Worcestershire Health and Well-being Board Joint Strategic Needs Assessment (JSNA)

Falls Needs Assessment

April 2018

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1. Executive Summary

Falls can have devastating consequences and it presents a significant burden of ill-health at great cost to the individual and the system. Worcestershire has a higher proportion of older people than elsewhere in the UK. Interventions to prevent falls have a strong evidence base. It is therefore within the health and care systems interests to prevent falls and reduce the burden of ill-health across the health economy.

The aim of the falls needs assessment was to identify the current and future needs of the Worcestershire population who are at risk of falling, or who have fallen. This in turn will inform commissioning intentions across the health and care system to improve the prevention of falls and improve health outcomes of those who have fallen.

When compared to England, Worcestershire as a county performs better than average in emergency admissions due to falls in people aged 65 and over. However, Redditch has a worse rate than other districts. When comparing hip fracture rates, Worcestershire's indicators match the England average, however, as with the emergency admission rates, Redditch do not perform as well. This inequality is reflected throughout the falls needs assessment and results in variances of the proportion of people admitted to hospital with hip fractures.

A lack of capability to share information and data across the health and care system presents challenges for falls prevention in Worcestershire for example, when sharing information across acute and community services. This results in duplication of the multifactorial risk assessment interventions in some instances.

The Falls Pathway has recently been reviewed and streamlined to more effectively embed falls prevention into primary and secondary care. This is in the process of being embedded.

Based on the current model, the falls clinic is unable to meet demand in Worcestershire. Additionally, there is a lack of evidence to demonstrate the effectiveness of the falls clinic in a hospital based setting. Consequently, work needs to be undertaken to scope what the future model of a falls clinics will look like to ensure it is an efficient and equitable service aligned with the prevention pathway.

Care homes were identified as an opportunity to ensure falls prevention is addressed and standardised across Worcestershire, ensuring equitable outcomes are achieved.

The needs assessment also highlighted that:

- The Postural Stability Instruction programme faces challenges with retention of participants on the courses, which is a national issue. This has been acknowledged by Public Health England and other key stakeholders such as the Centre for Better Ageing, and projects are currently underway to provide insight into this issue
- Prevention work is being undertaken by all partners, but needs to be strengthened through the county Falls Steering Group.

- GP practices within Redditch and Bromsgrove CCG have significantly lower proportions of patients with a fragility fracture being treated with a bone sparring agent, putting these patients at risk.

These issues were identified in Worcestershire in the context and knowledge that the number of people aged 65 and over is expected to increase 39% by the year 2035. In those aged 80 and over, this increase is projected to be 88%. This data represents the potential of a significant increase on demand of both falls prevention and falls services in under 20 years' time.

As a result of these findings, the falls needs assessment has resulted in a number of recommendations listed below. Integration across the entire health and care system is key factor that will determine the success in the implementation of the recommendations from the falls needs assessment. The falls steering group is part of the Sustainability and Transformation Plan (STP) governance structure as a sub-group of the prevention board. These governance structures can be harnessed to support the falls prevention work implemented following this report:

1. Throughout the health and care system, a range of models and ways of working are in place to address falls within various settings e.g. the multi-factorial falls assessment. To ensure these models of delivery are well implemented and delivering desired outcomes, **contract monitoring should include indicators to facilitate evaluating the effectiveness and fidelity of services delivered.** NICE Quality Standards provide guidance for quality measures and indicators. This must be undertaken according to the stage of service development e.g. implementation, early operation or ongoing operation of the service. This information can be fed back to the falls steering group to inform service improvement and partnership working across the system.
2. **The falls steering group to facilitate information and data sharing across the health and care system** to facilitate the delivery of the falls prevention pathway.
3. **Review of the falls clinic across Worcestershire** to determine whether the current model is delivering an efficient and equitable service for patients. This includes a review of the workforce available across primary and secondary care. Additionally, this review should be considered at a county-wide level.
4. **The collaborative falls prevention work is strengthened as part of the falls steering groups** with key partners and stakeholders taking a whole-system approach to falls prevention with particular focus on: workforce; upscaling of healthy ageing and physical activity work in older people; campaigns, education and increasing public awareness; and information giving. Healthy ageing and physical activity plays an important role in falls prevention for the population that are currently under 65 years of age. Ensuring that this cohort of the population engage in physical activity and healthy lifestyles will support reducing demand and risk of falls in the population for the future.

5. **Considerations for workforce development** in Worcestershire to include: upskilling of frontline staff to recognise people at risk of falling, promote healthy ageing and expand the public health workforce. Additionally, this must also consider modelling and planning the future workforce to cope with future demand.
6. **Include falls prevention as a multifactorial intervention in all care homes and extended care settings**. Enable and support the excellence in care homes partnership as the facilitator to standardise and improve quality across Worcestershire
7. **Review of Occupational Therapy services in the community** to understand any barriers to home hazard assessments being undertaken and ensuring that home hazards are reduced. This must include how the wider workforce can contribute to addressing home hazards (e.g. Fire and rescue safe and well visits)
8. **Further development of the postural stability instruction programme** to: address the variance in referral rates across Worcestershire; increase capacity; increase participant retention to the programme; and consider the best model of delivery.
9. **Review of the Osteoporosis pathway and identification of patients with a fragility fracture** who should be considered for bone sparring agents undertaken across primary and secondary care understand the current variation. This review should include current workforce and pathway structures in place and their effectiveness

2. Introduction

A higher proportion of the population is aged 65 or over in Worcestershire than elsewhere in the UK. Falls can have devastating consequences and it presents a significant burden of ill-health at great cost to the individual and the system. At a time of economic austerity and an ageing population, an important public health issue is the implementation of effective falls prevention interventions. Evidence demonstrates falls prevention programmes can be effective in reducing falls among those at risk of falling[1,2]

33% of people aged 65 and over fall every year. This increases to 50% in people aged 80 and over[3]. Of those people who fall each year, 5% will suffer from a fracture or hospitalisation as a result of the fall[4]. For those who sustain a hip fracture, one in ten will die within the first 30 days[5]. The cost of treating a hip fracture for the first year is over £14,000[6]. Falls are the commonest cause of death from injury in the over 65s. They cost the NHS more than £2 billion per year and also have a knock-on effect on productivity costs in terms of carer time and absence from work[7]. With an ageing population, these costs are set to rise further.

Risk factors that lead to people falling are varied. They include: memory loss, postural hypotension, psychoactive medications, poor strength and balance, poor foot care and footwear, incontinence, visual impairment and home hazards.

In Worcestershire, there are approximately 2,200 injuries due to falls each year in persons over 65, and as a result there are approximately 700 hip fractures throughout the county[8]. This potentially costs the Worcestershire health and social care system over £9 million per annum.

Worcestershire has a population of 580,000. 22% of those people are aged 65 and over[9]. By 2030, this is set to increase to 28% and the number of people requiring emergency hospital admissions due to falls will increase by 20%[10]. Worcestershire's performance is average or better when compared with other areas in England for the rate of hip fractures and emergency admissions due to falls each year respectively[8]. Nonetheless, the matter of an ageing population, predicted future demand on services and the financial challenges faced in local government is a significant one[11].

This falls needs assessment aims to provide an overview of the current and future need of the population living in Worcestershire aged 65 and over who are at risk of falling, or who have fallen. This will support and inform commissioning intentions across the health and care sector to ensure that services are appropriately commissioned currently and into the near future.

3. Policy Context

3.1. Global Context

United Nations Principles for Older Persons, United Nations, 1991[12]

The UN Principles for Older Persons were adopted by the UN General Assembly (Resolution 46/91) on 16 December 1991. Governments were encouraged to incorporate them into their national programmes whenever possible. There are 18 principles, which can be grouped under five themes: independence, participation, care, self-fulfilment and dignity.

WHO Active Ageing Framework, WHO, 2002[13]

Guided by the UN Principles for Older People above, this framework includes the three pillars of health, security and participation. This framework acknowledges that the determinants of active ageing influence the way individuals and populations age, therefore affecting these three pillars. Falls is highlighted as a key determinant in active ageing. Consequently, falls were addressed by WHO in the next policy.

WHO Global Report on Falls Prevention in Older Age, WHO, 2007[14]

This report explores the key determinants of active ageing as they relate to falls in older age in addition to the challenges facing effective falls prevention strategies. The WHO falls prevention model within an Active Ageing framework is presented as a way forward to address these issues systematically in a cohesive and multi-sectoral manner. The model is designed to facilitate the development of policies, practices and procedures. The model encompasses three pillars that aim to:

- build **awareness** of the importance of falls prevention and treatment among older persons;
- improve the **assessment** of individual, environmental, and societal factors that increase the likelihood of falls;
- Facilitate the design and implementation of culturally-appropriated evidence based **interventions** that will significantly reduce the number of falls among older persons.

3.2. National Context

Be active, be healthy: a plan for getting the nation moving, HM Government, 2009[15]

This report highlights the significant contribution that active ageing can make to the quality of life and dignity of older people. It acknowledges the physical, mental and social benefits that physical activity encourages in addition to the reduced risk of injury, risk of falls and increased independence.

Falls and fractures: Effective interventions in health and social care, Department of Health, 2009 [16]

The Department of Health published this document setting out four key objectives for commissioners and key partners working across health and social care. These four objectives, listed below in priority order and presented in figure 1, were developed with different risk groups in mind:

- **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.

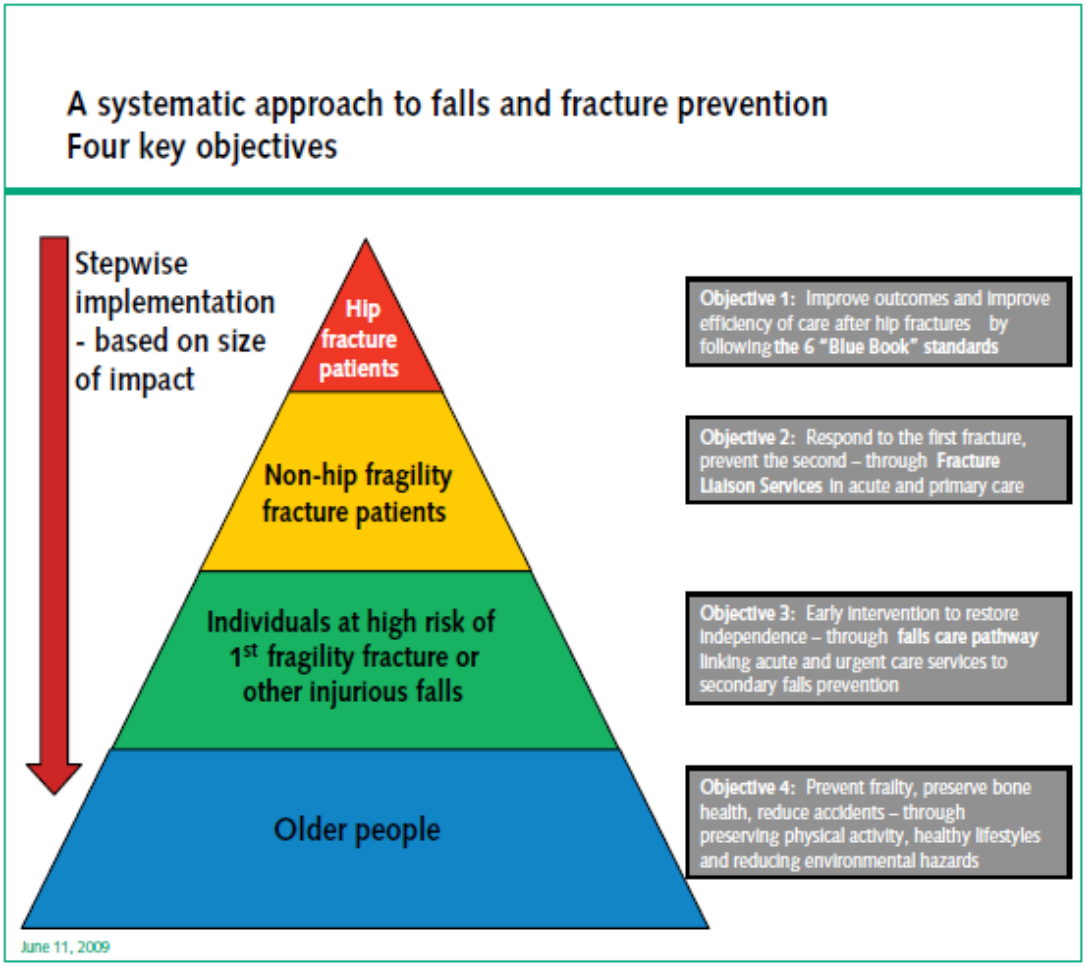


Figure one: Diagrammatic representation of the four key objectives for a systematic approach to falls and fracture prevention, Department of Health

Start Active, Stay Active: A report on physical activity for health from the four home countries' Chief Medical Officers, Department of Health, 2011[17]

A UK-wide document that presents guidelines on the volume, duration, frequency and type of physical activity required across the life course to achieve general health benefits. This guidance sets out the importance of physical activity in older adults to both improve muscle strength and balance. This should be undertaken throughout the general population of older people but especially for those at risk of falling. The guidance also recommends that all older adults should minimise the amount of time spent being sedentary (sitting) for extended Periods.

Falls in older people (Quality standard – QS86), NICE 2015[18]

This quality standard covers the prevention of falls and assessment after a fall in people aged 65 or over in both community and hospital settings. These quality standards enable stakeholders, including commissioners and providers, to benchmark their services against the evidence based standards. This ensures that older people at risk of falling, or who have fallen, are identified and effectively assessed and treated by health and care services.

Falls and fracture consensus statement: Supporting commissioning for prevention, PHE, 2017[19]

This paper outlines interventions and approaches that promote a collaborative and whole-system approach to prevention, response and treatment of falls. This includes promoting healthy ageing across the different stage of the life course; using the evidence base to effectively find cases risk assess older people and deliver evidence-based interventions; and providing collaborative, interdisciplinary care for falls-related serious injuries.

3.3. Regional / Local Context

Healthy ageing in the West Midlands: West Midlands Healthy Ageing and Frailty Project, PHE, 2016[20]

Recent regional work has explored evidence-based action, local practice and local performance, culminating in ten priority actions for the West Midlands and best practice examples. The ten priority actions included:

1. Involving older adults at all stages and levels of decision making
2. Developing place-based integrated working with electronic data sharing
3. Taking an asset based approach
4. Making the most of digital technology
5. Starting lifestyle interventions early, not assuming anyone is too old
6. Reducing social isolation and loneliness
7. Preventing falls
8. Assessing older people for frailty
9. Keeping people independent in their own homes

10. Improve workplace health

Worcestershire Joint Health and Wellbeing Strategy 2016 to 2021, 2016, Worcestershire County Council[21]

This strategy identifies 'being active at every age' as one of the key priorities for the county. In the context of older people, this increases their ability to live independently and reduce their risk of falls. This includes a focus on increasing everyday physical activity because this is a low or no cost option, and because long-lasting behaviour change is most likely to be achieved by making changes to daily routines

4. Aims and scope of Falls Needs Assessment

4.1. Aim

The overall aim of the Worcestershire Falls Needs Assessment is to improve health and wellbeing and reduce health inequalities for the population of Worcestershire. It will provide partners and stakeholders with an overview of the current and future need of people living in Worcestershire aged over 65 who are at risk of falling, or who have fallen. This will support and inform commissioning intentions across the health and care sector to ensure that services within Worcestershire are appropriately commissioned currently and into the near future. The needs assessment will meet the following objectives to achieve these aims

- identify current and future needs of the Worcestershire population who are at risk of falling, or who have fallen
- provide a comprehensive assessment and overview of the falls services in Worcestershire provided by statutory and voluntary sectors
- engage with key stakeholders and partners to identify how current services can better meet the need of the local population
- inform commissioning intentions across the whole system, from the prevention of falls through to improving health outcomes for those who have fallen
- based on the findings provide evidence-based recommendations to ensure the current and future level of services is appropriate for the level of need in Worcestershire

4.2. Scope

This needs assessment provides a comprehensive assessment of services in Worcestershire provided by the statutory, voluntary and private sector aimed at prevention and management of falls in older people. It looks at current and future needs of people living in Worcestershire aged 65 years or over who are at risk of falling, or who have fallen. This will inform commissioning intentions for of current and future falls services. The needs assessment will also consider how to improve outcomes and reduce inequalities across the population in Worcestershire who are at risk of falling or who have fallen. The focus is on falls across the health and care system, both community and secondary care services.

Outside the scope of this document lie people aged under 65, regardless of their risk of falling.

4.3. Outcomes Assessment

The Falls Needs Assessment primary outcome is to reduce the incidence of falls within Worcestershire. The primary outcome includes the following indicators from the Public Health Outcomes Framework:

- Emergency hospital admissions due to falls in people aged 65 and over

- Hip fractures in people aged 65 and over

These indicators can be stratified into gender and age bands (65 to 79; 80 and over).

This will reduce the burden of ill health associated with falls including distress, pain, injury, loss of confidence, loss of independence and mortality. Further indicators and outcomes are set out in section 11 based on the available evidence, guidelines and standards.

5. Methods

A range of methods were undertaken to complete this Falls Needs Assessment. This included an evidence review, quantitative and qualitative data collection, analysis and interpretation. The needs assessment was completed between June and October 2017.

5.1. Evidence review

An evidence search was conducted to identify key literature regarding falls and falls prevention. Ovid Medline and NHS Evidence databases were searched from inception until the present day. Terms capturing the falls and falls prevention were combined with terms related to older people and ageing. Terms were searched as both keywords and relevant database-specific subject headings.

5.2. Quantitative data collection, analysis and interpretation

Appropriate routine data sources and service activity data were searched and used to establish the burden of falls in Worcestershire, in addition to the projected need in the coming years. This included:

- Public Health Outcomes Framework (PHOF)
- Hospital Episode Statistics (HES)
- West Midlands Ambulance Service (WMAS)
- Quality Outcomes Framework (QOF)
- NHS RightCare
- Projecting Older People Population Information System (POPPI)
- Office of National Statistics (ONS)

5.3. Qualitative data collection, analysis and interpretation

Two working group sessions and a range of interviews were conducted to understand the relevant issues and assets related to falls within Worcestershire. The two working group sessions took place in July and August and the interviews were completed between those two sessions. This was specifically related to this needs assessment and its defined scope. Key stakeholders and partners were invited to take part in the working group. The working group invitation list is set out in appendix one. This was a subgroup of the falls pathway working group set up to input into the development of the recent falls pathway work.

6. Evidence

The literature review identified key papers to address falls through preventative methods. This included the below papers and guidelines.

Falls in older people: assessing risk and prevention (Clinical Guideline - CG161), NICE, 2013[3]

This guideline covers the assessment of fall risk and interventions to prevent falls in people aged 65 and over. It recommends **multifactorial risk assessment** in both community and acute settings. This includes older people in the community who present with a fall or who have fallen within the last year and in older people who are at risk of falls during a hospital stay. For community dwelling older people who have fallen, the guidance does not specify where the multifactorial risk assessment should take place. Although these assessments are often carried out "in the setting of a specialist falls service", NICE guidance suggests it can also be undertaken in other settings that have appropriate governance arrangements and professionals with skills and experience in falls prevention. This assessment should be part of an individualised, multifactorial intervention.

The guidance also recommends **multifactorial interventions** to prevent falls in both these settings. These interventions include:

- Strength and balance training
- Exercise in extended care settings, including nursing and care homes
- Home hazard and safety intervention
- Medication reviews for all older people on psychotropic medications
- Cardiac pacing for unexplained falls

This guidance also highlights the importance of a flexible enough programme to accommodate participant's different needs and preferences, including addressing motivational and self-efficacy components in addition to promoting the social value of falls prevention programmes.

Interventions for preventing falls in older people living in the community (Review), The Cochrane Collaboration, 2012[1]

This Cochrane review included both single and multi-factorial falls prevention trials in the analysis. The authors concluded that well designed community interventions are effective at reducing the rate of falls as well as the risk of falls in older people. More specifically they highlighted that:

- Group and home-based exercise programmes, and home safety interventions reduce rate of falls and risk of falling;
- Multifactorial assessment and intervention programmes reduce rate of falls but not risk of falling;
- Tai Chi reduces risk of falling;
- vitamin D supplementation does not appear to reduce falls but may be effective in people who have lower vitamin D levels before treatment;

- Interventions to improve home safety appear to be effective, especially in people at higher risk of falling and when carried out by occupational therapists;
- Footwear assessment, customised insoles, and foot and ankle exercises reduced the number of falls but not the number of people falling

This paper also reviewed the effectiveness of multifactorial interventions carried out in the community versus specialised hospital based geriatric services. Two trials compared this and found no significant difference in the rate of falls, risk of falling or risk of fracture between the two interventions.

Osteoporosis: assessing the risk of fragility fracture (Clinical Guideline, CG 146), NICE, 2012 (updated 2017)[22]

This NICE guideline covers the assessment of risk of fragility fracture in people aged 18 and over with osteoporosis. Given the association with falls and fragility fractures, this guideline plays an important role in the primary and secondary prevention of fractures following a fall. When assessing the risk of fracture, NICE recommend considering a fracture risk assessment in all women aged 65 years and over and all men aged 75 years and over. In the presence of any risk factors, both women and men should be assessed from the age of 50. Risk factors include: previous fragility fracture, history of falls, low BMI and smoking. Risk should be assessed using FRAX or QFracture which both estimate the 10-year predicted absolute fracture risk. Assessed persons within the intervention threshold should then undergo bone mineral density with a DXA scan to inform treatment.

7. Need in Worcestershire

The next two sections presents a range of routinely collected data for people aged 65 and over within Worcestershire to demonstrate and highlight the current and future need. The most recent data sources have been used throughout. Given the variance in reporting periods for some sources, data may not be from the last 1-2 years. The data source and date are presented with each data figure or table. Readers will be forewarned where due consideration is required when interpreting the data presented due to limitations in the reporting methods.

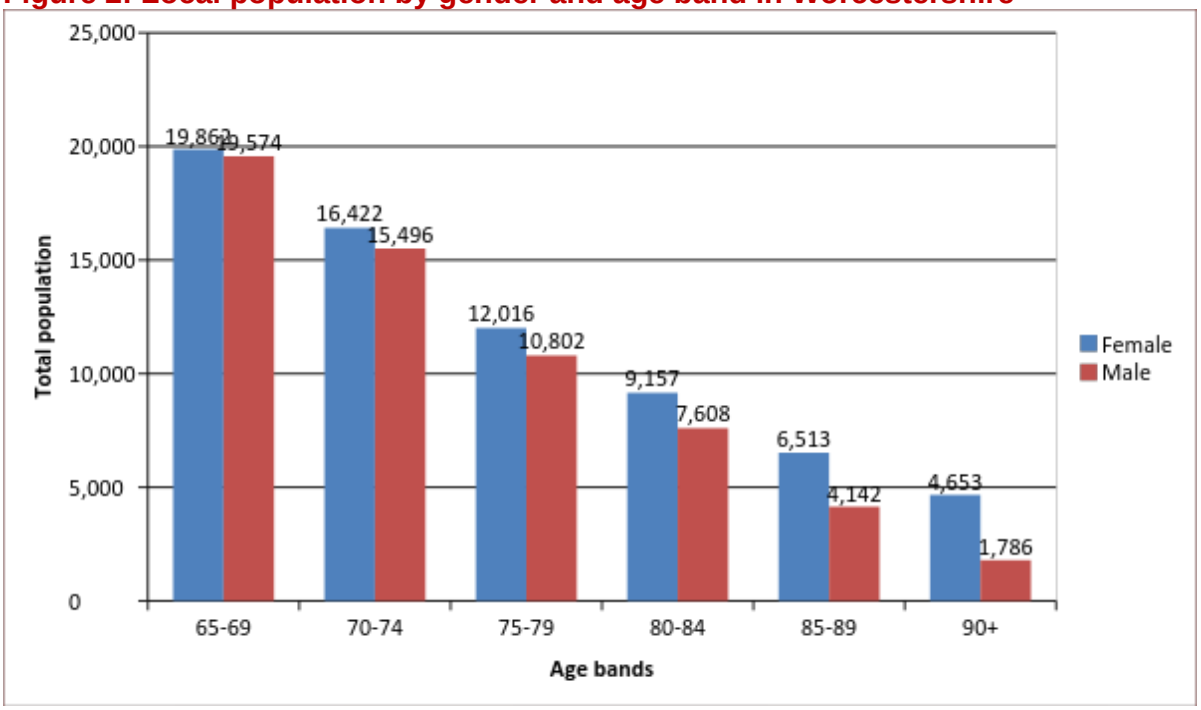
7.1. Population at risk of falling

NICE have defined people at risk of falling as:

- all people aged 65 or over;
- people aged 50 to 64 who are admitted to hospital and are judged to be at higher risk of falling due to an underlying condition.

Based on the 2016 mid-year census population estimates, Worcestershire has a population of 583,000. The number of people aged over 65 within the county is 128,031; 21.9% of the total population. Figure 2 presents a breakdown by gender and age band of the population aged 65 and over. People aged between 65 and 79 account for 74% of the population aged 65 and over, and people aged 80 and over account for 26%. There is a shift in the population demography after the age of 85, given there are almost twice as many women as men within those age bands (11166 women vs 5928 men).

Figure 2: Local population by gender and age band in Worcestershire



Source: 2016 Mid-Year Population Estimates. Office for National Statistics (ONS)

Table 1 presents the population aged 65 and over across the five districts in Worcestershire by gender including proportion of the district population. This shows that of the population aged 65 and over in Worcestershire, 53.6% are female and 46.4% are male. It also provides an overview of the age demography across the districts. Malvern Hills (27.4%) has the highest proportion of people aged 65 and over, followed by Wychavon (24.3%) and Wyre Forest (24.2%). The district of Wychavon has the highest number of people aged 65 or over within Worcestershire and Redditch has the lowest. This is in comparison with England's proportion of people at 65 and over at 18%.

Table 1: Population aged 65 and over across the five districts in Worcestershire by gender and including proportion of the district population

	Female	Male	Total	% of district population
Bromsgrove	**11,739**	**9,885**	**21,624**	**22.3**
Malvern Hills	**11,151**	**9,745**	**20,896**	**27.4**
Redditch	**7,702**	**6,941**	**14,643**	**17.2**
Worcester	**9,283**	**7,497**	**16,780**	**16.4**
Wychavon	**15,869**	**14,043**	**29,912**	**24.3**
Wyre Forest	**12,879**	**11,297**	**24,176**	**24.2**
Total	**68,623**	**59,408**	**128,031**	

Source: 2016 Mid-Year Population Estimates. Office for National Statistics (ONS)

The population of black and ethnic minority (BME) older people in Worcestershire is relatively small. The data reported is from the 2011 census, as this is the most comprehensive data source for ethnicity – table 2. Due consideration must be given to the fact that this data dates back six years and there may have been changes in Worcestershire's older BME population in that time. This group accounts for just 966 of the total population; under 1% of people aged 65 and over.

Table 2: Population aged 65 and over by age and ethnic group in Worcestershire

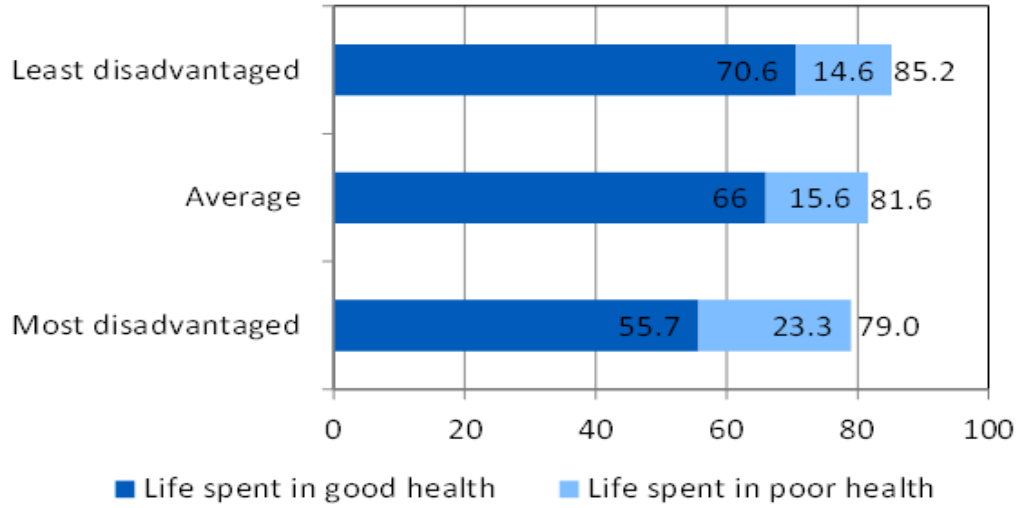
Age Bands	White	Mixed/ multiple ethnic group	Asian/ Asian British	Black/ African/ Caribbean/ Black British	Other Ethnic Group
65-74	58,031	109	331	109	41
75-84	35,289	66	155	57	14
85 and over	14,801	25	39	17	3
Total population aged 65 and over	108,121 (99.1%)	200 (0.18%)	525 (0.49%)	183 (0.17%)	58 (0.06%)

Source: Census 2011

Figure 3 reveals the average life expectancy at birth in Worcestershire to be 81.6 years old. When assessing life expectancy by deprivation, we can see that there is a 6.2 year difference

between the least and most deprived areas. This figure also highlights the number of years spent in good health and in poor health, by levels of deprivation in Worcestershire. Interestingly, there is a 15 year difference when assessing years lived in good health between the different areas in Worcestershire. Not only do people in disadvantaged areas have a shorter life expectancy, but a greater proportion of their life is spent in poor health.

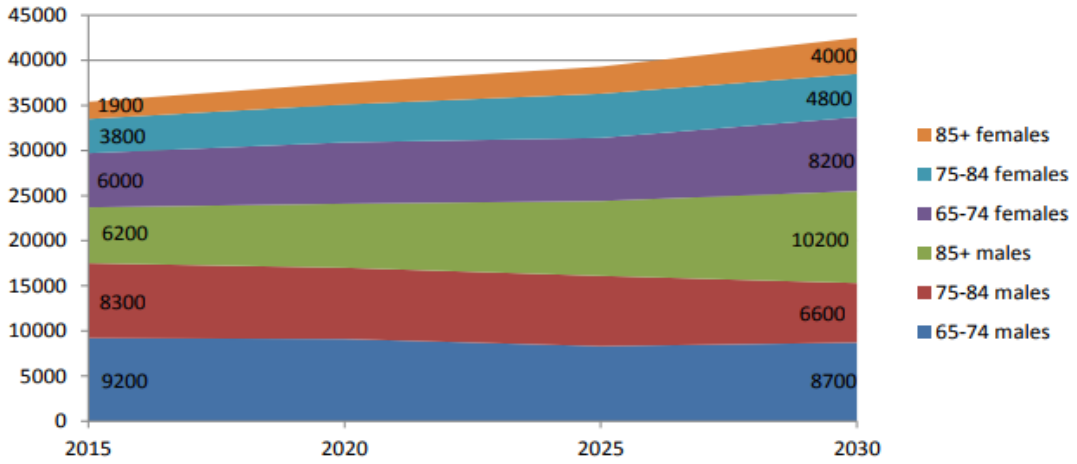
Figure 3: Life expectancy at birth in Worcestershire, showing life spent in good health and life spent in poor health by deprivation levels in the county.



Source: PHOF

The number of older people living alone in Worcestershire is expected to rise by 20% between 2015 and 2030 from 35,450 to 42,550 (figure 4). The number of over 85s living alone will see the biggest increase (approximately 60% for males and 110% for females). The number of men aged under 85 living alone is expected to decrease from 17,500 to 15,300. There is a link between living alone and experiencing social isolation and loneliness[23]. Furthermore, social isolation has been reported to be associated with an increased risk of falls[24].

Figure 4: Current and projected number of people living alone in Worcestershire



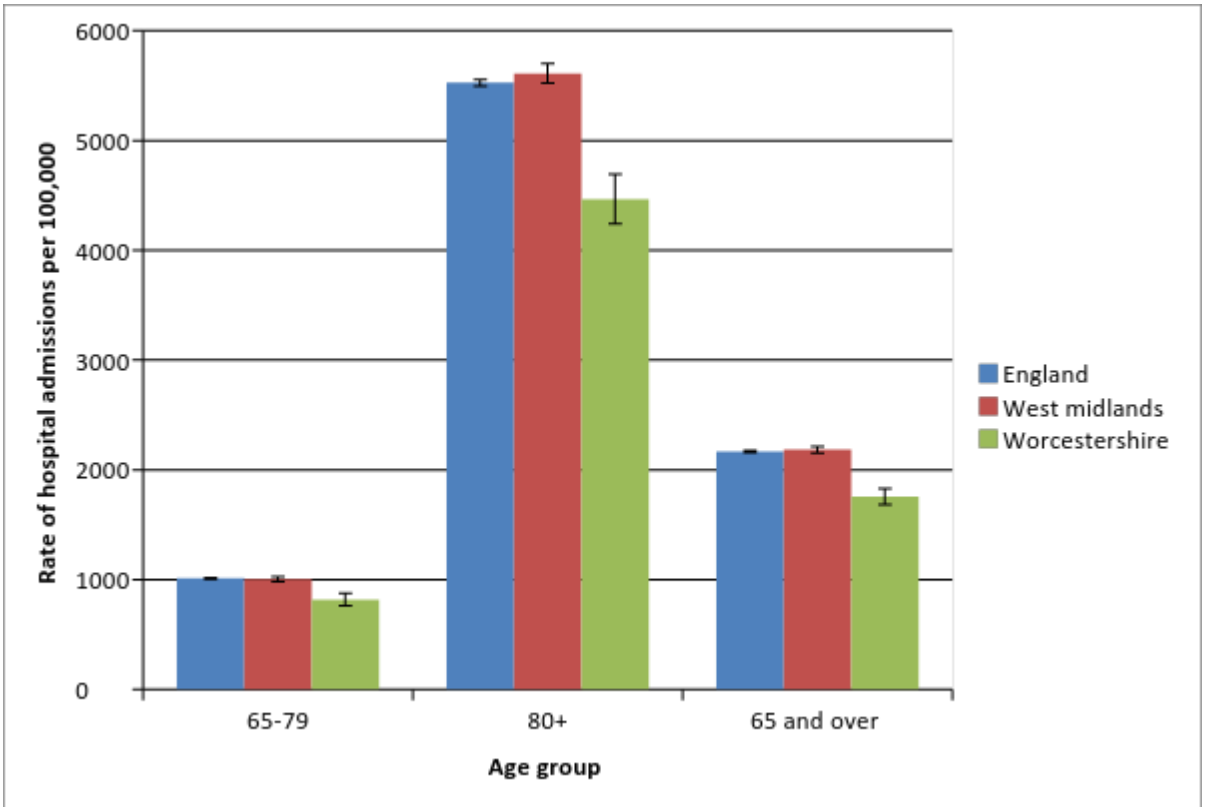
Source: Department for Communities and Local Government Household Projections model (2012-based)

7.2. Falls and fractures in Worcestershire

The data presented in this section acknowledges the met need of falls within Worcestershire. There is undoubtedly, however, an unmet need as the vast proportion of people who fall will not interact with health services directly. Therefore, this information and data will not be captured in the data presented here. Given our understanding of the incidence of falls in the community, modelling can be undertaken to provide estimates of the total number of people falling in Worcestershire each year.

The rates of falls resulting in an emergency hospital admission are shown in figure 5 by age band and area. The 95% confidence intervals reveal that Worcestershire's rate is statistically lower than both England and the West Midlands for all age bands, 65-79, 80 and over, in addition to 65 and over. The graph also reveals the higher rate of hospitals admissions due to falls in the age band 80 and over. Within Worcestershire this rate is fourfold when compared to people aged 65-79. This demonstrates the higher risk of injury and hospital admission when falling in those aged 80 and over, and must be considered when planning future services. Keeping people healthy and well at younger age will also have an impact on falls rates in those aged 80 and over. While the rates are statistically significantly lower in Worcestershire when compared nationally and to the West Midlands, due consideration must be given to the ageing population in Worcestershire, the population projections, and the potential future demand on services and need within the County (see section 8)

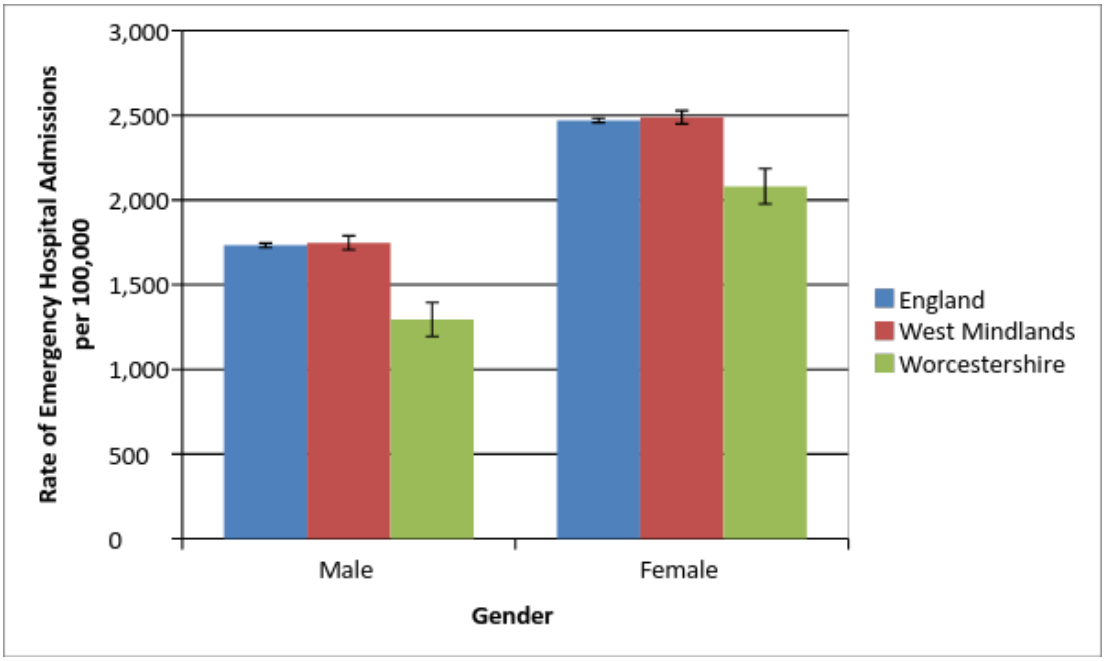
Figure 5: Emergency hospital admissions due to falls by age band 65-79, 80 and over and total in Worcestershire, West Midlands and England: directly standardised rate – per 100,000



Source: PHOF 2015/16

When comparing emergency hospital admissions due to falls by gender, figure 6 shows a statistically significant difference between male and female populations. Nationally and across the West Midlands, females have a higher rate of falls than males. This is reflected in Worcestershire with rates of emergency hospital admission due to falls 60% higher in the female population. 95% confidence intervals reveal that the rates of emergency admissions for both male and female are significantly lower when compared nationally and regionally. Although the data shows that Worcestershire's rates are lower, work could be done to address the health inequality when comparing male and female populations.

Figure 6: Emergency hospital admissions due to falls by gender in people aged 65 and over in Worcestershire, West Midlands and England: directly standardised rate – per 100,000

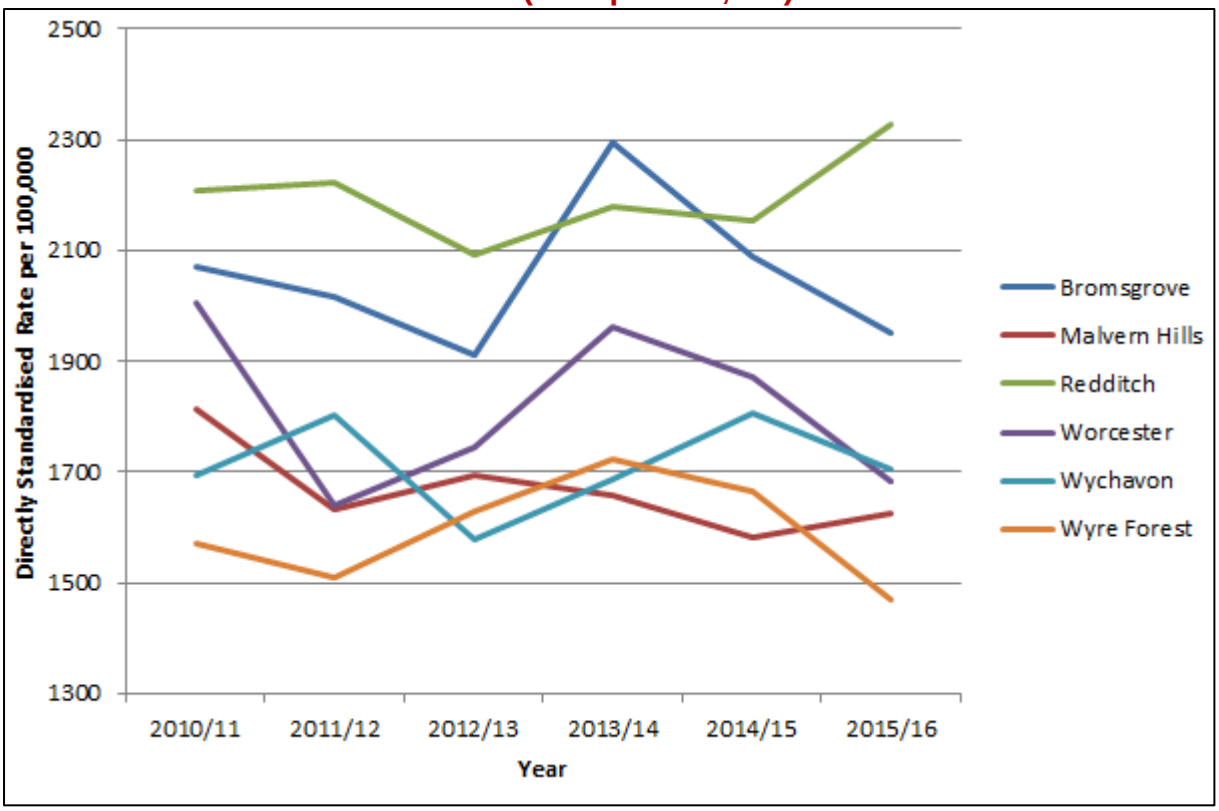


Source: PHOF 2015 / 16

Comparison of emergency admissions due to falls in persons aged 65 and over is presented by district in figure 7. It reveals the downward trend in the majority of the districts apart from Redditch. Additionally, Redditch has a higher rate compared to the rest of Worcestershire.

For presentation purposes, table 3 represents the same data as figure 7 for 2016 including the 95% confidence intervals. The confidence intervals reveal that the emergency admission rates in Redditch are significantly higher when compared to all Worcestershire districts apart from Bromsgrove confirming a higher level of need within this district for emergency admissions. However, in comparison to England, Redditch has similar rates of emergency admissions due to falls as the 95% confidence intervals overlap.

Figure 7 – Emergency admissions due to falls in persons aged 65 and over by district in Worcestershire from 2010 to 2016 (DSR per 100,000)



Source: PHOF

Table 3: Emergency admissions due to falls in persons aged 65 and over by district in Worcestershire in 2016; DSR per 100,000 including 95% confidence intervals

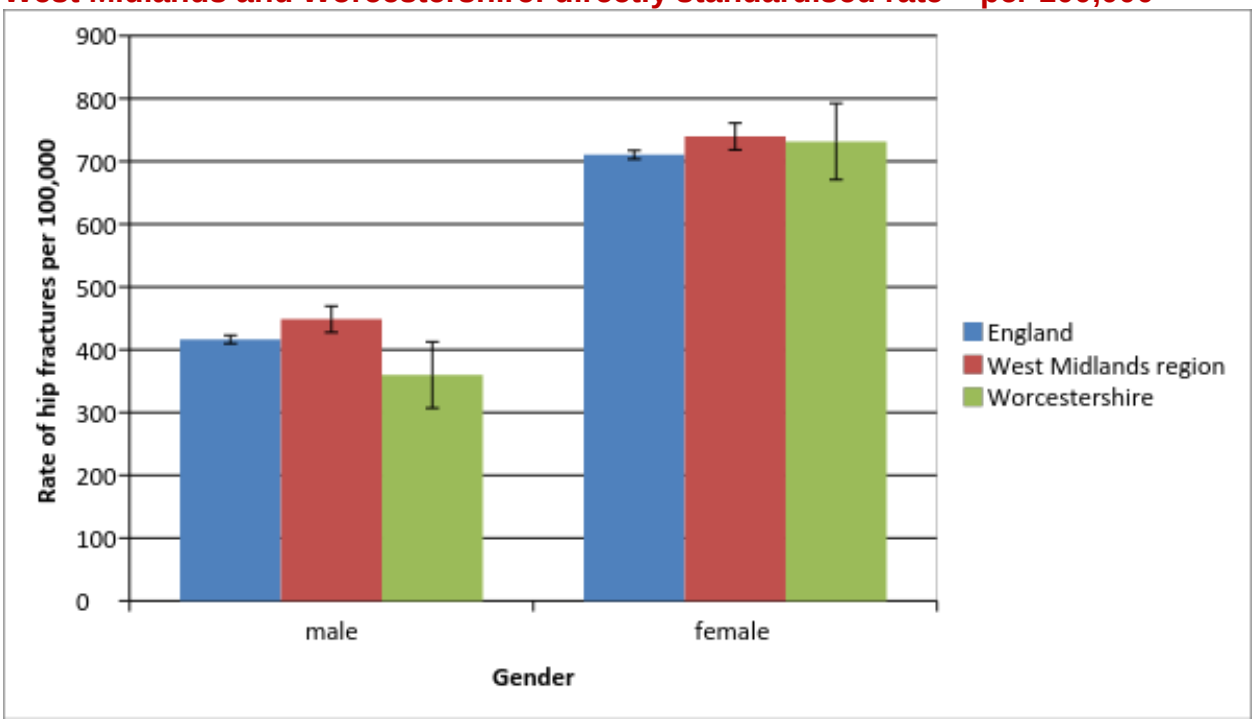
District	Rate	Lower CI	Upper CI
Wyre Forest	1,468	1,313	1,635
Malvern Hills	1,625	1,458	1,805
Worcester	1,683	1,491	1,894
Wychavon	1,704	1,557	1,862
Bromsgrove	1,950	1,770	2,143
Redditch	2,326	2,068	2,607
ENGLAND	2,169	2,160	2,179

Source: PHOF 2016

Hip fractures:

The rate of hip fractures in Worcestershire is similar to rates in England and the West Midlands as seen in figure 8. 95% confidence intervals reveal this to be the case given the confidence intervals overlaps for all three regions. As with the rate of emergency hospital admissions in Worcestershire by gender, the rate of hip fractures in people aged 65 and over is twice as high in female compared to male populations revealing an inequality when taking into consideration health outcomes.

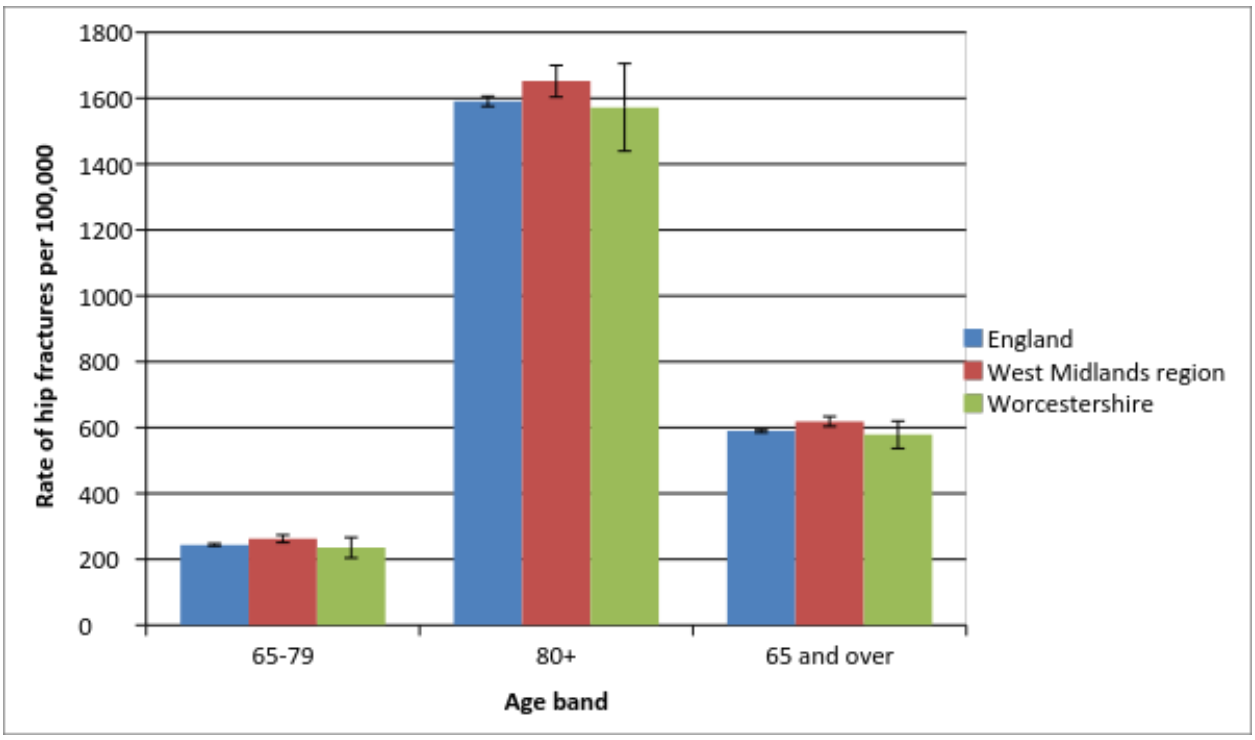
Figure 8: Rate of hip fractures in people aged 65 and over by gender, in England, the West Midlands and Worcestershire: directly standardised rate – per 100,000



Source: PHOF (2015/16)

Furthermore, figure 9 shows the rate of hip fractures by age bands across England, the West Midlands and Worcestershire. 95% confidence intervals show that Worcestershire's rate is similar to the other two regions due to overlapping ranges. Most notable findings from this data and figure include that the rate of hip fractures is six times higher in those aged 80 and over compared to those aged 65-79.

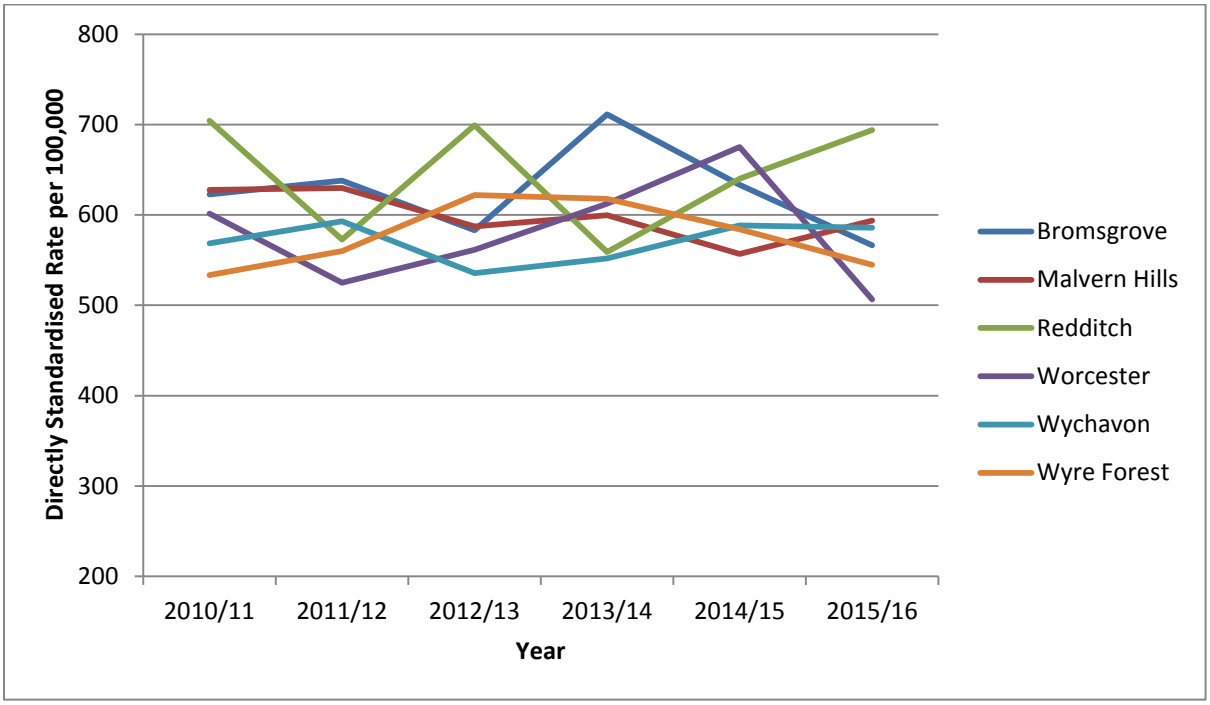
Figure 9: Rate of hip fractures in people by age bands in England, the West Midlands and Worcestershire: directly standardised rate – per 100,000



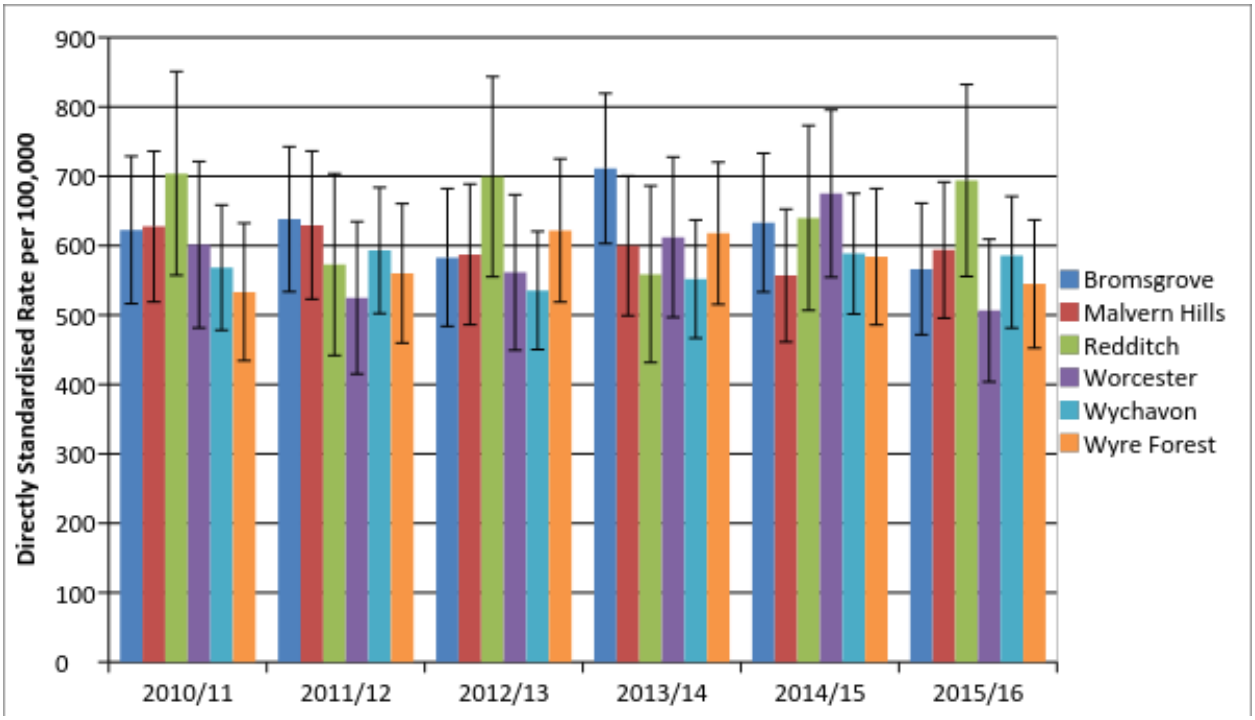
Source: PHOF 2015/16

Figure 10 shows the trend of the rate of hip fractures in people aged 65 and over by district in Worcestershire. Both Malvern Hills and Redditch are experiencing upward trends; however, Redditch is considerably higher than the other districts. Although the data reveals this about Redditch, the 95% confidence intervals show that these rates are all similar as each of the confidence intervals overlaps for every year from 2010 through to 2016. Therefore it cannot be concluded that any of the districts is significantly different to the others regarding hip fractures. An explanation for this might be due to the relatively small sample sizes resulting in wide confidence intervals. Additionally, the line graph shows the variance in the Redditch data between years, as well as the other districts. This could be due to an artefact in the data, resulting in the graph presented below.

Figure 10: Hip fractures in people aged 65 and over by district in Worcestershire between 2010 and 2016



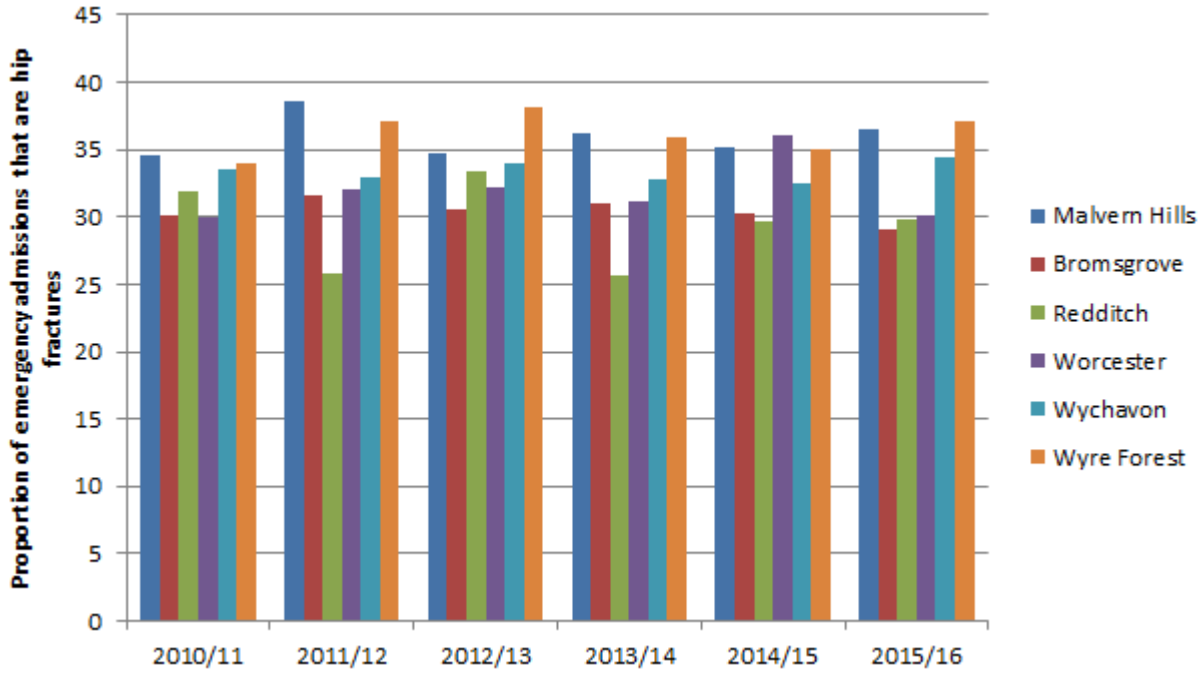
Source: PHOF 2016



Source: PHOF 2016

Figure 11 demonstrates the proportion of emergency admissions due to falls that are diagnosed as a hip fracture according to PHOF and Hospital Episode Statistics data. Both Wyre Forest and Malvern Hills have consistently high proportions. This may be interpreted to demonstrate that the patients being conveyed to hospital in these two districts are more appropriate as there is a high proportion of patients with a hip fracture and that these districts may have better services to facilitate and support people staying at home. This interpretation is based on the assumption that case mix of patients is similar across all districts.

Figure 11: Proportion (%) of emergency admissions due to falls that are diagnosed as a hip fracture



Source: PHOF 2010-2016

7.3. Falls in care homes

Given the age profile and demographics in Worcestershire, there are a number of care homes throughout the County. Table 4 shows the number of care homes in each district.

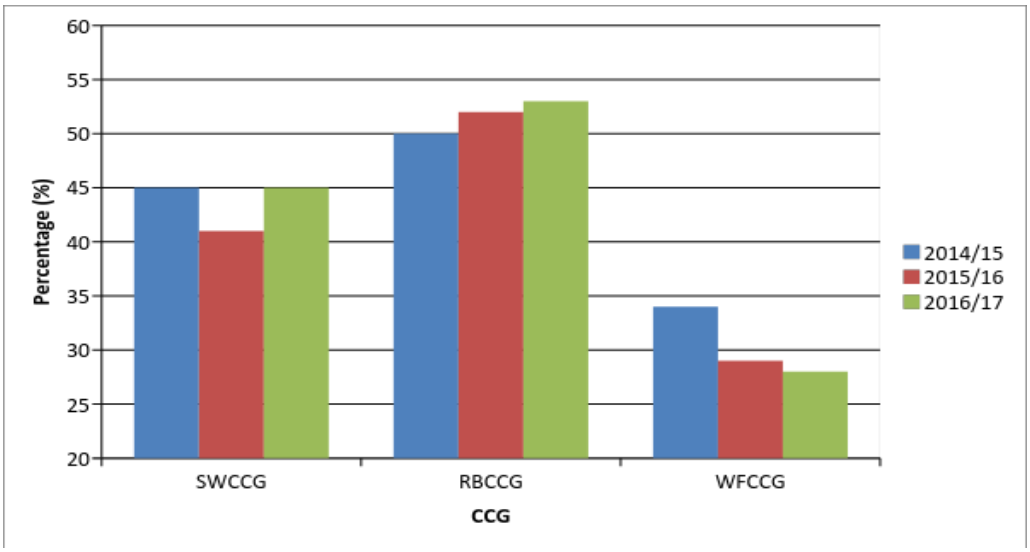
Table 4: Number of care homes by district in Worcestershire

District	Number of Care Homes
Bromsgrove	50
Malvern Hills	39
Redditch	13
Worcester	31
Wychavon	38
Wyre Forest	47
Total	218

Care home are required to report falls that result in significant harm (therefore not all falls) to CQC via a formal notification. CQC then report these incidents as serious injury notifications. Consequently, despite a freedom of information request to the CQC for falls within care homes in Worcestershire, the share data is of little use due to the all-encompassing nature of serious injury notifications to the CQC. There will also be a number of falls that do not meet serious injury criteria therefore will not be reported.

Figure 12 presents the percentage of emergency hospital admissions following a fall without a fracture from care homes by CCG between 2014/15 and 2016/17. The data shows that care homes within the boundaries of Wyre Forest CCG (WFCCG) perform better than both South Worcestershire and Redditch and Bromsgrove CCGs. WFCCG appear to be experiencing a downward trend compared to its counterparts.

Figure 12: Percentage of emergency hospital admissions following a fall without a fracture from care homes by CCG and year



Source: WMAS activity data

On discussion with a CCG commissioning manager regarding the above graph, the following reasons were given to potentially explain to the differences between the CCG areas and better performance in WFCCG:

- WFCCG is a significant distance from Worcestershire Acute NHS Trust, therefore patients are less inclined to travel the distance to hospital and may 'wait and see' prior to making a decision about calling an ambulance and potentially being conveyed to hospital.
- There is anecdotal evidence that community staff are more aware of the distance to the acute services, therefore they will do all they can to keep people at home for longer.
- There are no community hospitals in Wyre Forest; therefore there is no 'step-up' option available for staff and patients.
- WFCCG have care home practitioners and care home educators embedded within the community teams. These roles have been in place since 2012/13, and they are not replicated across Worcestershire. The care home practitioner roles have increased responsiveness to care homes and through the advice given, care homes develop and learn.
- Specific falls prevention strategies are in place across WFCCG care homes.
- Primary care have a strong presence and good relationship with the care homes, including regular ward rounds aligned to care homes. This has been in place since 2013.

The data and the above potential explanations provide valuable insight into the variations between the CCGs regarding conveyances to hospital from care homes.

7.4. Osteoporosis and fragility fractures

The Quality and Outcomes Framework (QOF) incentivises 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 5 reveals the variation between CCGs in the management of patients with confirmed osteoporosis. Redditch and Bromsgrove CCG have significantly lower rates for both age bands when compared to England and demographically similar CCGs. This is also the case for South Worcestershire in patients aged 75 and over. Based on feedback from the falls steering group, due consideration must firstly be given to any issues with data coding and collection that may explain the variance of these QOF indicators.

Table 5: Proportion of patients aged 50-74 or 75 and over with a fragility fracture (excluding exceptions) treated with Bone Sparring Agent by CCG

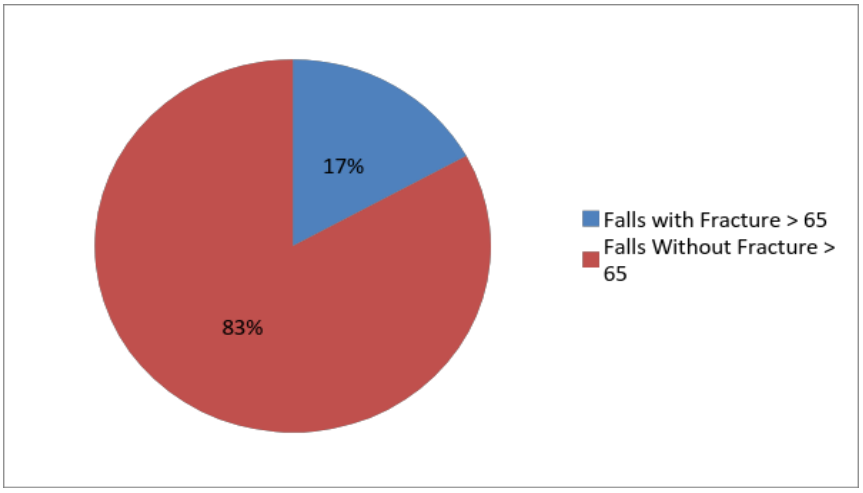
	Redditch and Bromsgrove CCG	South Worcestershire CCG	Wyre Forest CCG	England
% patients 50-74 years with fragility fracture treated with Bone Sparing Agent	73.9*	80.7	72.5	82.8
% patients 75+ years with fragility fracture treated with Bone Sparing Agent	60.4*	62.9*	68.7	67.4

*significantly worse than England and demographically similar CCGs
Source: NHS RightCare 2016

7.5. Services for falls

Following a fall, it is essential that the person who has fallen is managed in the most appropriate manner to ensure good outcomes are achieved. Rates of conveyances to hospital play a part in this process, as does whether the person has sustained a fracture or not. Across the three CCGs the conveyance rates to hospital are very similar. In 2016/17, the percentage of ambulance conveyances to hospital in people who had fallen, but had not sustained a fracture, was 83% - Figure 13. This high proportion offers a potential opportunity to manage people who have fallen, but have not sustained a fracture, in a different ways. For example, managing people in their homes and aiming to avoid a conveyance to hospital and potential admission for those individuals where it is appropriate to do so. Further opportunity includes linking those individuals in with other services and assets within Worcestershire including Postural Stability Instruction, commencing a multifactorial falls assessment if appropriate and other preventative services or assets.

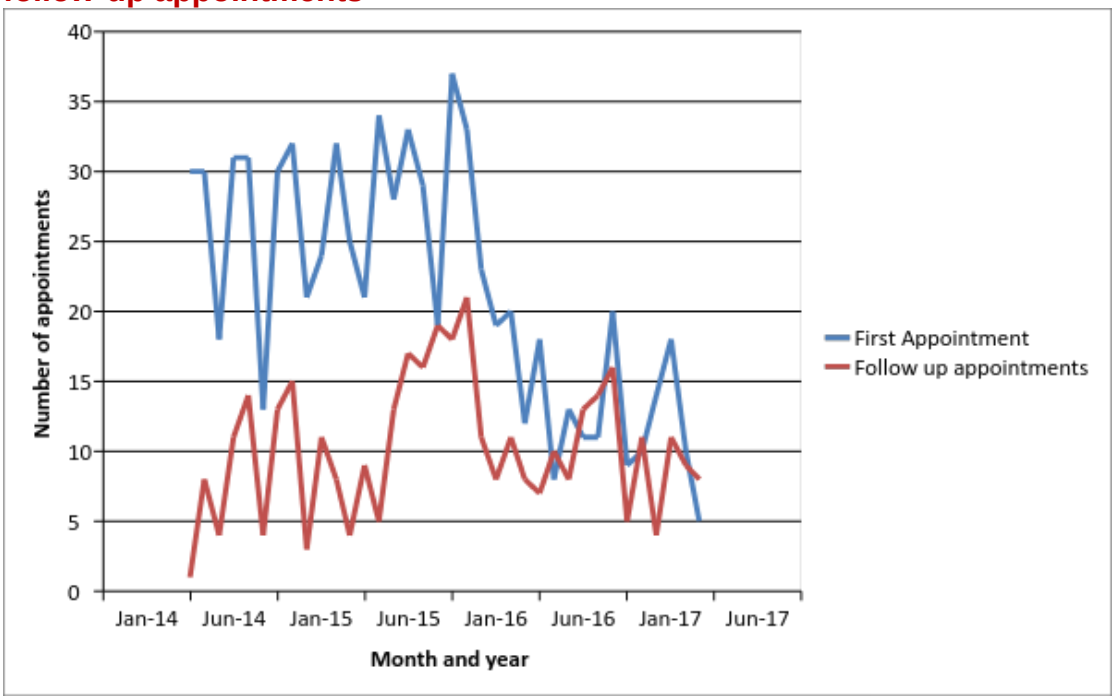
Figure 13: Percentage of ambulance conveyances to hospital that are reported as falls with or without a fracture in Worcestershire in 2016/17



Source: WMAS activity data (2016/2017)

Figure 14 reports the falls clinic activity for SWCCG between 2014 and 2017. It shows both follow-up and first appointment activity. Activity within the falls clinic demonstrates a downward trend since October 2015. At the time of writing the falls clinic had wait times of up to six months. Falls clinics are held at Worcester Royal Hospital (WRH) twice a week, for residents in the South and North of the county. This presents access and equity issues for residents in the North of Worcestershire given the distance required for travel to WRH. There is anecdotal evidence that this influences the management of patients in the North, e.g. patients will be managed in a community setting rather than referred to the acute Hospital.

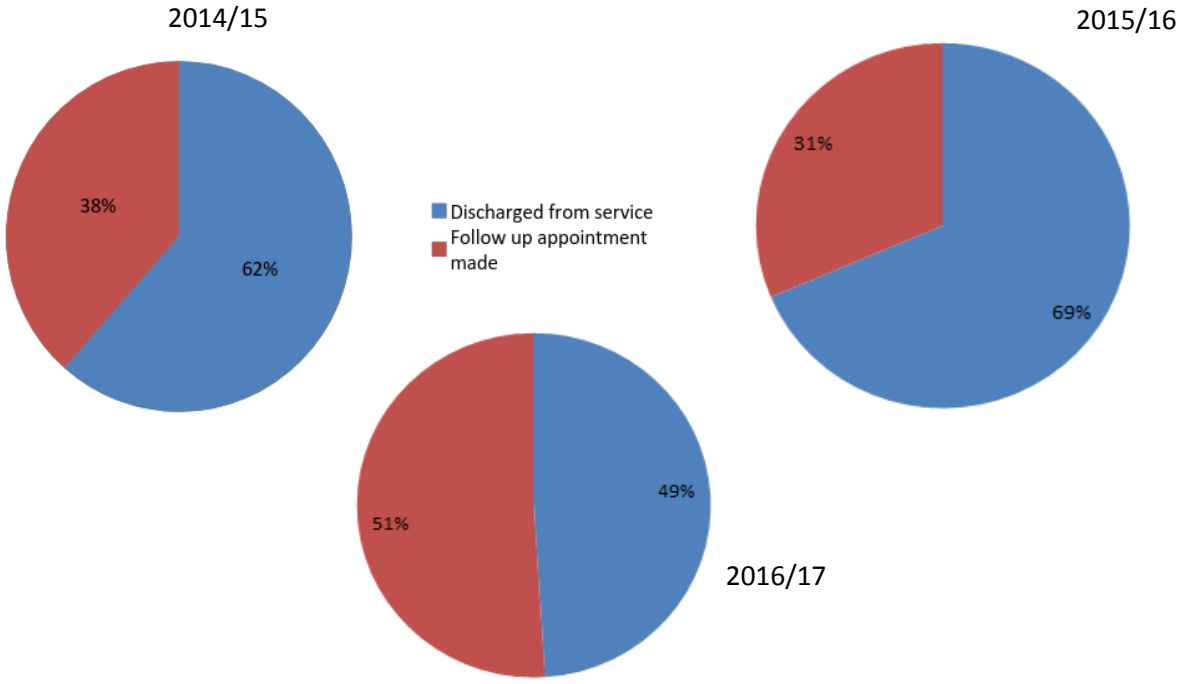
Figure 14: Falls clinic activity data from April 2014 – March 2017 for both first and follow-up appointments



Source: Falls clinic activity data for SWCCG (2014 – 2017)

Figure 15 provides insight into the outcomes of first appointment falls clinic attendance. 2016/17 shows a considerable drop in the number of people being discharged from the service at first appointment. This may suggest that referrals are more appropriate from referring clinicians or that patients are becoming more complex. However, the reduced activity levels within the service cannot be explained by an increase in follow-up requirements, as figure 14 shows that follow-up activity in clinic has also reduced since 2015.

Figure 15: First attendance outcomes in the falls clinic by year, 2014 - 2017



Source: Falls clinic activity data (2014 – 2017)

The data presented in the two preceding figures highlights that further work is required to better understand the activity and outcomes from the falls clinic. Currently, there is a lack of evidence to demonstrate the effectiveness of the falls clinic in a hospital setting over a community setting. Consequently, work needs to be undertaken to scope what the future model of a falls clinic will look like to ensure it is an efficient and equitable service aligned with the prevention pathway.

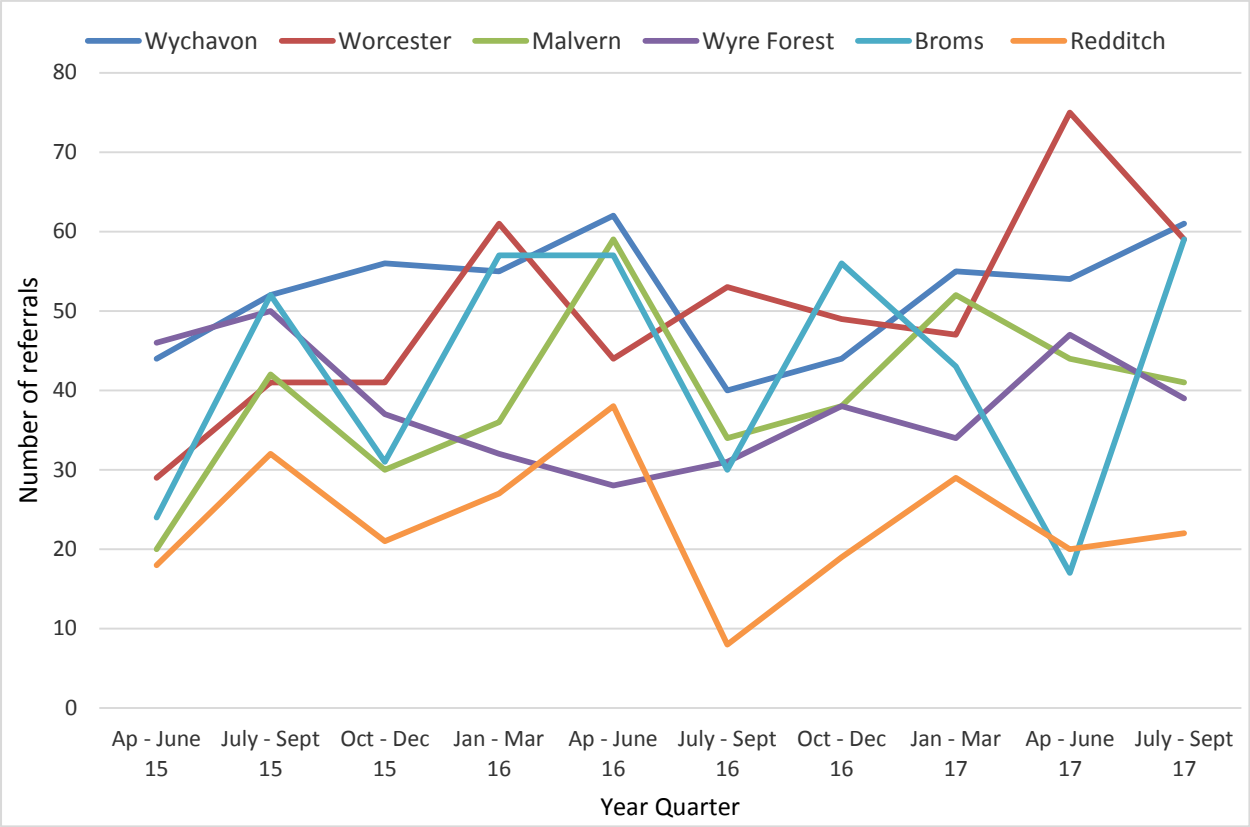
Table 6 shows the retention rate for the PSI programme for 2016/17 by quarter and total year retention. Retention is consistent across the year with 82% of participants taking part in three or more sessions. 45% of participants attend 14 sessions. This figure then drops to only 23% of those starting the course completing 22 weeks of the PSI course. This represents a significant drop-out rate of participants over the duration of the classes.

Figure 16 presents the GP referrals into the PSI programme per quarter between April 2015 and September 2017. The upward trend of referrals reveals the increase in the number of people referred into the classes. However, it also demonstrates the variation in the number of referrals into the programme by district. Although this data does not take into account self-referrals by district, it does reveal that Redditch district consistently has the lowest number of referrals from GPs. Additionally, although Worcester has the lowest proportion of people aged 65 and over as a district, it regularly has the highest number of referrals as a district from GPs.

Table 6: Retention rate for the PSI programme – 2016/17

	April - June 2016		July - September 2016		October - December 2016		January - March 2017		Year 2016/2017	
	Total no. attendees	% retained on class	Total no. attendees	% retained on class	Total no. attendees	% retained on class	Total no. attendees	% retained on class	Total no. attendees	% retained on class
Total Started	218	N/A	197	N/A	90	N/A	243	N/A	748	N/A
Total attended 3 or more sessions	175	80%	159	81%	77	86%	204	84%	615	82%
Total Attended 14 sessions	105	48%	83	42%	47	52%	104	43%	339	45%
Total Attended 22 sessions	59	27%	44	22%	21	23%	45	19%	169	23%

Figure 16: Referrals into the PSI programme by GPs in each district in Worcestershire



Source: Sports Partnership performance data 2017

7.6. Interpretation and Limitations of the data

The indicators and data presented above reveal that Redditch performs worse than other districts in Worcestershire when comparing emergency admissions due to falls and referrals into the PSI programme. Furthermore, although there is no statistical difference, hip fracture rates are higher than other districts. This could be an actual issue in Redditch that requires further investigation. However, Redditch has the lowest number, in terms of actual count data, of emergency admissions and hip fractures. Given the relatively small sample sizes, the Redditch data may be more susceptible to year to year variation and wider confidence intervals. This will require further consideration from the falls steering group.

There are several limitations of the data sources presented in this falls needs assessment for Worcestershire. Firstly, the data does not capture all falls occurring in Worcestershire. As not everyone having a fall will present to health services, the data does not capture the unreported falls. This can be modelled based on the assumption that one in three people aged 65 and over fall every year and one in two people aged 80 or over fall every year[3].

Secondly, the coding of falls in health service settings can vary and include discrepancies between different data sources. For example, falls are very often coded by the injury sustained rather than a fall being the primary code inputted into the system. This is highlighted in section 7.4 above regarding the osteoporosis data coding in primary care.

And finally, there are variations between health services and individual clinicians as to what may constitute a fall and how that interaction with the health service is then coded. Additionally, the HES data relates to episodes of care and not patients, therefore does not consider a patient that may have fallen and presented to hospital several times.

8. Projected Need in Worcestershire

A higher proportion of the population is aged 65 or over in Worcestershire than elsewhere in the UK. It is essential to understand the future need and projected demand to ensure that services within Worcestershire are able to plan fit for purpose. Projecting both the future demography and predicted falls facilitates this process to ensure there is a thorough understanding of future need.

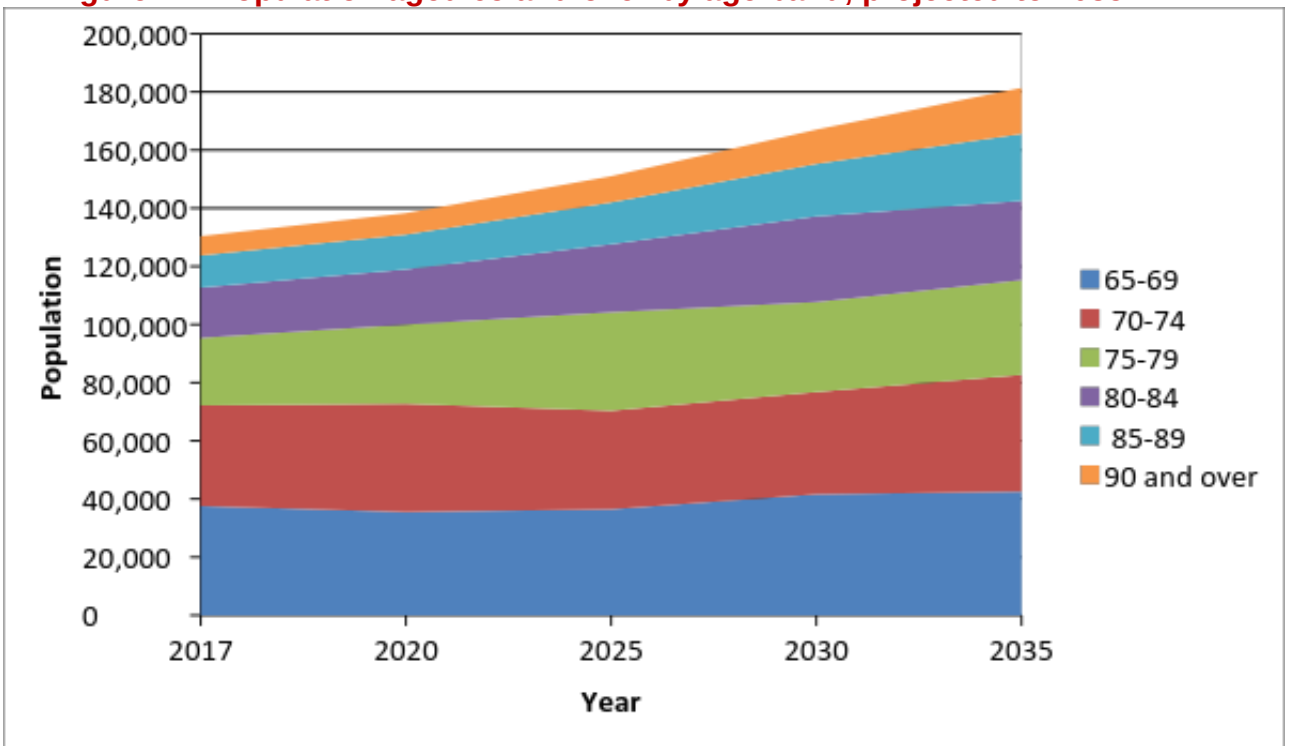
Table 7 shows a projection of the population aged 65 and over by age band to 2035. It also includes the percentage change in those age bands from 2017. Figure x shows this data graphically. All age bands are set to increase to 2035, however, the most notable increases are in older age bands. Both 85-89 and 90 and over are set to at least double over the period until 2035. Given one in two persons aged over 80 has a fall every year, this has significant ramifications for the future of services, prevention and both primary and secondary care. This is represented graphically in figure 17.

Table 7: Population aged 65 and over age band, projected to 2035 including percentage change from 2017

	2017	2020	2025	2030	2035
65-69	37,600	35,500 **(-6%)**	36,500 **(-3%)**	41,600 **(11%)**	42,500 **(13%)**
70-74	34,600	37,200 **(8%)**	33,900 **(-2%)**	35,100 **(1%)**	40,200 **(16%)**
75-79	23,200	27,300 **(18%)**	33,900 **(46%)**	31,100 **(34%)**	32,600 **(41%)**
80-84	17,300	19,000 **(10%)**	23,300 **(35%)**	29,300 **(69%)**	27,200 **(57%)**
85-89	11,100	11,900 **(7%)**	14,300 **(29%)**	18,100 **(63%)**	23,000 **(107%)**
90 and over	6,600	7,400 **(12%)**	9,100 **(38%)**	11,900 **(80%)**	15,900 **(141%)**
Total 65 and over	130,400	138,300 **(6%)**	151,000 **(16%)**	167,100 **(28%)**	181,400 **(39%)**

Source: POPPI (Projecting Older People Population, accessed 17th July 2017)

Figure 17: Population aged 65 and over by age band, projected to 2035



Source: POPPI (Projecting Older People Population, accessed 17th July 2017)

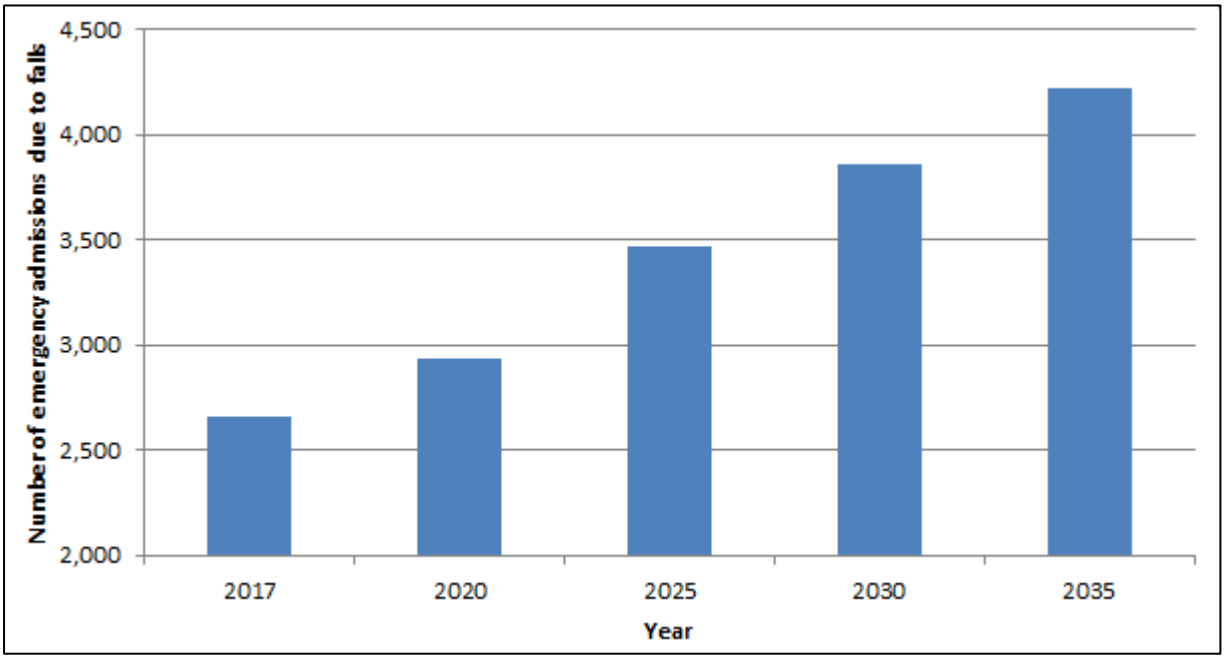
Table 8 represents the predicted number of emergency admissions to hospital as a result of falls, projected to 2035. This shows the vast increase of emergency admissions due to falls in people aged 75 and over, a 69% increase. In total for all people aged 65 and over, there is a predicted 59% increase by 2035. Figure 18 represents this graphically in a bar chart to demonstrate the large predicted increases.

Table 8: People aged 65 and over predicted to be admitted to hospital as a result of falls, by age, projected to 2035

	2017	2020	2025	2030	2035
People aged 65-69	196	185	190	216	221
People aged 70-74	318	342	312	323	370
People aged 75 and over	2,142	2,414	2,966	3,323	3,628
Total population aged 65 and over	2,656	2,941	3,468	3,862	4,219

Source: POPPI

Figure 18: People aged 65 and over predicted to be admitted to hospital as a result of falls, by age, projected to 2035



Source: POPPI

9. Current pathways and resources

9.1. Pathways

Falls Prevention pathway

A new falls prevention pathway was launched in Worcestershire on 2nd October 2017 (see figure 19). After thorough engagement with a range of stakeholders, the new pathway is designed to make the process of falls prevention less complication, easier to implement and better for patients. Referrals can be made by GPs, the Acute Trust, Health and Care Trust, West Midlands Ambulance Service, the Fire and Rescue Service and the community and voluntary sector. This ensures that falls prevention is everyone's business throughout the health and care system. The changes to the falls pathway are reflected in the new NICE guidelines (2013):

- Older people should be asked about falls when they have routine assessments and reviews with health and social care practitioners.
- NICE defines someone as at risk of falling if they have an abnormality of gait or balance or struggle to get out of a chair.
- Older people at risk of falling should be offered a multifactorial falls assessment (MFFA) and individualised multifactorial intervention(s).

The MFFA covers a wide range of potential risk factors including: nature and history of falls, memory loss, medication review, physical examination, foot wear / foot care examination, continence assessment, bone health assessment, balance review, vision assessment and a home hazard assessment

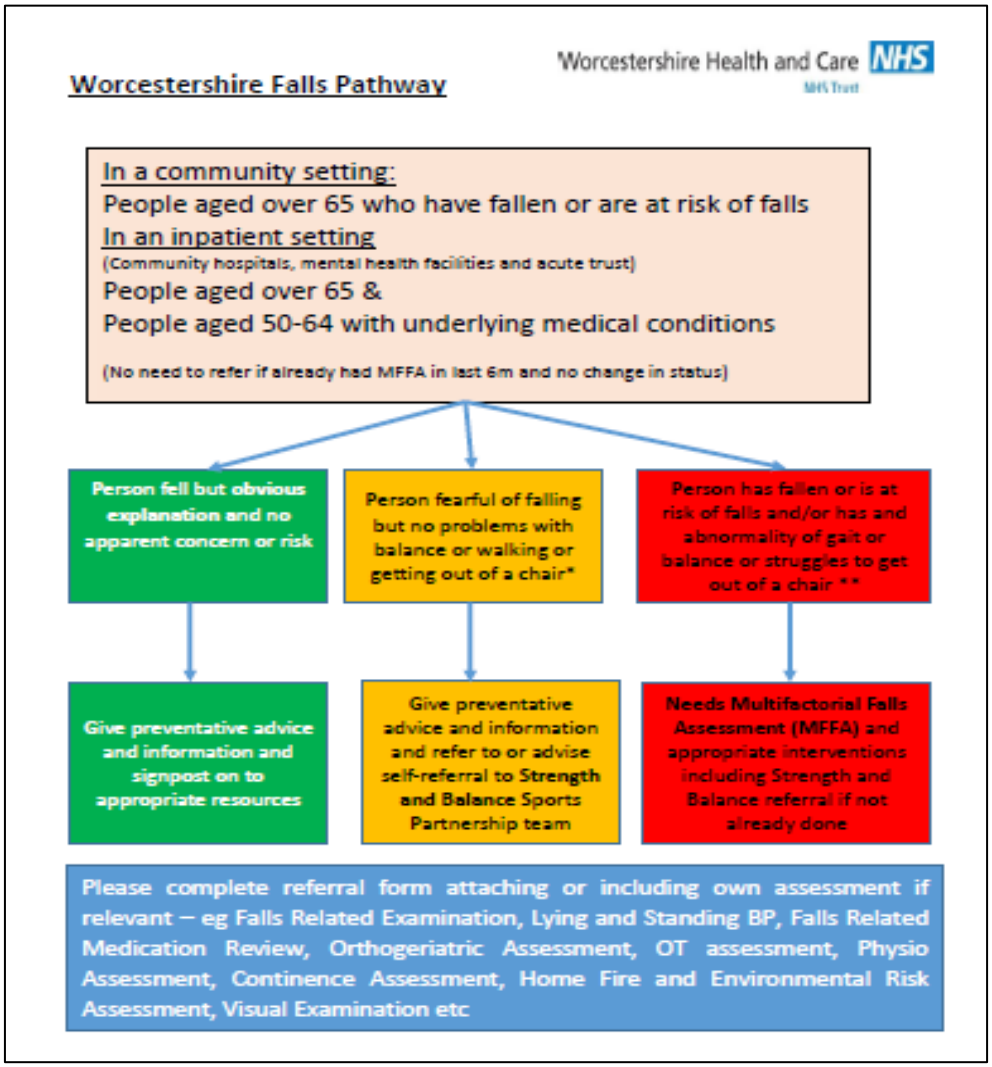
Falls clinic

Patients that present with more complex and multi-factorial issues are referred to the falls clinic provided at Worcester Royal Hospital cover by a Consultant Geriatrician. This service currently runs twice a week for residents in both the North and South of the county. Within this clinic, patients receive a multi-factorial falls assessment in an acute setting including assessments by the Consultant Geriatrician, nurse practitioner, physiotherapists and occupational therapists. The multidisciplinary team develop collaborative management plans to address the presenting problems.

Fracture Liaison Pathway

Worcester Royal Hospital have a specialist osteoporosis service in the form of a specialist nurse. Suspected fragility fractures are screened and identified by staff within accident and emergency. Based on a combination of clinical examination and questionnaires, if patients are suspected to be susceptible to further fractures as they have a number of risk factors, they will be referred to the specialist osteoporosis nurse. The specialist nurse will assess whether the patient's needs require management within primary or secondary care and then make the necessary referral.

Figure 19: Worcestershire Falls Prevention Pathway, live from 2nd October 2017



West Midlands Ambulance Service (WMAS)

Although the ambulance service within Worcestershire do not currently have any specific contracts or service level agreements related to falls response, the service aims to reduce unnecessary conveyances and admissions to hospital when attending a person that has fallen. If the person has a suspected fracture or warrants further investigation / management they will be conveyed to hospital. For those that are not within this cohort of patients, WMAS will attempt to manage and keep them at home or within their usual setting. This includes referral onto specialist partner teams.

Falls Response Service

The current falls response service is delivered across South Worcestershire by the Fortis Housing provider. There is no cover in the north of Worcestershire. They provide a 365 day

24hr/7day response service to people who have fallen or are at risk of falling in “non- injury” situations, in their current place of residence.
One of the main aims of the service is to help avoid unnecessary demand on emergency services, helping to reduce hospital admissions and assist older people to maintain their independence at home for as long as they wish to and are able.

Referrals are accepted from:

- Alarm monitoring services provider(s)
- Worcestershire health and social care access service (WHASCAS) for the Identified Care Homes in South Worcestershire
- SWCCG primary care GPs and health workers (including GP Out Of Hours service)
- West Midlands Ambulance Service (WMAS) – on site paramedic/ GP with WMAS who calls for assistance to lift a patient (specialist equipment)

The Falls Responders provide a response within 30 minutes of the alert. They deliver an individual approach to help prevent patients from experiencing repeat falls by providing an initial level 1 assessment as appropriate and signpost the patient for additional support to meet the patients assessment needs (e.g. medication review with GP, falls prevention team, admission prevention teams, social care services, PSI programme).

The service aims to ascertain the reason for the fall and take immediate preventable measures where possible to remove or reduce any hazards. This is facilitated by undertaking a risk assessment at each faller’s home, working to further identify fall management preventative actions. Online falls risk assessment tool available through county council e-market place. The service also provides a follow-up call either by telephone or in person to patients within 24 hours of the fall to check on their welfare and establish where possible the cause of the fall and implementing preventable measures to prevent future falls. Details regarding the intervention are communicated to the GP to ensure they are kept aware of the falls that the patient has experienced.

Strength and Balance class / Postural Stability Instruction

Postural stability instruction (PSI) is delivered across Worcestershire by Sports Partnership. The PSI service delivered 44 classes across Worcestershire in 2015/16; this is set to increase in 2016/17. Participants can be referred via: GPs, falls clinic, other health professionals and self-referral. Weekly classes are an hour long for 28-weeks. Classes are located across Worcestershire, including both rural and urban settings, and tend include up to 12-15 participants. Once participants have completed the 28-week programme, they are encouraged to continue with maintenance classes to maintain the strength and balance gains from the class.

Table 6 above revealed the challenges the class faces with retention rate for the PSI programme. Following the initial sessions, only 45% of participants go on to attend 14 sessions. This figure then drops to only 23% of those starting the course completing 22 weeks

of the PSI course. It represents a significant drop-out rate of participants over the duration of the classes.

A recent qualitative service evaluation including interviews with both class participants and instructors revealed a number factors that influence retention on the PSI programme. This included: peoples ability to take part; variation in physical capability; the value of knowledge and understanding; the role of the health professional and service; the influence of social interaction; transport and infrastructure; making plans and setting goals; emotional drivers; seeing progress and improvements. Recommendations to address these issues were: increased NHS staff engagement to address the value placed on health professional referrals; training for PSI instructors to increase skills to manage variation in ability and participant motivation; introducing the use of screening tools to assess readiness to change; information provision to family and social networks; peer support / mentoring; goal setting and planning with participants; a multi-faceted educational programme.

Fire and rescue service

Hereford and Worcester Fire and Rescue Service have been working in partnership with key stakeholder across the health and care system to address falls prevention and assessing people at risk of falling during their Safe and Well visits. These visits have replaced the Home Fire Safety visits previously conducted to encompass a holistic approach when assessing vulnerable people in their own home. From a falls prevention perspective, the Fire Safety Technicians are asking people during their visit about their falls history within the last 12 months, and whether people consider themselves at risk of falling. The technicians are also reviewing environmental risks associated with falls within people's homes. Consequently, either a multi-factorial falls assessment is commenced or people are signed posted to appropriate services if required based on the assessment. This pilot is currently being provided in Worcester. Pending positive evaluation of the projects, this will be rolled out Countywide from April 2018.

9.2. Resources and financial summary

Below is a summary of the indicative investment in the commissioning of the falls services in Worcestershire.

Service	Cost (per annum unless stated)
Falls Prevention Pathway	£335,000
Falls Clinic	£100,000
Fracture Liaison Service	£47,000
Falls Response Service	£468,000 *over three years*
Postural Stability Instruction programme (Strength and balance classes)	£100,000

10. Qualitative data collection

Methods

Two working group sessions and a range of interviews were conducted to understand the relevant issues and assets related to falls within Worcestershire. This was specifically related to this needs assessment and its defined scope. Key stakeholders and partners were invited to take part in the working group. The working group invitation list is set out in appendix one. This was a subgroup of the falls pathway working group set up to input into the development of the recent falls pathway work. The key themes from these sessions are presented below:

Information sharing and communication

The challenges of sharing the information and communications between acute, community and primary care were highlighted as a key issue within Worcestershire. This is currently leading to a lack of information sharing within the system, therefore having an impact on patient care. Examples of this included patients conveyed to hospital following a fall, however, GPs were not notified following this episode of care. Practical solutions to this issue in other areas have included urinary catheter passports and care plans being planned in Worcestershire.

Prevention agenda

It was acknowledged that falls prevention should be everyone's business. It was highlighted that, within the Acute Trust, staff engagement and buy-in was one of the biggest challenges; silo working and professional boundaries identified as key barriers. A falls prevention working group that had previously actively met on a regular basis was viewed by stakeholders as an effective forum for partners to discuss and share information on key issues. The Acute Trust were currently implementing a range of prevention initiatives within the hospital setting and the new falls prevention pathway within the community to address preventing falls was due to go live. However, it was viewed that further collaborative, whole-system prevention work would be beneficial to addressing the main issues. Ageing well through the life course was highlighted as a key factor to health ageing and preventing falls throughout Worcestershire given the higher proportion of older people living in the County.

Falls Clinic Pathway

Waiting times and poor access into the falls clinic was identified as a key issue by the working group. It was reported that patients have to wait up to six-months to be seen within the clinic. This long wait time presents challenges when managing patients given the change in their presentation if waiting for those periods of time. It was highlighted that due consideration of the appropriateness of referrals into the acute setting may address some of the issues with waiting times for the falls clinic. Workforce was highlighted as an issue given that only two Consultant Geriatricians covering the falls clinics. The current delivery model also presents issues of

equity and access across Worcestershire given this service only is delivered from WRH. There is no equivalent service situated in the north.

Variability of community services

The variability of support services in the community was recognised as a challenge across the system. The consequence of considerable waiting times for the falls clinic within the Acute Trust, impacted on community services, the support available and the capacity of those services. Issues were also highlighted regarding the variability of support in the community on discharge from hospital. Information sharing and communication was integral to this process, however, a lack of capacity in some areas was resulting in an inability to provide the necessary support. Discussions also considered the workforce ability and capacity to undertake the MFFA proficiently within their remit and professional ability. This was in the context of the current system including the falls clinic and ensuring that community staff has the appropriate skill set to assess complex patients. This also ensures that people who have fallen are assessed as soon as possible, improving outcomes in the long-term, and reducing the waiting times for people who require multi-factorial intervention.

Care homes

Addressing and preventing falls in care homes was identified as an opportunity given the large number of care homes within the County. The workshop identified that there were a significant number of different care home providers throughout Worcestershire, which leads to variation regarding policies and processes in preventing falls. Care homes within Wyre Forest were identified as a good example of partnership working to address falls prevention. Some of these facilitators are covered above in section 7.3

Assets

A number of assets were identified as adding value to the falls prevention agenda within Worcestershire. These broadly associated themselves with xx categories:

Partnership working has been central to a number of developments for the falls agenda in Worcestershire. This has included: the development of a multidisciplinary partnership group; collaborative working to develop the MFFA; working in partnership with the fire and rescue service to integrate falls prevention into safe and well visits.

Community assets include the vibrant community and voluntary sector within Worcestershire. The PSI programme social aspect is strongly valued by participants and can have a role in addressing wider determinants of health and falls including social isolation. The range of activities available in the community were additionally highlighted as a key asset. Community volunteers were recognised as assets that could provide support to the falls prevention agenda, specifically supporting PSI instructors in the initial weeks of the programme or facilitating the social element to PSI.

The current workforce skill base and knowledge was discussed as representing an asset for the falls prevention agenda. In combination with a suite of available online resources, there are opportunities to ensure that these ***resource assets*** are effectively utilised throughout the county.

Finally, current services available such as the falls response service and new falls prevention pathway / MFFA were deemed to be ***service assets*** for the county given their potential to reduce demand on acute services, as well as improve patient experiences and outcomes. This is especially thought to be the case in districts that have higher levels of admissions to hospital due to falls e.g. Redditch and Bromsgrove. The imminent arrival of new integrated neighbourhood teams across the County will furthermore add to the whole-system capacity.

11. Worcestershire compared to guidelines and standards

11.1. Guidelines and standards

Recommended Guidelines and Standards	Source	What's happening in Worcestershire	Recommendations
1. Older people are asked about falls when they have routine assessments and reviews with health and social care practitioners, and if they present at hospital.	NICE Quality Standard NICE Clinical Guideline PHE	In Worcestershire multifactorial falls prevention pathway (MFFA) all people aged 65 and over asked about falls. Additionally, patients aged 50-64 in an acute setting with a medical condition that puts them at risk of falling will be asked. See figure 19	Regular audits – Primary care quality and falls prevention. Assess the implementation and fidelity to the service model
2. Older people at risk of falling are offered a multifactorial falls risk assessment	NICE Quality Standard NICE Clinical Guideline PHE	Included in the Worcestershire falls prevention pathway (MFFA); all people aged 65 and over. See figure 19	Regular audits – Primary care quality and falls prevention. Assess the implementation and fidelity to the service model
3. Older people assessed as being at increased risk of falling have an individualised multifactorial intervention	NICE Quality Standard NICE Clinical Guideline PHE	Included in the Worcestershire falls prevention pathway (MFFA); all people aged 65 and over. See figure 19	Regular audits – Primary care quality and falls prevention. Assess the implementation and fidelity to the service model
4. Older people who fall during a hospital stay are checked for signs or symptoms of fracture and potential for spinal injury before they are moved Making falls a priority in high-risk care environments	NICE Quality Standard PHE	The Worcestershire Acute Hospitals have a post fall care policy and plan in place. The policy ensures that this guidance is available for staff to implement strategies to enable good practice. The plan and paperwork proforma prompts clinicians to carry these assessments out following a fall.	Regular Audits – process and outcome evaluation
5. Older people who fall during a hospital stay and have signs or symptoms of fracture or potential for spinal injury are moved using safe manual handling methods	NICE Quality Standard PHE	See above (recommendation 4) re: post falls care policy and plan. The plan and paperwork proforma prompts clinicians to implement correct manual handling methods following a fall.	Regular Audits – process and outcome evaluation
6. Older people who fall during a hospital stay have a medical examination	NICE Quality Standard PHE	See above (recommendation 4) re: post falls care policy and plan. The plan and paperwork proforma prompts clinicians to undertake a medical examination following a fall.	Regular Audits – process and outcome evaluation
7. Older people who present for medical attention because of a fall have a multifactorial falls risk assessment	NICE Quality Standard PHE	Included in the Worcestershire falls prevention pathway (MFFA); all people aged 65 and over. See figure 19	Regular audits – Primary care quality and falls prevention. Assess the implementation and fidelity to the service model
8. Older people living in the community who have a known history of recurrent falls are referred for	NICE Quality Standard	Worcestershire pathway in place for referral to PSI delivered by Sports Partnership. Referrals into the	Review service model to determine whether improvements can be made to increase

strength and balance training	NICE Clinical Guideline PHE	programme are high, however retention rates are low, therefore further work is required to improve this.	efficiency, increase retention rates and continue to ensure equity of delivery across Worcestershire
9. Older people who are admitted to hospital after having a fall are offered a home hazard assessment and safety intervention Assessing risks in the home environment can be carried out by housing practitioners or occupational therapists	NICE Quality Standard NICE Clinical Guideline PHE	Individual patients are risk assessed within the acute trust to determine whether an Occupational Therapy visit is required. If a patient requires a home hazard assessment, this may be carried out by the acute staff if it will facilitate discharge from hospital, otherwise referrals for this input are passed onto the community teams. Currently, there are challenges with long waiting times to be seen by an OT for minor adaptations.	WCC and PH to complete a review of OT services to understand the current service model, need and demand including the workforce required to complete a home hazard assessment
10. Risk factor reduction - Consistent and effective collaboration and action to reduce exposure to falls and fracture risk factors needs to take place at the different stages of the life course	PHE	Primary care using the appropriate living well services A number of Public Health campaigns encourage healthy lifestyles throughout the life course. This includes the Joint Health and Wellbeing strategy that prioritises good mental health, being active and reducing harm from alcohol across the life course NHS Health checks for people aged 40-74 are available and encouraged in Worcestershire to identify any health need or underlying disease. The falls prevention group was identified as a useful forum to ensure there were collaborative approaches to preventing falls. This forum could be tasked with supporting and ensuring risk reduction/ prevention is a priority across the health and care system	Falls prevention group to re-commence, led by Public Health; main focus to include a system-wide approach to prevention falls and reducing risk factors through the life course. Including the following work streams • Workforce • Healthy ageing / Physical activity • Campaigns • Information giving
11. Multifactorial interventions with an exercise component are recommended for older people in extended care settings who are at risk of falling (1.1.5)	NICE Clinical Guideline	Excellence in care homes partnership provides a forum to support this guideline / standard Falls training in the domiciliary care workforce to address this quality standard.	To include this quality standard as part of a work stream in the excellence in care home partnership
12. Older people on psychotropic medications should have their medication reviewed, with specialist input if appropriate, and discontinued if possible to reduce their risk of falling. (1.1.7)	NICE Clinical Guideline	Medicines management team at the CCG have produced guidance for GPs to advise about which medicines cause falls and have made recommendations regarding appropriate changes and discontinuation of medication.	Regular primary care quality audits to check adherence to medicines review in older people on psychotropic medicine
13. Cardiac pacing should be considered for	NICE Clinical	Current undertaken via a referral from the GP for	Regular primary care quality audits to check

older people with cardio-inhibitory carotid sinus hypersensitivity who have experienced unexplained falls (1.1.8)	Guideline	cardiac pacing. Also undertaken within the falls clinics.	adherence to referral onwards for cardiac pacing and activity in the falls clinic.
14. Encouraging the participation of older people in falls prevention programmes (1.1.9)	NICE Clinical Guideline	Prevention agenda The Public Health Physical Activity plan includes ensuring that people remain healthy and take part in physical activity through the life course, particularly focusing on falls prevention for people aged 65 and over. Sports Partnership is one of many key partners that supports to deliver this plan. PH campaigns throughout the year encourage participation in both general physical activity and falls prevention programmes The making every contact count programme is currently under review and will include encouraging falls prevention programmes	Falls prevention group to re-commence, led by Public Health; main focus to include a system-wide approach to prevention falls and reducing risk factors through the life course. Including the following work streams • Workforce • Healthy ageing / Physical activity • Campaigns • Information giving
15. Education for workforce and information giving (1.1.10)	NICE Clinical Guideline	Prevention agenda Workforce education and development is undertaken by each organisation individually. For example workforce development for falls prevention in domiciliary workers is due to be delivered imminently. Age UK also deliver training for care home staff. Standardisation is required across the county	This objective to link with the Falls Prevention Group with particular focus of workforce development / education and information giving
16. Predicting patients' risk of falling in hospital - Do not use risk prediction models - Regard groups of inpatients as being at risk of falling in hospital and manage their care according to recommendations	NICE Clinical Guideline	Risk prediction scoring tools are no longer used by the Acute trust The Acute trust regard the following group of patients as being at risk of falling in hospital • Aged 65 or over • Aged 50 to 64 years who are judged by a clinician to be at higher risk of falling because of an underlying condition.	Regular Audits – process and outcome evaluation
17. Assessment and interventions - Inpatient environment - Multifactorial assessment for those at	NICE Clinical Guideline	The Acute trust have falls specific proformas for patients at risk of falling ensuring that a multifactorial assessment is completed. This	Regular Audits – process and outcome evaluation

risk of falling - Appropriate management during stay based on multifactorial assessment		includes environmental assessment and appropriate management during their stay	
18. Information and support - Oral and written info to patients / family and carer support - Information shared across services	NICE Clinical Guideline	- Falls prevention leaflets are provided to both patients, families and carers - There are ongoing challenges with information sharing across services. This presents issues across the system e.g. acute trust sharing multifactorial assessment information with the community providers to prevent duplication of work once a multifactorial assessment has commenced.	Information giving shared with falls prevention group to ensure communications are aligned across the County Collaborative work between all partners work towards a solution to facilitate information sharing across

12. Unmet need and projected demand in Worcestershire

12.1. Unmet need

2. Significantly higher emergency admission rates due to falls and higher rates (not statistically significant) for hip fractures in Redditch district represent a need across a geographical region in Worcestershire
3. There are variances across Worcestershire between the number of emergency hospital admissions with hip fractures, reflecting variations in the delivery of care across the County
4. A lack of capability to share information and data across the health and care system presents significant challenges for falls prevention in Worcestershire
5. There is insufficient capacity and activity in the falls clinics within the acute setting to cope with current demand. Inequities have also been highlighted as a result of falls clinics being available to residents within the boundaries of South Worcestershire CCG, however, this is not available for the other CCGs.
6. Due to commissioning processes of care homes, there are a number of providers in the Worcestershire market. This results in variations of quality and falls prevention strategies. This is reflected in the proportion of emergency hospital admissions following a fall without a fracture from care homes, as those within the Wyre Forest CCG boundary have a lower rate when compared to other CCGs.
7. The Postural Stability Instruction programme faces challenges with retention of participants on the courses resulting in poor efficiency.
8. The prevention agenda is being undertaken by all partners, however, there currently lacks a supporting governance structure to facilitate collaborative work across the system to enable more effective working.
9. GP practices within Redditch and Bromsgrove CCG have significantly lower proportions of patients with a fragility fracture being treated with a bone sparring agent, putting these patients at risk.

12.2. Projected need and demand

The number of people aged 65 and over is expected to increase to 181,400 people or 28.9% of its population by the year 2035 (POPPI, 2016).

- This equates to a 39% increase in people aged 65 and over, at risk of falling.
- In those aged 80 and over, this increase is projected to be 88%

As a result, the number of people aged 65 and over projected to require an emergency admission to hospital due to falls is 4,219 by 2035. This is a 59% increase from 2017 (POPPI, 2016).

This data represents the potential of a significant increase on demand of both falls prevention and falls services in under 20 years' time.

13. Recommendations

Sections 11 and 12 have summarised the unmet need and projected future demand in Worcestershire. Current practice across Worcestershire has also been compared to recommend NICE guidelines and clinical standards in addition to the recently published PHE falls consensus statement. As a result, a number of recommendations can be made to ensure that services better meet the current and future need of the local population of Worcestershire.

1. Throughout the health and care system, a range of models and ways of working are in place to address falls within various settings e.g. the multi-factorial falls assessment. To ensure these models of delivery are well implemented and delivering desired outcomes, **contract monitoring should include indicators to facilitate evaluating the effectiveness and fidelity of services delivered.** NICE Quality Standards provide guidance for quality measures and indicators. This must be undertaken according to the stage of service development e.g. implementation, early operation or ongoing operation of the service. This information can be fed back to the falls steering group to inform service improvement and partnership working across the system.
2. **The falls steering group to facilitate information and data sharing across the health and care system** to facilitate the delivery of the falls prevention pathway.
3. **Review of the falls clinic across Worcestershire** to determine whether current model is delivering an efficient and equitable service for patients. This includes a review of the workforce available across primary and secondary care. Additionally, this review should be considered at a county-wide level.
4. **The collaborative falls prevention work is strengthened as part of the falls steering groups** with key partners and stakeholders taking a whole-system approach to falls prevention with particular focus on: workforce; upscaling of healthy ageing and physical activity work in older people; campaigns, education and increasing public awareness; and information giving. Healthy ageing and physical activity plays an important role in falls prevention for the population that are currently under 65 years of age. Ensuring that this cohort of the population engage in physical activity and healthy lifestyles will support reducing demand and risk of falls in the population for the future.
5. **Considerations for workforce development** in Worcestershire to include: upskilling of frontline staff to recognise people at risk of falling, promote healthy ageing and expand the public health workforce. Additionally, this must also consider modelling and planning the future workforce to cope with future demand.
6. **Include falls prevention as a multifactorial intervention in all care homes and extended care settings**. Enable and support the excellence in care homes partnership as the facilitator to standardise and improve quality across Worcestershire
7. **Review of Occupational Therapy services in the community** to understand any barriers to home hazard assessments being undertaken and ensuring that home hazards are reduced. This must include how the wider workforce can contribute to addressing home hazards (e.g. Fire and rescue safe and well visits)

8. **Further development of the postural stability instruction programme** to: address the variance in referral rates across Worcestershire; increase capacity; increase participant retention to the programme; and consider the best model of delivery.
9. **Review of the Osteoporosis pathway and identification of patients with a fragility fracture** who should be considered for bone sparring agents undertaken across primary and secondary care understand the current variation. This review should include current workforce and pathway structures in place and a review of their effectiveness.

14. Appendices

14.1. Appendix one

Two working group sessions and a range of interviews were conducted to understand the relevant issues and assets related to falls within Worcestershire. The two working group sessions took place in July and August and the interviews were completed between those two sessions. This was specifically related to this needs assessment and its defined scope. Key stakeholders and partners were invited to take part in the working group. This included representatives from the following stakeholder organisations:

- Public Health / Local Authority
- South Worcestershire Clinical Commissioning Group
- Redditch and Bromsgrove Clinical Commissioning Group
- Wyre Forest Clinical Commissioning Group
- Worcestershire Acute Hospitals NHS Trust
- Worcestershire Health and Care NHS Trust
- Age UK – Worcester
- Local Pharmaceutical Committee
- Sports Partnership
- Fortis Housing
- Worcestershire Fire and Rescue service
- West Midlands Ambulance Service
- Public Health England

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Organisations who carried out the original collection and analysis of the data bear no responsibility for its further analysis or interpretation.

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