, Buchner DM, Robertson MC, Campbell AJ. Practical implementation of an exercise-based falls prevention programme. *Age Ageing* 2001;30:77-83. doi:10.1093/ageing/30.1.77.

<sup>62</sup> Thomas S, Mackintosh S, Halbert J. Does the 'Otago exercise programme' reduce mortality and falls in older adults?: a systematic review and meta-analysis. *Age Ageing*. 2010 Nov;39(6):681-7. doi: 10.1093/ageing/afq102.

<sup>63</sup> El-Khoury F, Cassou B, Latouche A, Aegerter P, Charles MA, Dargent-Molina P. Effectiveness of two year balance training programme on prevention of fall induced injuries in at risk women aged 75-85 living in community: Ossébo randomised controlled trial. *BMJ*. 2015 Jul 22;351:h3830. doi: 10.1136/bmj.h3830.

### 5.3 Organisation of services

- **National survey of falls services**

Falls services across the country have been shown to be of varying standard. A national survey of services for the prevention and management of falls in the UK was carried out in 2008.<sup>64</sup> A total of 231/303 (76%) of services were surveyed. They found that for a substantial number of services, delivery fell below recommended NICE guidance. There was substantial variability in content and quality of screening, assessment and interventions provided, and a failure by many services to implement procedures supported by research evidence.

While services for individual patients needing specialist management in a falls prevention service are needed, community programmes may be less individually expensive and need fewer staff and may reach more people at risk. They are commonly based on a simple assessment, delivered by a single health professional working according to a protocol and suitable for widespread dissemination. One systematic review found that single interventions (for example an exercise programme) were as effective in reducing falls as interventions with multiple components as recommended by NICE.<sup>65</sup> Another systematic review of 17 randomised controlled trials found that interventions that weren't specially tailored to individually assessed risk factors are effective at reducing both the number of people that fall and the fall rate. The review suggests that this approach should be considered as an option for how services are delivered.<sup>66</sup>

- **Primary prevention and secondary prevention**

There is a need to bridge the gap between primary prevention in the community, and secondary prevention which is often provided by a falls service in a hospital and where exercise classes are provided on an individual or very small group basis. Follow up classes back in the community are also needed for these people to continue their exercises once discharged.

- **Barriers to participation in exercise classes for falls prevention**

One systematic review found barriers to participation in classes included older people under-estimating their risk of falling and the stigma associated with attending programmes that target older people.<sup>67</sup> A qualitative study found a major hurdle was

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<sup>64</sup> Lamb SE, Fisher JD, Gates S, Potter R, Cooke MW, Carter YH. A national survey of services for the prevention and management of falls in the UK. *BMC Health Serv Res.* 2008 Nov 12;8:233. doi: 10.1186/1472-6963-8-233.

<sup>65</sup> Campbell AJ, Robertson MC. Rethinking individual and community fall prevention strategies: a meta-regression comparing single and multifactorial interventions. *Age Ageing.* 2007 Nov;36(6):656-62.

<sup>66</sup> Goodwin VA, Abbott RA, Whear R, Bethel A, Ukoumunne OC, Thompson-Coon J, Stein K. Multiple component interventions for preventing falls and fall-related injuries among older people: systematic review and meta-analysis. *BMC Geriatr.* 2014 Feb 5;14:15. doi: 10.1186/1471-2318-14-15.

<sup>67</sup> Bunn F, Dickinson A et al. A systematic review of older people's perceptions of facilitators and barriers to participation in falls-prevention interventions. *Ageing and Society* Volume 28 / Issue 04 / May 2008, pp 449-472 DOI: doi.org/10.1017/S0144686X07006861

reluctance by older people to even tell a health professional that they had experienced a fall.<sup>68</sup> Another qualitative study found that an invitation from a health professional to participate in a falls prevention class can increase the chance of attendance.<sup>69</sup>

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<sup>68</sup> Dickinson A, Horton K, Machen I, Bunn F, Cove J, Jain D, Maddex T. The role of health professionals in promoting the uptake of fall prevention interventions: a qualitative study of older people's views. *Age Ageing*. 2011 Nov;40(6):724-30.doi: 10.1093/ageing/afr111.

<sup>69</sup> Yardley L, Bishop FL, Beyer N, Hauer K, Kempen GI, Piot-Ziegler C, Todd CJ, Cuttelod T, Horne M, Lanta K, Holt AR. Older people's views of falls-prevention interventions in six European countries. *Gerontologist*. 2006 Oct;46(5):650-60.

## 6. Best practice in Falls Prevention

Numerous standards and guidelines exist to reduce the number of falls and their impact. In 2009, the Department of Health set out four key areas for intervention that commissioners working collaboratively across health and social care should consider.<sup>70</sup>

**Objective 1:** Improve outcomes and efficiency of care after hip fracture

**Objective 2:** Fracture Liaison service to respond to first fracture and prevent the second

**Objective 3:** Early intervention to restore independence through falls care pathway linking acute and urgent services to secondary falls prevention

**Objective 4:** Prevent frailty, preserve bone health and reduce accidents

Services high in the pyramid (see below) i.e. hip fracture care have a sizeable impact on health and social care budgets. Targeting early preventative measures at the largest proportion of adults in the bottom level and support to move people to the 'universal level'<sup>38</sup> can potentially prevent these people from ever reaching this point.

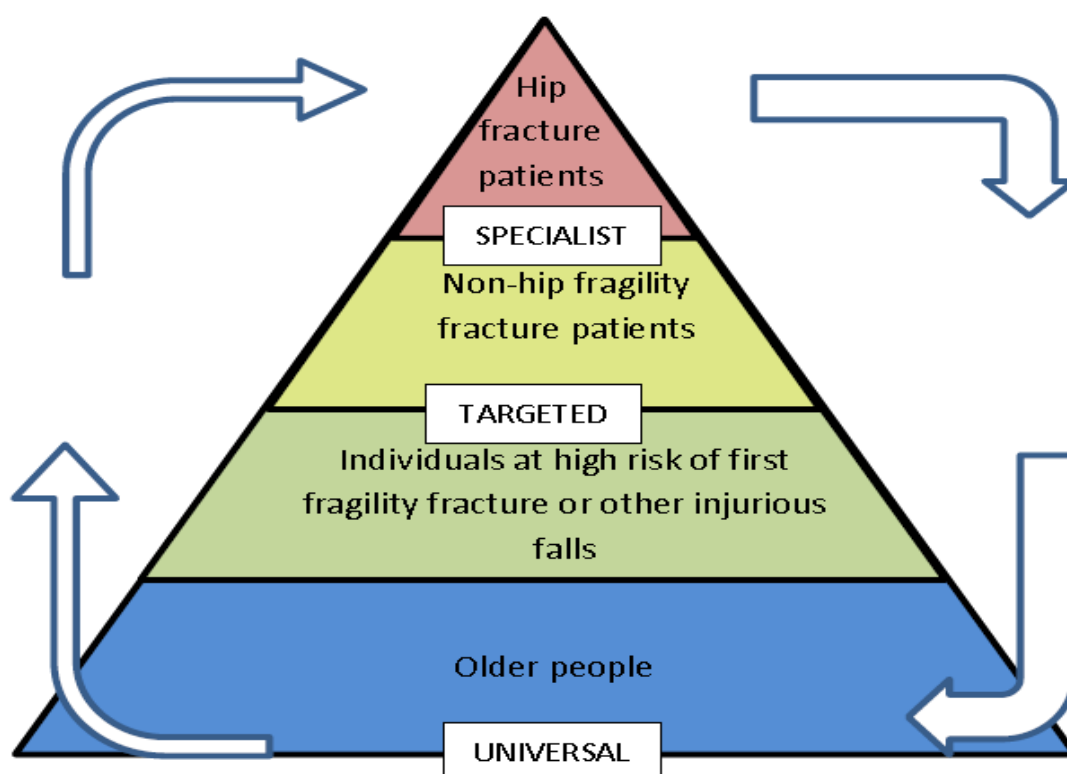


Figure xx: A systematic approach to falls and fracture prevention

<sup>70</sup> Department of Health Falls and fractures: *Effective interventions in health and social care* 11998; 2009 Accessed online

The Department of Health Guidance: “Respond to the first fracture, prevent the second” advises this can be achieved through fracture liaison services in acute and primary care, with patients aged 50 and over who are admitted to hospital or who attend A&E and outpatient fracture clinics with a low impact fracture being assessed by a specialist osteoporosis nurse.<sup>71</sup>

The nurse investigates bone density and ensures that, where appropriate, bone protecting treatments are prescribed with subsequent monitoring of adherence. They also liaise directly with falls services and coordinate care across health and social care services. This approach was associated with a 7.3% reduction in emergency admissions relating to hip fracture in Glasgow<sup>72</sup>.

Primary care based fracture liaison nurses can identify patients at high risk of fractures, offer assessment and recommend long-term management.<sup>73</sup>

The fracture liaison service model has proven effectiveness at increasing the use of effective treatments to reduce fractures. Secondary prevention is of particular importance in tackling the anticipated hip fracture epidemic as a woman of 50 faces a 17% lifetime chance of a hip fracture.<sup>74</sup> Nearly half of them will precede this with a less serious fragility fracture, providing an opportunity for identification and further prevention.<sup>75</sup>

### **6.1. Early intervention to restore independence through falls care pathway linking acute and urgent services to secondary falls prevention**

The Department of Health advise a falls service that can triage and assess older people who have fallen or who are at high risk of falling. Practitioners should have appropriate skills, with access to secondary care specialists and facilities. A Falls Coordinator ensures coordination and integration of hospital and community efforts and promotes falls management and prevention to other agencies. In addition to medical, nursing, social care and therapy staff, a comprehensive falls pathway should include podiatrists, exercise coordinators, ambulance staff, A&E, pharmacists and Home Improvement Agency staff.<sup>76</sup> (figure xx)<sup>77</sup>

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<sup>71</sup> The Royal Society for Prevention of Accidents. (2013) The Big book of accident prevention. <http://www.rospa.com/bigbook/index.html#p=18>

<sup>72</sup> Clunie G. & Stevenson S. Implementing and running a Fracture Liaison Service: an integrated clinical service providing a comprehensive bone health assessment at the point of fracture management. *Journal of Orthopaedic Nursing* (2008) 12: 156-162

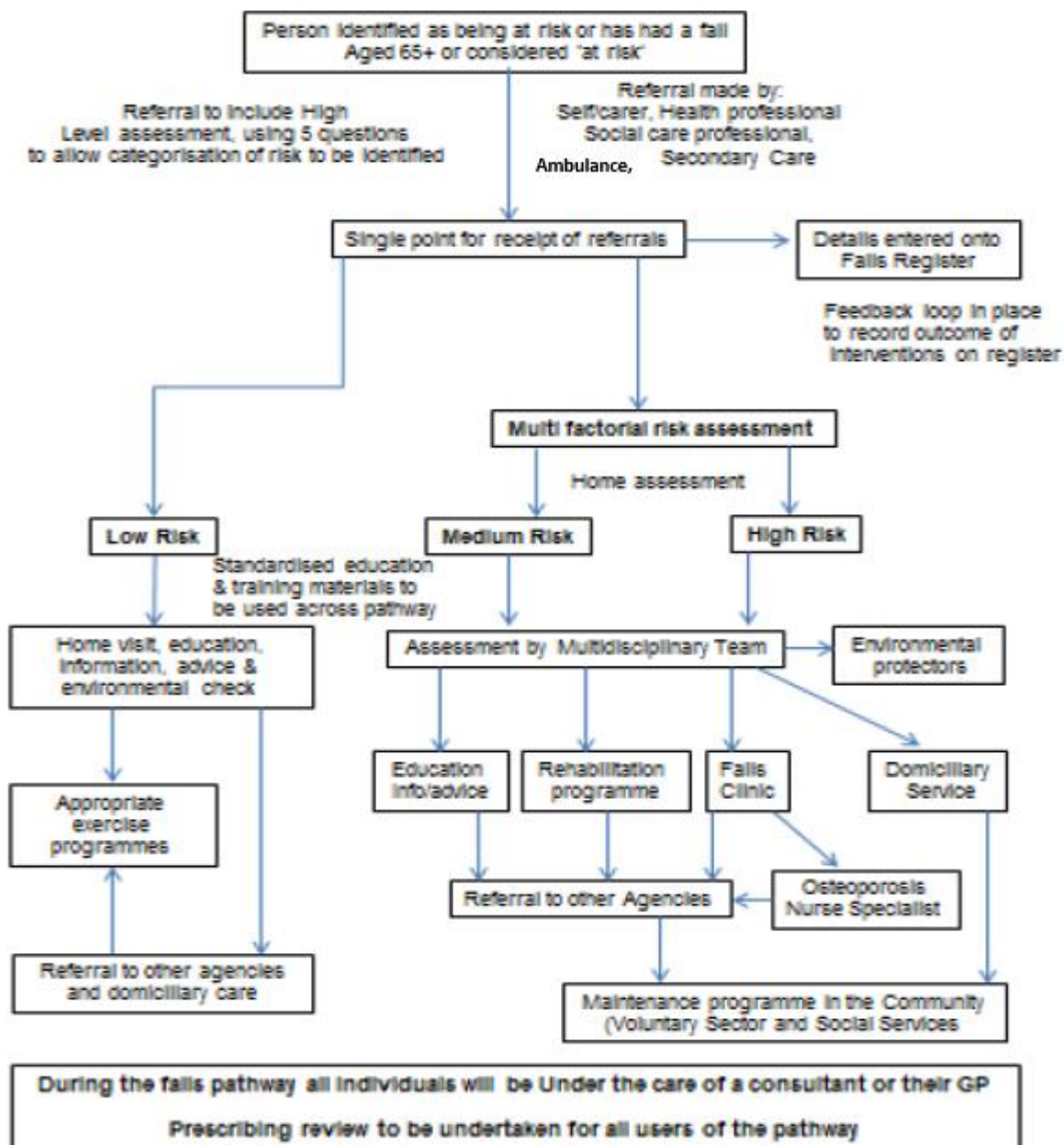
<sup>73</sup> DoH (2009) *Falls and Fractures: Effective interventions in health and social care*. Department of Health.

<sup>74</sup> Kanis JA, Johnell O, DE, Laet C, Jonsson B. *International variations in hip fracture probabilities: implications for risk assessment*. *J Bone Miner Res* 2002;17:1237-1244.

<sup>75</sup> Edwards BJ, Bunta AD, Simonelli C, Bolander M, Fitzpatrick LA. *Prior fractures are common in patients with subsequent hip fractures*. *Clin Orthop Relat Res*. 2007;461:226-30.

<sup>76</sup> World Health Organisation (2010) Falls Fact Sheet. <http://www.who.int/mediacentre/factsheets/fs344/en/>

<sup>77</sup> Fylde Coast Falls Pathway. A national commended falls pathway



NICE guidelines 2013<sup>78</sup> cover assessment and prevention of falls in older people. Recommendations on good practice based on the best available evidence of clinical and cost-effectiveness include:

- **Case and risk identification:** Older people in contact with health professionals should be asked routinely whether they have fallen in the past year and asked about the frequency, context and the characteristics of the fall
- **Multifactorial falls risk assessment:** Older people who present for medical attention because of a fall, or report recurrent falls in the past year, or demonstrate abnormalities of gait and/or balance should be offered a multifactorial falls risk

<sup>78</sup> National Institution for Clinical Excellence (2013) Falls: The Assessment and Prevention of Falls in Older People. National Institute for Clinical Excellence: London <http://www.nice.org.uk/guidance/cg161>

assessment. This assessment should be performed by healthcare professionals with appropriate skills and experience, normally in the setting of a specialist falls service. This assessment should be part of an individualised, multifactorial intervention (figure xx)

- **Multifactorial intervention:** Older persons with a history of fall, or assessed as being at increased risk of falling should be considered for a multifactorial intervention
- **Encouraging the participation of older people in falls prevention programmes including education and information giving:** Individuals at risk of falling, and their carers, should be offered information orally and in writing about what measures they can take to prevent further falls
- **Professional education:** All healthcare professionals dealing with patients known to be at risk of falling should develop and maintain basic professional competences in falls assessment and prevention.

Treating poor vision reduces the annual fall rate by an additional 14% when added to exercise and home hazard management<sup>79</sup>. Cheltenham General Hospital is an area of exemplary practice as they have a comprehensive referral form for primary care health professionals, and make published information widely available to patients. Eye health professionals proactively identify older patients at risk of falling and refer direct to the falls service.<sup>80</sup>

Research into patient experience of falls highlights the importance of effective communication. Falls Prevention Services should provide adequate verbal and written communication about treatment with both patients (and their family where appropriate) and healthcare and other professionals involved in their care. This includes following up the results of investigations.<sup>81 82</sup>

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<sup>79</sup> Day L. Filders B. Gordon I et al. Randomised factorial trial of falls prevention among older people living in their own homes BMJ (2002) 325: 128

<sup>80</sup> Sherratt M-A. Buchanan S. Chadha R. Elliot D. Sharma P. Focus on falls Royal College of Optometrists; 2014

<sup>81</sup> NICE (2013) *Falls: Assessment and Prevention of falls in older people*. National Institute for Health and Care Excellence

<sup>82</sup> RCP (2010) *Older People's Experiences of Falls Prevention Services*. Royal College of Physicians, Age UK and Healthcare Quality Improvement Partnership.

## Components of an evidence-based multifactorial risk assessment for falls



### 6.2. Support in the community

To support identification of individuals at risk of falls, a **Falls 'Pick Up' service** in Fylde administered by *Vitaline and Progress House Housing* proved very effective. 'At risk' individuals are given a falls-detection pendant. When they fall, a member of staff attends to support them back to their feet using specialist lifting equipment if uninjured and they are then referred to the community falls service to prevent repeat falls. In 2012/13 *Vitaline* received 1383 calls and following assessment 172 of these were referred to the ambulance service with 104 conveyed to hospital. Average response time fell from 122 to 27 minutes.<sup>83</sup>

<sup>83</sup> *Progress Lifeline Lifting Service* – a report provided by Fletcher D. North West Ambulance Services



### 6.3. Support in hospital

The National Patient Safety Agency (NPSA) report [Slips, Trips and Falls](#) identifies the need for a comprehensive falls prevention policy.<sup>84</sup>

### 6.4. Support in care homes

The Department of Health recommends interventions in care homes should include:

- Providing high-strength vitamin D and calcium supplements
- Staff training e.g. modifiable risk factors and preventative measures
- Education for residents e.g. exercise and falls prevention, hip protectors
- Environmental assessments e.g. bed height, floor surfaces
- Therapeutic exercise programmes<sup>85</sup>

Telemedicine has been used in care homes across Airedale and Bradford to allow nursing staff to access the Telehealth Hub. This hub is staffed by highly skilled nurses specialising in acute care, with consultant physician review of residents who trip and fall.

An integrated approach to dementia and falls is recommended.<sup>86</sup> NHS Suffolk integrated falls and dementia pathways for residents in a nursing home in the county.<sup>87</sup> A mental health nurse has been specifically appointed to provide training to nursing home staff to improve knowledge and understanding of dementia and risk of falling. Another staff orientated, multi-faceted training intervention in nursing homes led to 50% reduction in the number of participants who sustained at least one fall with no notable difference of effect in cognitively impaired compared to those well.<sup>88</sup> Physical design is important too in preventing falls among people with dementia, with particular attention paid to colour contrast, floors and lighting.

A project called 'Steady On!' involves member of staff working with groups of older persons from across East Lancs to promote community action and help raise issues within various organisations e.g. pothole fixing, safer pavements and transport etc.

### 6.5. Preventing frailty, preserve bone health and reduce accidents

Universal 'social-model' approaches to falls should include improving balance and strength, healthy eating, addressing low self-efficacy and fear of falling, and

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<sup>84</sup> National Patient Safety Agency Slips, Trips and Falls in Hospital NPSA; 2007

<sup>85</sup> British Orthopaedic Association The Care of Patients with Fragility Fracture British Orthopaedic Association: London; 2007

<sup>86</sup> Mitchell P. Bateman K. Dementia, falls and fractures National Hip Fracture Database

<sup>87</sup> Suffolk Mental Health Partnership NHS Trust New dementia nurse tasked with helping reduce falls  
<http://www.smhp.nhs.uk/News?Pressreleasewdementiafallsnurse.aspx>

<sup>88</sup> Bouwen A. De Lepeleire J. Buntix F. Rate of accidental falls in institutionalised older people with impairment halved as a result of a staff-orientated intervention Age & Ageing (2008) 37(3): 306-10

'environmental approaches' to falls prevention by addressing hazards. These are outlined in the National Service Framework (NSF) for Older People in England key recommendations.<sup>89</sup>

## 6.6. Examples of good practice in primary care

- In North Tyneside, the falls prevention service (FOS) screened GP case notes for falls risk factors. A screening questionnaire was then sent to clarify risks and invite people to attend for a comprehensive multidisciplinary assessment in the FOS. Over a three year period, 853 people (25.8%) were referred to associated Age UK strength and balance training classes.<sup>90</sup>
- An electronic clinic reminder in patient notes proved to be an effective prompt to asking about falls in a community outpatient clinic in the US.<sup>91</sup>
- In Nottingham, the Better Balance Better Bones initiative searched GP databases electronically for patients at risk of falls who had not received a falls assessment. Data were searched from 26 GP practices over 12 months, and over 340 people were identified needing further evaluation.<sup>92</sup>
- In Liverpool, the Liveability Programme piloted a small study in older people who attended twice weekly classes in a leisure centre run by a trained community instructor. This led to increased physical activity and improved confidence in balance and mobility.<sup>93</sup>
- In Doncaster, a community pharmacy worked with general practitioners to target a standard medicine use review (MUR) with additional assessment of the risk of falling. The service was evaluated over an eight week period and found to be a successful and acceptable way to identify people at risk of falls and refer them to their GP.<sup>94</sup>

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<sup>89</sup> A New Ambition for Old Age: Next steps in implementing the National Service Framework for Older People (2006) Department of Health

<sup>90</sup> Parry S Green D et al. Screening for falls and syncope risk factors in primary care is clinically effective: preliminary evaluation of the North Tyneside Falls Prevention Service (NTFOS). *Age and Ageing* (2014) 43 (suppl 1): i16-i17. doi: 10.1093/ageing/afu036.69

<sup>91</sup> Spears GV, Roth CP, Miake-Lye IM, Saliba D, Shekelle PG, Ganz DA. Redesign of an electronic clinical reminder to prevent falls in older adults. *Med Care*. 2013 Mar;51(3 Suppl 1):S37-43. doi: 10.1097/MLR.0b013e31827807f8.

<sup>92</sup> Ali A, Ward M. et al. Better balance better bones: A nurse led primary care programme successfully identified people at high risk of falls and fractures requiring further assessment and intervention. *European Geriatric Medicine*. Volume 4, no S1:51-52 (2013) Doi : 10.1016/j.eurger.2013.07.168

<sup>93</sup> Minou M. Effectiveness of a community-based, non-clinical intervention on reducing the risks of fall in older adults in Liverpool (Liveability Programme). *J of Science and Med in Sport*. 2012; 15, Supplement 1, Page S290. doi.org/10.1016/j.jsams. 2012.11.703

<sup>94</sup> Thomas CL. Evaluation of a community pharmacy falls and fracture prevention medicine use review service. *International Journal of pharmacy practice*. 2013; 21:15-16

## 6.7. Examples of good practice in the community

- East Sussex Otago Strength and Balance Exercise Programme – a free 16 week programme to reduce the risk of falls. Referrals made via the GP.
- Greater Glasgow and Clyde osteoporosis and falls prevention programme - a single point of contact is a strength of the Glasgow programme<sup>95</sup> (Appendix 1).
- Edinburgh Be Able Service - a 16 week programme including OT assessment, multifactorial risk assessment, Otago strength and balance programmes, practicing activities of daily living.
- The following services are highlighted by Age UK :
  - Tameside and Glossop Falls and Osteoporosis Service – developed a multiagency approach, including developing a model of risk assessment for care homes, engaging the local Asian Older People’s network, tri-aging referrals from the ambulance service
  - Hampshire Better Balance for Life –multi-agency approach by the council, CCG and voluntary sector to increase opportunities for older people to take part in physical activity. Designed by physiotherapists and physical activity professionals. To ensure that every community social group includes some exercise.
  - Cambridge City Falls Exercise Pathway – has established exercise opportunities across health, statutory and voluntary agencies.<sup>96</sup>

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<sup>95</sup> NHS Greater Glasgow and Clyde Community Falls Prevention Programme <http://www.nhsggc.org.uk/your-health/health-services/osteoporosis-and-falls-prevention-services/>

<sup>96</sup> Age UK; Stop Falling: Start Saving Lives and Money (2010) Available from URL:

[http://www.ageuk.org.uk/documents/en-gb/campaigns/stop\\_falling\\_report\\_web.pdf?dtrk=true](http://www.ageuk.org.uk/documents/en-gb/campaigns/stop_falling_report_web.pdf?dtrk=true)

## 7. What is being done in Solihull to improve falls prevention and care?

### Current falls services

Solihull CCG currently commissions a falls fracture liaison service (FLS), provided through Heart of England Foundation Trust specialist nursing and community teams located at Heartlands Hospital and HEFT multi-disciplinary community teams. Patients are referred to the services through fracture clinics and ortho-geriatric wards as well as through A&E following a falls assessment.

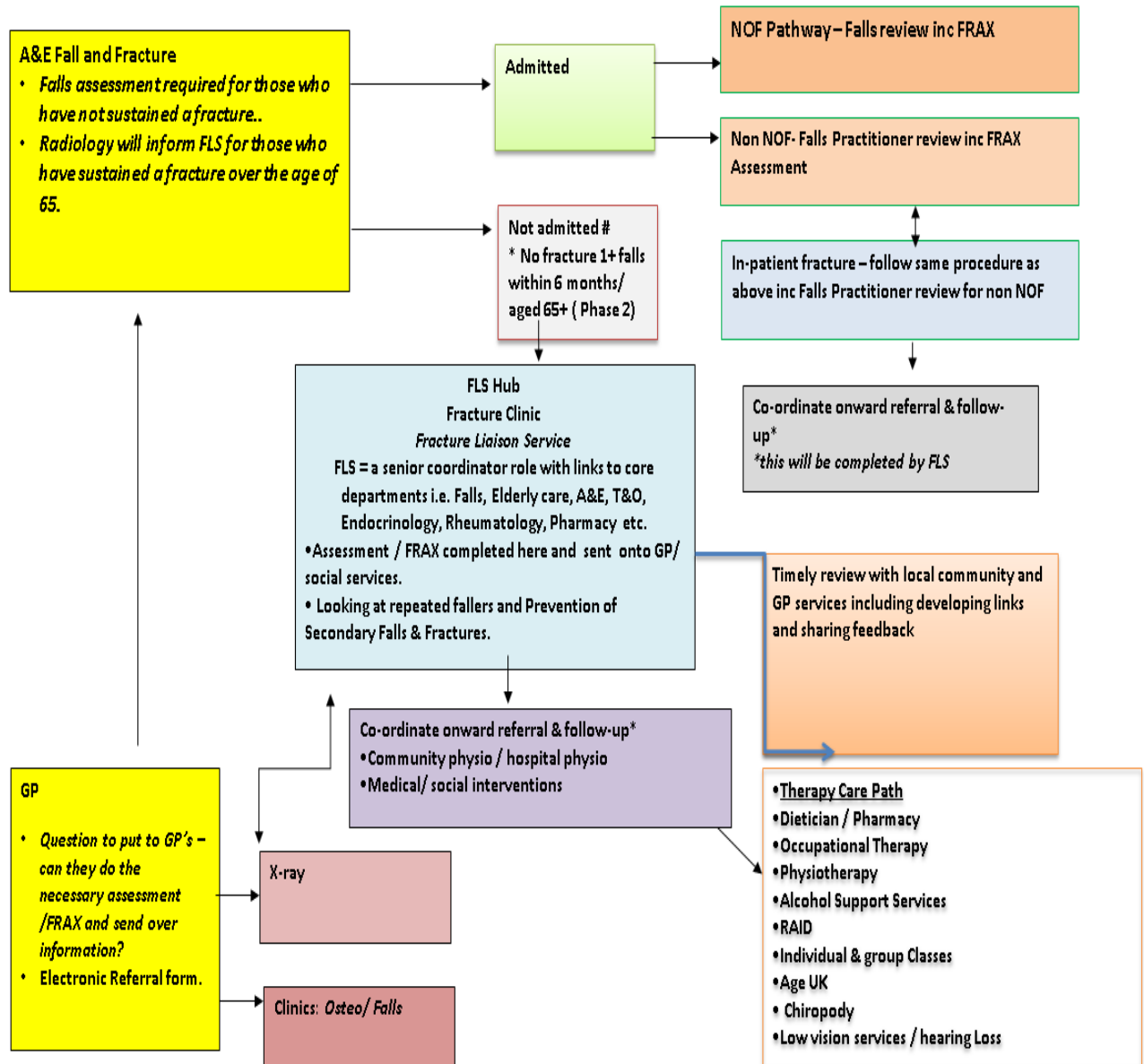
The initial model of fracture liaison service comprised of a suite of five intervention strategies implemented across the borough: a screening and early identification package, providing home hazard education and handyman services, provision of falls awareness training for nursing and residential homes care staff on how to prevent and deal with falls, public awareness and lifestyle advice from distribution of information booklets, FLS within fracture clinics and A&E providing falls risk assessment, and finally a prevention element provided through Age UK to deliver a 20 week postural stability exercise programme across the Borough while supporting community specialist falls teams.

In 2015, the falls pathways were redesigned with the introduction of a dedicated multi-disciplinary community falls team at Solihull hospital to provide multifactorial falls risk assessments and interventions. However problems encountered relating to human resource and recruitment issues delayed the implementation of the service and also resulted in a lack of data collection and reporting. This issue has only been resolved recently and now the planned staff are now in post and providing the services as per the original specifications.

Staffing issues due to staff recruitment were also an issue for the FLS based at Heartlands Acute hospital which also had a significant effect on services. This too, has only recently been resolved.

As a result of these problems, falls services in Solihull suffered an extended period of under-capacity and underreporting of activity. This must also have had a subsequent effect on outcomes and performance during this period. It is hoped that now these recruitment issues have now been resolved, that the desired outcomes from the services can be realised.

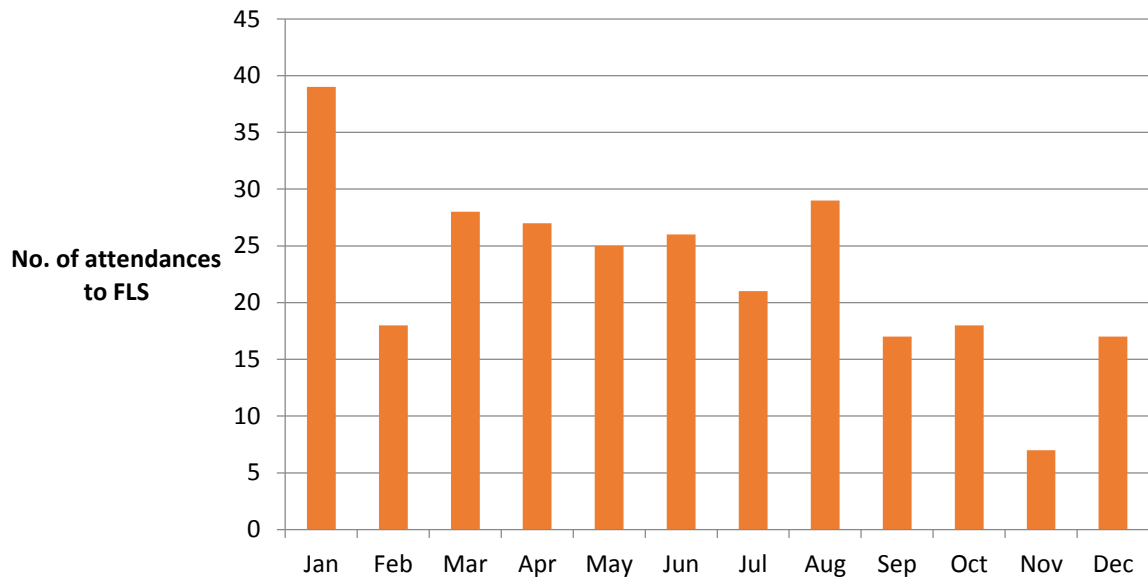
Following the commissioning of the Falls and Fracture Liaison Service for Solihull in 2015, provided by HEFT, the intended care pathway is illustrated below:



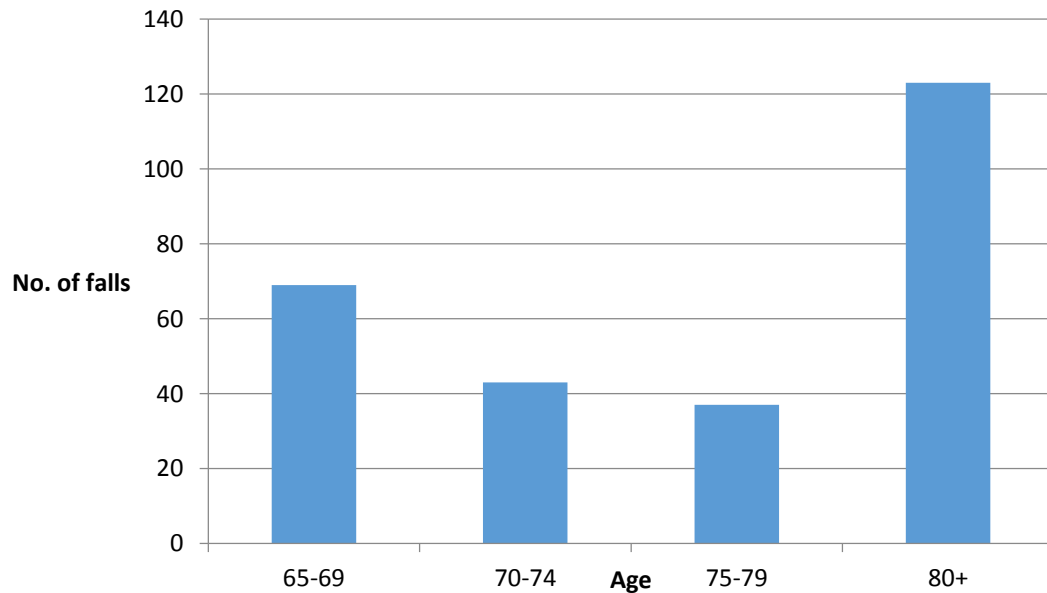
### 7.1. Acute services

Hip fracture patient care for Solihull residents is provided through HEFT at its three acute sites: Heartlands and Solihull hospital in the main, with a smaller number of patients through Good Hope hospital. During 2015, 272 Solihull residents were recorded as attending the HEFT fracture liaison service. Below shows the month and age distribution of these attendances.

### Attendances to HEFT Fracture Liaison Service 2015-Solihull patients



### Age group of Solihull Fracture Liaison Service attendances 2015



## 7.2. Hip Fractures

### **Department of Health Guidance: Improve outcomes and improve efficiency of care after hip fractures**

There are six standards which reflect good practice at key stages of hip fracture care. Widespread compliance would improve the quality and outcomes of care and also reduce costs.

1. All patients with hip fracture should be admitted to an acute orthopaedic ward within 4 hours of presentation.
2. All patients with hip fracture who are medically fit should have surgery within 48 hours of admission, and during normal working hours
3. All patients with hip fracture should be assessed and cared for with a view to minimising their risk of developing a pressure ulcer.
4. All patients presenting with a fragility fracture should be managed on an orthopaedic ward with routine access to acute orthogeriatric medical support from the time of admission.
5. All patients presenting with fragility fracture should be assessed to determine their need for antiresorptive therapy to prevent future osteoporotic fractures.
6. All patients presenting with a fragility fracture following a fall should be offered multidisciplinary assessment and intervention to prevent future falls.

All three hospitals providing hip fracture care to Solihull residents return information to the National Hip Fracture Database<sup>97</sup>. The results for 2015 are as follows:

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<sup>97</sup><http://www.nhfd.co.uk/>

	Heartlands Hospital and Solihull	Good Hope Hospital	West Midlands	National
Number of hip fracture cases admitted	382	304	6,429	64,102
Admitted to orthopaedic ward in 4 hours (%)	50.3%	54.8%	43.4	46.1
Surgery within 48 hours (%)	62.2	68.8	68.8	72.1
Assessed by geriatrician within 72 hours (%)	96.9	82.9	83.9	85.3
Bone protection medication started on this admission (%)	99.7	99.3	97.5	96.5
Specialist falls assessment or awaiting clinic review (%)	99.7	99.6	96.2	96.1
Average length of stay [acute + post-acute] (days)	22.8	19.8	18.8	20.3
Return to original residence within 30 days	61.5	57.6	55.9	53.7

The figures shown in red in the above table highlight where standards performance is significantly below regional and national figures. A particular area for improvement across HEFT is to reduce the average length of hospital stay as this is significantly longer across all HEFT hospital sites.

### 7.3. Solihull Fracture Liaison Service and the Community Falls Specialist Team

The aim of the Fracture Liaison Service is to identify, and assess fracture patients for interventions to prevent future fractures. Patients identified are referred to the Community Falls Specialist Team for multifactorial assessments and interventions to reduce risk of falls and fear of falling.

However, implementation of the service for Solihull provided by HEFT was delayed due to human resource issues. From the end of 2015, a dedicated fall coordinator and fracture liaison nurse have now started in post and are currently providing services across all three HEFT sites. These delays have resulted in scant data on the number of patients accessing the service to inform this needs assessment at this time.

### 7.4. DEXA Scanning

As part of a primary prevention intervention as a component of the falls care pathway, Solihull CCG commissions a DEXA service to identify patients with osteoporosis through x-ray measuring bone density. However, uptake of the service has been low. This is due to a number of factors, including poor communication of the availability of the service within primary care and GPs not routinely screening for falls risk. As part of the pathway, screening high risk patients should be carried out, this is not currently happening.



## **7.5. Home Hazard reduction service-Safe and Sound**

As part of falls prevention, Solihull Council provides a home environment hazard assessment and handyperson service to help reduce falls risk by undertaking remedial repairs for a minimum of 140 people (up to a maximum of £150 per referral) to reduce hazards, such as fitting grab-rails and non-slip bath mats. In 2014/15, a total of 98 referrals to the service were made, the majority from Solihull council's Safe and Sound service (46%), with referrals by GPs (18%) and community falls team (15%). However, since incorporating this service into the current falls and fracture commissioned service in 2015, referrals from GPs and the community falls team have fallen dramatically which is of concern.

## **7.6. Postural Stability Classes**

Solihull Age UK runs seven group classes across the borough as part of Solihull – Together for Better Lives. This is a partnership between the CCG and Council that have put in place a programme, called Integrated Care and Support in Solihull (ICASS), to improve health and social care for older people.

The aims of the classes are to provide the evidence-based OTAGO exercise programme to improve muscle strength and balance, reduce fear of falling and teach people how to get up off the floor safely should they have a fall, with the aim of increasing their independence.

The classes also make a positive impact on the numbers of older people suffering social isolation and loneliness, and help to reduce the numbers of emergency admissions to hospital and attendances due to social reasons/carer breakdown.

The Postural Stability Exercise Service supports older people, who have had falls in the past 12 months and who are assessed by a medical professional as able to undertake the programme, to improve muscle strength, balance and confidence it also supports access to wider health and wellbeing services. Participants must commit to 20 one hour classes and an individually tailored home exercise programme for a minimum of 6 months. Around 98 people have utilised the service in year 2014/15.

The Postural Stability Programme is available free to people aged 65 or over who live in Solihull or Birmingham and are registered with a Solihull GP. Patients are referred to the programme by their physiotherapist, occupational therapist or GP.

## **7.7. Other services relevant to falls prevention in Solihull**

### **Assistive Technology**

Solihull Borough Council provides a wide range of assistive technologies to eligible people (determined through a social care assessment) including personal alarms, falls detectors and a 'prompting service' where people are reminded to take medication by telephone calls. The Safe & Sound community alarm (pendent)

scheme currently has 1776 clients (1171 Council funded, 605 self-funded). In addition, some 357 customers (250 Council funded, 107 self-funded) use council-provided assistive technology and telecare services.

### **Solihull Active**

Solihull Active is a council-based initiative which aims to promote participation in sport and physical activity in the Borough of Solihull. It offers both general and bespoke physical activity programmes for Solihull residents which includes a GP referral service its programmes through DocSpot, a 12 week exercise referral programme which provides patients with an opportunity to improve their health through taking part in a supervised programme of physical activity designed to meet their personal needs and aspirations.

Solihull Active's 'Step into Solihull' activity programme is specifically targeted for older people in Solihull, and those with disabilities, and offers group-led walks, Tai Chi and Extend (gentle movement to music) classes which are particularly valuable for improving older peoples' core strength and postural stability. Other activities provided for older people through Step into Solihull include Yoga and dance classes.

## 8. Public and professional engagement: Interviews with public and professionals in Solihull about falls preventions

### Views of the public

As part of this needs assessment, interviews were conducted with service users, their relatives and carers while attending older persons services at various venues across the borough. Some of their most frequent comments about falls are summarised here:

- Outdoor hazards in the street are a problem for older people, including poor pavements, poor lighting in public places, cycle lanes and cyclists
- More equipment is needed, walking sticks and equipment need to be available to borrow from GP surgeries, including snow 'clip-ons' to prevent slipping in poor weather
- Home adaptations are important and need to be more widely available
- A more consistent approach to the Over-75s health check, including a review of multiple medications.
- Sometimes an individual's resistance to change does not help the situation e.g. reluctance to move favourite furniture that may be a trip hazard etc.
- Many older people won't admit to having had a fall in case they're seen as vulnerable, unable to cope and needing help

### 8.1. Views of professionals and service providers

Between July and December 2015, interviews were conducted with falls-relevant stakeholders and service providers together with two focus groups meetings to bring providers together to discuss what assets Solihull has in preventing falls services, where improvements might be made and what service gaps exist.

Recurrent themes emerged from these interviews, and have been grouped into four categories:

- Links between clinical and non-clinical community services
- The Falls and Fracture Service current configuration
- Falls prevention is everybody's business
- Motivation and confidence building

## 8.2. Links between clinical and non-clinical community services

Many of those interviewed recognised the importance of the clinical work carried out with those who had already fallen and likely to fall again. They see potential for improving the sharing of information about services, activities and learning between the sectors as well as developing opportunities for cross-referral, in particular between front line workers such as GPs, pharmacists, home care providers and Occupational Therapists (OTs). In addition there was recognition of the need for better links to community services post discharge.

Specific comments included:

*Would be good if clinical services recognised the role that community services can play in supporting people around softer outcomes*

*Would be good to have the 'journey' clearly mapped so clinical and community services can know how best to work together to support people*

*When a community worker generates a referral to falls prevention service or specialist team they would like to know what happened.*

*Need better joining up between initiatives*

*Better data sharing systems are needed and regular info from hospital admissions, ambulance CCG etc. Post code data is useful to identify fallers.*

*Re-direct those from primary care who don't need specific falls prevention interventions to more general community initiatives to build strength and balance*

*The falls service in the hospital needs to improve its relationship with the community – a two-way information flow is needed. Recognise important role of GPs.*

*Not clear for the hospital services what is happening 'out there'.*

## 8.3. The Falls and Fracture Liaison Service current configuration

The FLS offers support using good practice interventions to the people it sees. The proactive work with Care Homes is regarded as excellent practice, although at the time of the interviews this was not offered due to gaps in staffing. The staffing gaps in the FLS were mentioned as problematic by several people.

Specific comments included:

*FLS could be working better as it has recruitment and retention issues – so it can't meet its capacity.*

*FLS – this is neither accessible nor suitable for all. Need to tighten up the link with the wide range of activity classes in the borough, e.g. those provided through Solihull Active*

*Need clear referral for the ‘concerned but not fallen yet’ people, as the FLS is not contracted to do such assessments. Clear signposting to other groups that can help keep people active.*

*All prevention is focused on a medical model approach, mostly with the most vulnerable – but this leaves primary prevention of falls as a huge gap in the service for Solihull. A more social model for falls prevention needs to be considered but the CCG focus is more on clinical services.*

*The ambulance service should be able to refer to the FLS and other services/activities for primary prevention, such as direct referral from pharmacy, podiatry and other primary care services.*

#### **8.4. Falls prevention is everybody’s business**

There is a need for awareness raising and dissemination of health promotion messages around falls prevention across the borough and with a wide range of front line workers.

There are examples of good practice in the monitoring, reviewing and prevention of falls in Solihull’s residential and nursing care homes. Residents in these settings tend to be more vulnerable adults with greater health needs. Keeping residents as active as possible with suitable tailored exercise plans markedly reduces their likelihood of falling. Staff training around falls prevention needs to be ongoing to accommodate staff changes.

Pharmacists have a key role which could be developed, not only their Medicines Use Reviews (MURs), but also to include advice and guidance around how to keep active when taking medication that could cause hypotension, dizziness, dehydration or confusion.

Within clinical settings there is a good multi-disciplinary approach to care, rehabilitation and support, however stronger links could be made with community based activities for patients post-discharge. Workbook-based training is being rolled out through certain teams within the NHS providers to ensure falls prevention becomes everyone’s business.

Falls are a major health issue for older people, but not necessarily something that is talked about. People may not be aware of the services, interventions and preventative measures available. Research suggests older people can be resistant to lifestyle advice linked to the theme of ‘falls’, as the word has connotations of getting frail and losing independence. This stigma can be a barrier to people accepting falls assessments and other interventions. In general, there is a better response to the theme of ‘improving strength and balance’ and staying active.<sup>98</sup>

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<sup>98</sup> Age UK (2005) Don’t Mention the F-Word

Any promotion and awareness raising of the falls prevention services must be considered in relation to the capacity of these services. Overall, for older people as a whole population, the assessment has demonstrated that supervised exercise has the strongest evidence of preventing falls, provided it incorporates adequate intensity and duration of strength and balance training. Some older people will also benefit from assessment-based individualised multi-factorial interventions; this means that appropriate screening of people as potential fallers is essential.

Several of those interviewed from community services were very aware of their role in preventing falls, however this was not the case across all community services. This is an area where increased awareness raising and dissemination of health promotion messages would be both constructive and helpful.

Specific suggestions include:

*Active ageing needs to start when people are younger*

*More strength, balance and mobility classes are needed for over-65s, and are far more important than a Fracture Liaison Service  
Consider adding links directly from GP practice computer screens to e.g. Active4life webpages, as supportive signposts*

*GPs to proactively case find those at high risk of falling in their patient population*

*Need GPs to routinely ask about falls as there needs to be better assessment of those at home with a possible risk of falling*

*Could have top tips on GP surgery walls – try not to over medicalise things*

Suggestions for other areas that GPs could focus on include:

- Collate more information on patients who fall – context, frequency etc.
- Routinely ask older people and those on a 'frailty' pathway or with osteoporosis etc. about falls.
- Check people aged 65 or over for morbidities and risk factors
- Carry out an analysis of the IT codes used in GP practices to record falls
- Earlier referral of those at risk.
- Mark patients' notes with a falls risk rating - Red/Amber/Green

## **8.5. Environmental assessments**

The value of home assessments for potential slips, trips, bumps and falls, were specifically mentioned. Examples of good practice include home care staff visiting and assessing people's homes prior to their return after rehabilitation.

There are a number of community projects, good neighbour schemes and services that visit people in their homes who may be in a position to raise these issues appropriately. Small projects such as slipper exchanges can help.

There are many examples of good practice in respect of housing adaptations and accessibility and refurbishments, with OT assessments and training for housing providers, planners and developers.

Some specific comments included:

*There needs to be better assessment in the community of those at home but at possible risk of falling.*

*Home environment assessments are needed and help to make it safe.*

*Confidence building is needed as 'fear of falling' can be a barrier preventing people going out and taking part in activities and social events – which could lead to greater isolation.*

## **8.6. Equipment**

Falls prevention equipment in Solihull is provided through Safe and Sound services provided by Solihull Community Housing, which is especially effective when combined with OT support. However some felt the service was not accessible enough and walking aids and other equipment should be available more widely, for example via GP practices and community centres. There is a need for a greater range of appropriate equipment (aids and adaptations etc.) to be developed and made readily accessible.

Specific comments included:

*There is a rising demand for equipment linked to the ageing population.*

*Advice is needed for self-funders about products on the market.*

*The correct equipment can go a long way to support confidence and ability and help maintain activity.*

## **8.7. Ambulance as a route of referral to early prevention**

Given that a significant proportion of ambulance call outs are to help a 'faller', the ambulance service is keen to be part of the prevention debate and to be another route of referral to early intervention and prevention services and activities.

Other specific comments included:

*Frequent fallers are the largest group of frequent callers to the ambulance service. Crews are becoming increasingly aware of frequent fallers. They often pick the same person up nine times and on the 10th they take them to hospital with a fracture.*

*Ambulance service needs referral routes for those at lower risk for health and falls prevention assessments, strength and balance etc.*

### **Pharmacy as a route of referral**

Community pharmacists and their teams are recognised as having an important role in prevention. They can review medication combinations and alert people to potential side effects of medication such as low blood pressure or balance problems. There is the potential for them to expand their health promotion role, for example by encouraging people to remain physically active, actively promoting or signposting to local physical activity sessions, groups etc. The Solihull Healthy Living Pharmacy initiative is being introduced in 2016 to the borough and older people's health and falls prevention will be a key area of focus for those taking part in the scheme.

Other specific comments included:

*More co-ordinated approach to medicines use reviews (MURs).  
Pharmacies need information on community activities and classes to recommend when prescriptions are being issued*

### **8.8. Trainers for exercise activity**

There is a wide range of physical activities and groups in the city for older people including dance, pilates, Tai Chi, Boccia, walking football, gardening, yoga. There is potential for those leading such sessions to be trained in specific skills relevant for falls prevention and for falls prevention components to be added to sessions, for example balance exercises as a warm up. Many of those interviewed identified this as an 'easy win'. Other specific points raised include:

*Need a 'train the trainers' programme for taking evidence based suitable exercise and activities out to care homes and possibly wider.*

*Teach staff in care homes how to teach people basic exercises and also look at what simple changes can be made when working with residents to increase their general activity levels such as encouraging walking to the dining room, 'pottering', sit to stand etc.*

### **8.9. Motivation and confidence building**

Interviewees recognised the importance of disseminating and embedding health promotion messages about keeping active, maintaining bone density and balance to prevent falling: 'move it or lose it'. Also considered key is supporting people to be 'confident' in their abilities, as lack of confidence may lead to increasing inactivity



with the knock on effects of a further decrease in physical strength, stamina and balance. The potential for community based organisations to follow up from Physiotherapy and/or OT interventions to encourage people to continue their exercises at home was seen as an opportunity along with accompanying people to groups and activities.

*Confidence building is needed as 'fear of falling' can be a barrier to preventing people going out and taking part in activities and social events.*

*People don't do anything until they have fallen. Reasons – pride? fear? denial?*

*People need guidance on getting up safely from a fall; key signs and when to go to GP e.g. feeling dizzy so to prevent a fall.*

*People may have been through falls prevention but are still wary of falling again and need support.*

*Maximise opportunity to use volunteers to support people to do their exercise post discharge or as preventative measure.*

*Clear messages for the public are needed about keeping active to prevent balance problems and falling. Need to change public attitudes*

*We should avoid confining people to their homes, making them 'housebound' for the convenience of services. This will decrease their confidence and levels of activity – with the right timely support most people CAN get out and participate in activities.*

*Checklists would be helpful for a carer to use with their client/cared-for to assess risk of falls and then refer to FLS.*

## 9. Conclusions and Recommendations

Falls prevention for older people is crucial in supporting the independence and wellbeing of older people as well as decreasing avoidable demand for emergency and acute health services.

Falls are a major public health issue facing older people within Solihull Falls represent the most frequent and serious type of accident in people aged 65 and over, they are the main cause of disability and the leading cause of death from injury among people aged over 75. Falls destroy confidence, increase isolation and reduce independence. A fall can hasten a move into residential care and being in residential care does not negate the risk of falling again.

In recent years, Solihull has had higher rates of fractures in older people and numbers of falls (by available proxy measures) and numbers of incidents appear to be increasing along with the size of the older population. Solihull has an aging population and therefore falls will be an increasingly important issue that needs constant attention.

There is a varied and complex care pathway for fallers, it includes: GPs, adult social care (including Safe and Sound, assistive technology, care staff working in the client's home and residential/nursing homes), ambulance services, acute hospitals (injury caused by falls and inpatient falls) and falls prevention services.

There is strong evidence that falls prevention services are effective in terms of reducing emergency admissions to hospitals, reducing the number of people suffering from fractures and ultimately improving the quality of life for older people by preventing falls. Current falls and fracture service commissioned for Solihull provides care in accordance with the evidence base and relevant national guidance. However, changes in focus and funding mean that these services are directed at those most at risk of falling (i.e. those who have already fallen) to the detriment to their capacity to work with people before their first fall. The current configuration of services and capacity do not facilitate primary prevention and early intervention.

There are many ways people can reduce their risk of falling e.g. home hazard reduction, strength and balance training and effective public awareness campaigns can support this. The care pathways and services exist but awareness among professionals is unknown, and therefore promotion also needs to be aimed at professionals to ensure falls assessments and interventions are provided as appropriate.

Promoting regular physical activity is probably the most powerful intervention on a population level and the priority for should be to increase access and uptake.

The key findings and recommendations identified in this needs assessment will be considered by the Solihull Falls Steering Group and in particular the CCG, to inform the development of a falls reduction strategy to ultimately ensure that effective care

pathways are available to those in Solihull who have fallen and to prevent falls in the future.

**This Strategic Needs Assessment of falls has led to the following key recommendations:**

1) Universal prevention of falls and healthy ageing

**Work with relevant partners** in LA, health and community and voluntary sector to ensure other strategic plans take appropriate account of the importance of falls prevention

Work closely with planning and housing departments to

- ensure future policies align with an 'active and healthy ageing' environment
- efficiently target preventative resources, map injury hotspots and ensure known hazards are addressed promptly
- tackle fuel poverty, targeting affordable warmth initiatives at vulnerable households

Use community groups and voluntary sector to raise issues and promote action regarding fall hazards for pedestrians e.g. pavements, neighbourhood gritting etc.

**Raise awareness** of healthy and active ageing, ensuring everyone recognises falls are not an inevitable part of getting old.

Older people, their carers, family members and all people working with older people (professional and volunteers) need to be aware of the causes of falls, the significant physical and psychological impacts a fall can have, what an older person can do themselves to reduce their risk of falls, and what services are available to help to prevent falls, and how to access them.

- General awareness raising through local publicity campaigns to promote good bone health, foot care and footwear, eye tests, home hazard, physical activity and regular medication review.
- Utilise community groups and networks to raise awareness and disseminate information. The Solihull Falls Prevention Steering Group should co-ordinate this and act as a central source of information.

2) Improve uptake and access to existing services

**Make every contact count**

- It should be every professional's responsibility to identify at risk individuals and promote existing falls services.

- Falls prevention to be a key public health issue within the Making Every Contact Count programme to ensure that providers are supporting the wider prevention agenda and a strategic approach is taken to optimise use of preventative and primary care services.
- All professionals should promote the use of proactive basic falls risk assessment – routinely ask whether they have fallen in the past year and about frequency, context and characteristics, and know how to refer into falls pathway
- These recommendations could be supported by provision of training sessions to professionals and monitoring of referrals

To **re-orientate evidence-based falls prevention** services to meet needs and areas for targeted intervention highlighted by the Strategic Needs Assessment for Falls

- Ensure progression through a structured evidence-based exercise programme
- Pilot delivery of current falls prevention services in alternative settings e.g. postural stability instructor (PSI) classes in housing association sheltered schemes and care homes (for both residents and wider community)
- Coordination of falls services in localities using existing data to improve access amongst hard-to-reach groups e.g. older persons living in areas of deprivation
- People should be given the tools to carry out appropriate, evidence based exercises in their own home.
- People should be supported to easily access information about what exercise groups are available locally
- Local exercise groups should be supported to provide appropriate, evidence based exercises (e.g. Otago)
- All groups of older people should be given the tools to do some appropriate, evidence based exercise in their group

### 3) Service reviews and commissioning falls prevention

Commissioners are advised to recognise importance of a service that provides **multifactorial falls assessments and co-ordinates preventative interventions**, which is in line with best practice and national guidance. Commissioners should

commit to ensuring there is consistent funding for these services and that they cover the whole borough in an equitable manner.

Commissioners should ensure falls prevention is highlighted in relevant service specifications (including the need to identify and provide preventative services to people who fall and/or are at risk of falling).

All Acute & Community Services should ensure they have:

- A falls policy
- A falls prevention strategy
- Screening processes to identify high risk patients and residents

### **Co-ordination of acute and urgent care services with community services to prevent falls and restore independence**

- Linking secondary care and community services, through close links with the Solihull Integrated Care teams, involving a key group of health and social care staff who work to integrate hospital discharge planning, rehabilitation, admission avoidance and community services. This should build upon existing commissions and policies, and work with ambulance services to help address the significant numbers of call-outs and subsequent transfers to A&E/hospital admissions

To build upon and **strengthen links** between existing services to ensure a **clear falls pathway** that provides both a targeted and universal approach to falls prevention in older persons.

- Utilise other community services to enhance multidisciplinary assessment and intervention e.g. Solihull Community Housing, opticians, community pharmacies (targeted medicine user reviews and Healthy Living Pharmacies in Solihull), chiropody
- Enhance service uptake with single point of access and reciprocal referral processes between health, social care, local authority and voluntary services
- Support use of a common assessment tool by all professionals

Commissioners of NHS and social care services should incorporate falls and falls prevention as a key quality indicator or outcome in monitoring provider services. This would be supported by:

- Introducing a standardised way of recording and for reporting falls in care homes.
- Reviewing care homes policy, procedures and pathways around falls prevention

- Ensure care home residents have regular medication reviews, access to therapeutic exercise, use of domiciliary eye tests, high strength vitamin D and calcium, hip protectors and environmental assessments
- Provision of evidence-based training and support to staff

**Primary care and prescribing:** Pharmacists, GPs and other healthcare professionals have a role to play in preventing falls by ensuring older people receive regular medication reviews that take into account the negative impact of polypharmacy, and follow best practice prescribing guidelines such as those cited in the NICE Guideline 76 “Medicines adherence”.

Where people are prescribed bone sparing agents it is important to ensure that they are taking their prescription. Clinicians and carers should regularly review whether people prescribed these drugs are using them appropriately, and to ensure that they are aware of why they are taking them.

#### 4) Improving data and intelligence

Ensure local falls and fragility fracture data, and the subsequent sharing of data is robust and available to help inform commissioning decisions

- Improved coding of falls in A&E, including the location of the fall and alcohol-related attendances
- Use of telecare monitoring data to gather intelligence around risk
- Support strengthened links between services and monitoring of local falls service provision by data collection of referrals
- Develop a robust reporting system for falls in institutions and support sharing of information between health and social care

#### 5) Partnership working, strategic integration, governance and monitoring of falls

- Continue to integrate falls-related initiatives by public health into the overarching falls agenda, such as the alcohol and dementia strategy, fuel poverty, NHS Health Checks programme, weight management and physical activity services.
- Consider ways to explore the views and experiences of older people in Solihull to support this needs assessment and to ensure that services are developed in line with the views of service users.

- Maintain and develop a multi-agency Solihull Falls Prevention Steering Group together with a CCG Falls Prevention Reference Group. These groups should investigate and interrogate the falls pathway thoroughly to ensure a joined-up approach to addressing falls, and that opportunities for early interventions are being identified

These groups may wish to focus particularly on how to identify people requiring low level interventions, and what is available to support the primary prevention of falls – aiming to reduce the risk of falling before they happen or before falls become serious.

The Falls Steering and Reference groups should consider how to increase the visibility of the issue of falls in the wider County Council and District Councils, and to identify opportunities for joint working to reduce falls (particularly looking at falls prevention *outside* the home in terms of pavements, planning, clearing snow and ice etc.)

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