

# **Health Needs Assessment of Falls Prevention and Management**

Surrey 2016



**SURREY**

## ***“Life’s all about confidence. If you don’t have it, you fall down”***

*Focus group participant (Taken from audio recording transcript)*

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**List of abbreviations used**

BMI	Body Mass Index
CI	Confidence Interval
DEXA	Dual X-Ray Absorptiometry
ERS	Exercise Referral Scheme
CCG	Clinical Commissioning Group
FRAT	Falls Risk Assessment Tool
HOMEFAST	Home Falls and Accidents Screening Tool
HES	Hospital Episode Statistics
HSCIC	Health and Social Care Information Centre
NHS	National Health Service
NICE	National Institute of Clinical Excellence
NQAF	National Quality Assurance Framework
PHOF	Public Health Outcomes Framework
POPPI	Projecting Older People Population Information system
PPP	Personalisation, Prevention and Partnership
QOF	Quality Outcomes Framework
SECAmb	South East Coast Ambulance Service
TUGT	Timed Up and Go Test
WHO	World Health Organization

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## Executive Summary

### Background

Falls represent a major public health problem. According to the latest Global Burden of Disease study, falls are the ninth leading cause of disability in England. Older people are particularly vulnerable; according to the National Institute for Clinical Effectiveness (NICE), a third of people over 65 years and half of people over 80 years fall at least once a year. Older people are also more likely to suffer severe consequences from a fall, such as hip fractures. A recent study has indicated that the current cost of hip fractures to the NHS per year is in excess of £1 billion, while all falls are estimated to cost the NHS more than £2.3 billion per year.

A high proportion of the Surrey population is of retirement age, and national trends indicate that this proportion is set to increase in the future. Consequently, the burden of falls will also concomitantly increase unless significant action is taken.

### Aim and objectives of the report

The aim of this document is to report on a comprehensive health needs assessment of falls prevention and management across Surrey which was undertaken between November 2015 and February 2016. The scope of the needs assessment is limited to the primary and secondary prevention of falls in adults aged 50 years and older.

The objectives of the needs assessment were to:

- Describe the size and impact of the problem of falls using available routine data.
- Identify effective interventions/services to prevent and manage falls.
- Map the provision of current services for falls prevention and management.
- Identify through discussions with key stakeholders how current services can better meet needs.
- Provide evidence-based recommendations for service improvement to ensure the level of services is appropriate for the level of need in Surrey.

### Methodology

The health needs assessment included the following stages:

#### *1. Primary literature review*

A desk based review of the literature was undertaken using clinical databases, grey literature and other online resources. This was to identify guidance from national policies and good practice. Literature was also gathered to identify the cause and impact of a fall.

#### *2. Quantitative analysis*

Relevant routine data sources were used to establish the burden of falls in Surrey. These included: Hospital Episode Statistics (HES), data from the South East Coast Ambulance Service (SECAmb), Public Health Outcomes Framework (PHOF), Projecting Older People Population Information system (POPPI), Commissioning for Value tool, Quality and Outcomes Framework (QOF), NHS Health and Social Care Information Centre (HSCIC) and

the 2011 Census. Where possible, data were presented by Clinical Commissioning Group (CCG) area.

### *3. Qualitative data collection and analysis*

A focus group was conducted with older people aged between 85 and 92 years to better understand the problem of falls, including how they can be prevented and better managed.

### *4. Key Stakeholder Interviews*

In order to gain a Surrey-wide picture of current service provision, interviews were conducted with a range of key stakeholders including service providers and commissioners. Further information was also obtained from published documents, relevant groups and networks.

### *5. Secondary literature review.*

A secondary literature review was performed to explore any evidence-gaps identified during the needs assessment.

## **Results**

### *1. Primary literature review*

The importance of implementing falls prevention strategies is recognised at the international, national and local policy level, both across health and social care. The causes of falls in the elderly are often multi-factorial and resulting from the convergence of various risk factors. An important risk factor which increases the risk of fracture following a fall is osteoporosis.

Recognising and modifying risk factors is crucial in order to prevent falls. Interventions should be tailored to the needs of the individual and based on their specific risk factors. NICE guidelines indicate that interventions to address falls should be multi-factorial as they generally yield better outcomes than single interventions. However, exercise and home hazard assessments are interventions which have been found to be effective when administered as a single intervention.

### *2. Quantitative analysis*

A high proportion of Surrey residents are currently of retirement age. According to population projections, the proportion of the Surrey population in all age groups aged 55 and over is predicted to increase (with the exception of those aged between 65 and 69 years) while the proportion of people in age group 15 to 54 is set to decrease. This will have important implications for the provision of services to older people in the future.

Data on the location and circumstances of falls are generally poorly recorded. However, where this information is recorded, most falls tend to occur in the home. Women are significantly more likely to suffer an injury as a result of a fall compared to men (2,489 injuries/100,000 population compared to 1,696 injuries/100,000 population). Similarly, people aged 80 years and over have a much higher frequency of falls resulting in injury compared to those aged between 65 and 79 years.

Ambulance call-outs for falls amongst those aged 65 years and over are very common and are estimated to make up 13% of all ambulance call outs in Surrey. The total cost of ambulance call outs over one year for this group is very high, with North West Surrey CCG estimated to spend the most out of all the other Surrey CCGs at £1.7 million. For each Surrey CCG, a large proportion of call outs for a fall do not result in conveyance to a hospital. East

Surrey CCG has the highest proportion of ambulance call outs for falls where individuals are not conveyed to hospital at 61% followed by Guildford & Waverley CCG at 58%.

Numbers of calls made for falls by the top ten households<sup>i</sup> by CCG are also high and the proportion of call outs not conveyed to hospital was between 84% and 94% for each CCG. This suggests that better follow up and support to prevent further falls is required for someone who has fallen and required ambulance services.

In terms of all fracture admissions in those aged 65 years and over, East Surrey CCG has a rate of 18.16/1,000 population (95% confidence interval 16.67-19.76) and Guildford & Waverley CCG has a rate of 18.74/1,000 population (95% confidence interval 17.42-20.15). Both of these rates are statistically significantly higher than the English average (14.53/1,000, 95% confidence interval 13.34-15.64). For hip fractures, the median duration of stay in hospital in 2013/14 was 6 days for those aged between 50 and 64 years, and 14 days for those aged 65 years and over. Total spend on hip fractures for those aged 50 years and over is estimated to have been over £8.5 million in 2013/14 for Surrey.

Finally, when benchmarking each Surrey CCG's performance against ten other similar CCGs, most CCGs have a statistically significant higher rate of injuries due to falls in the 65 years and over population with the exception of North West Surrey CCG. Guildford & Waverley, Surrey Heath and Surrey Downs CCGs also perform significantly worse than their benchmarked CCGs for the rate of hip fractures occurring in the 65 years and over population. Finally, East Surrey, Surrey Heath and North East Hampshire & Farnham CCGs have a significantly higher spend on non-elective admissions for trauma and injuries, while Surrey Downs CCG actually spends significantly less than its benchmarked CCGs.

Several limitations of the data were identified during the analysis. Firstly, not everyone having a fall will have presented to health services, so the data would not have captured any unreported falls. Secondly, there will have been discrepancies in how falls are coded both within and between different data sources. Thirdly, there is no consensus on the operational definition for a fall; this is important as there can be different interpretations around what does and does not constitute a fall. Finally, due to small numbers in certain categories, data needed to be aggregated at the Surrey level in order to comply with confidentiality requirements.

### *3. Qualitative data collection and analysis*

Nine people participated in the focus group, which included three men and six women, and all were aged between 85 and 92 years. During the focus group, participants were asked about what falling meant to them, how it affected their lives and were encouraged to discuss their own experiences of falls.

In general, participants felt that falls were an inevitable part of ageing and could not be avoided. They were also worried about the consequences of falls, and many did not report falls to health professionals despite being at risk of severe falls in the future. Causes of falls were cited to include: medications, poor mobility in general e.g. due to previous strokes, simple trips, being clumsy, postural hypotension, walking too quickly, and features of the outside environment. The repercussions of falls were discussed, and included effects a fall could have on confidence and independence.

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<sup>i</sup> Data on the number of call outs per household for a fall where the age of the resident was 65 and over were provided by SECamb. The top ten households with the most call outs for falls were then identified, and the number of call outs for these was aggregated.

During the focus group, four of the participants shared their experiences of falling. Two participants had fallen because they had tripped, one had lost their balance and the last participant was unsure about what had caused his fall but had been diagnosed with postural hypotension. Some participants expressed they had been lucky to access or receive help at the time of a fall.

There was a perception amongst the group that there was little a health professional could do to help them following a fall. It was also felt that little could be done to prevent falls. Changes to the home environment such as the installation of grab rails, and telecare alert systems were suggested. In addition, participants felt it was important to maintain concentration when walking.

In conclusion, the focus group did not seek to be representative of the experiences of falls in older people, and the findings cannot therefore be generalised to all older people in Surrey. Nonetheless, it did help to provide a deeper insight and understanding of the issues faced by older people in relation to falls locally.

#### *4. Key Stakeholder Interviews*

In total 21 people were interviewed to gain an understanding of the current falls prevention services. The aim of these interviews was to:

- Gain information about current services provided in relation to falls prevention and management across Surrey and how they operate in practice
- Gain information about any gaps in services
- Identify any opportunities to enhance current services

The following sections provide a summary of the services and initiatives occurring in Surrey which impact on falls. The services/initiatives are presented in seven key areas.

- Initiatives raising awareness of falls and services provided
- Identification of individuals at risk
- Vulnerable groups
- Supportive community services available for those at risk of falls
- Acute services responding to residents reporting a fall
- Community falls services
- CCG commissioning developments

#### ***Initiatives raising awareness of falls and services provided/identification of individuals at risk***

Across Surrey, information on services relevant to falls is available from Surrey Hubs and Community Connectors. However, little is currently being done to pro-actively identify individuals at risk of falls. North East Hampshire & Farnham and Surrey Heath CCGs have launched a WALC (Walk and Live Confidently) campaign which aims to raise awareness and encourage self-referral of those at risk of falls. Although still under development, there may be scope to tailor the MECC<sup>ii</sup> (Making Every Contact Count) training to include falls

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<sup>ii</sup> MECC or Making Every Contact Count is an approach to behaviour change that uses the millions of day-to-day interactions that organisations and people have with other people to support them in making positive changes to their physical and mental health and wellbeing.

prevention. Through MECC, professionals could be trained to identify individuals at risk of falls and promote existing services which may help to reduce their risk.

### *Vulnerable groups*

Vulnerable groups at particular risk of falls included those living in care homes or suffering from dementia. Interventions aimed at reducing the risk of falls in these groups were identified.

In one care home, falls risk assessments were usually performed by staff nurses as part of a resident's care plan. A register of all incidents and accidents (which includes falls) was also maintained. The nursing home did not tend to access the community falls service and felt it would be beneficial to have more support from occupational therapy services in order to access equipment which may benefit the nursing home residents. There was also an appetite for training and education of care home staff on falls prevention and management.

Dementia navigators provide support to individuals affected by dementia who are at particular risk of falls. There are currently four dementia navigators working across Surrey.

### *Supportive community services available for those at risk of falls*

#### *Age UK Surrey*

Under the Guildford & Waverley Living Well Integrated Care Project, Age UK Surrey is delivering support at home and in the community to help older people maintain their independence and realise personal goals such as going out shopping or for a walk. Another project called 'Making Connections' is also supported by Age UK Surrey and is currently operating in Surrey Heath and Farnham. Through the project, GP's as well as health and social care professionals are identifying people at risk of social isolation and loneliness, falls or changes in health, and then offer additional help and support. Similar to the Integrated Care Project, an Age UK Surrey Making Connections Co-ordinator helps individuals to set a personal goal, for example returning to an old hobby. The individual is then matched with a volunteer to support them in achieving these goals.

Other relevant services provided by Age UK Surrey include a foot care service and counselling service. However, these services do not routinely signpost or refer individuals who have had a fall to other services. In terms of primary prevention, Age UK Surrey is also promoting physical activity in older people through its "Go50 Walking and Cycling" programmes.

#### *Telecare*

Coverage of telecare services commissioned by local districts and boroughs is good. The services provide residents with an alarm which they can press to prompt a response from emergency services. The Community Alarm Telecare (CAT) discharge project offers an alarm and pendant, free of charge for 12 weeks following hospital discharge to Surrey residents who do not already have the service. Thereafter, residents need to pay for the service. However, cost can sometimes be a barrier to people taking up the service.

### *Reablement services*

In Surrey, reablement teams commissioned by Surrey County Council cover all eleven districts and deliver short intensive services to people who are frail or recovering from recent illness or injury, such as a fall. The purpose of these services is to support people to stay safe and independent at home, and increase their independence by reducing dependence on care workers.

### *Sight for Surrey (formerly the Surrey Association for Visual Impairment)*

Visual impairment can be a contributory factor leading to a fall. Sight for Surrey is a registered charity which works to help people with visual impairment to obtain support including: assessment, reablement, rehabilitation and specialist equipment.

### *Handyman and Occupational Therapy services*

Simple home adaptations to prevent falls can be supported by handyman schemes and occupational therapy services, which are commissioned by all districts and boroughs across Surrey. However, there is some variation between the schemes in terms of who is eligible to receive support and costs.

### *Medication Use Reviews*

Medication Use Reviews (MURs) are an important tool to identify older people at increased risk of falling due to the type or number of medications they are taking. These reviews occur in pharmacies across Surrey and are commissioned by NHS England.

### *Exercise Referral Schemes (ERS) and Exercise Classes*

GPs and health professionals can refer patients to a qualified exercise specialist at a local leisure facility, where a tailored exercise programme can be devised and delivered for them. These services are often commissioned by districts and boroughs. However, individuals currently cannot self-refer into the service, and the referral is made based on an assessment carried out by a health professional.

A recent review by Public Health of the ERS available across Surrey has been conducted and found that there is a lot of variation in charges for these schemes. In addition, although ERS are available in all CCG localities, there are no schemes operating in Epsom and Ewell. Moreover, specific falls exercise classes are only offered in Elmbridge, Waverley, Woking and Reigate & Banstead.

### *Fire and Rescue Services*

Fire and Rescue Services are having an increasing role in falls prevention and management. Hampshire Fire and Rescue Service has been working closely with North East Hampshire & Farnham CCG to develop a strategy to reduce falls in the elderly. The strategy includes identifying residents at risk during home safety visits using a falls screening tool, hosting falls champion seminars for members of the community likely to come into contact with elderly fallers, and running exercise classes. As part of a pilot, Surrey Fire and Rescue Service is also providing non-emergency support in response to telecare alerts in Elmbridge.

The fire service team visits residents in their own home who have suffered a non-injurious fall.

### *Acute services responding to residents who have had a fall*

#### *Ambulance services*

According to the South East Coast Ambulance service (SECAMB), over the last year falls accounted for nearly 15% of all calls. In many cases, the individual is not conveyed to hospital and a notification by the ambulance service is made electronically to the community falls service. However, the variation in criteria and mechanisms for referral to the different falls service providers in Surrey makes it difficult for the ambulance service to easily make such referrals. SECAMB would like to have a standard referral pathway to community falls services which could be recorded electronically on a database. The database would even act as a surveillance system, potentially identifying individuals who have fallen and may be at risk of further falls.

#### *Hospital provision*

In Royal Surrey County Hospital, elderly patients who have fallen are first assessed in Accident & Emergency. Patients are triaged into whether they are able to be discharged home within 72 hours or if they need to be admitted for further assessment. Patients who may be able to be discharged are usually reviewed by the Integrated Discharge Team (IDT) which is a multi agency service working to prevent admission and support the safe discharge of patients attending A&E or the Emergency Assessment Unit (EAU). The team offers geriatric medical cover, occupational therapy, physiotherapy, community nursing and care managers. In some cases and during working hours, patients are referred to the Older Person and Liaison service (OPAL). The OPAL team review patients who would benefit from rehabilitation, providing early comprehensive geriatric assessments to prevent any avoidable admissions to inpatient wards. For patients admitted to the ward, falls risk assessments are routinely performed as part of the nursing assessment. However, not all patients discharged following a fall are followed-up in the community. Patients who do require follow-up are either referred to the community falls service or the Hospital Outreach Services Team (HOST). HOST provides short term care in the community to facilitate timely discharge. The team includes nurses, doctors, and physiotherapists.

Several stakeholders expressed the opinion that A&E doctors do not investigate falls as comprehensively as the OPAL service or geriatricians. Some also do not refer to the OPAL service and/or are less aware of services which may benefit patients who have experienced a fall. There is also no explicit falls pathway used within A&E to assist the review of a patient who has had a fall.

#### *Fracture Liaison Services*

Fracture Liaison Services (FLS) are secondary fracture prevention services. They ensure that all patients presenting with a fragility fracture receive a fracture risk assessment and treatment where appropriate. Although there is good evidence to indicate that these services are cost-effective,<sup>1</sup> not all CCGs have an established FLS.

## *Community falls services*

Three service providers are commissioned by CCGs to deliver falls services. However, the support provided by these services varies across Surrey.

### *Central Surrey Health Falls Service*

Central Surrey Health (CSH) is commissioned by Surrey Downs CCG and delivers a falls service in East Elmbridge, Mole Valley and Epsom and Ewell. There are three aspects to the service. Firstly, all co-owners in CSH have falls prevention as part of their role. As part of the service, CSH attends patient's homes, conducts risk assessments and gives advice on falls prevention. Secondly, community matrons help to triage and manage patients referred into the service. Thirdly, the falls team which consists of four practitioners who are either physiotherapists or physiotherapist technicians, work on more complex risk plans and interventions for patients. Their work includes carrying out exercise interventions with individual patients but also running group exercise classes where they give advice on falls prevention.

In addition, the new falls service is being integrated into the new community hubs, which are clinically led by GP specialists and went live in July 2015. The hubs are focused on supporting the frail elderly, who have multiple and complex conditions, and aim to reduce emergency hospital admissions, readmissions, and lengths of stay in hospitals, and to improve patients' experiences of care and support.

### *Virgin Care*

Virgin Care Rapid Response Teams provides a community falls assessment service which is divided into a North West team and a South West team. It covers service users who are either registered with a Surrey GP practice or residing within the area covered by the following Surrey CCGs:

- North West Surrey CCG
- Guildford & Waverley CCG
- Surrey Heath CCG
- North East Hampshire & Farnham CCG (Farnham area only)

The service provides assessment and support to individuals who have had a fall or have a fear of falling, minimizing the risk of further falls and or injury. Referrals are received from: Surrey GP's, community matrons, community nurses, community hospital staff, A&E departments, Medical Assessment Units, Medical Short Stay Units, Clinical Decision Units, SECamb, community mental health teams, care homes and social services as well as voluntary organisations. The service is not extended to patients who have had an acute inpatient episode as it is presumed these patients will have already had a full review in accordance with NICE guidelines. However, the service will offer environmental checks for these patients.

All referrals are received via a Shared Point of Access (SPA) and triaged according to level of urgency. The triage process may also identify individuals who require onward referral to more appropriate specialist services i.e. a specialist geriatrician for a Comprehensive Geriatric Assessment within the local Diagnostic and Treatment Centre (DATC's). All

referrals will have a telephone triage to determine if a full face to face assessment is required. If face to face is necessary, patients will be offered an assessment in their usual place of residence. The assessment process follows NICE guidelines and entails a multi-factorial risk assessment. GPs are also notified if the patient would benefit from a medication review, DEXA scan, further investigation of other co-morbid conditions e.g. postural hypotension, or a Comprehensive Geriatric Assessment.

### *First Community Health and Care*

First Community Health and Care (FCHC) provide the community falls service for the East Surrey CCG area. Referrals to the service are received from: hospitals, GPs, ambulance service, district and specialist nurses, community teams, care homes, residential home managers, and sheltered home wardens/managers. Referrals for patients are triaged and assessed as to whether they should be seen urgently or routinely. A member of the team then visits the patients and conducts a multi-factorial assessment. At the end of the assessment, a discharge summary is sent by the falls team to the GP. If appropriate, the patient can be referred to exercise classes run by the rehabilitation assistant at the YMCA in Redhill. The initial balance exercise classes are provided free of charge on referral. If there is a need identified for an occupational therapist, a nurse or any other health care professional, the service will then refer the patient on to the appropriate service.

### *CCG commissioning developments<sup>iii</sup>*

North East Hampshire & Farnham CCG along with Surrey Heath CCG have developed an integrated falls pathway around the Frimley system. The pathway is also interactive with links to further information. A steering group meets regularly to discuss any issues with the pathway, data on falls and the WALC campaign. Guildford & Waverley CCG has recently established a falls subgroup to develop and implement an end-to-end pathway that will enhance the provision of the falls service. They are also in the process of establishing Integrated Care Partnership Hubs which aim to bring together health, social care, voluntary and community sectors to reduce hospital admissions and maintain independence. Surrey Downs CCG is also at an early stage of re-designing their falls service, which will be delivered through new community hubs. North West Surrey CCG is looking into establishing single intermediate care teams within three locality hubs. Each hub will be expected to manage about 5,000 patients and it is anticipated that all hubs will be operational by the end of the year. East Surrey CCG are now planning on providing a dedicated community falls service rather than responding to falls through its Rapid Response team.

### *Conclusion*

In conclusion, the service mapping revealed variation in the types of services provided by different areas of Surrey and a need for clear referral pathways for organisations to refer individuals at risk of falls. It was also apparent during interviews that organisations were not necessarily aware of the work of other partner organisations in Surrey around falls prevention and management. Sharing of best practice between these organisations will be important to strengthen strategies in this area.

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<sup>iii</sup> The commissioning developments reflect information gathered during stakeholder interviews between November 2015 and February 2016 and may change/develop further over relatively short periods of time

## 5. Secondary literature review

In terms of evidence gaps, stakeholders expressed a need for high quality evidence on the cost-effectiveness of multi-factorial interventions to reduce falls. Multi-factorial interventions consist of more than one main category of intervention, but participants receive different combinations of interventions based on an individual assessment to identify potential risk factors for falling.

Another evidence gap was around identifying individuals who would benefit from targeted interventions to reduce their risk of falls. A variety of different tools to screen individuals at risk of falls were being used by different organisations. In addition, there was a lack of consensus over which screening tool should be used, and whether non-health professionals should be using a different screening tool compared to health professionals.

Both reviews were limited to guidelines, systematic reviews and meta-analyses published within the last fifteen years which were available through open access, apart from key references which were identified through reference list searches.

The first review concluded that although multi-factorial interventions are recommended by NICE guidance, the evidence-base for their cost-effectiveness is mixed. Very few studies have included an economic evaluation of the effectiveness of multi-factorial prevention programmes, and the cost items measured and methods used to value the items differ between studies making it difficult to compare cost-effective measures between them. As a result, NICE has advocated for more UK research into the cost-effectiveness of these interventions.

The second review identified several screening tools in the literature, some of which focussed on one or two risk factors or several risk factors for falls, and could be used by health and non-health professionals. The review concluded that there is currently no single recommended falls screening test to be used to assess an individual's risk of falling in the community. Ideally, a simple screen that could be easily incorporated into routine care should be used. Therefore, it is important that the person conducting the screening test chooses an instrument which is valid and reliable but also most appropriate for the patient given the setting in which they are working and resources available. Modification of screening tools however, is not recommended as this may affect their validity and therefore performance.

### **Summary of challenges**

There are several challenges to be addressed with respect to falls prevention in Surrey. All Surrey CCGs (except North West Surrey CCG) reported statistically significant higher rates of falls in their population when benchmarked against similar CCGs. The number of falls in the population will also increase in tandem with the ageing population unless current prevention strategies are improved upon.

According to the focus group, older people may feel that having a fall signals to others that they are becoming more frail or losing control, and require more support which could in turn jeopardise their independence. This may partly explain why, despite significant service user involvement in the design of the WALC campaign, older people are still not regularly self-referring into the falls service.

The geography of Surrey in relation to the delivery of services linked to falls is complex. Falls are in the remit of many agencies, each with differing geographical boundaries as well as offering different levels of services.

Services are currently more reactive than proactive in relation to falls prevention; only individuals who have had a serious fall receive follow-up which may prevent another fall. Finally, the ever ubiquitous challenge is resources. Many services are currently at capacity, with little potential for extra funding to implement falls prevention. However, given the economic burden of falls, investment in falls prevention would be expected to lead to a high return on investment in the longer-term.

## **Recommendations**

Integrating the information gathered from the needs assessment, a set of recommendations has been suggested for various stakeholders to improve falls prevention in Surrey. These recommendations pertain to Surrey County Council, Surrey CCGs, district and borough councils, and NHS Acute Trusts.

### *Surrey County Council*

Public Health and Adult Social Care should:

- Explore opportunities to promote falls prevention across Surrey. For example, incorporate messages on falls into other relevant awareness-raising campaigns e.g. the Health and Wellbeing Board 'Winter Wellbeing' and 'Right Care, Right Place, Right Time' campaigns.
- Within the Making Every Contact Count (MECC) programme, consider incorporating training on validated falls risk assessments and how to refer to appropriate services.
- Support other organisations e.g. Fire and Rescue Service, in using evidence-based tools to identify individuals at risk of falls.

### *Surrey CCGs*

- Consider effective ways of ensuring opportunistic screening of older people for falls risk is undertaken by health professionals.
- Develop integrated falls pathways, including links/referrals from organisations which may identify individuals at risk of falls e.g. the Surrey Fire and Rescue Service
- Consider ways of reducing the number of emergency responses to non-injurious falls e.g. multi-disciplinary meetings to manage the underlying needs of "frequent flyers".
- When designing new community falls services consider:
  - whether the capacity of the service will be able to meet the predicted increased demand.
  - using performance measures which adequately capture the impact of community services on falls prevention

- Given all CCGs are currently in the process of redesigning their falls services, use this as an opportunity to collaborate and develop a Surrey-wide integrated approach to falls prevention, championing examples of local best practice.

*Districts and Boroughs Councils*

- Explore innovative ways of making services, such as telecare, exercise classes and handyman services both affordable to individuals as well as sustainable into the future.
- Work in collaboration with CCGs to support falls pathways by providing equitable falls prevention services and strengthening referral pathways to those services.

*NHS Acute Trusts*

- Provide regular training to staff and clear patient pathways on the prevention and management of falls.
- Establish a falls working group consisting of staff from the hospital and community falls service to facilitate learning on the outcomes of patients referred between services.
- Consider auditing the management of patients presenting with a fall against compliance with NICE guidelines.

*Other*

- Care homes should consider training of care home staff around falls management and prevention.

## 1. Introduction

A fall is defined as “*an event which results in a person coming to rest inadvertently on the ground or floor or other lower level, excluding intentional change in position to rest in furniture, wall or other objects*”.<sup>2</sup>

Falls represent a major public health problem. According to the latest Global Burden of Disease study, falls are the ninth leading cause of disability in England.<sup>3</sup> Older people are particularly vulnerable; according to the National Institute for Clinical Effectiveness (NICE), a third of people over 65 years and half of people over 80 years fall at least once a year.<sup>4</sup> Older people are also more likely to suffer severe consequences from a fall, such as hip fractures.

A recent study has indicated that the current cost of hip fractures to the NHS per year is in excess of £1 billion,<sup>5</sup> while all falls are estimated to cost the NHS more than £2.3 billion per year.<sup>6</sup> Given the predicted increase in the number of falls as a result of the ageing population, costs and demands on public services are set to soar dramatically over the next few decades unless effective action is taken to prevent falls.

In addition, as well as direct costs to health services, falls also incur great psychological and social costs for individuals. They cause distress and a loss of confidence, and can pose a serious threat to older people’s independence as they can precipitate admissions to long-term nursing or residential care. Up to 20% of patients admitted from home will be moved into residential or nursing care homes as a result of a hip fracture.<sup>7</sup> Furthermore, the elderly are especially fearful of falls resulting in significant injury; a recent survey revealed that 80% of women aged 75 years and over would rather die than move into a nursing home as a result of a hip fracture.<sup>8</sup>

Another common outcome of a fall is a fear of falling again. This can cause individuals to become socially withdrawn and isolated; some individuals even develop a “post-fall syndrome” which is accompanied by increased immobility and gait abnormalities.<sup>9</sup> This can impact negatively on their quality of life as well as increase their risk of falling again.

However, falls should not be seen as an inevitable consequence of ageing. Interventions do currently exist which are effective in reducing the risk of falls from occurring. The importance of implementing falls prevention strategies is recognised at the international, national and local policy level, both across health and social care. The global, national and local policy context relevant to falls prevention and management is briefly summarised below.

## 2. Policy context

### International level

*Active Ageing, WHO, 2002*

The World Health Organisation (WHO) has developed a policy on Active Ageing which offers a coherent framework on which to develop a strategy for the prevention of falls in older people.<sup>10</sup> Active Ageing is defined as “the process of optimizing opportunities for health, participation and security in order to enhance quality of life as people age”. The policy recognises that a healthy lifestyle can significantly slow down any decline in function as we get older. In the context of falls, this could include good nutrition and physical activity to improve bone mass, which is particularly important for post-menopausal women at risk of osteoporosis.

*WHO Global Report on Falls Prevention in Older Age, WHO, 2007*

This report discusses the determinants of falls, challenges for prevention and examples of effective interventions to prevent falls.<sup>11</sup> It concludes by proposing a falls prevention model within the Active Ageing policy framework. The model is built around the following three pillars which are highly interrelated and mutually dependent:

1. Building awareness of the importance of preventing and treating falls.
2. Improving the assessment of individual, environmental and societal factors that increase the likelihood of falls.
3. Facilitating the design and implementation of culturally-appropriate, evidence-based interventions which will significantly reduce the number of falls among older people.

### National level

*National Service Framework for Older People, Department of Health, 2001*

The National Service Framework for Older People sets quality standards for health and social care aimed at helping older people to stay as healthy, active and independent as possible.<sup>12</sup> Standard six aims to reduce the number of falls which result in serious injury and ensure effective treatment and rehabilitation for those who have fallen. The standard encourages joint working between the NHS and councils to take action to prevent falls and reduce resultant fractures or other injuries in older people. Older people who have fallen should receive effective treatment and rehabilitation and, with their carers, receive advice on prevention through a specialised falls service.

The standard sets out changes needed to reduce the number of falls and their impact by:

- Prevention, including the prevention and treatment of osteoporosis.
- Improving the diagnosis, care and treatment of those who have fallen.
- Rehabilitation and long-term support.

*Falls and Fractures: Effective Interventions in Health and Social Care, Department of Health, 2009*

This policy document aims to inform local dialogue between commissioners and service providers.<sup>13</sup> It sets out the four key objectives below to be considered in the context of local services for falls, falls prevention and fractures.

**Objective 1:** Improve patient outcomes and improve efficiency of care after hip fractures through compliance with core standards.

**Objective 2:** Respond to a first fracture and prevent the second – through fracture liaison services in acute and primary care settings.

**Objective 3:** Early intervention to restore independence – through falls care pathways, linking acute and urgent care services to secondary prevention of further falls and injuries.

**Objective 4:** Prevent frailty, promote bone health and reduce accidents – through encouraging physical activity and healthy lifestyle, and reducing unnecessary environmental hazards.

#### *Quality & Outcomes Framework (QOF)*

The QOF is the annual reward and incentive programme for results achieved by GP practices. It rewards practices for the provision of quality care and helps standardise improvements in the domain of primary care. The QOF contains an indicator relevant to falls prevention and management, which is the secondary prevention of fragility fractures. Practices need to report on the percentage of patients aged between 50 and 74 years with a fragility fracture in whom osteoporosis is confirmed on DEXA (Dual X-ray Absorptiometry) scan,<sup>iv</sup> who are currently treated with an appropriate bone-sparing agent.<sup>v</sup>

#### *NHS Five Year Forward View, NHS England, 2014*

The NHS Five Year Forward View outlines how NHS services need to change in order to develop more integrated models of care. It recognises that local models will be diverse, reflecting differences in local needs. One of the other key arguments of the document is to focus more attention on prevention and public health.

### **Local level**

#### *Surrey Health and Wellbeing strategy*

The Surrey Health and Wellbeing Board is a group of NHS commissioners, public health, social care, local councillors, Surrey Police, borough and district council and public representatives that work together to improve the health and wellbeing of people in Surrey. It was set up according to the duties in the Government's Health and Social Care Act 2012 and is about bringing people together, influencing and identifying areas of work that can be done better together. Surrey's Health and Wellbeing strategy is developed by the

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<sup>iv</sup> Special type of X-ray scan which measures bone mineral density.

<sup>v</sup> Medications which can increase bone mineral density by inhibiting bone resorption.

Surrey Health and Wellbeing board in partnership with local residents and partner organisations.

The five priorities of the Surrey Health and Wellbeing strategy are:

1. Improving children's health and wellbeing
2. Developing a preventative approach
3. Promoting emotional wellbeing and mental health
4. Improving older adults' health and wellbeing
5. Safeguarding the population

Falls prevention and management fits well with priorities two and four. The strategy recognises that the growing number of older people in Surrey will increase pressure on services, and that efforts should be made to ensure older people can remain independent for as long as possible.

### *Surrey's Commitment to Ageing Well*

Surrey's Commitment to Ageing Well has been developed by Surrey County Council and the Ageing Well steering group. The commitment is a public statement of intentions which sets out what organisations, groups of people or individuals aim to do to ensure the population ages well. Ten pledges have been developed which individuals and organisations can sign up to.

### 3. Scope of needs assessment

A steering group of key stakeholders was established to guide and have oversight of the needs assessment process (steering group membership is given on page 2).

The scope of the needs assessment was decided early on by the steering group. It was agreed that an age of 50 years and older would be used as the general definition of an older person. The rationale behind this decision was that targeted prevention efforts earlier on in the life course may be more effective in reducing risk factors for falls.

It was also agreed that the needs assessment would assess primary and secondary falls prevention but not include tertiary prevention given time constraints. Primary, secondary and tertiary prevention were defined as per the box below:

**Primary prevention:** Preventing falls occurring in individuals aged 50 years and above who may be at risk of a fall.

**Secondary prevention:** Preventing further falls in individuals aged 50 years and above who have sought medical attention as a result of a fall.

**Tertiary prevention:** Improving health outcomes of patients aged 50 years and above who have suffered from a severe fall e.g. resulting in a hip fracture.

The following areas are therefore not covered by the needs assessment:

- The prevention of falls in people under 50 years of age

- The prevention and management of falls in the hospital setting i.e. inpatient falls
- The management of bone health i.e. osteoporosis, and fractures

## 4. Aim and Objectives

### *Aim*

- To conduct a comprehensive health needs assessment of falls prevention and management and provide recommendations on how to better tailor falls services to meet the needs of the Surrey population.

### *Objectives*

- Describe the size and impact of the problem of falls using available routine data.
- Identify effective interventions/services to prevent and manage falls.
- Map the provision of current services for falls prevention and management.
- Identify through discussions with key stakeholders how current services can better meet needs.
- Provide evidence-based recommendations for service improvement to ensure the level of services is appropriate for the level of need in Surrey.

## 5. Methods

### *1. Primary literature review*

A desk based review of the literature was undertaken using clinical databases, grey literature and other online resources. This was to identify guidance from national policies and good practice. Literature was also gathered to identify the cause and impact of a fall.

### *2. Quantitative analysis*

Relevant routine data sources were used to establish the burden of falls in Surrey. These included: Hospital Episode Statistics (HES), data from the South East Coast Ambulance Service (SECAMB), Public Health Outcomes Framework (PHOF), Projecting Older People Population Information system (POPPI), Commissioning for Value tool, Quality and Outcomes Framework (QOF), NHS Health and Social Care Information Centre (HSCIC) and the 2011 Census. Where possible, data were presented by Clinical Commissioning Group (CCG) area.

### *3. Qualitative data collection and analysis*

A focus group was conducted with older people aged between 85 and 92 years to better understand the problem of falls, including how they can be prevented and better managed.

### *4. Key stakeholder interviews*

In order to gain a Surrey-wide picture of current service provision, interviews were conducted with a range of key stakeholders including service providers and commissioners. Further

information was also obtained from published documents, relevant groups and networks e.g. the Surrey Physical Activity Network, and meetings.

A provisional falls pathway was also developed with stakeholders to assist in the identification of any service gaps (see appendix 1). This pathway was based on NICE guidelines and pre-existing falls pathways in Surrey at the time of the needs assessment.

### 5. Secondary literature review.

A secondary literature review was performed to explore any evidence-gaps identified during the needs assessment.

## 6. Results

### 6.1 Literature review

There is a wealth of literature around falls prevention and management. Given the short time-scale of this needs assessment and the need for a high-quality synthesis of the evidence, efficient use of evidence was made by using the 6S model of the hierarchy of evidence developed by DiCenso et al.<sup>14</sup> which focuses even further up the traditional evidence pyramid by reviewing guidelines and critically appraised systematic reviews before systematic reviews and individual studies.

#### *Causes of falls*

The causes of falls in the elderly are often multi-factorial and resulting from the convergence of various risk factors. Recognising and modifying these risk factors is crucial in order to prevent falls. Risk factors for falls can be classed as being either intrinsic or extrinsic.

Examples of intrinsic risk factors which increase the likelihood of a fall include: older age,<sup>15,16, 17</sup> medical conditions such as dementia,<sup>18,19,20,21</sup> Parkinson's disease which affects mobility,<sup>22,23,24</sup> and incontinence,<sup>25,26,27,28,29</sup> impaired visual acuity,<sup>30,31,32,33</sup> gait and balance problems,<sup>34,35,36,37</sup> and multiple medications<sup>38,39,40,41,42</sup> notably sedating or psychotropic drugs<sup>43,44, 45,46</sup>. Other important predictors of falls include living alone,<sup>47</sup> depression and a fear of falling,<sup>48</sup> alcohol consumption,<sup>49</sup> and nutritional deficiencies such as vitamin D deficiency which is associated with muscle weakness.<sup>50</sup> In addition, older women tend to fall more often than men and are more likely to sustain a fracture following a fall.<sup>51,52</sup>

Extrinsic risk factors can also contribute to falls, and include environmental hazards such as poor lighting or uneven surfaces,<sup>53</sup> inappropriate walking aids or assistive devices,<sup>54</sup> and inappropriate footwear.<sup>55</sup>

Furthermore, residents in care homes have a higher risk of falls compared to community dwellers,<sup>56</sup> and older adults who have fallen once are more likely to fall again.<sup>57</sup>

### *Osteoporosis and falls*

Underlying the risk factors for fracture following a fall is a common condition known as osteoporosis. Osteoporosis is a progressive systemic skeletal disease characterised by low bone mass and weakening of the skeletal tissue, thus predisposing a person to an increased risk of fracture. Older women are most at risk because the condition often develops as a result of the hormonal changes that occur following the menopause. Its onset is asymptomatic and it is often only recognised after a person falls and sustains a fragility fracture. A fragility fracture is defined as any fall from standing height or less which results in a fracture.<sup>58</sup> Other factors that may affect the risk of fragility fracture include the use of oral or systemic glucocorticoids, age, low Body Mass Index (BMI), previous fractures, smoking, sedentary lifestyle, and family history of osteoporosis.<sup>59</sup> Osteoporosis can be diagnosed using specialist bone density or DEXA scans and treated with drugs called bisphosphonates, which are commonly co-prescribed with calcium and vitamin D supplements. The risk of fragility fractures can be further reduced by avoiding smoking, drinking only a moderate amount of alcohol and undertaking weight bearing exercises.

#### *Falls prevention*

NICE guidelines<sup>60</sup> suggest the identification of the following risk factors can be useful in the implementation of falls prevention strategies:

- cognitive impairment
- continence problems
- falls history, including causes and consequences (such as injury and fear of falling)
- footwear that is unsuitable or missing
- health problems that may increase their risk of falling
- medication
- postural instability, mobility problems and/or balance problems
- syncope syndrome
- visual impairment

A review of interventions effective in preventing and reducing the rate of falls in community dwelling older people was undertaken late last year by a member of the Public Health team (see appendix 2). Essentially, guidelines indicate that interventions to address falls should be multi-factorial as they generally yield better outcomes than single interventions. In addition, interventions should be tailored to the needs of the individual and based on their specific risk factors. Exercise and home hazard assessments were the only interventions found to be effective when administered as a single intervention. However, home hazard assessments are most effective when used as part of a multi-factorial intervention.

Table 1 below is an excerpt from that review which summarises the effectiveness of tested interventions. The table also identifies if they have been shown to be effective as part of a multi-factorial intervention or when directed to a particular subgroup.

**Table 1: Summary of single interventions and effectiveness**

Type of intervention	Intervention design (Effective as part of?)		Population level effectiveness			Sub Group effectiveness	
	Multi Factorial	Single	Injury Severity	Falls Risk	Falls Rate	Falls Risk	Falls Rate
Health professional falls risk assessment	√	X	X	X	√	X	X
Strength and balance training (OTAGO, PSI)	√	√	√	√	√	√	√
Exercise non specific (Chair based, yoga)	X	X	X	X	X	X	X
Exercise (balance, strength and gait i.e. Tai Chi)	√	√	√	√	√	X	X
Cataract Surgery	X	X	X	X	X	X	X
Education	√	X	X	X	√	X	X
Home Hazards and Safety interventions	√	√	X	√	√	X	X
Cardiac pacing	X	√	X	X	X	Those with cardio inhibitory carotid sinus hypersensitivity who have experienced unexplained falls.	√
Vitamin D	X	X	√	X	X	Those with identified deficiency	X
Reduction in medication / medication review	√	X	X	√	√	X	X
Assessment & treatment of postural hypertension	√	X	X	X	X	X	X
Multi-faceted podiatry	√	X	X	X	X	Those with foot, ankle and lower leg pain	X
Psychological interventions	√	X	X	X	X	X	X
Fluid or nutrition therapy	X	X	X	X	X	X	X

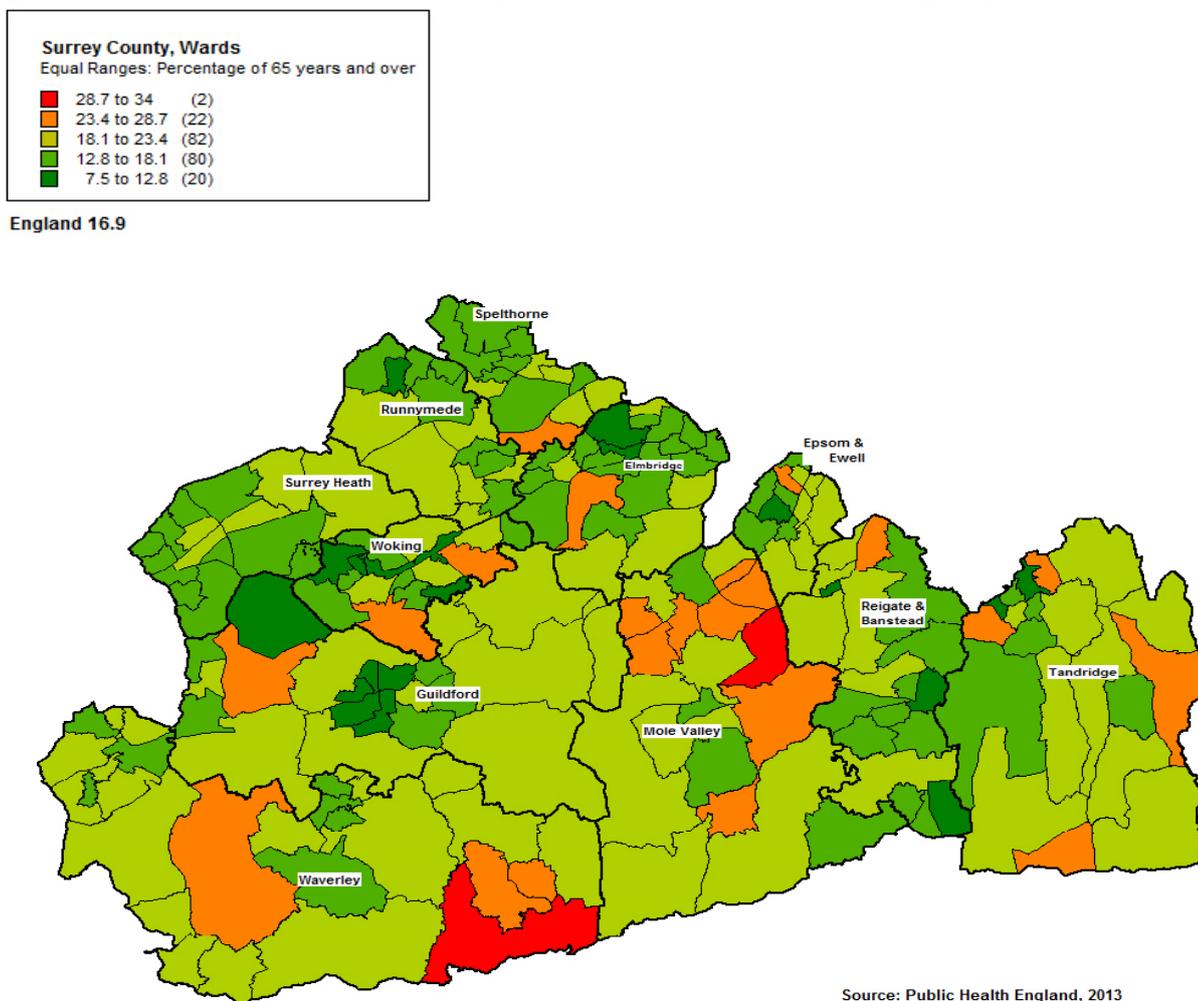
## 6.2 Analysis of quantitative data

For this section, where possible, data has been presented for older people aged 50 and over. However, many of the routine sources only report data for the 65 years and over population. Data has also been reported for Surrey as a whole, or by CCG area. For most of the data source used, local data is not yet available for 2014/15 so mostly data from 2013/14 has been presented.

### Population at risk of falls

As can be seen from Figure 1, a high proportion of the Surrey population is of retirement age. The proportion of older people in Surrey who are aged 65 years and over varies from ward to ward. The map below shows that one ward in Waverley and another in Mole Valley have the highest proportion of residents of retirement age (over 28.7%). However, wards in all other districts and boroughs with the exception of Surrey Heath and Runnymede have between 23.7% and 28.7% of their population aged 65 years and over.

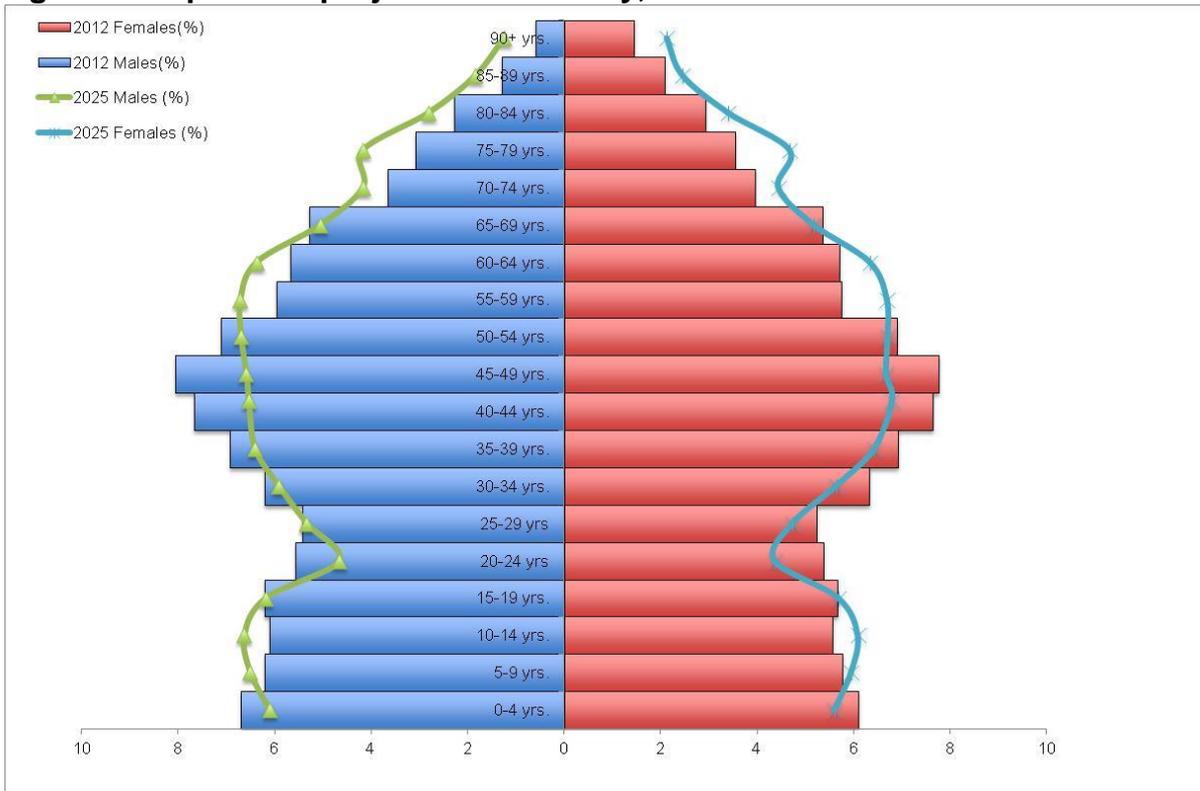
**Figure 1: Proportion of total Surrey population of retirement age by ward**



Nationally, the ageing population is predicted to increase, mainly as a consequence of increasing life expectancy. Unfortunately, healthy life expectancy<sup>6</sup> has not increased in tandem, and so this will result in even greater demands on public services.

<sup>6</sup> Healthy life expectancy is the average number of years that a person can expect to live in "full health" by taking into account years lived in less than full health due to disease and/or injury.

**Figure 2: Population projection for Surrey, 2012 to 2025**

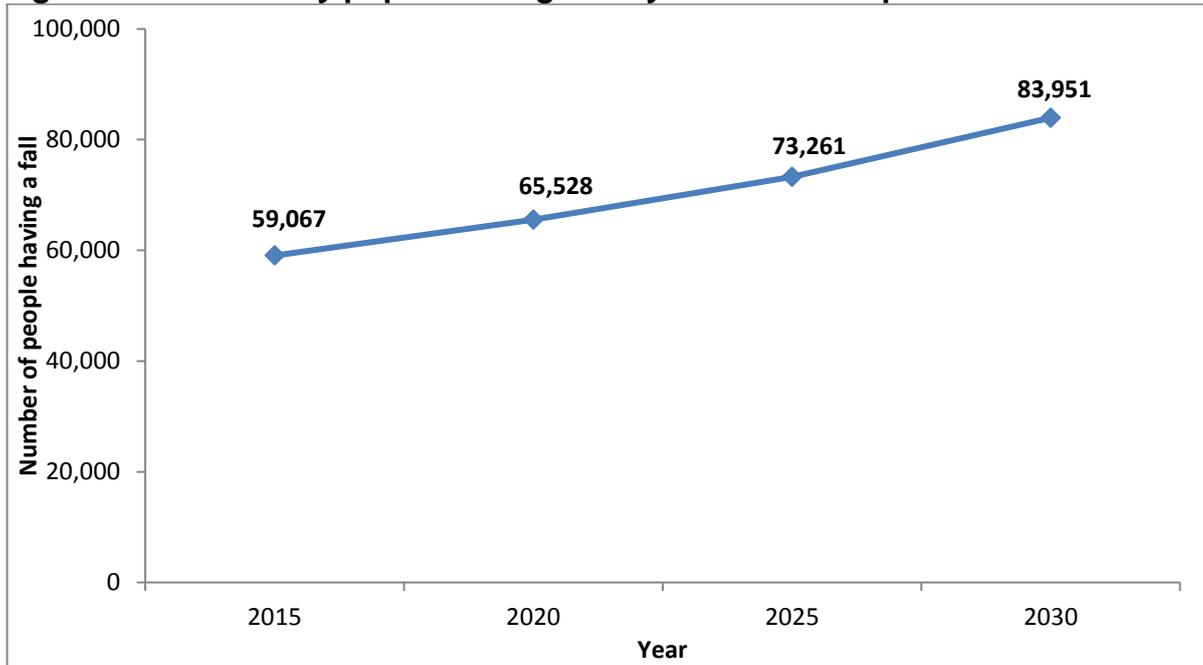


Source: Office National Statistics, 2011

Figure 2 above illustrates the aging population of Surrey, with the proportion of the population in all age groups aged 55 and over projected to increase (with the exception of those aged between 65 and 69 years) and the proportion of people in age group 15 to 54 set to decrease. These population projections have important implications for older people. For instance, with comparatively fewer people in the working population, a lower tax base may result in a reduction in the funds available to support future health and social care services. However, as well as labour policies such as increased immigration which can help to address the declining workforce, measures to support and promote healthy ageing of the population in order to ease the pressure on the health care system will also need to be taken.

Figure 3 below predicts the numbers of people aged 65 years and over expected to have a fall in the future. These projections have been modelled on current trends in population growth and falls occurring in this age group. These numbers would therefore be expected if no changes are made to the current services provided.

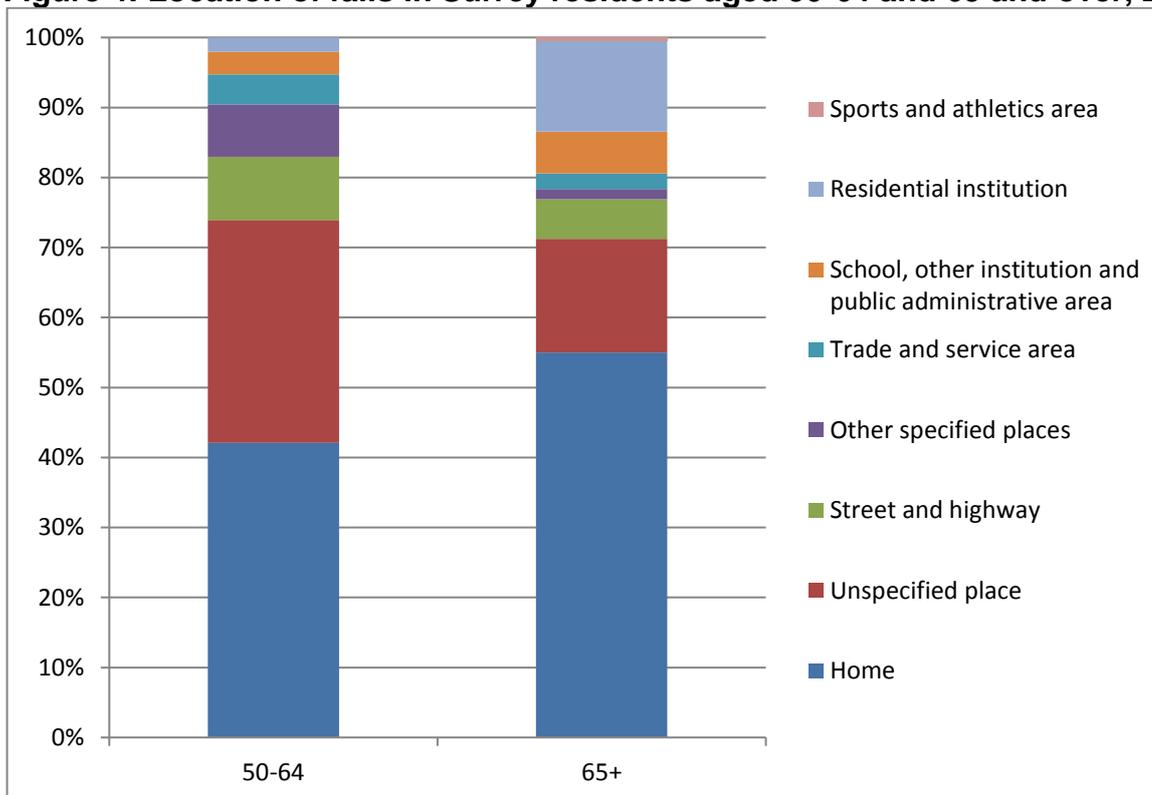
**Figure 3: Total Surrey population aged 65 years and over predicted to have a fall**



Source: Projecting Older People Population Information System

*Epidemiology of falls in Surrey*

**Figure 4: Location of falls in Surrey residents aged 50-64 and 65 and over, 2013/14**

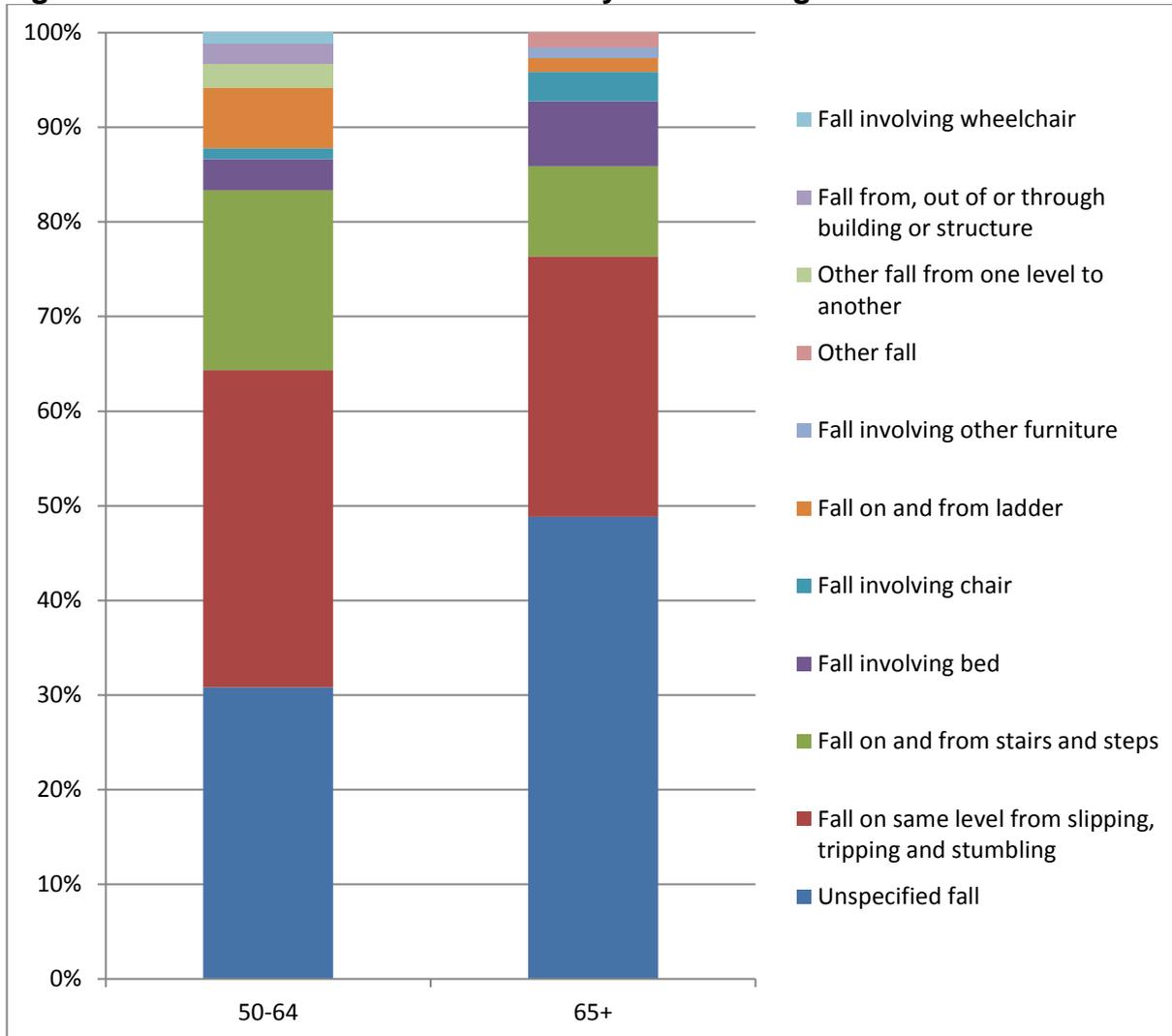


Source: Hospital Episode Statistics, 2013/14

Figure 4 above illustrates the location of falls of residents in Surrey aged between 50 and 64 years and 65 years and above. For both age groups, the highest proportions of falls occur at home (42% in those aged 50-64 and 55% for those aged 65 and over). However, for almost a third of all falls in the 50-64 age group and 16% of falls in those aged 65 and over, the location of the fall has not been

specified. Not surprisingly, a higher proportion of falls occur in residential institutions for those aged 65 and over (13%) compared to the 50-64 age group (2%).

**Figure 5: Circumstances of falls in Surrey residents aged 50-64 and 65 and over, 2013/14**

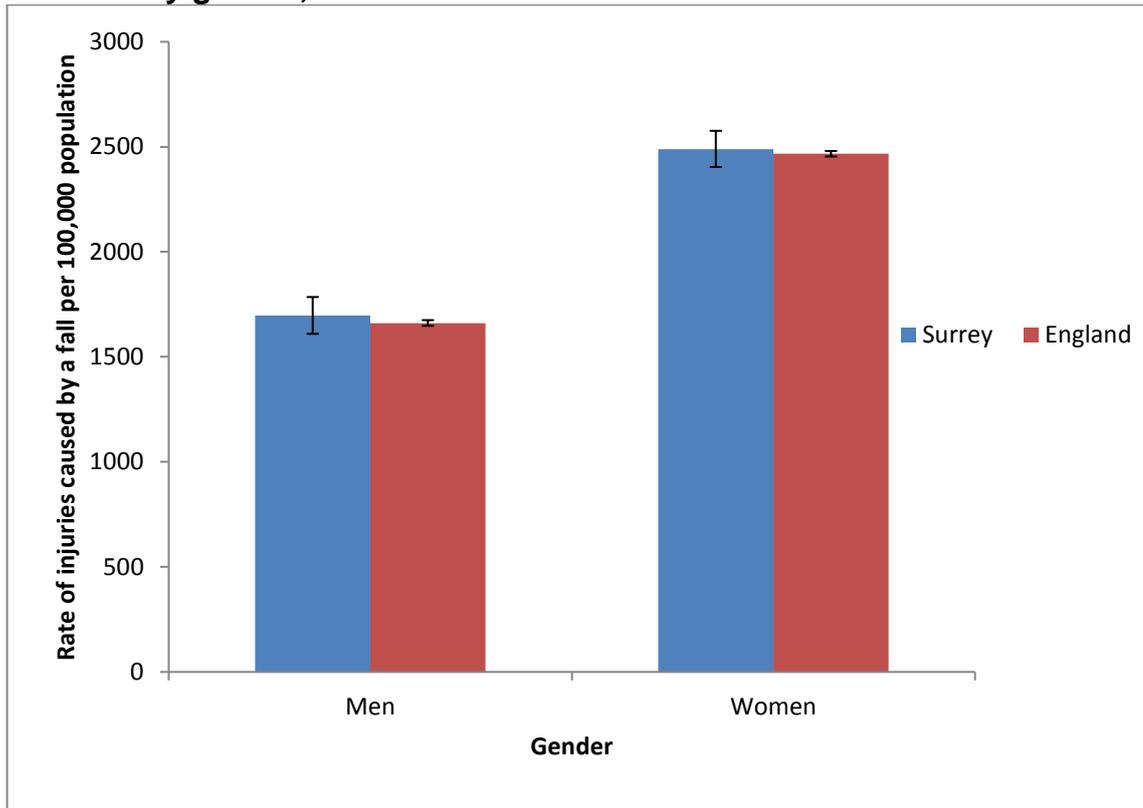


Source: Hospital Episode Statistics, 2013/14

In Figure 5, it can be seen that for 31% of falls in the 50-64 age group and 48% of falls in the 65 and over age group, the circumstances of the fall have not been specified.

In both age groups, this is closely followed by a fall on the same level from slipping, tripping and stumbling. For both the location and circumstances of falls, the lack of detailed data limits interpretation.

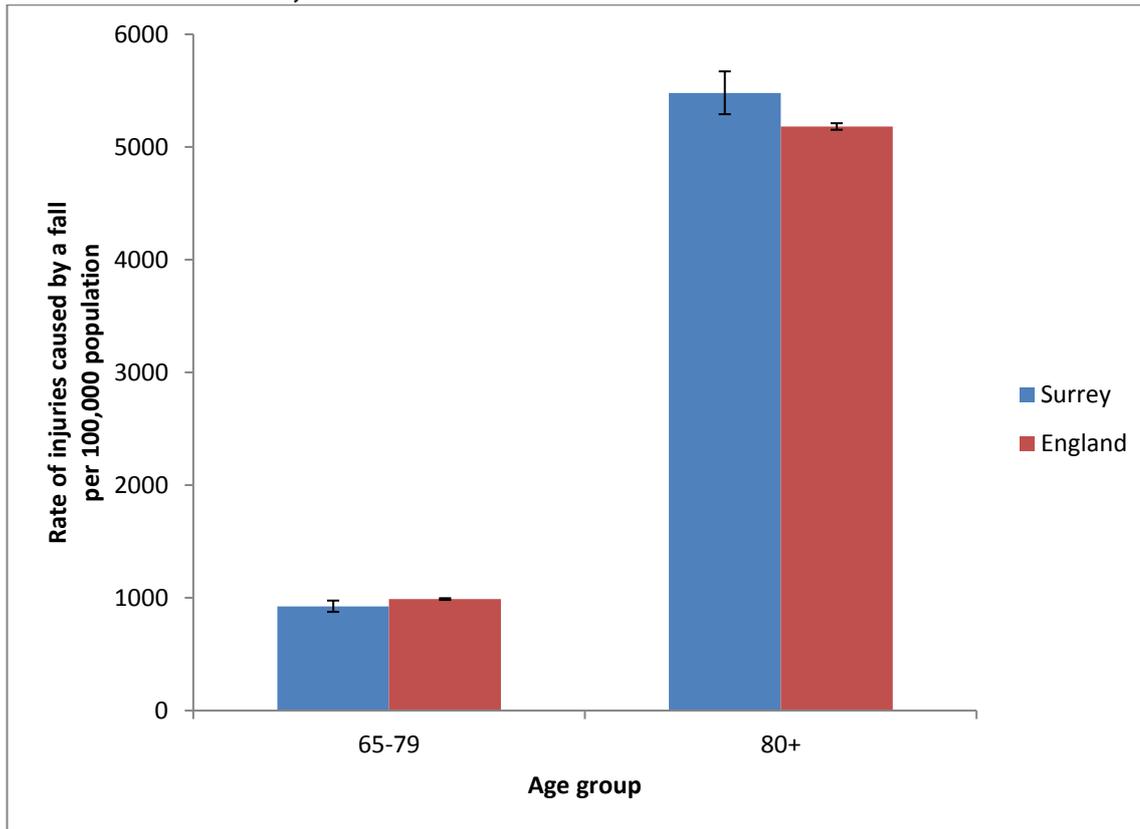
**Figure 6: Direct age and sex standardized rates for injuries due to a fall in population aged 65 and over by gender, 2013/14**



Source: PHOF data

It can be seen from the figure above that in Surrey as well as nationally, women are more likely to suffer an injury as a result of a fall compared to men. As indicated by the 95% confidence intervals, there is no significant difference between the rates of injuries due to falls in men or women in Surrey compared to the English average.

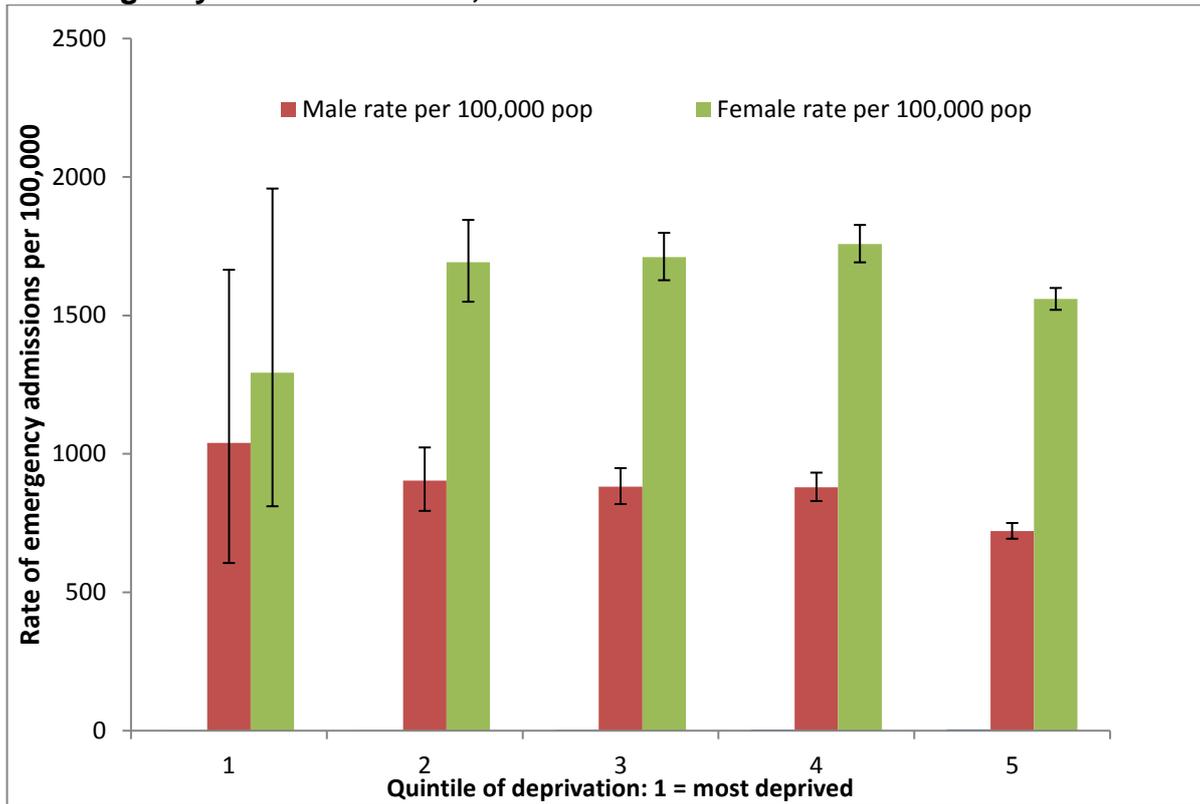
**Figure 7: Direct age and sex standardized rates for injuries due to a fall in population aged 65-79 and 80 and over, 2013/14**



Source: PHOF data

In addition, people aged 80 years and over have a much higher frequency of falls resulting in injury compared to those who are younger. Importantly, the rate of falls in older people aged 80 years and above and living in Surrey is significantly higher than the English average. This indicates that more work needs to be done in relation to falls in the very elderly population.

**Figure 8: Population aged 50 years and over split by deprivation quintile compared with rate of emergency falls admissions, 2011/12 to 2013/14**

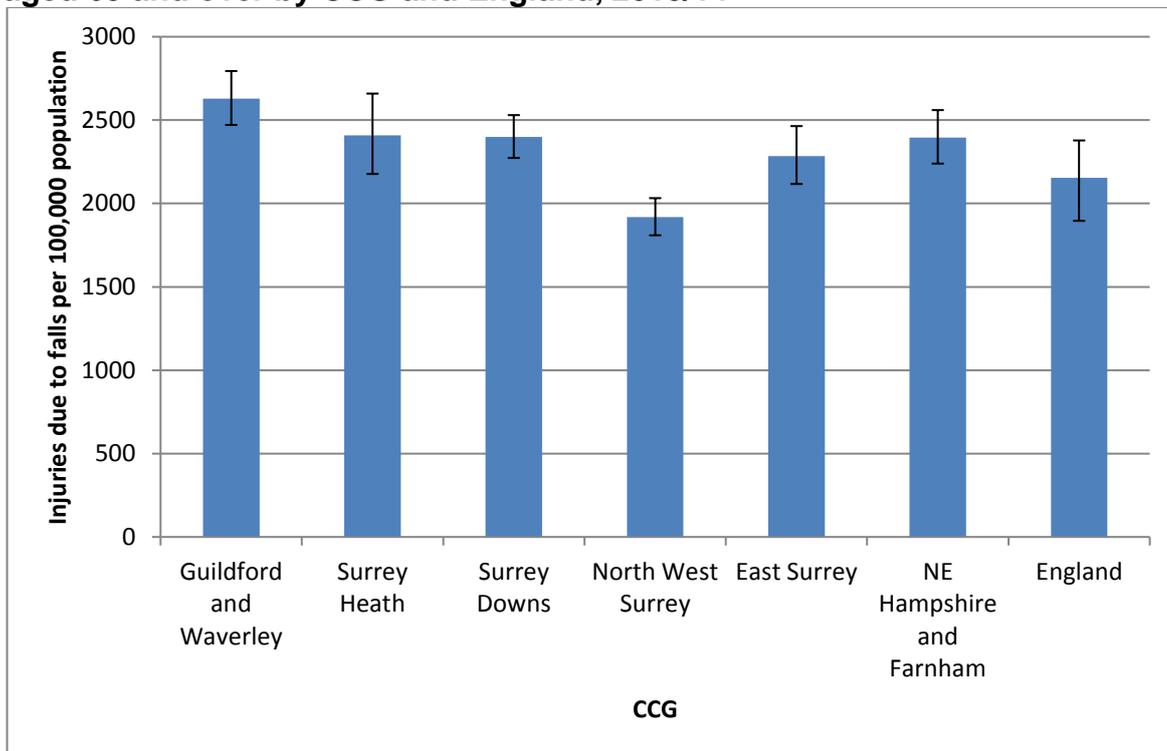


Source: Hospital Episode Statistics, 2013/14

The relationship between falls and deprivation is less clear. For men aged 50 years and over, although the rate of falls is higher in the most deprived quintile compared to other quintiles, it is not statistically significant. This is also the case for women.

There are also differences in the rates of falls resulting in injury across the CCGs.

**Figure 9: Direct age and sex standardized rates of injuries due to falls per 100,000 of population aged 65 and over by CCG and England, 2013/14**



Source: NHS Commissioning for Value tool

Figure 9 indicates that the number of injuries due to falls in the population aged 65 years and over varies slightly across the CCGs. However, only North West Surrey CCGs appears to have a significantly lower number of injuries due to falls compared to all other CCGs in Surrey. Guildford & Waverley CCG has significantly more injuries due to falls compared to the England average.

#### *Impact of falls on ambulance services*

**Table 2: Proportion of all ambulance call outs for falls in those aged 65 and over by CCG area, October 2014 to September 2015**

CCG	Total ambulance call outs	Total falls count in those aged 65 and over	Proportion of call outs due to falls in those aged 65 and over
NHS Guildford & Waverley	32,882	4,401	13%
NHS Surrey Heath	14,625	1,793	12%
NHS Surrey Downs	38,086	6,828	18%
NHS North West Surrey	60,228	7,168	12%
NHS East Surrey	31,647	3,616	11%
NHS North East Hampshire and Farnham	31,694	3,735	12%
<b>Totals</b>	<b>209,162</b>	<b>27,541</b>	<b>13%</b>

Source: SECAmb

Table 2 indicates that on average, 13% of all ambulance call outs in Surrey are to attend to a fall in a person who is aged 65 and over. Therefore, falls make a substantial contribution to the burden on emergency services.

**Table 3: Ambulance call outs for falls in persons aged 65 and over by CCG, October 2014 to September 2015**

CCG	Number of ambulance call outs for a fall	Number conveyed to hospital	Proportion of call outs not conveyed to hospital %
NHS Guildford & Waverley	4,401	1,833	58%
NHS Surrey Heath	1,793	873	51%
NHS Surrey Downs	6,828	2,929	57%
NHS North West Surrey	7,168	3,388	53%
NHS East Surrey	3,616	1,422	61%
NHS North East Hampshire and Farnham	3,735	1,916	49%

Source: SECAmb

Table 3 illustrates the number of ambulance call outs made for falls and also indicates that a high proportion of these call outs are not conveyed to hospital. The large proportion of those who are not conveyed to hospital may still warrant further follow-up with community providers to reduce their risk of a more serious fall in the future. East Surrey has the highest proportion of call outs not conveyed to hospital at 61% followed by Guildford & Waverley at 58%.

**Table 4: Number of call outs for top 10 frequent callers (aged 65 and over) by households about falls by CCG area, October 2014 to September 2015**

CCG	Number of call outs for top 10 frequent callers by household	Number conveyed to hospital	Proportion of call outs not conveyed to hospital
NHS Guildford & Waverley	188	25	87%
NHS Surrey Heath	156	25	84%
NHS Surrey Downs	246	18	93%
NHS North West Surrey	271	24	91%
NHS East Surrey	204	12	94%
NHS North East Hampshire and Farnham	177	12	93%

Source: SECAmb

Table 4 displays the number of calls for falls made by the top ten households<sup>7</sup>. Numbers are high for each CCG, in particular North West Surrey CCG. Some households in each CCG had called the ambulance service over 30 times. However, the proportion of call outs for the top ten frequent callers

<sup>7</sup> Data on the number of call outs per household for a fall where the age of the resident was 65 and over were provided by SECAmb. The top ten households with the most call outs for falls were then identified, and the number of call outs for these was aggregated.

by household that were not conveyed to hospital was between 84% and 94% for each CCG. This suggests that better follow up and support to prevent further falls is required for someone who has fallen and required ambulance services.

**Table 5: Number of call outs for top 10 frequent callers from care homes about falls, October 2014 to September 2015**

<b>CCG</b>	<b>Number of call outs for top 10 frequent callers by care home</b>	<b>Number conveyed to hospital</b>	<b>Proportion of call outs not conveyed to hospital</b>
NHS Guildford & Waverley	197	108	45%
NHS Surrey Heath	110	81	26%
NHS Surrey Downs	372	173	53%
NHS North West Surrey	267	156	42%
NHS East Surrey	184	83	55%
NHS North East Hampshire and Farnham	160	96	40%

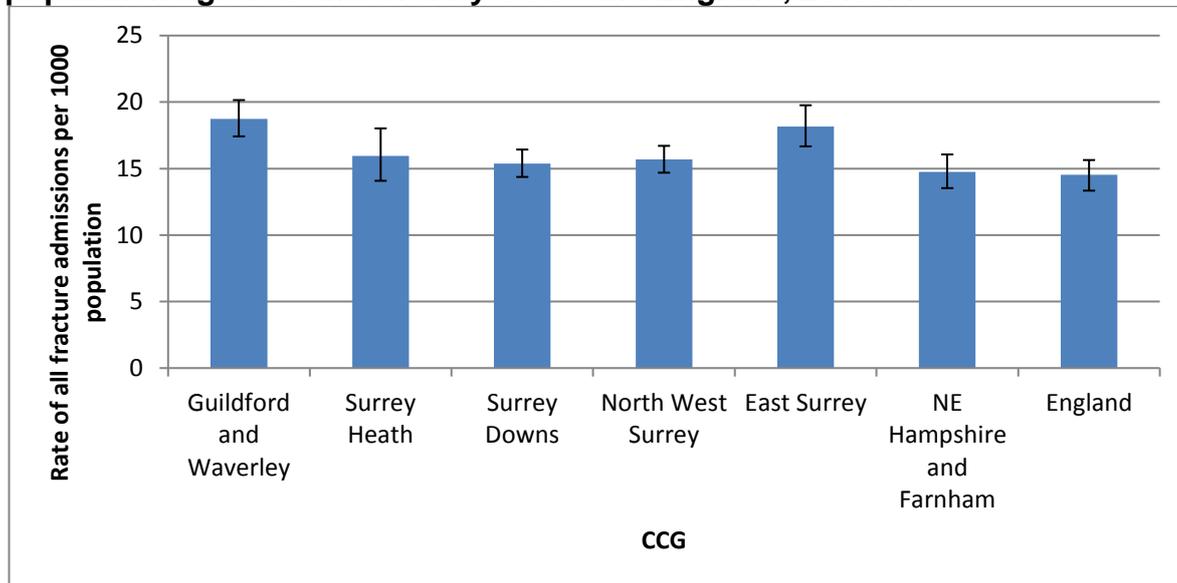
Source: SECamb

The number of call outs for the top ten care homes reporting a fall was also examined. Care homes will vary in terms of the number and characteristics of their residents. Although the number of call outs per year were high for the top ten care homes, in most cases over half resulted in the resident being taken to hospital, with exceptions being in East Surrey and Surrey Downs CCGs. This is much higher than the proportion of residents falling at home who are conveyed to hospital following an ambulance call-out. Reasons for this could be that residents in care homes are more likely to suffer a serious injury as a result of a fall compared to residents in the community, or staff in care homes are better able to identify when a resident would benefit from a medical review.

*Impact of falls*

Fractures are often used as a surrogate marker for falls, as it is estimated that over 90% of fractures occur as a result of a fall.<sup>ixi</sup> Figure 10 illustrates the rate of all fracture admissions in the 65 and over population in Surrey.

**Figure 10: Direct age and sex standardized rates of all fracture admissions per 100,000 of population aged 65 and over by CCG\* and England, 2013/14**

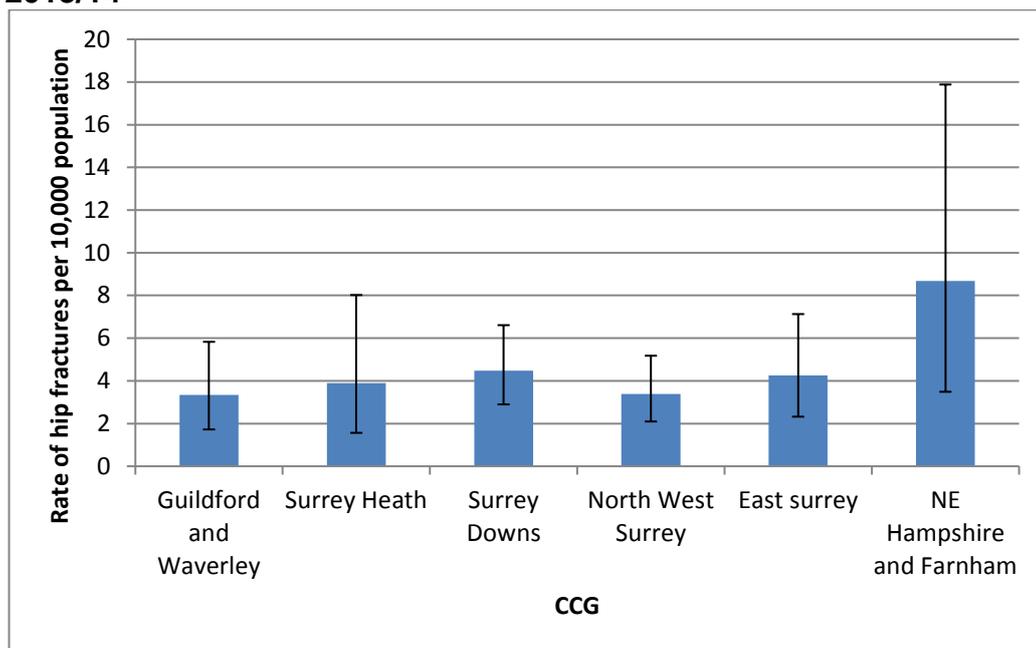


Source: NHS Commissioning for Value tool  
 \*For entire CCG population, not Surrey only

It can be seen from the chart that certain CCGs have a significantly higher rate of all fracture admissions in the 65 years and over population compared to other CCGs. For instance, Guildford & Waverley and East Surrey CCG both have significantly higher rates of all fracture admissions compared to Surrey Downs and North East Hampshire & Farnham CCGs. Guildford & Waverley CCG also has a significantly higher rate of all fracture admissions compared to North West Surrey CCG. Compared to the England average, East Surrey and Guildford & Waverley have significantly higher rates of all fracture admissions in the 65 years and over population.

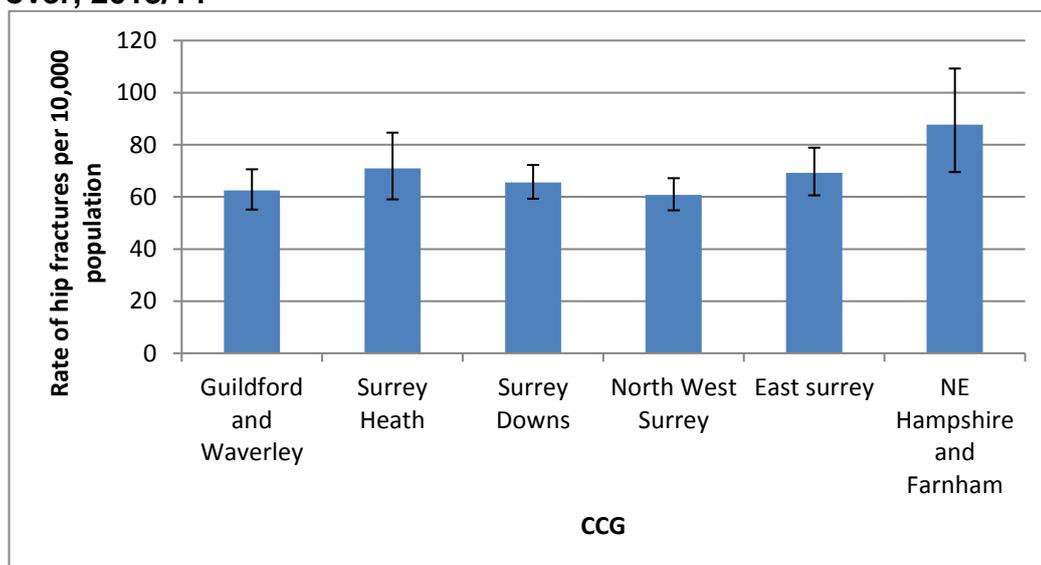
Hip fractures are a particularly debilitating injury which can occur following a fall. The following two figures indicate the rate of hip fractures occurring in those aged between 50 and 64, and 65 years and over.

**Figure 11: Direct age standardized rate of hip fractures per 10,000 population aged 50-64, 2013/14**



Source: Hospital Episode Statistics

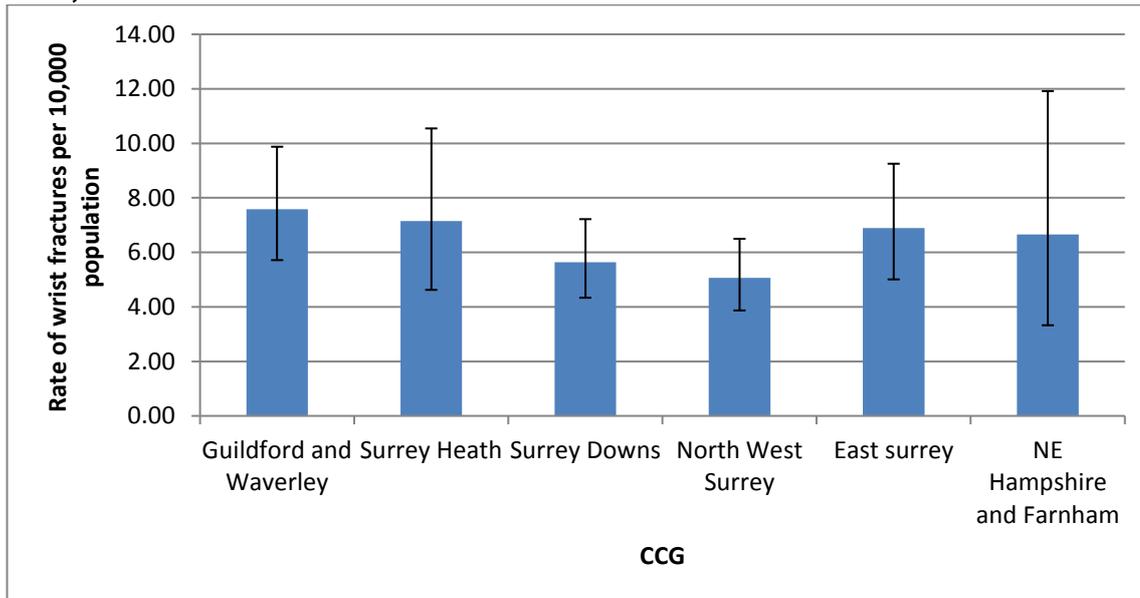
**Figure 12: Direct age standardized rate of hip fractures per 10,000 population aged 65 and over, 2013/14**



Source: Hospital Episode Statistics

It can be seen from Figures 11 and 12 that there are no significant differences in the rates of hip fractures between the Surrey CCGs for the 50-64 age group and the 65 and over age group. However, the rate of hip fractures is much higher overall in the 65 and over age group compared to the 50-64 age group, which is consistent with results reported earlier that increased age is associated with a higher risk of falls.

Many patients who suffer a hip fracture have often reported a previous fracture. One study found that almost half of hip fracture patients suffer a prior “herald” fragility fracture.<sup>lxii</sup> Fractures of the wrist tend to be common, and in older women, may indicate underlying osteoporosis.<sup>lxiii</sup>

**Figure 13: Direct age standardized rate of wrist fractures per 10,000 population aged 50 and over, 2013/14**

Source: Hospital Episode Statistics

In Figure 13, the population aged 50 and over has been used as the denominator as the rate of recorded wrist fractures compared to hip fractures was very low. However, there were no significant differences in the rate of wrist fractures between the CCGs.

#### *Length of hospital stay*

Hip fractures lead to particularly prolonged stays in hospital and this burden appears to be increasing year on year as the population of older people increases (Table 6).

**Table 6: Total number of bed days due to hip fractures (ICD-10 code S720) and median length of stay for those aged 50-64 years, 2012/13 and 2013/14**

CCG area	2012/13		2013/14	
	Total bed days	Median duration of stay	Total bed days	Median duration of stay
NHS Guildford & Waverley	298	12	85	4
NHS Surrey Heath	94	8	50	4
NHS Surrey Downs	270	7	255	6
NHS North West Surrey	310	10	237	6
NHS East Surrey	330	10	233	7
NHS North East Hampshire and Farnham	51	8	50	6
Surrey		<b>9</b>		<b>6</b>
England		<b>8</b>		<b>8</b>

Source: Hospital Episode Statistics, 2015

As can be seen from Table 6 above, in general the median length of stay for patients aged between 50 and 64 years old with a hip fracture has decreased for all CCG areas between 2012/13 and 2013/14. However, in 2013/14, East Surrey CCG has the highest median duration of stay while

Guildford & Waverley and Surrey Heath have the lowest median durations of patient stay. Nonetheless, all CCGs have a lower median duration of stay compared to the English average.

**Table 7: Total number of bed days due to hip fractures (ICD-10 code S720) and median length of stay for those aged 65 years and over, 2012/13 and 2013/14**

CCG area	2012/13		2013/14	
	Total bed days	Median duration of stay	Total bed days	Median duration of stay
NHS Guildford & Waverley	5224	17	5241	14
NHS Surrey Heath	2471	15	2218	14
NHS Surrey Downs	7933	15	8184	16
NHS North West Surrey	9950	17	8130	15
NHS East Surrey	3906	15	4598	14
NHS North East Hampshire and Farnham	871	14.5	1662	12.5
Surrey		<b>16</b>		<b>14</b>
England		<b>14</b>		<b>14</b>

Source: Hospital Episode Statistics, 2015

The median duration of stay for patients aged 65 and over for a hip fracture is higher than for patients between 50 to 64 years. This is most likely due to the higher likelihood of other co-morbid conditions in this age group. However, median duration of stay has decreased between 2012/13 and 2013/14 in all CCG areas with the exception of Surrey Downs CCG, which has increased from 15 days to 16 days. North West Surrey and Surrey Downs CCGs also have a higher median duration of stay for this age group compared to the English average and Surrey as a whole.

#### *Mortality associated with falls*

**Table 8: Number of Deaths where fracture of femur (ICD10 S72) is mentioned in one of the Cause of Death fields, for all ages and ages 65 - 84 years, period 2012-2014**

CCG	Number of deaths per 100,000 population 2012-2014	
	All ages	Ages 65-84
NHS Guildford & Waverley CCG	46	8
NHS Surrey Heath CCG	26	6
NHS Surrey Downs CCG	85	20
NHS North West Surrey CCG	59	13
NHS East Surrey CCG	34	3
NHS North East Hampshire & Farnham CCG	12	4
<b>Total</b>	<b>262</b>	<b>54</b>

Source: HSCIC

Table 8 illustrates the number of deaths associated with a fractured femur in Surrey. However, the numbers are very small when observing ages 65-84 so no conclusions can be drawn on the significance of the differences. In addition, the rates given for all ages are crude rates per 100,000

population and are not standardized by age or sex. This means that differences in the population demographics of each CCG may account for the variation observed.

*Cost of acute services*

**Table 9: Ambulance costs for call outs by CCG for persons aged 65 and over, October 2014 to September 2015**

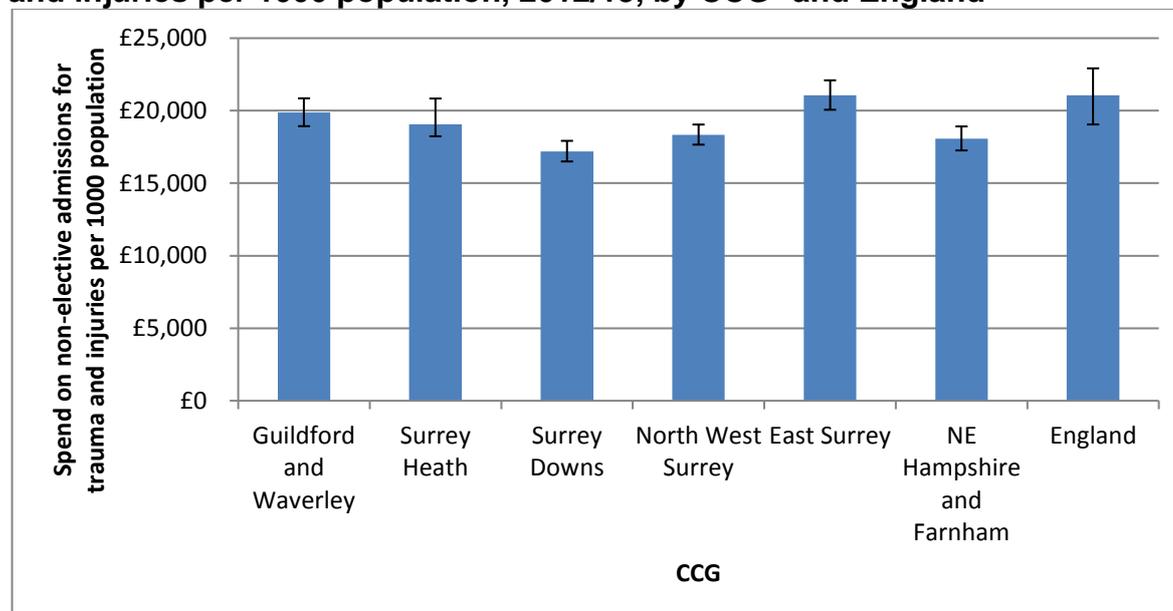
CCG	Estimated costs* of all call outs for falls	Cost* of call outs not conveyed to hospital
NHS Guildford & Waverley	£1,051,839	£613,752
NHS Surrey Heath	£428,527	£219,880
NHS Surrey Downs	£1,631,892	£931,861
NHS North West Surrey	£1,713,152	£903,420
NHS East Surrey	£864,224	£524,366
NHS North East Hampshire & Farnham	£892,665	£434,741

Source: SECAmb

\*Cost based on £239 per call out obtained from SECAmb

Table 9 shows the total cost of ambulance call outs over one year is very high, with North West Surrey CCG estimated to spend the most at £1.7 million. However, a large proportion of residents calling for an ambulance are not conveyed to hospital, and the costs associated with these call outs are also high; Surrey Downs CCG is the highest at just over £930,000 and is closely followed by North West Surrey CCG. Surrey Heath CCG spend the least on call outs for falls where residents are not taken to hospital.

**Figure 14: Spend on non-elective (emergency and other non-elective) admissions for trauma and injuries per 1000 population, 2012/13, by CCG\* and England**



Source: NHS Commissioning for Value tool

\*For population covered by CCG, not Surrey only

Figure 14 indicates that spend on non-elective admissions for trauma and injuries also varies by CCG. Surrey Downs CCG spend is significantly lower per 1000 population compared to all other CCGs with the exception of North East Hampshire & Farnham CCG. North East Hampshire & Farnham CCG

also spend significantly less than East Surrey and Guildford & Waverley. Surrey Downs, North East Hampshire & Farnham and North West Surrey spend significantly less than the England average. However, it should be noted that this spend is for all ages, not just those over 50 years.

**Table 10: Costs\*of hospital treatment of hip fractures for top four HRG codes in those aged 50 years and over, 2013/14**

CCG	HRG codes				Total
	Major Hip Procedures category 1 for Trauma with CC†	Major Hip Procedures category 1 for Trauma without CC	Intermediate Hip Procedures for Trauma with Major CC	Intermediate Hip Procedures for Trauma without CC	
Guildford & Waverley	£626,486	£545,818	£227,361	£190,303	£1,589,968
Surrey Heath	£196,545	£177,379	£86,321	£165,084	£625,329
Surrey Downs	£1,006,605	£566,871	£482,284	£247,139	£2,302,899
North West Surrey	£1,254,092	£293,077	£600,860	£185,509	£2,333,538
East Surrey	£582,988	£306,518	£260,174	£153,097	£1,302,776
North East Hampshire and Farnham	£177,660	£163,036	£47,040	£101,495	£489,231
<b>Total</b>	<b>£3,844,376</b>	<b>£2,052,699</b>	<b>£1,704,040</b>	<b>£1,042,627</b>	<b>£8,643,742</b>

\*Costs estimated using Payment by Results base tariff plus best practice tariff for each HRG code and multiplied by Market Forces Factor for CCG.

†CC = Complications and Comorbidity

Source: Hospital Episode Statistics

It can be seen from Table 10 that North West Surrey and Surrey Downs CCG spend the most on hip fractures for the top four HRG codes compared to the other CCGs. In total, spend has been over £8.5 million per year for Surrey on these hip fractures. In addition, this table does not include all HRG codes for hip fractures so actual spend is likely to be even higher. The costs in the table do assume an additional best practice payment of £1,335 per case, which is paid when care complies with characteristics of best practice. In the case of hip fractures, this includes surgery within 36 hours of arrival into Accident & Emergency and that the patient is under expert care of a consultant geriatrician. However, it is not known whether all cases would have qualified for the best practice tariff.

### *Benchmarking of CCGs*

Although it is useful to observe differences in the burden of falls and service-use between the CCGs in Surrey, the characteristics of the population served by the CCGs may be very different and could account for some of the variation observed. The NHS Commissioning for Value tool also allows comparison of CCGs against a benchmark group of CCGs which are similar in terms of age, ethnicity, levels of deprivation and population density.

The tables below for each CCG display the results for certain indicators linked to trauma and injuries and compare these results to the average of 10 other similar CCGs.

**Table 11: Performance of each Surrey CCG benchmarked against 10 similar CCGs for trauma and injury indicators**

CCG	Performance of CCG on indicators compared to 10 similar CCGs		
	Rate of injuries due to falls per 100,000 population aged 65 and over	Rate of hip fractures per 100,000 population aged 65 and over	Spend on non-elective admissions for trauma and injuries per 1000 population†
Guildford and Waverley	Worse 35%↑	Worse 14%↑	Same 3%↑
Surrey Heath	Worse 17%↑	Worse 8%↑	Worse 11%↑
Surrey Downs	Worse 27%↑	Worse 12%↑	Better 5%↓
North West Surrey	Same 0.8%↓	Same 6%↑	Same 1.3%↑
East Surrey	Worse 17%↑	Same 8%↑	Worse 17%↑
North East Hampshire and Farnham	Worse 21%↑	Same 0.7%↓	Worse 5%↑

N.B: Boxes in red indicate where CCGs were statistically significantly worse than 10 similar CCGs while boxes in green indicate where they were statistically significantly better. Statistical significance at  $p < 0.05$  level

†All ages

Source: NHS Commissioning for Value tool

It can be seen that most CCGs have a statistically significant higher rate of injuries due to falls in the 65 years and over population with the exception of North West Surrey CCG which does not have a statistically different rate to its 10 similar CCGs. Guildford & Waverley, Surrey Heath and Surrey Downs CCGs also perform significantly worse than their benchmarked CCGs for the rate of hip fractures occurring in the 65 years and over population. Finally, East Surrey, Surrey Heath and North East Hampshire & Farnham CCGs have a significantly higher spend on non-elective admissions for trauma and injuries, while Surrey Downs CCG actually spends less compared to its benchmarked CCGs.

### Primary Care

The Quality and Outcomes Framework (QOF) incentivizes GPs to keep a register of patients with osteoporosis confirmed through a DEXA scan, and to ensure that these patients are on an appropriate bone-sparing agent. NICE guidelines recommend the use of bone-sparing agents to reduce the risk of further osteoporosis-related fractures in women who have gone through the menopause and who have already sustained an osteoporosis-related fracture.

**Table 12: Percentage of patients aged 75 years and over with a fragility fracture on or after 1 April 2012 who are being treated with a bone-sparing agent (excluding exceptions) by CCG, 2013/14**

CCG	Proportion of patients aged 75 years and over with a fragility fracture on or after April 2012 being treated with a bone-sparing agent	Quintile (compared to all other England CCGs)
NHS Guildford and Waverley	74.2	1
NHS Surrey Heath	77.1	1
NHS Surrey Downs	86.1	5
NHS North West Surrey	80.2	2
NHS East Surrey	80.6	2
NHS North East Hampshire and Farnham	89.5	5

Source: Atlas of Variation

Table 12 reveals that there is much variation between CCGs in the management of patients with confirmed osteoporosis. North East Hampshire & Farnham has the highest proportion of patients with confirmed osteoporosis on an appropriate treatment, while Guildford & Waverley CCG has the lowest.

#### *Limitations of the data*

There are several limitations on the data sources used in this health needs assessment. Firstly, not everyone having a fall will have presented to health services, so the data would not have captured any unreported falls. Secondly, there will have been discrepancies in how falls are coded both within and between different data sources. For instance, data is often coded by the injury sustained e.g. a fracture, rather than the cause being a fall. However, not all injuries will have occurred as a result of a fall. Thirdly, there is no consensus on the operational definition for a fall; this is important as there can be different interpretations around what does and does not constitute a fall. Finally, due to small numbers in certain categories, data needed to be aggregated at the Surrey level in order to comply with confidentiality requirements.

Appendix 3 illustrates how data sources were used in the needs assessment as well as the limitations of each.

## 6.3 Focus Group

A focus group was held on the 14<sup>th</sup> December with a group of older people attending a day centre in Elmbridge. All participants were provided with information on the focus group and consented to participation beforehand. Nine people participated in total, which included three men and six women, and all were aged between 85 and 92 years. During the focus group, participants were asked about what falling meant to them, how it affected their lives and were encouraged to discuss their own experiences of falls.

The focus group was recorded and the audio recording was transcribed and written up in a Microsoft Word document. Coding was undertaken in NVivo 10 software. Key themes arising from the focus group are given below. Words in square brackets provide contextual information around the quote so that the meaning is clear for the reader.

### Key themes

#### *General perceptions of falls*

The group were first asked about their thoughts in general in relation to falls. Some felt that falls were an inevitable part of ageing and could not be avoided. The discussion then quickly moved onto concerns associated with falls. The majority agreed that they were worried about not being able to get up following a fall.

“...it’s frightening really. It’s the thought that goes through your head whether you’re going to manage to get off the ground.”

However, one of the greatest fears voiced by the group was the possibility of causing themselves a serious injury, particularly by falling and hitting the back of their head.

**Participant 1:** “If you break limbs, it’s bad enough but if you hit your head...it may be much more serious.”

**Facilitator:** “Yes”

**Participant 2:** “Especially if you go over backwards...back of your head...oh anything can happen then.”

Participants also discussed the potential repercussions of a fall. Some talked about the effects a fall could have on their confidence.

“...once you’ve fallen you tend to lose most of that confidence. We’ve all done certain things in a younger life but things alter so much when you get older”

One participant worried that a serious fall would result in admission to a nursing home, and he greatly feared losing his independence.

“[After a fall] totally, totally worry of what’s...what’s happening next. Am I going, y’know somewhere where I should...I don’t want to go? Into a nursing home?”

*Causes of falls*

When asked about the cause of falls, many different responses were received. These included: medications, poor mobility in general e.g. due to previous strokes, simple trips, being clumsy, postural hypotension, and walking too quickly. Many felt that features of the outside environment led them to fall.

**Participant 1:** "I find walking a little bit worrying because the pavements or wherever you walk...are so uneven. You need to look at the ground where you're walking, but whether that's a good thing or whether you should look ahead..."

**Participant 2:** "...I can quite understand you about looking down because some of the pavements are in such a bad condition that it's so easy to trip and fall".

"The companies who have got these supermarkets...they have the small flagstones...well, at times, where they've got heavy vehicles, backing in and out, the paving stones, they just move...and if you're not lifting your feet properly, then nine times out of ten you catch this rock. And it does...it frightens you."

A few participants also remarked upon inadequate footwear causing them to fall.

"What you've got to be terribly careful about is that you...if your shoes are non-slip and you're on a non-slip surface...if I was walking forward there and not lifting my feet, I would fall down. And that's happened to me before. Because your foot stays still, and you see even though you're trying to go forwards, your foot stays still, you're rushing, you're body goes forward and then you go flat down."

"But the thing was I thought made me fall, was because of the sole of the shoe...sandals...running thing or whatever, it fought with the surface I was walking on and it seemed as if it pulled me over."

Many agreed that losing balance was the reason behind a fall a lot of the time.

**Participant 1:** "Balance is the thing that worries me when I get up...so I try and remember just to stand still for a few moments."

**Participant 2:** "Everything is connected with balance."

*Experiences of falls*

During the focus group, four of the participants shared their experiences of falling. Two participants had fallen because they had tripped, one had lost their balance and the last participant was unsure about what had caused his fall but had been diagnosed with postural hypotension. In two cases, participants felt they had been lucky to access or receive help at the time.

"I bought some shoes to do exercises and had a fall in the driveway actually...so on the drive...and I was all on my own and I just lay there and thought how am I going to get up from here? And luckily for me a lady had gone past in her car and had seen me laying on the driveway and very kindly came back again."

"I think the idea of the [telecare] button is quite good because I was lucky. I happened to be indoors when I went. I flaked out and...uh, got into the main room and pressed

that button, and then they got a medic in a car to come and see me and take me to hospital”.

Participants who had fallen were then asked whether they had told anyone about the fall. Two mentioned discussing the fall with a member of the family. However, none of the respondents felt it was necessary to discuss their fall with a health professional, unless they required medical attention following the fall.

“[After the fall] that I clued up in hospital because as I said I broke the metatarsal, didn’t even know I’d done that, it was just that my foot hurt and I thought oh...I don’t know...I went on, did a bit of shopping, came back to the car, and then I thought well something’s wrong there and I just went and made an appointment to go to hospital.”

“If I’m not hurt, I don’t go to seek any further advice.”

One participant even admitted being too proud to ask for help, feeling that coping with a fall oneself was important if they were to continue to lead an independent life.

“This is the only problem of getting a certain age. People think they are doing you a favour by looking after you but they’re not. Not really. You need to be able to have your own life.”

Another of the participants stated they didn’t seek medical advice following a fall because there was nothing a health professional could do to help them. He also felt that health professionals didn’t provide a service to review people who had suffered a fall that didn’t require admission to hospital.

“But the main thing I’ve noticed is that if you do have a fall, it’s only the public that helps you. You’ve not got anybody in there that’s, y’know, a professional that would come round and give you any help.”

#### *Help received following a fall*

Participants who had fallen were asked about the quality of medical care they had received following the fall. One participant had used the telecare button to raise an alarm that he had fallen. The advantages and disadvantages of using the telecare button in the event of fall were discussed amongst participants in detail. The major advantage was that a support crew often arrived quickly onto the scene following a fall. However, a disadvantage was that it only worked within a certain radius of the home meaning it may not successfully activate the alarm if a participant fell outdoors.

In the hospital setting, participants who had been admitted following a fall were satisfied with the quality of care they had received overall, and had felt confident to return to home after discharge. However, one participant did not feel the cause of their fall had been identified and managed satisfactorily.

#### *How to prevent falls*

Finally, participants were asked how they may prevent falls from occurring. Some felt there was not much that could be done to prevent falls.

“When you’ve had strokes...there’s nothing you can do about it [preventing falls]”

However, some conceded that exercise classes gave them confidence and could help to reduce falls. Many felt changes to their home environment would be the most helpful in preventing future falls.

Changes included the installation of grab rails, pulleys which activate the telecare alert system, removing loose rugs and having non-slip floors. Walking aids were also cited as a useful aid to improve stability. Some also emphasised the importance of concentrating when walking.

“I walk in the direction I’m going in or if I’m going to turn I might stop and then go. I think, people who have had falls or are likely to, they should use their common sense and not just suddenly veer off because I’ve found that tends to send me off balance.”

“When you’re trying to focus on...say crossing the road or whatever...you’ve gotta be equally careful to remember that there’s traffic coming by.”

Two participants felt that more could be done to improve the external environment in order to prevent falls.

“Well, as I am placed in sheltered housing, if you get the sensation of falling, you’ve got something to hang on to. You don’t get that in the street.”

“If I haven’t got a rail on stairs, I won’t go down them.”

## Conclusion

The focus group did not seek to be representative of the experiences of falls in older people, and the findings cannot therefore be generalised to all older people in Surrey. Nonetheless, it does help to provide a deeper insight and understanding of the issues faced by older people in relation to falls locally. The findings of the focus group are also strengthened by the fact that similar themes were found during structured interviews with key stakeholders, and also that many of the themes arising have been previously identified in other qualitative research.<sup>lxiv,lxv</sup>

Older people were worried about the consequences of falls, particularly losing consciousness and sustaining serious injuries. Many had experienced minor falls with a few requiring medical attention. However, it was interesting to learn that older people felt that falls were a natural part of ageing and little could be done to reduce their own risk. As a result, many did not see the importance of reporting minor falls to health professionals, as they felt they would not be able to do anything about it. This is not the case, and such misconceptions should be addressed, perhaps through effective awareness-raising campaigns.

## 6.4 Key stakeholder interviews

In order to better understand the current provision of services relevant to falls prevention and management available across Surrey, semi-structured interviews were held with key stakeholders from various organisations given in Table 12 below.

**Table 13: List of key stakeholders interviewed**

Interviewee	Position	Organisation
Cyane Sullivan	Clinical Commissioning Project Manager	NHS Surrey Heath CCG
Rachel Darroch	Clinical Director of Programmes	NHS Surrey Heath CCG
James Miller	Project Manager	NHS East Surrey CCG
Tom Elrick	Urgent Care Programme Lead	NHS Surrey Downs CCG

Shola Oke	Interim Head of Planned Care	NHS Guildford and Waverley CCG
Jack Wagstaff	Head of Frailty & Integrated Care	North West Surrey CCG
Deborah Melville	Lead for Rapid Response	Virgin Care
Janet Clark	Service Manager Long Term Condition Support Services	First Community Health
Helen Cook	Clinical Lead Manager	Central Surrey Health
Norah Lewis	Senior Commissioning Manager	Adult Social Care, Surrey County Council
Dr Richard Wright	General Practitioner	East Surrey CCG
Di Cheeseman	Community Support and Development Manager	Age UK Surrey
Lorraine Tellis	Telecare Service Manager	Mole Valley borough council
Andy Collen	Consultant Paramedic, Head of Clinical Development	South East Coast Ambulance Service (SECAmb)
Dr Hiro Khoshnaw	Consultant geriatrician	Royal Surrey County Hospital
Paul Burton	Watch Manager at Hampshire Fire and Rescue Service	Hampshire Fire and Rescue Service
Bryn Strudwick	Community Safety Manager, Group Commander	Surrey Fire and Rescue Service
Josie Scott	Occupational therapist	Royal Surrey County Hospital
Nicola Hampshire	Occupational therapist	Royal Surrey County Hospital
Mick Daley	Head of care	Broome Park nursing home
Tessa Brown	Sister	Milford Specialist Rehabilitation Hospital

In total 21 people were interviewed. The majority of interviews were conducted over the telephone but where time allowed, interviews were conducted face to face. All interviews were undertaken at a time and place convenient for the interviewee.

The aim of these interviews was to:

- Gain information about current services provided in relation to falls prevention and management across Surrey and how they operate in practice
- Gain information about any gaps in services
- Identify any opportunities to enhance current services

Given the time-frames of the needs assessment, it was not possible to get a Surrey-wide perspective on falls prevention and management from certain organisations, including primary care, hospitals and care homes. Instead, one stakeholder from each of these organisations was interviewed. However, it will be highlighted within the relevant section where the views expressed may be limited to a small area of Surrey.

The following sections contain details on the services and initiatives occurring in Surrey which impact on falls. The services/initiatives are presented in seven key areas.

- Initiatives raising awareness of falls and services provided
- Identification of individuals at risk

- Vulnerable groups
- Supportive services for individuals at risk of falls or with a history of falls
- Acute services responding to residents reporting a fall
- Community falls services
- CCG commissioning developments

### **Initiatives raising awareness of falls and services provided**

This section describes where residents in Surrey can obtain information on falls services, and the role of Community Connectors and Surrey Hubs in providing information.

#### *Information and advice on falls*

In general, there seems to be limited information and advice available in the community on falls prevention. Surrey Heath are publishing health messages on bin hangers which are sent to homes where people are registered as needing support, and some of these messages contain advice around falls prevention. Almost all interviewed stakeholder agreed that information on falls prevention needed to be improved upon, and that falls prevention needs to be more embedded within local strategies.

#### *Community Connectors*

The Communities Engagement Team (CET) Community Connectors Project supports older and vulnerable people in Surrey communities to stay well and independent. They act as a conduit between local councils and social services and the wider voluntary and faith sector. CET Community Connectors raise awareness on services and support which is available to support the elderly and vulnerable. Currently, the connectors are active in Surrey Heath, Guildford and Spelthorne and are funded by county, borough and district councils. However, there are no plans to extend the project across Surrey.

#### *Surrey Hubs*

Surrey Hubs is an information centre available on or near the high street in one town in most of the districts and boroughs, however is not present in all of them. The aim of the Hubs is to promote the independence of older people, disabled people, carers and families by helping them to make more informed choices about the different care and support available to them in the community. Some of the Hubs also sell pieces of equipment and people are able to “see and touch” the equipment before purchasing.

### **Identification of individuals at risk of falls**

This section describes how individuals at risk of falls may be identified in the community. It discusses the work of the WALC (Walk and Live Confidently) campaign, MECC (Making Every Contact Count) and the role of Wellbeing advisors.

#### *WALC (Walk and Live Confidently) campaign*

The WALC project is operating in Surrey Heath and North East Hampshire & Farnham in Surrey. It also extends to Bracknell & Ascot CCG outside of Surrey. The campaign encourages people to consider self-referring to the Virgin Care community falls service if they have had two or more falls in the last 12 months, or if they answer yes to three out of the five questions set out below:

- Have you fallen in the last year?

- Are you taking four or more medicines?
- Have you had a stroke or been diagnosed with Parkinson's disease?
- Have you had any problems with your balance or walking?
- Do you have difficulties in getting up from a chair?

Individuals self-refer by calling the number provided by the WALC campaign. The questions were devised and agreed by a steering group which included a consultant specialising in falls, falls nurse as well as other local experts. The questions are derived from the FRAT tool (Falls Risk Assessment Tool)<sup>8</sup> and NICE guidance. The messages and design of the campaign were developed closely with older residents through focus groups.

No other similar campaigns to raise awareness on falls prevention currently exist across the rest of the county. However, Guildford & Waverley CCG are in the process of developing their falls pathway to include self-referral from individuals at risk of falls or who have fallen to the community falls service.

### *Making Every Contact Count*

Making Every Contact Count (MECC) encourages the public facing workforce, to include in their everyday practice, conversations with individuals that maintain or improve mental and physical health and wellbeing and that may facilitate behaviour change. It provides professionals with training so that they are equipped with the confidence, expertise and knowledge to tackle sensitive issues which may be raised during a conversation with a patient or service user.

For the Kent Surrey Sussex region, a competency framework and training model for MECC is under development. Training will most likely involve e-learning and a one day workshop targeted at front-line staff, which could be cascaded as a "train the trainer" model. The Surrey Skills Academy website which allows people to access a wide range of training and learning opportunities may also be able to accommodate various "bolt on" modules. In addition, spearhead sites across the region have been identified to develop examples of good practice prior to further roll-out. The programme has funding for two years and will include an evaluation component.

Given MECC is still in the early stages in Surrey, there may be scope to tailor the MECC training to include falls prevention. Through MECC, professionals could be trained to identify individuals at risk of falls and promote existing services which may help to reduce their risk. Future training on MECC could therefore include a basic falls risk assessment where professionals can refer into a falls pathway if needed. The identification of individuals at risk of falls who are appropriately referred could be monitored by the evaluation.

### *Wellbeing Advisors*

East Surrey is currently piloting wellbeing advisors in GP practices across East Surrey. Individuals can self-refer or be referred by their GP or nurse into the service. The wellbeing advisor conducts a thorough assessment of the patient and signposts them to services from which they may benefit.

### **Vulnerable groups**

In this section, work to reduce the risk of falls in vulnerable groups, particularly those living in care homes or suffering from dementia, is identified.

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<sup>8</sup> The FRAT tool is a screening tool which allows the rapid assessment of an individual's risk of falling.

### *Care Homes*

The head of care in only one care home in Surrey was interviewed for the needs assessment. This nursing home was based in Mole Valley and accommodated 52 residents. Falls risk assessments are usually performed by staff nurses as part of a resident's care plan, which is reviewed every one to three months. However, the management of falls risk is very much tailored to the individual and their needs. Often it involves addressing the individual's nutrition and hydration, as well as reviewing their medication. A register of all incidents and accidents (which includes falls) is also maintained by the nursing home. The nursing home did not tend to access the community falls service and felt it would be beneficial to have more support from occupational therapy services in order to access equipment which may benefit the nursing home residents. There is an appetite for training and education of care home staff on falls prevention and management as well as more signposting to services which may benefit residents at risk of falls.

Kent Surrey and Sussex are launching a care homes/community hospitals project aimed at improving the assessment of frailty and risk of dehydration. It is expected that the project will help contribute to a reduction in falls. It hopes to achieve this by improving hydration awareness and practices among care home and community hospital staff. Homes and community hospitals are being asked to sign up to the pilot and nominate two staff members to be hydrate champions. Monthly data on the incidence of falls as well as other metrics such as resident admissions to hospital will be monitored by the project.

A Thirst 4 Life campaign in Surrey in 2006 which aimed to increase awareness of older people around the importance of hydration proved to be successful in reducing the incidence of falls.

### *Individuals with Dementia*

Dementia is known to increase the risk of falls; a longitudinal cohort study published in 2009 found that during a 12 month period, 66% of participants with dementia had a fall compared to 36% of age-matched controls.<sup>lxvi</sup> In Surrey, dementia navigators are currently employed by the voluntary sector to act as an ongoing guide or 'navigator' to an individual affected by dementia, or even their carer. They provide one to one information and support for people with dementia to help them maintain their independence and control over their lives. They also provide information and support for carers on how they can best support the person they care for to maintain their independence, at home. In addition, they run support groups for people living with dementia (including carers and families). These groups are a valuable opportunity, for people facing similar challenges, to share their experiences and support each other.

There are currently four dementia navigators working across Surrey. As part of its dementia strategy, North West Surrey CCG is interested in expanding the number of dementia navigators available in its area.

### **Supportive services for individuals at risk of falls or with a history of falls**

This section describes a range of supportive services available for those at risk of falls or with a known history of falls. Some of the services offer general support to those who have suffered a fall while other services are specific to those with certain risk factors for falls. In terms of general support, the section discusses services provided by Age UK, telecare services and reablement services. With respect to specific risk factors, it describes services available for the visually impaired, handyman and occupational therapy services, Medication Use Reviews (MURs), and exercise classes. Finally, the Fire and Rescue Service is having an increasing role in falls prevention and this section covers the services they offer in this area.

### *General supportive services for falls prevention*

#### *Age UK Surrey*

Age UK Surrey has several relevant initiatives which could benefit those at risk of falls or who have recently had a fall.

Under the Guildford & Waverley CCG commissioned Living Well Integrated Care Project, Age UK Surrey is delivering support at home and in the community to help older people maintain their independence and realise personal goals such as going out shopping or for a walk. The project follows a model of social prescribing which originated in Cornwall as the Integrated Care Programme and had impressive interim results. For the first 325 people who went through the programme, they observed a reduction in all hospital admissions by almost a third, and a fifth of participants reported an average improvement in their wellbeing.

Through the programme, Age UK Surrey Personal Independent Co-ordinators (PICs) undertake guided conversations with older people who have been identified by their GP and could benefit from the extra support. The PICs are now even accepting referrals from community matrons and social care. The Personal Independent Co-ordinator then matches the older person with a volunteer who will work with the patient to help them realise their goals. Often, support is given to older people who have recently been admitted for a fall and need help to build their confidence back post discharge. The volunteer works with the older person for up to 20 weeks.

A project called 'Making Connections' which is also supported by Age UK Surrey is currently operating in Surrey Heath and Farnham and commissioned by the local CCG. Through the project, GP's as well as Health and Social Care professionals are identifying people at risk of social isolation and loneliness, falls or changes in health, and then offer them additional help and support. Similar to the Integrated Care Project, an Age UK Surrey Making Connections Co-ordinator helps individuals to set a personal goal, for example returning to an old hobby. The individual is then matched with a volunteer to support them in achieving these goals.

Age UK Surrey provides other services which often identify individuals at risk of falls or who have experienced a fall. These services include a foot care service and counselling service. However, these services do not routinely signpost or refer individuals who have had a fall to other services. Age UK Surrey has also developed a One Stop Surrey checklist which is accessible online and can be used by non-health care professionals visiting residents who may benefit from referral to certain community services. The checklist is returned to Age UK Surrey who then review and follow up with information, a service, or some level of support that has been identified as beneficial for that individual. Currently, the checklist does inquire about recent falls but does not actively refer someone to a service but rather advises them to contact their GP.

Finally, in terms of primary prevention, Age UK Surrey is also promoting physical activity in older people through "Go50 Walking and Cycling" programmes. Volunteers help to organise and lead walks or cycles across Surrey targeted at people aged 50 years and over.

#### *Telecare*

Surrey Telecare is a partnership initiative which was set up in 2006 by the district and borough council service providers across the county and Surrey County Council to raise awareness of Telecare. Coverage of telecare services across Surrey is good, and provides residents with an alarm which they can press to prompt a response from emergency services. Other products such as falls sensors can also be provided. The Community Alarm Telecare (CAT) discharge project offers an alarm and

pendant, free of charge for 12 weeks following hospital discharge to Surrey residents who do not already have the service. Thereafter residents need to pay for the service which, in Mole Valley, is £18.85 a month<sup>9</sup>. Individuals can self-refer to receive the service. Some individuals may also be eligible to receive an alarm as part of their care budget under Adult and Social Care. However, cost can sometimes be a barrier to people taking up the service.

Alarms are often activated following a fall. However, the Telecare providers do not always have a mechanism of alerting other agencies such as Adult Social Care when an individual has had a fall. In addition, the service may not offer information on falls or refer individuals to any services following a fall due to limited information being provided to Telecare Services by outside agencies. An individual activating the alarm with recurrent falls is generally referred by the emergency service responding to the call therefore Telecare staff rely on this action taking place.

### *Reablement services*

Reablement services commissioned by Adult Social Care in Surrey County Council are short intensive services usually delivered in the home and offered to people who are frail or recovering from recent illness or injury, such as a fall. The purpose of these services is to support people to stay safe and independent at home, and increase their independence by reducing dependence on care workers. These services also routinely assess the risk of a resident falling in their own home. In Surrey, reablement teams cover all eleven districts and boroughs. Reablement assistants help residents to learn how to maximise their independence by learning or relearning skills necessary for daily living. If an individual has had a fall or may be at risk of falls, a low level exercise plan may also be implemented, which is weaved into activities of daily living. The length of time the reablement service is required varies depending on an individual's needs but the service is only available for up to six weeks without charge but may be extended if necessary.

### *Specific services aimed at falls prevention*

#### *Sight for Surrey (formerly the Surrey Association for Visual Impairment)*

Visual impairment can be a contributory factor leading to a fall. Sight for Surrey is a registered charity which works to help people with visual impairment to obtain support including: assessment, reablement, rehabilitation and specialist equipment. It has recently been awarded a contract by Surrey County Council to provide sensory services for people who are visually impaired, deaf, deafened, hard of hearing and those who have combined hearing and sight loss. The new contract covers the whole of Surrey and started in February 2016. Individuals who may have fallen or are at risk of falls because of their visual impairment may benefit from a review by this service.

### *Handyman and Occupational Therapy services*

Guildford Borough Council offers a handyman person scheme for people aged 60 years and over or who are disabled or vulnerable. The service fits grab rails for free in private properties. All other home modifications are costed according to the type of work involved and the circumstances of the individual. There are also handyman schemes funded by the local council operating in all other districts and boroughs across Surrey. However, there is some variation between the schemes in terms of who is eligible to receive support and costs.

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<sup>9</sup> Based on costs from Mole Valley Council

The Guildford Borough Council and locality team also provide an occupational therapy service to Guildford residents called Equip. Assessments are undertaken by a qualified occupational therapist at a day centre which has an adapted bathroom, telecare room, other equipment and a demonstration chair lift. The therapist then makes recommendations on home equipment. Individuals can self refer, or be referred by their GP or a voluntary organisation. Again, similar local equipment assessment clinics are offered in other districts and boroughs. In addition, Surrey Smart Assist is a website which helps people living in Surrey to find the equipment and information they need to stay independent at home. People with reduce mobility complete an online equipment assessment which helps them to find the right equipment which is tailored to their needs.

### *Medication Use Reviews*

Medication Use Reviews (MURs) are an important tool to identify older people at increased risk of falling due to the type or number of medications they are taking. As pharmacies have long opening hours and an informal environment this offers potential for falls prevention. These reviews occur in pharmacies across Surrey and are commissioned by NHS England. In East Surrey and Guildford & Waverley CCGs, the medicine management teams have medicine optimisation projects in place for example in care homes, where medications causing falls may be reviewed. North West Surrey CCG has also been commissioning a pharmacist to conduct medication reviews in care homes, and hopes to expand this service during 2016.

### *Exercise Referral Schemes (ERS) and Exercise Classes*

GPs and health professionals can refer patients to a qualified exercise specialist at a local leisure facility, where a tailored exercise programme can be devised and delivered for them. However, individuals currently cannot self-refer into the service; the referral is made based on an assessment carried out by the health professional to determine that the patient is both inactive (or sedentary), and has an existing health condition or other factors that put the patient at increased risk of ill health.

A standard ERS protocol which includes inclusion and exclusion criteria has been issued for use by Surrey County Council. These have been set out in line with the National Quality Assurance Framework (NQAF) for exercise referral schemes and the British Heart Foundation Active guidelines for exercise referral (2010) in order to ensure that schemes meet recognised standards of quality, safety and effectiveness.

A recent review of the ERS available across Surrey has been conducted by Public Health.<sup>lxvii</sup> It found that all ERS follow the NQAF guidelines in providing 12 week access to a reduced price exercise from a supervised instructor. All schemes charge patients and these charges vary across the county. Currently there is a lot of variability between GP practices in the referral of patients to ERS. In addition, the current version of the exercise referral form does not include falls as a prompt for referrals. A working group has recently been set up to monitor data on referrals to ERS. In addition, although ERS are available in all CCG localities, there are no schemes operating in Epsom and Ewell.

In relation specifically to falls, strength and balance exercise classes are currently being offered in Elmbridge, Waverley (via hospitals), Woking and at the YMCA in Redhill (Reigate & Banstead) through First Community Health and Care. The YMCA is also offering seated exercise in care homes. Appendix 4 offers the most recent mapping of physical activity classes in all of the districts and boroughs.

Finally, Surrey Heath CCG is currently working with Arena leisure centre to pilot some outreach seated exercises with older residents living in sheltered housing in a deprived area. Initial feedback

on the pilot has been positive. Surrey Heath Borough Council has used Personalisation, Prevention and Partnership funding (PPPF) to train instructors in OTAGO<sup>10</sup> exercises.

### *Fire and Rescue Services*

Fire and Rescue Services are having an increasing role in falls prevention and management, and are seen as a health asset. At a national level, an agreement has been signed between the Chief Fire Association, NHS England, Public Health England and Age UK, that the fire service will start to conduct more person-centred visits. The Home Safety visits are going to become Safe and Well visits, which encourage an assessment of the individual rather than just focussing uniquely on their environment.

Hampshire Fire and Rescue Service has been working closely with North East Hampshire & Farnham CCG to develop a strategy across Hampshire to reduce falls in the elderly. The strategy is made up of the following components:

1. Referring residents identified as at risk of falls during a home safety visit to the WALC service using a North East Hampshire & Farnham CCG FRAT (Falls Risk Assessment Tool).
2. Extending Home and Safety visits to become Safe and Well visits which include the use of the FRAT and the nationally recognised HOMEFAST assessment tool which also assesses the risk of falls in residents. This component is aligned with MECC (Making Every Contact Count), and the fire service will also signpost individuals to services from which they may benefit from following a visit. It is anticipated that these visits will become fully operational across Hampshire during March 2016.
3. Hosting Falls Champion seminars for members of the community likely to come into contact with elderly fallers e.g. those working in sheltered accommodation. These seminars cover home hazards, individual hazards and sources of further information and signposting.
4. 12 week education and exercise courses hosted at the fire station for elderly people who may be at risk of falling or have been identified with deteriorating health and fitness. Courses have been designed around the 12 elements of frailty identified by the British Geriatrics Society e.g. social isolation, and aim to provide education and exercise to enable an individual to remain living independently and safely in their own home for longer. The mobility of individuals attending the course (e.g. using the Timed Up and Go Test) is assessed at the beginning and the end of the course in order to evaluate its impact.
5. Regular exercise sessions which can be attended following the 12 week education and exercise course. These are administered by a level 3 Physical Training Instructor.

Hampshire Fire and Rescue Service (HFRS) is also in discussions with South Coast Ambulance Service (SCAS) to provide a non-injury mechanical fall response. The aim of the service is to reduce the burden on the ambulance service for emergency call outs for falls which do not need to be conveyed to hospital. Responding crews will complete a FRAT and HomeFAST assessment prior to leaving the premises and refer or signpost as required.

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<sup>10</sup> OTAGO is a specific form of strength and balance training aimed at individuals at risk of falls

Across other parts of Surrey, the Surrey Fire and Rescue Service are looking to incorporate a falls risk assessment into their Home Fire Safety visits which are also evolving into Safe and Well visits. They currently conduct around 2,000 visits a year but are looking to significantly increase the number of visits to between 8,000 and 10,000 a year. These visits are offered to everyone irrespective of age but other agencies such as Adult Social Care can also refer people for a visit. Surrey and Hampshire Fire and Rescue also have access to NHS Exeter data on residents aged 65 years and over who are registered with a GP, which includes their date of birth, address and gender. This data will allow them to target individuals who may benefit from a Safe and Well visit.

In addition, a service to provide non-emergency support in response to telecare alerts is being piloted in Elmbridge by the Surrey Fire and Rescue Service. The fire service team visits residents in their own home who have suffered a non-injurious fall. The aim of the service is to reduce the burden on the ambulance service for emergency call outs for falls which do not need to be conveyed to hospital. An evaluation of the pilot is underway, and will include an analysis of the cost-effectiveness.

In most areas of Surrey, the Fire and Rescue Service also use the One Stop Surrey checklist developed by Age UK. Currently, the checklist advises that a patient should speak to their GP if they are at risk of future falls and the fire service do not refer directly to the community falls service.

### **Acute services responding to residents reporting a fall**

This section covers services provided by both primary and secondary care in responding to residents reporting a falls. It outlines services provided by the ambulance service, hospitals including fracture liaison services, and GP practices.

#### *Ambulance services*

Often, the ambulance service is called out to attend to a fall. According to SECamb, falls make up a significant proportion of all ambulance call-outs; over the last year they accounted for nearly 15% of all calls. Usually, if an individual has suffered a fall, the ambulance service assesses whether to convey that person to hospital or not. In many cases, the individual is not conveyed to hospital and a notification by the ambulance service is made electronically to the community falls service. This is done through the completion of a simple falls checklist on the IBIS (Intelligence Based Information System) database. Where a referral to the falls service is not made, the individual may be advised to follow-up with their GP.

In cases where a referral to the falls service is needed, the ambulance service often try to ring the falls provider in that area directly, but this is only possible within working hours. However, the ambulance service is not notified of whether their referral has been accepted by the falls service. In addition, the variation in criteria and mechanisms for referral to the different falls service providers in Surrey makes it difficult for the ambulance service to easily make such referrals.

Currently, SECamb are looking to standardise their pathways for managing individuals who have suffered a fall and are not conveyed to hospital. They would like to have a standard referral pathway to community falls services which can be done electronically through IBIS and would allow consistent recording of data. The database would even act as a surveillance system, potentially identifying individuals who have fallen and may be at risk of further falls. They are also building into the pathway a system to triage patients; for instance, some patients may require a rapid response from the falls service while others could be seen less urgently or even signposted to third sector partners. SECamb has expressed an interest in further training of staff on the identification of individuals at risk of falls and falls prevention.

### *Hospital provision*

Stakeholders from Royal Surrey County Hospital were interviewed. However, given the time-scales of the needs assessment, it was not possible to interview health professionals from the other four acute trusts in Surrey.

In Royal Surrey County Hospital, elderly patients who attend the hospital with falls are first seen in the Accident & Emergency Department (A&E). Patients are triaged into whether they are able to be discharged home within 72 hours or if they need to be admitted for further assessment. Patients who may be able to be discharged are usually reviewed by the Integrated Discharge Team (IDT) which is a multi-agency service working to prevent admission and support the safe discharge of patients attending A&E or Emergency Assessment Unit (EAU). The team offers occupational therapy, physiotherapy, community nursing and care managers. Although it does not have a geriatrician as part of their team, it can access geriatricians through the Older Person and Liaison (OPAL) service.

In some cases, patients admitted to the Emergency Assessment Unit (EAU) or Clinical Decision Unit (CDU) are referred to the OPAL service. The OPAL team review patients who would benefit from rehabilitation, providing early comprehensive geriatric assessments to prevent any avoidable admissions to inpatient wards. However, some of these patients are admitted to the ward or referred to community rehabilitation hospital beds, which are usually covered by a consultant, with the exception of beds in Haslemere Hospital which are GP-led. Often, there are few beds available in the community hospitals and so patients have to be referred to the acute ward instead.

Overall, the OPAL service was considered to be effective. However, the service will not review patients in A&E. This poses problems as the CDU tends to have fewer staff which is often not appropriate for patients who have fallen as a result of delirium or dementia, as they need to be closely observed. In addition, the OPAL service is only available on weekdays between 9am and 4pm.

Several stakeholders expressed the opinion that A&E doctors do not investigate falls as comprehensively as the OPAL service or geriatricians. Some also do not refer to the OPAL service and/or are less aware of services which may benefit patients who have experienced a fall. There is also no explicit falls pathway used within A&E to assist the review of a patient who has had a fall. This may be useful to have, particularly in the minor injuries unit or fracture clinic where older patients who have not suffered a serious fall may not be referred for a falls assessment. Although a Falls Assessment Proforma does exist within A&E to assist staff in assessing patients presenting with a fall, it is not consistently used. In addition, the A&E Falls Assessment Proforma needs to be updated to incorporate changes that have occurred in the provision of Rapid Response Services in the community and specialist comprehensive falls assessment in the Diagnostic and Treatment Centres (DATC).

In terms of assessing the risk of falls in patients, health professionals should be routinely asking about falls even if that is not the patient's presenting complaint. However, the perception was that even if a history of falls was inquired upon in A&E, often patients were not referred or signposted to other services which may be of benefit in reducing their risk of recurrent falls.

In terms of updating of competencies in falls risk assessments, the acute trust has a Falls Nurse Practitioner as well as Falls Champions on each ward. They run regular teaching and training on the use and completion of the trust wide Falls Risk assessment. The trust also has a Falls Steering Group

which reviews data on in-patient falls regularly and oversees learning panels about in-patient falls in conjunction with the trust's clinical governance team.

Regarding admission to a ward, a trust-wide Falls Risk Assessment is in place and is completed as part of Nursing Assessment Documentation. A falls nurse practitioner in the hospital has been involved in the development of the risk assessment, which is evidence-based and continually reviewed and updated if necessary. However, not all patients discharged following a fall are followed-up in the community. Patients who do require follow-up are either referred to the community falls service or Hospital Outreach Services Team (HOST). HOST provides short term care in the community to facilitate timely discharge. The team includes nurses and physiotherapists.

Overall, the hospital teams would like to have better dialogue and sharing of information with community falls service teams. This would greatly facilitate learning about the outcomes of patients referred between services, thereby improving patient care.

### *Fracture Liaison Services*

Fracture Liaison Services (FLS) are secondary fracture prevention services. They ensure that all patients presenting with a fragility fracture receive a fracture risk assessment and treatment where appropriate. The service often employs a dedicated coordinator to act as the link between the patient and the orthopaedic team, the osteoporosis and falls prevention services, and the GP.

Although there is good evidence to indicate that these services are cost-effective,<sup>lxviii</sup> not all CCGs have an established FLS. Guildford & Waverley have a FLS at the Royal Surrey County Hospital. Surrey Heath do not have an FLS but are putting in a Quality Innovation Productivity and Prevention (QIPP) project to review any patients with a fragility fracture before April 2012 i.e. patients who would not have been monitored under the Quality and Outcomes Framework. East Surrey CCG is looking to commission a FLS. North West Surrey CCG does not have a fracture liaison service but is starting to do some work around improving the diagnosis and management of osteoporosis in primary care.

### *Primary Care*

A GP from East Surrey was interviewed on falls prevention and management. However, there was not enough time to interview any other GPs for the needs assessment, so this will not be representative of the experience of primary care in other areas of Surrey.

For East Surrey CCG, GPs can refer into the First Community Health service by calling the service and giving them the details of the patient to be referred. However, anecdotally there have been some difficulties encountered where the service cannot always see the patient being referred and will suggest referral to another service, usually social care. This results in taking up a lot of GP (as well as patient) time as they search for the most appropriate place to refer the patient. Often, these patients end up being admitted to an acute unit. In the past, integrated health and social care teams worked better as they could respond to patients with both health and/or social care needs.

Problems referring patients into the service has led to GP practices developing a feedback proforma to record instances where there have been problems in using the falls service. This proforma will be piloted shortly and hopes to identify how any problems with referrals can be addressed in future. In addition, other health professionals are less likely to refer into community health services and are more likely to ask the GP to refer a patient; this often presents an administrative burden to GPs as well as making referrals more circuitous.

Finally, primary care would benefit from a more informed understanding about what the falls service provides, and how to use it to refer patients.

### Community falls services

Three service providers cover the county to deliver falls services. However, the criteria and support provided by these services varies across Surrey. The next section describes the services offered by Central Surrey Health, Virgin Care and First Community Health who are commissioned by CCGs to provide community falls services across Surrey.

#### *Central Surrey Health Falls Service*

Central Surrey Health (CSH) are commissioned by Surrey Downs CCG and deliver a falls service in East Elmbridge, Mole Valley and Epsom and Ewell. There are three aspects to the service. Firstly, all co-owners in CSH have falls prevention as part of their role. As part of the service, CSH attends patient's homes, conducts risk assessments and gives advice on falls prevention. Secondly, Community Matrons help to triage and manage patients referred into the service. Thirdly, the falls team which consists of four practitioners who are either physiotherapists or physiotherapist technicians, work on more complex risk plans and interventions for patients. Their work includes carrying out exercise interventions with individual patients but also running group exercise classes where they also give advice on falls prevention.

GPs continue to make the majority of referrals to the CSH falls service. Referrals are often made following a serious fall which has warranted hospital admission. On acceptance of a referral, a member of the falls team assesses the patient in their place of residence. They then set a jointly agreed plan with the patient on how the falls team can best assist the patient to become more independent, prevent further falls and improve their quality of life. Patients can then receive further follow-up either in the home or clinic. During appointments, the falls team monitors and reviews the patient's progress. Support can last from a few days up to three months depending on the patient's needs. The service can also refer patients to wider services if necessary, such as physiotherapy and balance classes.

As the service is in the process of being re-designed, there is currently no falls pathway and the criteria for patients to be referred to the service have not been defined. Previously, individuals used to be referred provided they meet the following criteria:

- Are residents of nursing homes
- Are under the care of a Community Matron as part of a Virtual Ward service
- Are more mobile and able to attend group exercise and balance classes.

However, it has since been recognised that these criteria are very restrictive and need to include residents in the community as well as nursing care residents. Surrey Downs CCG is also hoping to recruit more staff into the falls service, and develop a specific falls pathway.

In addition, the new falls service is also being integrated into the new community hubs, which are clinically led by GP specialists and went live in July 2015. The hubs are co-located within each community inpatient ward and are providing medical support at New Epsom and Ewell Community Hospital (NEECH), Dorking and Molesey Hospitals from Monday-Friday. Additionally, the East Elmbridge Hub is providing seven day a week support (including Saturday 8am-4pm and Sunday 9am-1pm) to Molesey Hospital in-patients and home based hub patients; and urgent and non-urgent home visits to patients referred to the hub by GPs or Kingston Hospital clinicians. The hubs are focused on supporting the frail elderly, who have multiple and complex conditions, and aim to reduce

emergency hospital admissions, readmissions, and lengths of stay in hospitals, and to improve patients' experience of care and support. If a patient attends Accident & Emergency having suffered a fall, the new pathway will, in the future, flag the patient to the community hub where the falls lead in the hub will assess the patient and determine any interventions required.

### *Virgin Care*

Virgin Care Rapid Response Teams provides a community falls assessment service which is divided into a North West team and a South West team. It covers service users who are either registered with a Surrey GP practice or residing within the area covered by the following Surrey CCGs:

- North West Surrey CCG.
- Guildford & Waverley CCG.
- Surrey Heath CCG.
- North East Hampshire & Farnham CCG (Farnham area only).

The South West team is based at Milford hospital which covers the areas of Guildford, Waverley, Farnham and Surrey Heath. The North West team is based at St. Peters Hospital and covering the boroughs of West Elmbridge, Spelthorne, Runnymede, and Woking.

The service provides assessment and support to individuals who have had a fall or have a fear of falling, minimizing the risk of further falls and or injury. Referrals are received from: Surrey GP's, community matrons, community nurses, community hospital staff, A&E departments, Medical Assessment Units, Medical Short Stay Units, Clinical Decision Units, SECAMB, community mental health teams, care homes and social services as well as voluntary organisations. The service is not extended to patients who have had an acute inpatient episode as it is presumed these patients will have already had a full review in accordance with NICE guidelines. However, the service will offer environmental checks to these patients.

Normally, individuals cannot self-refer but Virgin Care is accepting self-referrals under the WALC campaign in North East Hampshire and Farnham. To date, the number of self-referrals has been low, usually between 0 and 5 a month. A gap that was highlighted is that in some cases, patients may have private agencies delivering their package of care which cannot directly refer into the service.

All referrals are received via a Shared Point of Access (SPA) and triaged according to level of urgency. The triage process may also identify individuals who require onward referral to more appropriate specialist services i.e. a specialist geriatrician for a Comprehensive Geriatric Assessment within the local DATC's (Diagnostic and Treatment Centre).

In general, referrals are accepted if patients are:

- Over 18
- Medically stable
- Have multi-disciplinary needs
- Have a history of falls
- Have a risk of further falls
- Have a fear of falling (not necessarily having had a fall)

All referrals will have a telephone triage to determine if a full face to face assessment is required. If face to face is necessary, patients will be offered an assessment in their usual place of residence. The assessment process follows NICE guidelines and entails a multi-factorial risk assessment. The service provides education on falls prevention including home and personal safety, a home exercise programme if indicated, adaptive devices, and strategies to cope with activities of daily living. GPs are also notified if the patient would benefit from a medication review, DEXA scan, further investigation of other co-morbid conditions e.g. postural hypotension, or a Comprehensive Geriatric Assessment.

The majority of patients are seen and discharged following their first visit. They will then be followed up with a telephone call at 1 month and 3 months. If at one month the patient has experienced a further fall, they are re-triaged to assess whether their circumstances have changed. If required, patients can receive up to four visits from their initial assessment. Many of these patients require a home-based exercise programme, especially if they are reluctant to join a class. Some require further visits to assess whether they are using equipment correctly and need further input from an occupational therapist or physiotherapist. Thereafter, if appropriate, patients will be sign-posted on to other long term rehabilitation services. Community Rehabilitation Assistants from the service can be booked to supervise home exercise programmes instigated as part of the patient's personalised intervention plan. Otherwise, individuals can be referred to a six week exercise programme called "Be Stable" at the DATC at Milford and Farnham or the GP is asked to refer the patient into an exercise referral scheme, usually provided by local leisure centres.

The DATC clinics are consultant-led and provide comprehensive multidisciplinary assessment including a thorough medical assessment for patients who have fallen but have more complex co-morbidities. Patients can be referred to the DATC if they meet any of the following criteria:

- Complex co-morbidities that require Comprehensive Geriatric Assessment
- Unexplained falls e.g. blackout, syncope, seizure
- Complex poly-pharmacy requiring specialist assessment
- At risk of medical deterioration e.g. exacerbation of chronic illness such as COPD, Parkinson's, cardiac, infection.
- Generally over the age of 65 years although younger patients will be considered on a case by case basis

The Rapid Response community service can refer to the DATC, provided this is in discussion and agreement with the patient's GP.

Virgin Care supports falls awareness week by offering some awareness-raising activities on falls prevention in shopping centres, local day centres and care homes, and is keen to do more of these. Over the past year, First Steps Surrey, also provided through Virgin Care, has been providing emotional support to individuals who have suffered a fall. Anxiety management groups using cognitive behavioural therapy have been running in the Milford and Farnham clinics to assist individuals in coping with their fear of falling.

For Surrey Heath and North East Hampshire & Farnham CCGs, Virgin Care is also starting to provide more data on how the service is used. This data will hopefully yield information on the quality and appropriateness of referrals and how patients are followed up in the community.

### *First Community Health and Care*

First Community Health and Care (FCHC) provide the community falls service for the East Surrey CCG area. In April 2015, a reorganisation of the falls service took place as the falls service had originally been provided as part of the Rapid Response service but is now a stand-alone service.

Currently the service consists of one part-time physiotherapist and a full time rehabilitation assistant who are highly trained in falls prevention and management. There is no occupational therapist in the team. Referrals to the service are received from: hospitals, GPs, ambulance service, district and specialist nurses, community teams, care homes, residential home managers, and sheltered home wardens/managers.

In general, referrals are accepted if the patient consents to the referral and meets the following criteria:

- Has had one or more episodes of falls within the past 12 months with at least one fall requiring medical attention
- Observed balance or gait deficits
- 18 years and over
- Medically stable
- Has multiple risk factors requiring multi-factorial assessment

Referrals for patients are triaged and assessed as to whether they should be seen urgently or routinely. A member of the team then visits the patients and conducts a multi-factorial assessment. The physiotherapist assesses the gait, mobility and muscle strength of the patient. An osteoporosis assessment is also undertaken as well as strategies to cope with fear of falling. At the end of the assessment, a discharge summary is sent by the falls team to the GP.

If appropriate, the patient can be referred to exercise classes run by the rehabilitation assistant at the YMCA in Redhill. The initial balance exercise classes are provided free of charge on referral. If there is a need identified for an occupational therapist, a nurse or any other health care professional, the service will then refer the patient on to the appropriate service.

### **CCG commissioning developments<sup>11</sup>**

All CCGs are responsible for the commissioning of community falls services. North East Hampshire & Farnham CCG along with Surrey Heath CCG have developed an integrated falls pathway around the Frimley system. The pathway is also interactive with links to further information. A steering group meets regularly to discuss any issues with the pathway, data on falls and the WALC campaign.

Most of the other Surrey CCGs are beginning to design a specific pathway around falls. Guildford & Waverley CCG has recently established a falls subgroup to develop and implement an end-to-end pathway that will enhance the provision of the falls service. They are also in the process of establishing Integrated Care Partnership Hubs which aim to bring together health, social care, voluntary and community sectors to reduce hospital admissions and maintain independence. Surrey Downs CCG is also at an early stage of re-designing their falls service, which will be delivered through new community hubs (see section on Central Surrey Health above). North West Surrey CCG is looking into establishing single intermediate care teams within three locality hubs. An algorithm used in primary care will help identify patients at risk of hospital admission (which will include those at risk of falls) who can then be referred to a locality hub for multi-disciplinary care. Each hub will be expected to manage about 5,000 patients and it is anticipated that all hubs will be operational by the end of the

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<sup>11</sup> The commissioning developments reflect information gathered during stakeholder interviews between November 2015 and February 2016 and may change/develop further over relatively short periods of time

year. East Surrey CCG are now planning on providing a dedicated community falls service rather than responding to falls through its Rapid Response team.

It was apparent during conversations with individual CCGs that they were not aware of the work of other CCGs in Surrey around falls prevention and management. Sharing of best practice between CCGs may be important to strengthen strategies in this area.

## 6.5 Secondary Literature review

During interviews, almost all stakeholders were well aware of the evidence-base around effective interventions to reduce the risk of falls. However, many expressed a need for high quality evidence on the cost-effectiveness of these interventions. Such evidence would provide commissioners with an economic case for investing further in services and initiatives to reduce falls. A review on the clinical effectiveness of single interventions to prevent falls and their effectiveness as part of a multi-factorial intervention has already been undertaken by Public Health (see Appendix 2). This review also specifically focussed on the cost-effectiveness of exercise programmes in reducing the rate and risk of falls. However, this review will focus exclusively on the cost-effectiveness of investing in multi-factorial rather than any one single intervention to reduce falls. Multi-factorial interventions consist of more than one main category of intervention, but participants receive different combinations of interventions based on an individual assessment to identify potential risk factors for falling.

Another evidence gap was around identifying individuals who would benefit from targeted interventions to reduce their risk of falls. A variety of different tools to screen individuals at risk of falls were being used by different organisations. In addition, there was a lack of consensus over which screening tool should be used, and whether non-health professionals should be using a different screening tool compared to health professionals. For instance, the Fire and Rescue Service uses the Timed Up and Go Test and Falls Risk Assessment Tool (FRAT) to assess individuals at risk of falls. On the other hand, the ambulance service has a 12 question checklist to triage patients at risk of falls based on the National Standard Framework for older people.

Furthermore, the administration of a simple falls screening tool by organisations such as Age UK, or through MECC, may help to identify individuals at risk of falls. However, this will only be useful provided any high risk individuals identified can then be referred on appropriately for a more detailed assessment. A review of these evidence gaps is given in this section.

### Review of cost-effectiveness of interventions to reduce falls

A number of databases were searched including MEDLINE, EMBASE, CINAHL, Clinical Key, Cochrane Library, PubMed, NICE Databases and Google Scholar. Search terms included: “fall\* and prevent\*”, “cost benefit”, “cost effective” “economic appraisal” “economic evaluation”.

This review is limited to guidelines, systematic reviews and meta-analyses published within the last fifteen years which were available through open access, apart from key references which were identified through reference list searches. It seeks to answer the following question:

1. What is the cost-effectiveness of multi-factorial interventions designed to prevent falls?

A brief overview of the evidence is presented below.

One of the objectives of the NICE guidelines was to examine the cost effectiveness of multi-factorial interventions to prevent falls, as well as the clinical effectiveness.<sup>lxxix</sup> Two papers were reviewed when the original NICE guidelines were published in 2004, but both papers reported on the same study which was set in the USA.<sup>lxxx, lxxxi</sup> The economic evaluation of the study by Rizzo et al. examined the

cost-effectiveness of a falls prevention programme which aimed to modify risk factors for falling.<sup>lxxii</sup> Subjects recruited for the study were aged 69 years or over and resident in the community. Those randomly allocated to the intervention group were given a combination of: adjustment in their medications, behavioural instructions, and exercise programmes while the control group received usual care. The study found that subjects in the intervention group had a lower incidence of falls than the control group (86 falls in 148 subjects versus 152 falls in 140 subjects). When median figures were used, the overall cost per fall prevented for those in the intervention group was \$2,150. The cost for each fall prevented in the intervention group was \$1,528 among high-risk subjects and \$4,146 among low-risk subjects. The study concluded that multi-factorial falls prevention programmes were cost-effective in individuals at high risk. However, based on the evidence available, it is difficult to make a definite recommendation on the key effective components for specific settings and populations.

Given the dearth of studies in this area, the authors of the NICE guidance then modelled the cost-effectiveness of multi-factorial interventions in reducing falls, using available data on NHS and social care costs of falls as well as data from other studies including: risk of falls in the UK elderly population, costs of risk assessments and multi-factorial interventions, and the relative risk of falling associated with each component of multi-factorial interventions. Estimates of the Incremental Cost Effectiveness Ratio (ICER) were then made. The ICER is defined as the ratio of the change in costs of a therapeutic intervention (compared to the alternative e.g. doing nothing) to the change in effects of the intervention. In general, NICE deems interventions with an ICER of less than £20,000 per Quality Adjusted Life Year (QALY) as being effective. The QALY helps to quantify the expected health benefits associated with a given treatment, and one QALY represents one year in perfect health. Although the central ICER estimates from the modelling indicated multi-factorial interventions to be cost-effective, they also suggested great uncertainty on the evidence of the effect, as well as the cost of interventions and cost of fall-related injuries.

A more recent Cochrane review by Gillespie et al. carried out an economic evaluation of thirteen trials evaluating interventions to prevent falls.<sup>lxxiii</sup> Three of these trials indicated cost savings, only one of which was for a multi-factorial intervention and is the same study described above by Rizzo et al.,<sup>lxxiv</sup> while the other two studies included a home-based exercise programme in over 80 year olds and a home safety and modification programme.

In the UK, an economic evaluation was published in 2010 that had been conducted alongside a randomised control trial assessing the effectiveness of a day hospital falls prevention programme for older people at high risk of falls.<sup>lxxv</sup> The intervention was tailored to individuals, and incorporated a medical assessment, strength and balance training, a home hazards assessment and referral to other specialists if indicated. Despite high screening costs of £169 per participant, the ICER or incremental cost per fall averted was £3320.

Return on investment (ROI) measures the amount of return on an investment relative to the investment's cost. To calculate ROI, the benefit (or return) of an investment is divided by the cost of the investment, and the result is expressed as a percentage or a ratio. Robertson et al. suggested that the ROI for a multi-factorial intervention programme would be 1.0 (which means no extra benefit yet no additional cost), but would reduce admissions in people aged over 65 to Accident & Emergency by 2%.<sup>lxxvi</sup>

Yet, according to another systematic review by Corrieri et al.,<sup>lxxvii</sup> there were some studies which indicated that multi-factorial interventions were not necessarily cost-effective. One of these studies was a randomised controlled trial in the Netherlands, where subjects were either allocated to receive

a falls prevention programme or usual care which was simply injury treatment in the event of a fall.<sup>lxxviii</sup> The falls prevention programme consisted of a comprehensive geriatric assessment (which included examination of vision, hearing, balance and mobility) and a review by an occupational therapist who assessed daily functioning. Over the course of one year, the number of falls in both the intervention and control group was assessed, as well as the cost-effectiveness of the intervention. The key findings indicated that the programme did not statistically significantly reduce falls and was therefore found to not be cost effective. However, compliance with the recommendations of the intervention was low in the study, and recruited subjects had not been screened for risk before the intervention. These findings concur with another similar study also in the Netherlands by Peeters et al.<sup>lxxix</sup>

### *Conclusion*

Although multi-factorial interventions are recommended by NICE guidance, the evidence-base for their cost-effectiveness is mixed. Very few studies have included an economic evaluation of the effectiveness of multi-factorial prevention programmes, and the cost items measured and methods used to value the items differ between studies making it difficult to compare ICERs and other cost-effective measures between them.

Only one UK economic evaluation of multi-factorial interventions was identified in the literature; unfortunately, much of the evidence on costs and benefits comes from health care systems outside of the UK and therefore the applicability of these studies is limited. As a result, NICE has advocated for more UK research into the cost-effectiveness of these interventions.

In addition, the greater the ability of assessment tools to differentiate between those who are likely to fall without the intervention and the rest of the elderly population, the more cost effective the interventions will be. Hence, it is important to have screening tools which are effective in identifying individuals at high risk of falls. The evidence on such screening tools is reviewed in the next section.

### **Review of tools used to screen an individual's risk of falls**

The terms falls risk screening and falls risk assessment are sometimes used interchangeably, however there is an important distinction to be made between the two. Generally falls risk screening is a brief process of estimating a person's risk of falling, usually classifying people as being either at low risk or increased risk. On the other hand, falls risk assessment is a more detailed process than screening and is used to identify underlying risk factors and inform the development of a care plan to reduce an individual's risk of falling. This review is focussed mainly on the former, as during the needs assessment, it was identified that many organisations lacked information on how they might accurately identify an individual at risk of falls. An effective screening tool could then allow organisations to refer an individual for a more detailed multi-factorial risk assessment. Detailed risk assessments are time-consuming and can be resource-intensive therefore it is best to target these to individuals at high risk as they will derive the most benefit.<sup>lxxx</sup>

A number of databases were searched including MEDLINE, EMBASE, CINAHL, Clinical Key, Cochrane Library, PubMed, NICE Databases and Google Scholar. Search terms included: "Fall\*", "risk" and "screen\*", "effective\*", "tool", "community" or "home".

This review is limited to guidelines, systematic reviews and meta-analyses published within the last fifteen years which were available through open access, apart from key references which were identified through reference list searches. It seeks to answer the following question:

1. Which tools are effective in screening whether an individual in the community may be at risk of falls and would benefit from further assessment and intervention?

A brief overview of the evidence is presented below.

Many falls risk screening tools have been developed for use in the community setting. However, only some of these have demonstrated acceptable levels of sensitivity and specificity in prospective studies. Sensitivity refers to the accuracy of the tool in predicting individuals who do fall in the follow-up period, while specificity refers to whether the tool accurately predicts those who will not fall in the follow-up period. For a screening tool to be considered effective, it should display good predictive accuracy, have been evaluated in a relevant context and population, and in more than one site. It is also important to consider the time, space, specialist training and equipment constraints imposed by the methodology, and to establish a threshold of risk indicating when intervention is warranted.<sup>lxxxii</sup>

NICE guidelines specify that risk prediction tools should not be used to predict an *inpatient's* risk of falling.<sup>lxxxiii</sup> However, this does not include the use of such tools in the community as a way of identifying individuals who may be at risk of falls. The guideline also advocates for more research on the optimal methods of risk assessment for falls in older people, and evaluation of whether fall-prone individuals can be risk stratified, in terms of whom will most benefit from assessment and intervention.<sup>lxxxiii</sup>

### *Screening measures identified*

#### *History of falls*

One of the strongest risk factors for a fall is a history of a previous fall. For that reason, both American Geriatric Society/British Geriatric Society and NICE guidelines recommend that the general practitioner or other community based health professional routinely ask all people aged 65 years and above whether they have fallen in the past year.<sup>lxxxiv,lxxxv</sup> The GP or community health professional should also take a detailed history of the events surrounding the fall(s).

#### *Balance and mobility assessment*

Older people reporting a fall or considered at risk of falling should then be observed for balance and gait deficits and considered for their ability to benefit from interventions to improve their strength and balance.<sup>lxxxvi,lxxxvii</sup> One of the most commonly cited and validated tests to screen mobility is the Timed Up and Go Test (TUGT). The TUGT measures the time taken for a person to rise from a chair, walk three metres at normal pace with their usual assistive device, turn, return to the chair and sit down. For community-dwelling older people, taking 12 or more seconds to complete the test is an indicator of impaired functioning and increased falls risk.<sup>lxxxviii,lxxxix</sup> According to two separate reviews, the test appears to have clinical utility, demonstrating adequate sensitivity and specificity.<sup>xc,xcii</sup> It can also be administered in any setting without the need for any specialist equipment, takes very little time and poses little burden to patients. More recently, the Australian guidelines<sup>xcii</sup> have also recommended the Sit-to-Stand Test and Alternate Step Test as tests which have demonstrated validity, reliability and feasibility as falls risk screens in the community setting.<sup>xciii</sup> The Sit-to-Stand Test is a measure of lower limb strength, speed and coordination. The test involves asking the older person to rise from a chair of standard height (43 cm) without armrests, and to complete this sequence five times and as quickly as possible with their arms folded. The Alternate Step Test provides a measure of lateral stability and involves the time taken to complete eight steps, alternating between left and right foot, as fast as possible up onto a step that is 19 cm high and 40 cm deep.

Other tests include the Berg balance test, Tinetti scale, functional reach and dynamic gait tests. A review by NICE of the evidence for all of these tests concluded that most of the studies demonstrating the reliability and validity of these tests have been on small populations.<sup>xciv</sup> In addition, these tests take much longer to administer in comparison to the TUGT, as well as require equipment and clinical expertise. As such, they may be more useful during a comprehensive detailed assessment of a patient rather than as a screening tool.

It should also be noted that in the validation of many of these mobility tests that there was often variation in cut-off points to determine a positive test, and in the definition of outcomes, making it difficult to synthesise their overall effectiveness.<sup>xcv</sup>

### *Fear of falling*

Detailed mobility assessments may not be practical in certain settings. A question-based tool may be a more pragmatic way of screening individuals, as well as potentially permit non-health professionals to easily identify those at risk.

Three prospective cohort studies have reported fear as a significant predictor of future falling.<sup>xcvi,xcvii,xcviii</sup> A review by Fabre et al. of falls screening instruments examined the Falls Efficacy Scale (FES), which measures the individual's degree of efficacy or capability to undertake specific activity.<sup>xcix</sup> Confidence in accomplishing each activity is then assessed using a ten point scale, with higher scores indicating low efficacy. The scale can be completed in less than ten minutes and requires little training to administer, NICE guidance has also reviewed and appraised methods available to measure fear and examined their utility to clinicians.<sup>c</sup> It also concluded that the FES is the most widely used psychological tool for screening falls and may be effective in determining whether further evaluation of falls risk is needed.

### *Home Hazard Assessments*

Environmental hazards are significant factors in contributing to falls.<sup>ci</sup> In order to assess if an individual is at risk of falling in their own home, community health professionals such as occupational therapists and physiotherapists, as well as non-health professionals e.g. fire personnel, can conduct a home hazard assessment. There are many home hazard assessment tools which have been validated in the literature.

The HOMEFAST tool contains 25 items which aim to identify hazards associated with the physical environment, and assesses an individual's functioning and personal behaviour. It usually takes around 20-30 minutes to complete and has utility both as a falls screen but also in monitoring any improvement following an intervention, as the tool is responsive to change.<sup>cii</sup>

Other tools include the Westmead Home Safety Assessment which contains 72 items so is more time-consuming to complete although is exclusively focussed on falls,<sup>ciii</sup> as well as the Safety Assessment of Function and the Environment for Rehabilitation – Health Outcome Measurement and Evaluation (SAFER HOME) which contains 93 items and emphasises the interaction between the abilities of the individual and their home environment.<sup>civ</sup>

According to NICE guidelines, those conducting a home hazard assessment can choose to use any of these tools.<sup>cv</sup>

### *Multiple-item screening tools*

Many of the tools above are only focussing on a single risk factor of mobility, yet it is known that other risk factors such as poly-pharmacy and impaired cognition can contribute to falls.

A multi-dimensional tool may allow professionals to simultaneously assess for multiple risk factors related to falls. Many of these use a combination of functional assessment and risk scoring based on known risk factors. One such screening tool which is commonly applied across Surrey and all other UK services is the FRAT (Falls Risk Assessment Tool).<sup>cvi</sup> The tool has two sections, with the first section entailing a rapid assessment of the individual's risk of falling which can be administered by

clinical or non-clinical staff. Five items are included in the first section: a history of falling in the previous year, taking four or more prescribed medications, a history of stroke or Parkinson's disease, reported problems with balance and loss of proximal muscle strength (measured through inability to rise from a chair without using arms). The developers of the FRAT demonstrated a reasonable positive predictive value of 0.57 for the first section, which means that over half of those identified as at risk (had a presence of three or more risk factors) fell during the subsequent 6 months.<sup>cvii</sup>

Australian guidelines recommend the FROP-Com screen,<sup>cviii</sup> (Falls Risk for Older People (community version)).<sup>cix,cx</sup> It contains three items which are each scored out of three and include: a history of falls in the past 12 months; observations of steadiness while standing up, walking three metres, turning, returning to the chair and sitting down; and self-reporting any need for assistance to perform activities of daily living. It also only takes only one to two minutes to administer. A score greater than three indicates an increased risk of falls.

### *Screening algorithms*

Some innovative research is being carried out by the University of Surrey into case-finding individuals who may be at risk using a falls risk prediction model which can be applied to routine primary and secondary care data.<sup>cxii</sup> The predictive model was built using data from several GP practices and three acute trusts in North West London. Some of the risk factors which were identified as significant in predicting a fall included female sex, increasing age, previous fall, an inpatient episode in the previous one month, poly-pharmacy, non-elective hospital admission in the previous 12 months, and osteoporosis. The resulting model had superior predictive values to a range of falls screening tools, including most of those already cited in this evidence review. Another advantage of the model is that it can potentially screen large populations in minutes compared to other screening tools above which are administered at the individual level.

### *Conclusion*

There is currently no single recommended falls screening test to be used to assess an individual's risk of falling in the community. Ideally, a simple screen that be easily incorporated into routine care should be used. The literature reveals that falls risk exists in several domains, and that there is a plethora of instruments to choose from. Therefore, it is important that the person conducting the screening test chooses an instrument which is valid and reliable but also most appropriate for the patient given the setting in which they are working and resources available. Modification of screening tools however, is not recommended as this may affect their validity and therefore performance.

Rapid screening tools assessing one or two domains may not identify the actual falls risk factor compared to multiple-item tools. On the other hand, more comprehensive tools may be time-consuming and more difficult to deliver, particularly by non-clinical staff.

Complex screening algorithms which could be incorporated into routine health information databases may eventually be a useful way of identifying individuals at risk on a population-level and with more accuracy. However, these are still in an early phase of development.

## 7.0 Summary of challenges

There are several challenges to be addressed with respect to falls prevention in Surrey. All Surrey CCGs (except North West Surrey CCG) reported a statistically significant higher rates of falls in their population when benchmarked against similar CCGs. Surrey also has a high proportion of older people in its population, which is only set to increase over the next few years. The number of falls in the population will also increase in tandem unless current prevention strategies are improved upon.

Although the data indicate that falls are a particular problem in Surrey, this is still likely to be an underestimation of the true burden. During the quantitative analysis, issues with data were identified including poor recording and coding of falls. In addition, the data will not have captured any unreported falls.

Poor reporting of non-injurious falls by older people may be linked to the stigma perceived by older people to be associated with falls. Older people may feel that having a fall signals to others that they are becoming more frail or losing control, and require more support which could in turn jeopardise their independence. Interventions aiming to tackle and overcome such stigma should therefore be embedded in falls prevention strategies. According to the focus group, older people did not feel it was necessary to report a fall unless it was serious, indicating that older people are unaware of effective falls prevention measures from which they may benefit. However, despite significant service user involvement in the design of the WALC campaign, older people are still not regularly self-referring into the falls service. Therefore, any lessons learned from this campaign will need to be shared with any organisations planning future Surrey campaigns on falls prevention.

The geography of Surrey in relation to the delivery of services linked to falls is complex. Falls are in the remit of many agencies, each with differing geographical boundaries as well as offering different levels of services. This makes it difficult to have a co-ordinated, joint approach to falls prevention across the county.

Another issue is that services are more reactive than proactive in relation to falls prevention; only individuals who have had a serious fall receive follow-up which may prevent another fall. However, a more proactive approach whereby staff may screen individuals for risk of falls before a serious fall and refer to an appropriate service for further investigation may help to reduce the burden of serious falls.

Finally, the ever ubiquitous challenge is resources. Many services are currently at capacity, with little potential for extra funding to implement falls prevention. However, given the economic burden of falls, investment in falls prevention would be expected to lead to a high return on investment in the longer-term.

## 8.0 Recommendations

Integrating the information gathered from the needs assessment, a set of recommendations has been suggested for various stakeholders to improve falls prevention in Surrey. These recommendations pertain to Surrey County Council, Surrey CCGs, district and borough councils, and NHS Acute Trusts.

### *Surrey County Council*

Public Health and Adult Social Care should:

- Explore opportunities to promote falls prevention across Surrey. For example, incorporate messages on falls into other relevant awareness-raising campaigns e.g. the Health and Wellbeing Board 'Winter Wellbeing' and 'Right Care, Right Place, Right Time' campaigns.
- Within the Making Every Contact Count (MECC) programme, consider incorporating training on validated falls risk assessments and how to refer to appropriate services.
- Support other organisations e.g. Fire and Rescue Service, in using evidence-based tools to identify individuals at risk of falls.

### *Surrey CCGs*

- Consider effective ways of ensuring opportunistic screening of older people for falls risk is undertaken by health professionals.
- Develop integrated falls pathways, including links/referrals from organisations which may identify individuals at risk of falls e.g. the Surrey Fire and Rescue Service
- Consider ways of reducing the number of emergency responses to non-injurious falls e.g. multi-disciplinary meetings to manage the underlying needs of "frequent flyers".
- When designing new community falls services consider:
  - whether the capacity of the service will be able to meet the predicted increased demand.
  - using performance measures which adequately capture the impact of community services on falls prevention
- Given all CCGs are currently in the process of redesigning their falls services, use this as an opportunity to collaborate and develop a Surrey-wide integrated approach to falls prevention, championing examples of local best practice.

### *Districts and Boroughs Councils*

- Explore innovative ways of making services, such as telecare, exercise classes and handyman services both affordable to individuals as well as sustainable into the future.
- Work in collaboration with CCGs to support falls pathways by providing equitable falls prevention services and strengthening referral pathways to those services.

*NHS Acute Trusts*

- Provide regular training to staff and clear patient pathways on the prevention and management of falls.
- Establish a falls working group consisting of staff from the hospital and community falls service to facilitate learning on the outcomes of patients referred between services.
- Consider auditing the management of patients presenting with a fall against compliance with NICE guidelines.

*Other*

- Care homes should consider training of care home staff around falls management and prevention.

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