

Position Statement:

Falls and Falls Prevention Services in Derbyshire

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EXECUTIVE SUMMARY

This report provides an assessment of the need for falls prevention services across Derbyshire in the absence of definitive data on the number of people aged 65 and over, living in the community, who fall one or more times each year.

The report will also describe the delivery of the Strictly No Falling (SNF) programme, Derbyshire's secondary falls prevention programme, in the second year of the SARS-CoV-2 pandemic, 2021.

Because of the high levels of restriction placed on community interactions in this particular group of adults as a consequence of the SARS-CoV-2 pandemic, the analyses presented here are unlikely to be a true and accurate reflection of service provision or service use across Derbyshire in non-pandemic years. Rather, for service use, the information presented provides a snapshot of SNF programme take-up in a year of unprecedented levels of restriction on human interaction and captures information on how these services adapted rapidly to continue to support their clients through this challenging period.

The report will inform the falls related content of Derbyshire's Joint Strategic Needs Assessment (JSNA), which will, in turn, be used to inform the future delivery of falls prevention services. This report will also inform ongoing work to identify opportunities for the delivery of falls prevention interventions to support the needs of the older adult population of Derbyshire.

KEY POINTS

- Falls and falling are not an inevitable part of aging for either gender but are usually the result of interactions between multiple risk factors.
- Risk factors for falls are varied and numerous; up to 400 have been suggested⁶³. The total risk of falling for a person aged 65 or over increases in a linear fashion with the number of risk factors present¹³.
- Advancing age is the most significant risk factor for falls and the age group most at risk for falls are those aged 65 years and over; within that age group, those aged 80 years and over are at the highest risk^{25,26}.
- Gender also has a bearing on the risk of falls, with women having a higher risk of falling than men²⁵.
- Whilst most falls do not lead to major physical injury, 31% of falls result in an injury requiring medical attention or restriction of activities for at least one day⁷⁸. The majority are minor soft tissue injuries, but 10-15% of falls result in fractures; 5% of falls result in serious injuries such as head trauma⁷⁰. Women are 50% more likely to report a fall-related injury compared to men⁷⁸. Falls are therefore a leading cause of emergency hospital admissions for older people⁷⁹.
- Falls also have a significant impact on long-term outcomes for the individual and a frequent cause of a precipitate move from home into long-term care for many⁵⁴.
- Falls are the most common cause of injury-related deaths in people aged 65 and over⁸⁰.

-
- In Derbyshire, the number of older people aged 65 and over is projected to increase from 177,570 in 2020 to 274,860 by 2040; the proportion of this group who are aged 80 and over is expected to increase, from 5.6% in 2020 to 8.6% by 2040⁷⁷.
 - As advancing age is the major risk factor for falls, it is clear that falls in the community will be an escalating problem over the coming years in Derbyshire. It is essential therefore, that the projected increases in population are taken into consideration when planning the future delivery of falls prevention services.
 - The growth in population is not evenly distributed across the county; Amber Valley had the highest number of residents aged 65 and over; whilst Bolsover had the lowest.
 - It is essential, therefore, that account is taken of the changing distribution of need across the districts over time, particularly in the group aged 80 years and over, and that these changing needs are taken into consideration in service planning and delivery.
 - An estimated 46,650 of Derbyshire's residents aged 65 years and over had at least one fall in 2020²⁴; it is predicted that, without intervention, this figure will have risen to around 66,890²⁴ (27,730 men and 39,160 women) by 2040. This equates to an increase of 43.4% in the number of fallers, with all the concomitant risks to their health and wellbeing of illness, injury and premature mortality.
 - It is predicted that the number of individuals that will require admission to hospital as a result of their fall will increase from 5,450 in 2020 to 8,510 by 2040⁸¹.
 - These figures show the scale of need for falls prevention interventions over the coming years within Derbyshire. Given the impact that falls have on the individual and on their family and carers, and the significant associated costs for health and social care services, it is imperative that action is taken to prevent falls in the community and that this is deemed a priority for population health management in Derbyshire.
 - The sector of the population served by the Strictly No Falling programme is very likely to have experienced a significant degree of physical deconditioning through the preceding year and much of 2021⁹⁶. The result of the physical consequences of deconditioning can significantly increase the risk of falls and fractures⁹⁷. These impacts of the pandemic are not yet evident in the data, but active surveillance should be undertaken to ensure that these are detected as early as possible and to ensure that timely and appropriate actions are implemented to support the individuals affected.

FALLS

1.1 Background

Although age alone does not determine physical condition or capacity, adults aged 60 years and over are at the greatest risk of falling¹. Falling is not, however, an inevitable part of ageing and many falls are therefore preventable. There is strong evidence that higher levels of physical activity contribute to increased physical function, reduced impairment, prolonged independent living and improved quality of life in both healthy and frail older adults².

In 2019, the UK's Chief Medical Officers (CMOs) made the following recommendations for adults aged 65 and older³:

- Older adults should participate in daily physical activity to gain health benefits, including maintenance of good physical and mental health, wellbeing and social functioning. Some physical activity is better than none; even light activity brings some health benefits compared to being sedentary, whilst more daily physical activity provides greater health and social benefits.
- Older adults should maintain or improve their physical function by undertaking activities aimed at improving or maintaining muscle strength, balance and flexibility on at least two days a week. These activities could be combined with sessions involving moderate aerobic activity or could be additional sessions aimed specifically at these components of fitness.
- Each week older adults should aim to accumulate at least 150 minutes of moderate intensity aerobic activity, building up gradually from current levels. Those who are already regularly active can achieve these benefits through 75 minutes of vigorous intensity activity, or a combination of moderate and vigorous activity, to achieve greater benefits. Weight-bearing activities which create an impact through the body help to maintain bone health.
- Older adults should break up prolonged periods of being sedentary with light activity when physically possible, or at least with standing, as this has distinct health benefits for older people.

The CMOs' guidelines note that, for older adults who are already active either through their job or regular sporting or recreational activities, significant additional health benefits can be achieved by incorporating activities to improve strength, balance and flexibility. For these individuals, participating in an activity programme that includes resistance, impact and balance activities at least twice per week would deliver these benefits³.

For older people whose physical function is declining due to low levels of activity and/or increasing sedentary time, 'walk and rest for a minute' may be a useful strategy that would allow gradual progression towards the guideline level of moderate-intensity activity³. The inclusion of strength and balance activities that increase confidence and stability in this strategy would facilitate safe progression to activities that improve aerobic fitness for these individuals³.

For older adults who are already frail, or who have very low physical or cognitive function, any increase in the volume and frequency of light activities, and any reduction in sedentary behaviour, will be beneficial to their health. A programme of activities focussed on embedding strength and balance activities into everyday life tasks and increasing the duration of standing and walking will be more appropriate than focussing on the intensity of exercises³.

In 2013, the National Institute of Health and Care Excellence (NICE) published Clinical Guideline 161, *"Falls in older people: assessing risk and prevention"*⁴. This recommends the development and delivery of multifactorial interventions to prevent falls in older people who live in the community, consisting of:

- strength and balance training;
- home hazard assessment and intervention;
- vision assessment and referral;
- medication review with modification/withdrawal.

Although this guideline is due to be updated⁵, with publication of the updated version expected 13 June 2024, the evidence currently available indicates that exercise, and in particular, strength and balance training, are likely to remain at the core of falls prevention^{5,7,8,9}. Research to describe and define the exact elements that should make up an effective multi-component falls prevention intervention is underway but there is still some way to go before the contribution of the individual components to the overall outcome is fully understood¹⁰.

In Derbyshire, falls prevention interventions are delivered through the Strictly No Falling (SNF) programme. This is predominantly a secondary prevention service, targeting people aged 65 years and over, who have experienced one or more falls, although anyone at risk of falling is able to attend through self-referral. SNF is funded by Derbyshire County Council and managed by Age UK Derby and Derbyshire, working in partnership with Derbyshire Community Health Services (DCHS).

1.2 Definition

The World Health Organisation defines a fall as,

“An event which results in a person “inadvertently coming to rest on the ground, floor or other lower level, excluding intentional change in position to rest in furniture, wall or other objects”¹¹.

Whilst the majority of falls do not result in serious injury, with every fall there is a risk of significant physical and/or psychological harm and consequent disability. Even in the absence of injury, the experience of falling can be life changing and can result in distress, loss of confidence, loss of independence and pain. Falls are also a significant and preventable cause of premature mortality.

1.3 Prevalence

Research into the prevalence of falls amongst community-dwelling older adults is problematic. It is not possible to accurately quantify the number of falls that occur in this group of individuals each year because the majority of falls do not result in hospital admission, and therefore go largely unreported and unrecorded^{12,13}. Incidence data for falls are largely dependent on the self-reported recall of events and our understanding of prevalence relies on the synthesis of evidence gathered from across countries. The World Health Organisation (WHO) provide the following summary:

- Approximately one in three people over 65, and one in two of those over 80, fall each year¹⁴.
- Older adults who fall once, are two to three times more likely to fall again within a year¹⁴.
- 20% to 30% of those who fall suffer injuries that reduce mobility and independence and increase the risk of premature death^{15,16}.
- At one year follow up, 20% of frequent fallers are in hospital, in full time care or have died¹⁷.
- Falls are the leading cause of injury related deaths amongst people aged 65 and older; half of all falls occur when people are in their own home¹⁸.

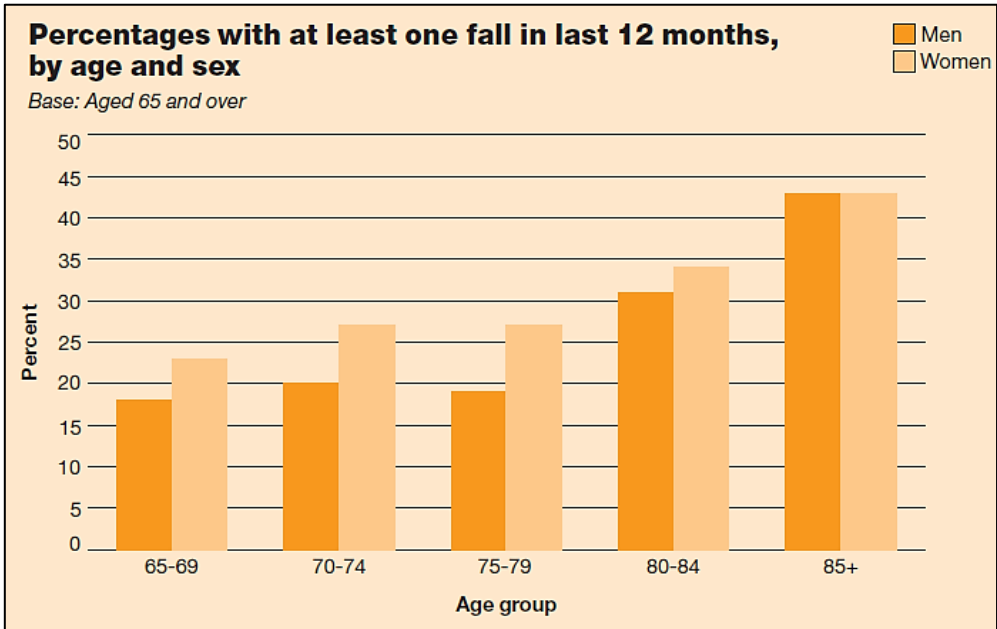
In the UK, we benefit from the collection of two national indicators which provide us with data on injurious falls in people aged 65 years and over; these are “*Emergency Hospital Admissions due to Falls*”¹⁹ and “*Hip Fractures*”²⁰. However, even these figures will not be an accurate reflection of injurious falls as many falls result in injuries not sufficiently severe to require hospitalisation but which, nonetheless, have a significant impact on the individuals who experience them in terms of their future physical and mental health and well-being, and also in terms of their ability to live independent lives^{13,21,22,23}.

Given the lack of robust data on which to base our understanding of the scale of the problem that falling presents to older adults living in the community, and to health care services, a set of estimates for prevalence have been developed²⁴. These estimates are derived from the results of the 2005 Health Survey for England (HSE)²⁵.

The HSE is a series of annual surveys that investigate the health of adults aged 16 and over living in England. The surveys include a set of core questions that are asked each year, relating to general health, measurements of height, weight and blood pressure, psycho-social indicators, smoking, alcohol, demographic and socio-economic indicators, use of health services and prescribed medicines. Each year the survey also collects information on the health of a specific population subgroup, disease or condition; these topics are repeated at appropriate intervals in order to monitor change over time.

In 2005, the HSE collected information on the health of people aged 65 and over, including data on whether they had fallen in the previous 12 months. Participants were also asked about the number of times they had fallen in that period, and whether they had injured themselves seriously enough in the fall to require medical treatment. Figures 1 and 2 below show the prevalence of falls in older adults, based on the findings of the 2005 HSE²⁵.

Figure 1: Prevalence of falls in older adults; taken from the Health Survey for England, 2005



SOURCE: Health Survey for England 2005, Volume 2, Table 2.1, p27.

Figure 2: Proportion of the population who reported at least one fall in the previous 12 months, by age and gender

Age range	Male	Female
-----------	------	--------

65-69 yrs	18%	23%
70-74 yrs	20%	27%
75-79 yrs	19%	27%
80-84 yrs	31%	34%
85 yrs & over	43%	43%

SOURCE: Health Survey for England 2005, Volume 2, Table 2.1.

The 2005 HSE found that, in total, 23% of men and 29% of women aged 65 and over had fallen in the previous 12 months. The proportion of men and women who had fallen increased with age, with a sharp rise amongst those aged 80 and over. The prevalence of falls was higher for women than men in each age group, although this difference was no longer evident amongst those aged 85 and over, with 43% of both men and women in that age group having fallen at least once in the previous 12 months.

Although these prevalence data were collected some time ago, the findings of a 2016 investigation into falls in the community conducted as part of the English Longitudinal Study of Ageing²⁶, suggest that prevalence rates have remained largely unchanged over the intervening years.

By applying the findings of these key pieces of research to ONS projections for the population aged 65 years and over, local estimates for the number of older people living in the community who fall each year have been calculated for defined geographical areas²⁴. The estimates for Derbyshire are presented in Section 3 below.

1.4 Impact

Falls and their consequences are a common and serious health issue amongst older adults living in the community and are a major public health concern. Older adults are hospitalised for fall-related injuries five times more frequently than for injuries from other causes²⁷. Whilst the majority of falls will not result in injury¹⁴, research has shown that 20% to 30% of those who fall will sustain moderate to severe injuries that lead to a consequent reduction in their mobility and independence; their risk of premature death is also increased^{14,28}. Falls have also been shown to increase the risk of subsequent admission to long-term residential care, particularly where they are multiple, or where a single fall results in serious injury²⁹.

The impact of falls and falling is clearly significant, with 20% of those who fall frequently being either in hospital, in full-time care or deceased at one year following their initial fall¹⁶.

Falls are the cause of 95% of all hip fractures sustained by older adults³⁰. About 76,000 hip fractures occur each year in the UK and this figure is projected to increase³¹; the cost of associated medical and social care is around £2.3 billion annually^{4,32}. About 10% of people with a hip fracture die within 1 month and about one-third within 12 months; 50% will experience a major reduction in their ability to live independently^{33, 34}. However, there is evidence that these rates are improving³⁵. Around 10–20% of those admitted from the community following a hip fracture will ultimately be discharged into long-term residential care³⁴. Even in the absence of serious physical injury, falls can have other significant consequences and have been linked to functional decline, social withdrawal and increasing use of medical services^{36,37}.

A complex bidirectional relationship exists between social isolation, functional decline and falls. Social isolation is both a risk factor for falls^{38,39,40} and may also be a consequence of falling, if the fear of falling again leads to a reduction in activity with a concomitant reduction in physical activity and a reduced engagement with social activities³⁶. A fear of falling is common amongst older people, even before any falls are experienced, and that fear itself may lead to impaired mobility and decreased functional status^{41,42,43}. Consequently, older people who have fallen are at increased risk, regardless of whether or not they were injured in their initial fall⁴⁴.

A bidirectional relationship also exists between anxiety and depression and falls and the fear of falling. Anxiety and depression are both independent risk factors for falls, whilst both falls and the fear of falling may be a cause of anxiety and depression⁴⁵.

Falls can also have a significant impact on the family and carers of people who fall. Research has shown that after a fall, most carers experience increased concern about recurrent falls⁴⁶. This raised anxiety level can be associated with increased psychological distress for the carer, increasing the burden of caring and potentially leading to restriction of their own social activities and interactions, with concomitant negative effects on their own mental and physical health and wellbeing^{47,48,49,50}.

For health services, the consequences of falls are both high volume and high cost⁵¹. Falls are the most frequent type of accident that occurs amongst older people; more than 50% of injury related hospitalisations amongst people aged 65 and over are as a result of a fall²⁶. The major underlying causes for fall-related hospital admissions are hip fracture, traumatic brain injuries and upper limb injuries¹¹.

The duration of a hospital stay is higher following a fall than following other injuries, varying from 4 to 15 days; this increases to 20 days for a hip fracture¹¹. Age and fragility are compounding factors in determining the length of stay in hospital¹¹.

For the NHS, the practical and financial impacts of falling are significant. It has been estimated that falls and fractures account for 4 million bed days in England⁵². Falls in the community contribute significantly to the total cost of Social Care, given that an estimated 40% of community falls are a contributory factor in admissions to care homes⁵⁵.

In terms of annual activity:

- Approximately 10-25% of UK ambulance service calls are to people over 65 who have fallen; about 60% of the cases attended are transported to hospital^{56,57}.
- The rate of emergency hospital admissions due to falls in people aged 65 and over was 2,023 per 100,000 (directly age standardised rate) in 2020/21; amongst people aged 80 and over, the rate was 5,174 per 100,000⁵⁸.
- The rate of hip fractures in people aged 65 and over was 529 per 100,000 (directly age standardised rate) in 2020/21; amongst people aged 80 and over, the rate was 1,426 per 100,000⁵⁸.
- Both short and long-term outlooks for patients are generally poor following a hip fracture, with negative effects on activities of daily living, and an increased one-year mortality of between 18% and 33%⁵⁴.
- Falls were the leading cause of injury and the ninth highest recorded cause of disability-adjusted life years (DALYs) in England in 2013⁵⁴.

In terms of cost to care services:

- Unaddressed fall hazards in the home are estimated to cost the NHS in England £435 million⁵⁹.
- The total annual cost of fragility fractures to the UK has been estimated at £4.4 billion, which includes £1.1 billion for social care⁵³; hip fractures account for around £2 billion of this sum⁶⁰.
- Hip fractures alone account for 1.8 million hospital bed days and £1.1 billion in hospital costs every year⁵⁴; including the cost of social care increases this to a total of £2 billion per annum⁵⁴.
- A review of long-term disability found that 10-20% of hip fracture patients entered long-term care in the first year after fracture⁶¹.

1.5 Risk factors for falls

Increasing age is the key risk factor for falls and falling, with people over the age of 65 years having the highest risk⁴. Gender also has a bearing, with falls being more common in older women than older men⁶², although gender related differences cease to be evident amongst those aged 85 and over²⁵. Nevertheless, the identification of several gender-specific risk factors, including incontinence (in women, and at older ages), high levels of depressive symptoms and being unable to perform a standing balance test suggests that gender should be considered when designing falls prevention interventions²⁶.

Falls and falling are not an inevitable part of aging for either gender but are usually the result of interactions between multiple risk factors. The risk factors for falls are varied and numerous; up to 400 have been suggested⁶³. Detailed information on risk factors can be found in systematic reviews by Bueno-Cavanillas et al, 2000⁶⁴, Todd and Skelton, 2004²⁷, Deandrea et al, 2010⁶⁵ and Ambrose et al, 2013⁶⁶, but broadly, falls risk factors can be categorised as intrinsic or extrinsic.

Intrinsic risk factors are those specific to the individual and include personal characteristics such as age, gender, functional ability, vision impairments, gait and balance problems and chronic conditions⁶³. A fear of falling is also a significant intrinsic risk factor⁶⁷, as are anxiety and depression⁴⁵.

Extrinsic risk factors consist of anything in the environment that causes tripping, slipping, or a loss of balance²⁷. These include hazards in and around the home, such as poorly fitting or inappropriate footwear⁶⁸, slippery or uneven floors, or trip hazards such as unsecured rugs²⁷. Extrinsic risk factors also include steep staircases, lack of grab bars or railings, unstable furniture and poor lighting⁶³. Outdoors, uneven street surfaces, high curbs, poor lighting and snow or ice can be extrinsic risk factors for falls⁶⁹.

Intrinsic and extrinsic risk factors combine to determine an individual's risk of falling at any given point in time. Research has shown that at least one environmental risk factor is present in 50-80% of all falls⁷⁰. It is worth noting that the total risk of falling for a person aged 65 or over increases in a linear fashion with the number of risk factors present¹³.

1.6 National Policy Context

Guidance relating to falls published in the UK since 2013 has a strong emphasis on proactive, multi-factorial and multidisciplinary interventions. The need for community-based strength and balance activity is embedded within key recommendations from the National Institute of Health and Social Care Excellence (NICE), Public Health England (PHE, now the UK Health Security Agency (UKHSA)) and the National Health Service (NHS).

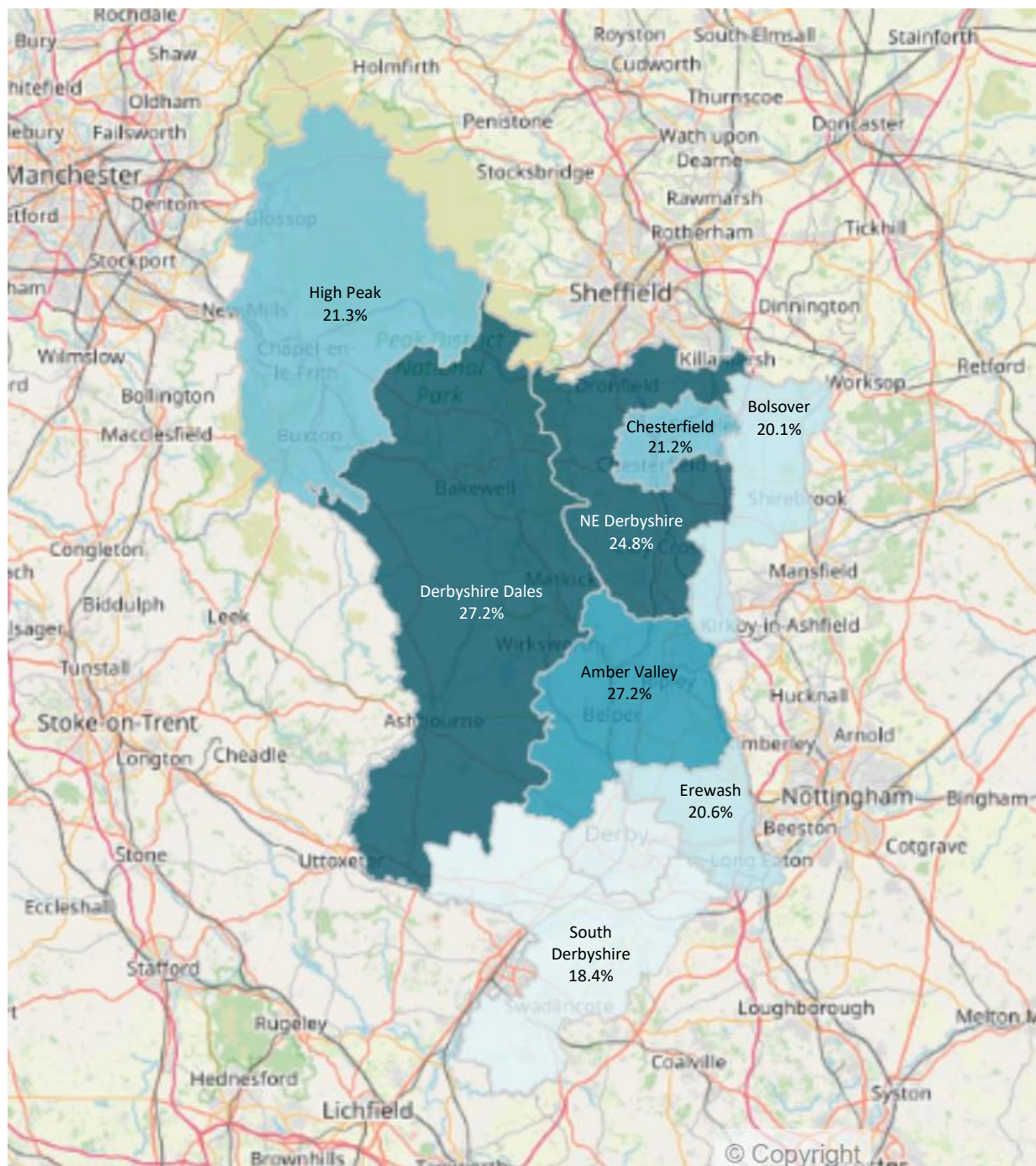
Source	Guidance	Key Points
Office for Health Improvement & Disparities 2022	Falls: applying All Our Health ⁵⁴	This brings together the key challenges presented by falls and focuses on the core principles for health and care professionals acting in this field
NHS England 2019	NHS Long Term Plan <i>Supporting people to age well</i> ⁷¹ A Summary ⁷²	<i>“Falls prevention schemes, including exercise classes and strength and balance training, can significantly reduce the likelihood of falls and are cost effective in reducing admissions to hospital.”</i>
Public Health England 2017	Falls and Fracture consensus statement ⁵³	All commissioning activity related to falls and fracture prevention should be undertaken in a collaborative and whole-systems manner and promote healthy ageing across the life course, integrate multifactorial risk assessment and embed evidence-based strength and balance programmes for those at low to moderate risk.
NICE 2017	Quality standard 86: Falls in older people ⁷³	Building on previous guidance NICE established 9 quality standards that the NHS and local partners should be working towards implementing with the aim of preventing falls, falls injuries and hospital admissions whilst improving independence and care quality. “Statement 8: Older people living in the community who have a known history of recurrent falls are referred for strength and balance training.”
NICE 2013	Clinical Guideline 161: Falls in older people: assessing risk and prevention ⁷⁴ NB This guideline is undergoing revision – update due to be published 13 June 2024	Emphasis on the integration of primary and secondary prevention approaches to falls through early identification of older adults with an elevated falls risk. Deployment of multifactorial risk assessment, leading to multifactorial intervention. This should include: <ul style="list-style-type: none"> • Strength and balance training • Home hazard assessment and intervention • Vision assessment and referral • Medication review with modification/withdrawal
NICE 2019	2019 Surveillance of falls in older people: assessing risk and prevention ⁵ Appendix A: Summary of evidence ⁷⁵	This document summarises the areas of CG161 where surveillance has identified evidence that updating is required and gives the reasons for the decision to update. Evidence that requires updating includes: <ul style="list-style-type: none"> • Exercise interventions • Multifactorial interventions • Falls risk assessment tools

2. FALLS IN DERBYSHIRE

2.1 Population

In 2020, there were an estimated 807,183 people living in Derbyshire, of which 176,969 (21.9%) were aged 65 years or over, with 44,803 (5.6%) being aged 80 years and over⁷⁶. Figure 3 below shows the distribution of people aged 65 and over across the districts and boroughs of Derbyshire.

Figure 3: Percentage of population aged 65 years and over - Derbyshire 2020



SOURCE: Derbyshire Observatory (2019 population estimates)
<https://observatory.derbyshire.gov.uk/population-estimates/>

2.1.1 Population by district

Within the population as a whole, the age group most at risk for falls are those aged 65 years and over; within that age group, those aged 80 years and over are at the highest risk^{25,26}. Figures 4 and 5 below therefore provide two breakdowns of the 2020 population of Derbyshire, those aged 65 to 79 years and those aged 80 years and over, by district.

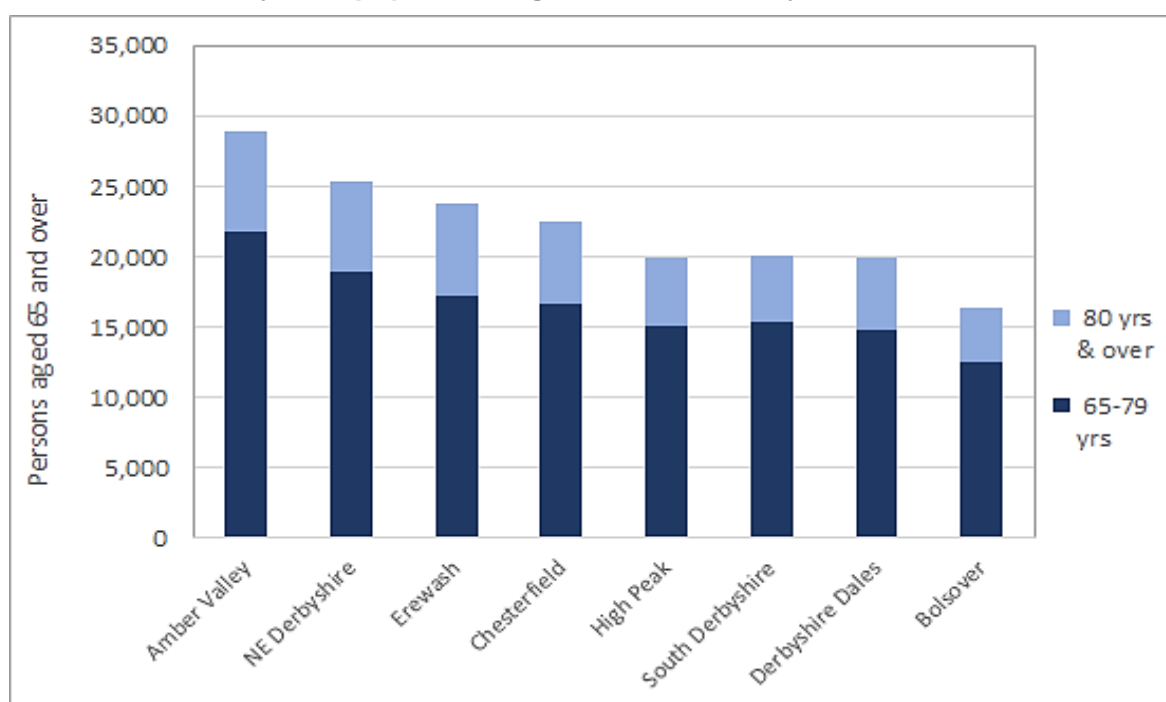
It can be seen that the district with the highest number of people aged 65 and over is Amber Valley (28,847); the district with the lowest number is Bolsover (16,417). Although the relative proportions of the two age groups vary little, the total number of older people resident in each district varies considerably.

Figure 4: Number and proportion of Derbyshire population aged 65 and over, by district, 2020

Age group	Amber Valley	Bolsover	Chesterfield	Derbyshire Dales	Erewash	High Peak	NE Derbyshire	South Derbyshire	Derbyshire
65-79 yrs	21,752 75%	12,454 76%	16,597 74%	14,788 74%	17,149 72%	15,137 76%	18,961 75%	15,328 76%	132,166 75%
80 yrs & over	7,095 25%	3,963 24%	5,914 26%	5,138 26%	6,660 28%	4,836 24%	6,437 25%	4,760 24%	44,803 25%
65 yrs & over	28,847	16,417	22,511	19,926	23,809	19,973	25,398	20,088	176,969

SOURCE: ONS LA mid-year population estimates: England and Wales, 2020

Figure 5: Number of Derbyshire population aged 65 and over, by district, 2020



SOURCE: ONS LA mid-year population estimates: England and Wales, 2020

2.1.2 Population by gender

Although increasing age is the most significant risk factor for falls, gender also has a bearing, with women having a higher risk of falling than men²⁵.

Of the population aged 65 and over in Derbyshire, 46.5% (82,225) are male and 53.5% (94,744) are female. This includes 18,169 males and 26,634 females who are aged 80 years and over, making up 10.3% and 15.1% respectively of the total population aged 65 years and over.

Figure 6: Number and proportion of people aged 65 years and over, by gender, 2020

Age group	Males		Females	
	No	%	No	%
65-79 yrs	64,056	36.2%	68,110	38.5%
80 yrs & over	18,169	10.3%	26,634	15.1%
65 yrs & over	82,225	46.5%	94,744	53.5%

SOURCE: ONS LA mid-year population estimates: England and Wales, 2020

Figure 7 below breaks down the number of people in these two age groups, 65-79 years and 80 years and over, by gender for the districts and boroughs of Derbyshire. Proportions are expressed as a percentage of the Derbyshire population aged 65 years and over.

Figure 7: Number and proportions of males and females aged 65 years and over, by district, 2020

Age group	Amber Valley		Bolsover		Chesterfield		Derbyshire Dales		Erewash		High Peak		NE Derbyshire		South Derbyshire		Derbyshire	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
65-79 yrs	10,618	11,134	6,126	6,328	7,983	8,614	7,200	7,588	8,179	8,970	7,441	7,696	9,073	9,888	7,436	7,892	64,056	68,110
%	6.0%	6.3%	3.5%	3.6%	4.5%	4.9%	4.1%	4.3%	4.6%	5.1%	4.2%	4.3%	5.1%	5.6%	4.2%	4.5%	36.2%	38.5%
80 yrs & over	2,850	4,245	1,580	2,383	2,333	3,581	2,086	3,052	2,661	3,999	1,949	2,887	2,806	3,631	1,904	2,856	18,169	26,634
%	1.6%	2.4%	0.9%	1.3%	1.3%	2.0%	1.2%	1.7%	1.5%	2.3%	1.1%	1.6%	1.6%	2.1%	1.1%	1.6%	10.3%	15.1%
65 yrs & over	13,468	15,379	7,706	8,711	10,316	12,195	9,286	10,640	10,840	12,969	9,390	10,583	11,879	13,519	9,340	10,748	82,225	94,744
	7.6%	8.7%	4.4%	4.9%	5.8%	6.9%	5.2%	6.0%	6.1%	7.3%	5.3%	6.0%	6.7%	7.6%	5.3%	6.1%	46.5%	53.5%

SOURCE: ONS LA mid-year population estimates: England and Wales, 2020

2.1.3 Population projections

Although population increases will not be evenly distributed across the county, it is anticipated that numbers will continue to increase year on year across all age groups in Derbyshire.

The number of people aged 65 and over is expected to increase from an estimated 177,570 in 2020, to an estimated 244,860 by 2040⁷⁷. This will give a concomitant increase in the number of people in Derbyshire aged 80 and over, from 45,150 in 2020, to an estimated 76,360 by 2040. Figure 8 below breaks down the projected increases in people aged 65 and over in Derbyshire to 2040 by 5-year age groups.

Figure 8: Derbyshire population aged 65 and over, projected changes to 2040

Age group	2020	2025	2030	2035	2040
65-69 yrs	47,480	51,667	60,038	62,721	56,746
70-74 yrs	49,385	44,787	48,949	57,018	59,663
75-79 yrs	35,560	44,254	40,414	44,482	52,088
80-84 yrs	23,527	28,793	36,069	33,332	37,158
85-89 yrs	13,901	15,852	19,675	24,919	23,506
90 yrs & over	7,718	8,382	9,689	12,119	15,699
Age 65 yrs & over	177,570	193,734	214,834	234,591	244,859

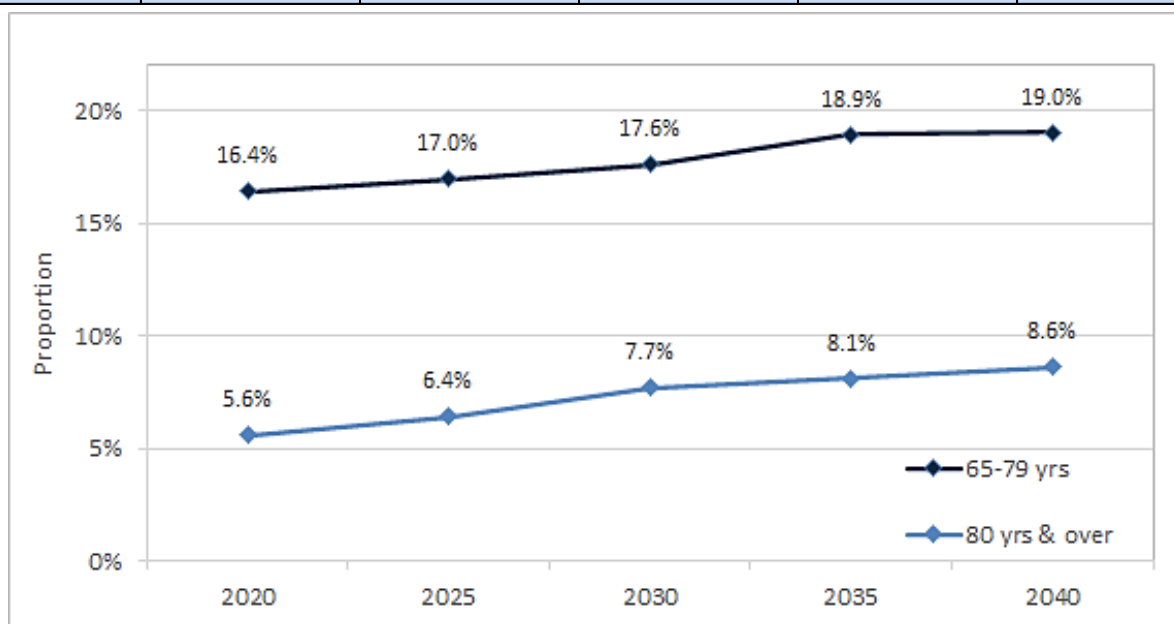
SOURCE: ONS 2018-based subnational principal population projections

It should be noted however, that not only is the total number of older people in Derbyshire projected to increase over the coming years, but the proportion that older people make up of the total population is also expected to increase year on year.

The proportion of people aged 65 and over in the total population is expected to increase from 22.0% in 2020 to 27.6% by 2040, with the proportion of people aged 80 and over increasing from 5.6% to 8.6% over that period (Figure 9 below).

Figure 9: Derbyshire population aged 65 and over, projected changes to 2040

Age group	2020		2025		2030		2035		2040	
	No	%	No	%	No	%	No	%	No	%
65-79 yrs	132,424	16.4%	140,707	17.0%	149,401	17.6%	164,221	18.9%	168,496	19.0%
80 yrs & over	45,146	5.6%	53,027	6.4%	65,433	7.7%	70,370	8.1%	76,363	8.6%

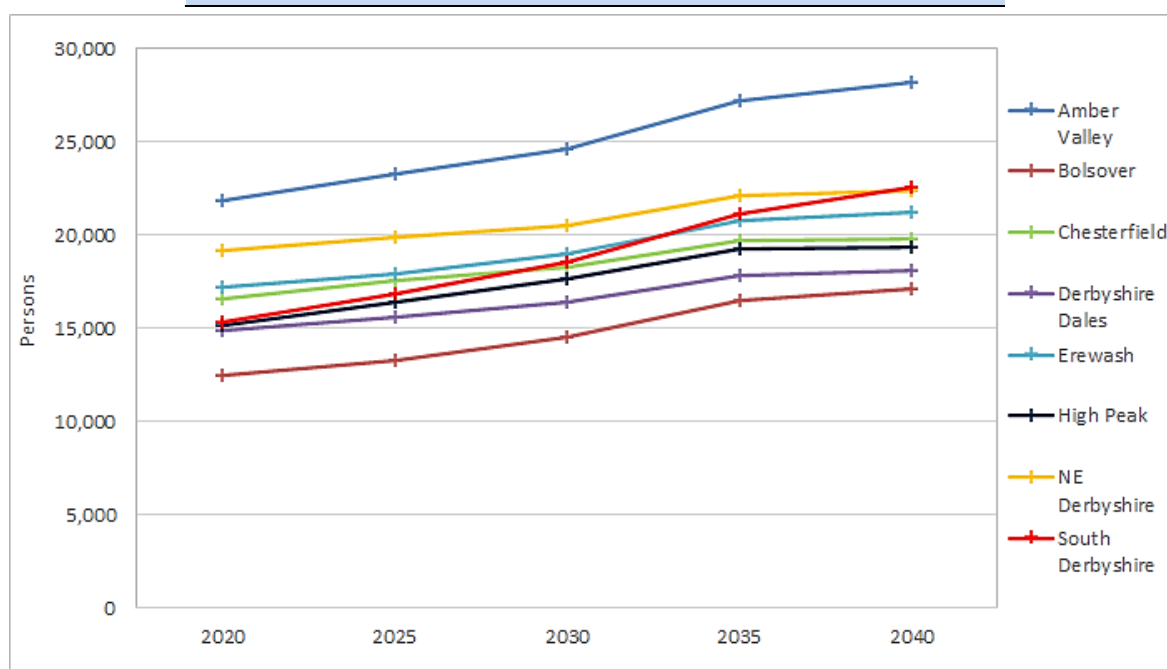


SOURCE: ONS 2018-based subnational principal population projections

The growth in older population is not however, evenly distributed across the districts of the county, as can be seen in Figures 10 and 11 below, which show the projected increases in district and borough populations for people aged 65 years and over, and people aged 80 years and over, respectively.

Figure 10: County and Borough populations aged 65-79 years, projected changes to 2040

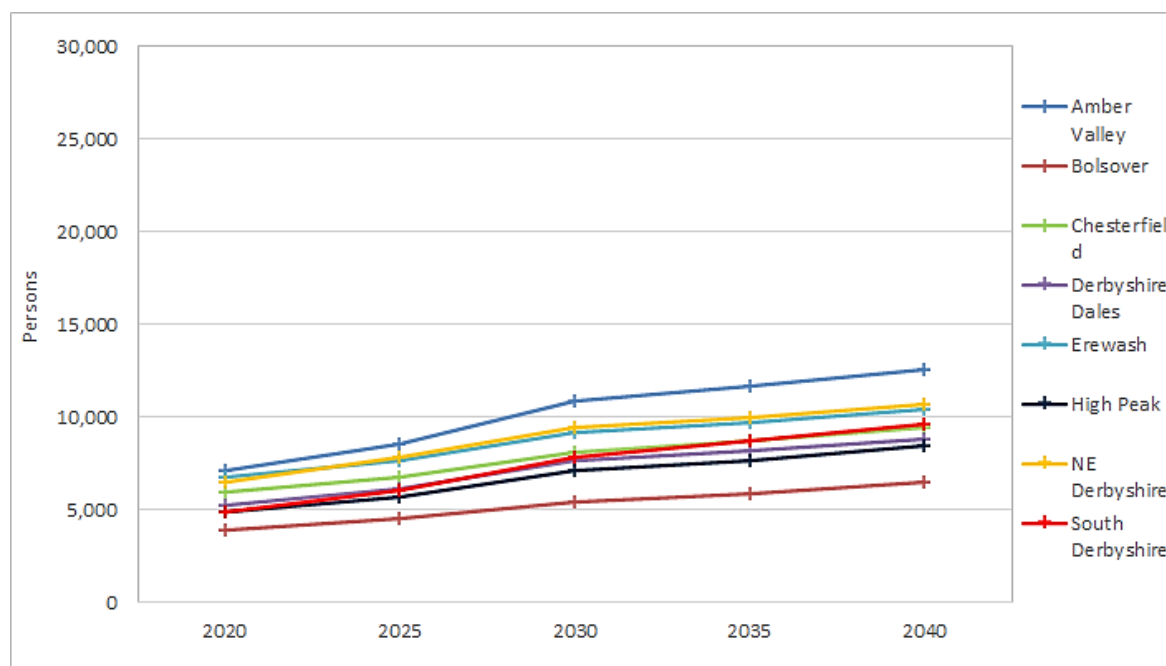
	2020	2025	2030	2035	2040
Amber Valley	21,859	23,244	24,588	27,176	28,170
Bolsover	12,427	13,301	14,517	16,442	17,095
Chesterfield	16,544	17,533	18,247	19,655	19,777
Derbyshire Dales	14,825	15,609	16,358	17,780	18,087
Erewash	17,190	17,905	18,959	20,727	21,186
High Peak	15,149	16,401	17,657	19,240	19,298
NE Derbyshire	19,131	19,917	20,524	22,088	22,332
South Derbyshire	15,301	16,798	18,551	21,114	22,552



SOURCE: ONS 2018-based subnational principal population projections

Figure 11: County and Borough populations aged 80 years and over, projected changes to 2040

	2020	2025	2030	2035	2040
Amber Valley	7,140	8,522	10,835	11,644	12,584
Bolsover	3,919	4,547	5,416	5,835	6,473
Chesterfield	5,959	6,704	8,117	8,664	9,396
Derbyshire Dales	5,180	6,130	7,618	8,211	8,797
Erewash	6,777	7,651	9,117	9,682	10,391
High Peak	4,832	5,680	7,086	7,657	8,439
NE Derbyshire	6,503	7,766	9,433	9,947	10,659
South Derbyshire	4,835	6,027	7,809	8,730	9,626



SOURCE: ONS 2018-based subnational principal population projections

When the gender of the population is examined as numbers increase over time, the increases seen follow the established pattern of the current older population, with women making up the greater proportion. Very little change in the relative proportions of males to females is seen over time and this holds true across the populations of the districts and boroughs. Figure 12 below shows the projected changes in population numbers over time for males and females in Derbyshire.

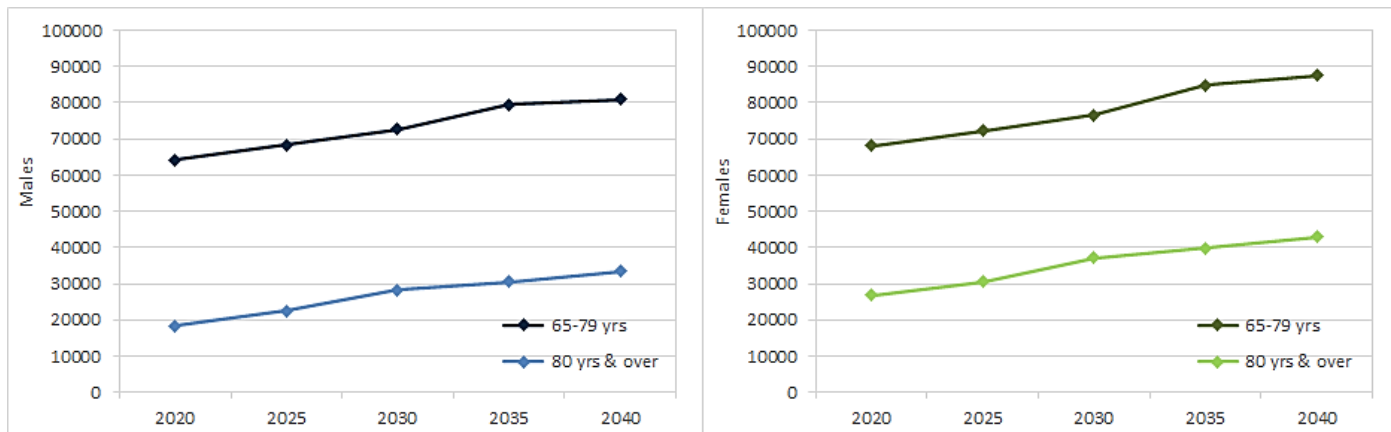
Figure 12: Derbyshire population aged 65 and over, by gender, projected changes to 2040

MALES						FEMALES					
	2020	2025	2030	2035	2040		2020	2025	2030	2035	2040
65-69	23,493	25,668	29,477	30,454	27,609	65-69	23,987	25,998	30,561	32,267	29,136
70-74	23,823	21,820	23,957	27,604	28,599	70-74	25,563	22,967	24,992	29,415	31,064
75-79	16,883	20,919	19,321	21,387	24,803	75-79	18,677	23,335	21,093	23,095	27,285
80-84	10,422	13,131	16,430	15,384	17,283	80-84	13,105	15,662	19,639	17,948	19,875
85-89	5,534	6,556	8,428	10,710	10,262	85-89	8,367	9,296	11,247	14,209	13,244
90+	2,353	2,764	3,395	4,465	5,891	90+	5,365	5,619	6,293	7,654	9,808
Age 65 & over	82,508	90,858	101,008	110,003	114,447	Age 65 & over	95,062	102,877	113,826	124,587	130,413

Figure 13 below gives the Derbyshire populations for the two groups most frequently referenced in discussions about falls and their prevention, those aged 65-79 years and those aged 80 years and over.

Figure 13: Derbyshire populations aged 65-79 years and 80 years and over, by gender, projected changes to 2040

MALES						FEMALES					
	2020	2025	2030	2035	2040		2020	2025	2030	2035	2040
65-79 yrs	64,199	68,407	72,755	79,445	81,011	65-79 yrs	68,226	72,300	76,646	84,776	87,485
80 yrs & over	18,309	22,451	28,253	30,559	33,436	80 yrs & over	26,836	30,577	37,180	39,811	42,927



As advancing age is the major risk factor for falls, it is clear that falls in the community will be an escalating problem over the coming years. It is essential therefore, that the projected increases in population are taken into consideration when planning the future delivery of falls prevention services.

It is also essential that account is taken of the changing distribution of need across the districts over time, particularly in the group aged 80 years and over, and that these changing needs are taken into consideration in service planning and delivery.

2.2 Prevalence of falls

Given that the total number of falls experienced by people aged 65 years and over cannot be accurately enumerated, the only available alternative is to calculate an estimate.

This can be achieved by applying the proportions identified for each 5-year age group via the HSE 2005²⁵ to the population estimates for Derbyshire and its districts and boroughs to obtain estimates for falls amongst people aged 65 years and over living in the community. Note that this provides an estimate of the number of people that will fall at least once in a year, although the estimated figures include both those falls that have resulted in injury and hospitalisation and those that have not required hospitalisation. These figures do, however, provide a good estimate of the total number of people likely to benefit from preventative interventions for both primary and secondary falls.

Note that the data for short-term projections are presented by year in the following tables and charts, whilst data on longer-term projections is presented by 5-year intervals.

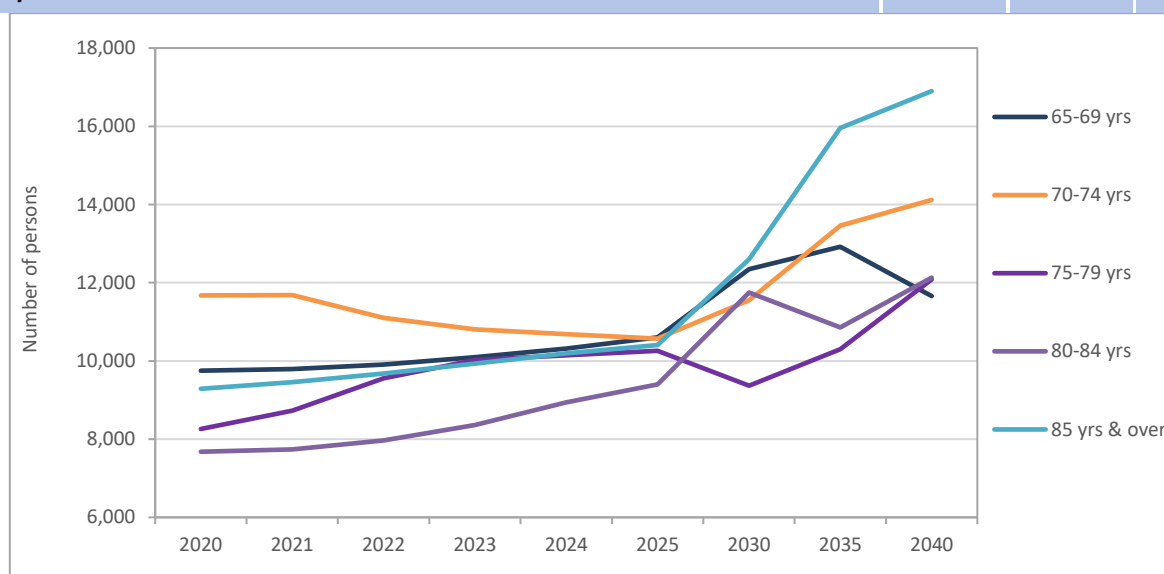
2.2.1 Prevalence of falls in Derbyshire

Applying the HSE proportions to the 2020 population data for Derbyshire suggests that around 46,650 people aged 65 years and over had at least one fall in that year²⁴. Given the projected growth in the elderly population in Derbyshire over the coming years, it follows that the number of people who fall will increase concomitantly. It is therefore predicted, that by 2040, without intervention, this figure will have risen to around 66,890²⁴. This equates to an increase of 43.4%, suggesting that, without intervention, the number of people who will experience at least one fall per year over this 20-year period will increase by something over 20,000.

Figure 14 below shows projections for the number of people in Derbyshire aged 65 and over who are predicted to fall each year by five-year ages groups, to 2040.

Figure 14: Projected number of people amongst Derbyshire's older population predicted to have a fall, by 5-year age group

Age group	2020	2021	2022	2023	2024	2025	2030	2035	2040
65-69 yrs	9,750	9,791	9,909	10,096	10,319	10,606	12,348	12,919	11,661
70-74 yrs	11,672	11,685	11,101	10,805	10,684	10,570	11,550	13,458	14,117
75-79 yrs	8,260	8,728	9,556	10,024	10,143	10,262	9,364	10,303	12,083
80-84 yrs	7,678	7,740	7,966	8,356	8,944	9,399	11,748	10,860	12,129
85 yrs & over	9,288	9,460	9,675	9,933	10,191	10,406	12,599	15,953	16,899
Age 65 yrs & over	46648	47404	48207	49214	50281	51243	57609	63493	66889

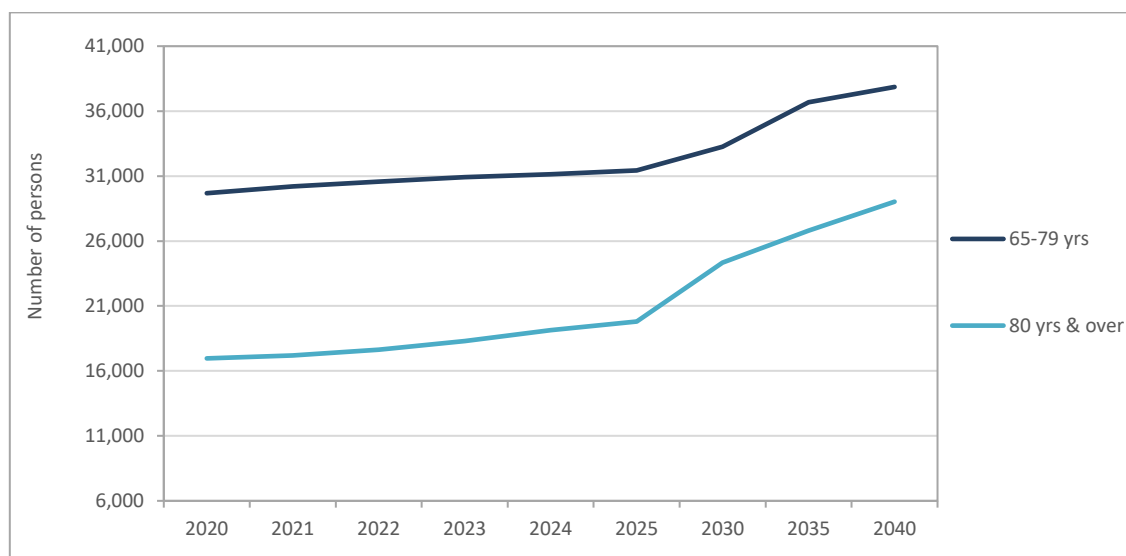


SOURCE: Projecting Older People Population Information System

Figure 15 below compares the Derbyshire populations for the two groups most frequently referenced in discussions about falls and their prevention, those aged 65-79 years and those aged 80 years and over. This reveals the greater proportional increase of falls amongst the oldest of the over 65-year-old population.

Figure 15: Projected number of people amongst Derbyshire's older population predicted to have a fall, numbers aged 65-79 years compared with number aged 80 years and over

Age group	2020	2021	2022	2023	2024	2025	2030	2035	2040
Age 65-79 yrs	29682	30204	30566	30925	31146	31438	33262	36680	37861
Age 80 yrs & over	16966	17200	17641	18289	19135	19805	24347	26813	29028



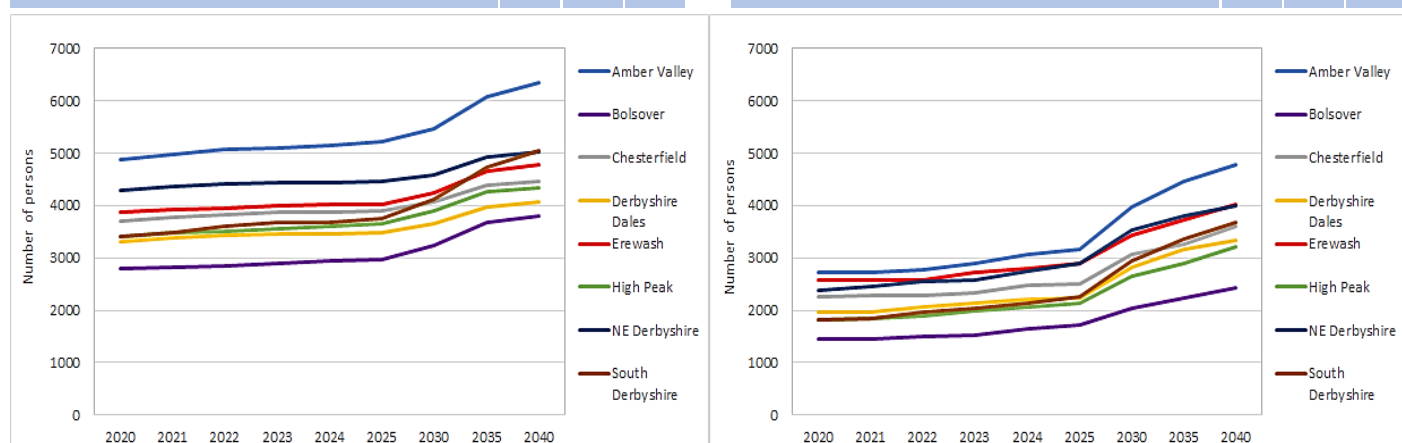
SOURCE: Projecting Older People Population Information System

2.2.2 Prevalence of falls in districts and boroughs

Unsurprisingly, given the role that age plays as a risk factor for falls, changes in the prevalence of falls over time across the districts and boroughs of Derbyshire follow the general pattern seen in the population projections. Figure 16 below shows the projected increases in the number of falls experienced by people aged 65 years and over, and people aged 80 years and over, to 2040 across the districts and boroughs of Derbyshire.

Figure 16: Predicted numbers of people experiencing falls across the districts and boroughs of Derbyshire, projected to 2040

People aged 65 to 79 years										People aged 80 years and over									
	2020	2021	2022	2023	2024	2025	2030	2035	2040		2020	2021	2022	2023	2024	2025	2030	2035	2040
Amber Valley	4883	4976	5069	5105	5153	5213	5453	6076	6338	Amber Valley	2712	2712	2777	2885	3070	3169	3980	4461	4785
Bolsover	2794	2813	2835	2899	2940	2963	3240	3670	3807	Bolsover	1461	1461	1492	1535	1643	1708	2044	2225	2441
Chesterfield	3694	3767	3826	3868	3868	3889	4076	4399	4455	Chesterfield	2262	2293	2293	2324	2475	2509	3061	3272	3596
Derbyshire Dales	3313	3382	3432	3449	3467	3488	3650	3971	4073	Derbyshire Dales	1957	1957	2074	2139	2204	2235	2830	3164	3346
Erewash	3864	3919	3954	3994	4012	4016	4237	4657	4781	Erewash	2573	2582	2582	2733	2798	2906	3427	3727	4017
High Peak	3400	3484	3500	3561	3602	3651	3901	4274	4330	High Peak	1806	1849	1883	1991	2056	2130	2648	2893	3217
NE Derbyshire	4295	4351	4403	4435	4435	4449	4571	4922	5034	NE Derbyshire	2389	2466	2540	2574	2759	2898	3536	3802	4006
South Derbyshire	3415	3488	3597	3666	3666	3751	4111	4722	5042	South Derbyshire	1806	1849	1957	2031	2139	2247	2941	3349	3682



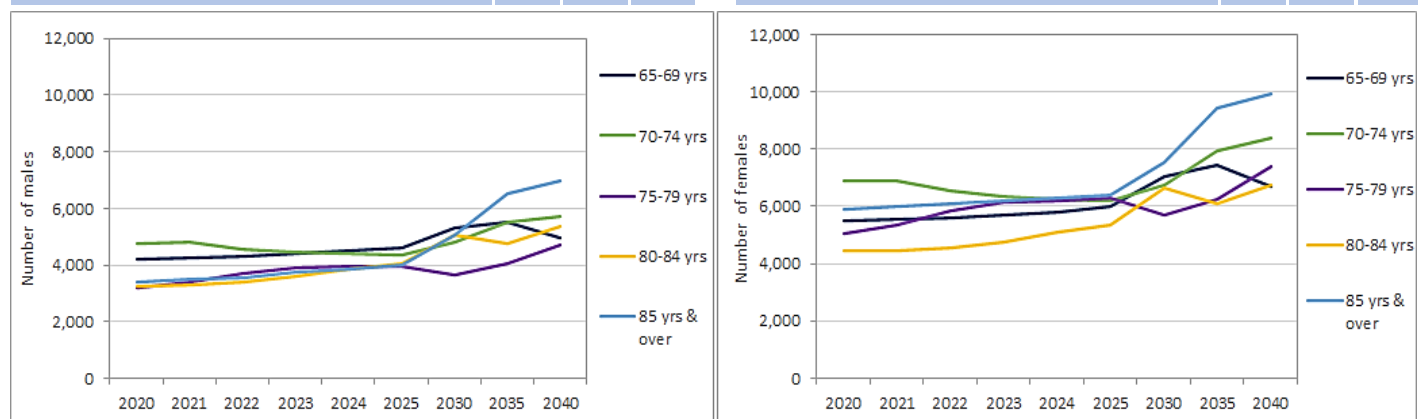
SOURCE: Projecting Older People Population Information System

2.2.3 Prevalence of falls by gender

As gender also has a bearing on the risk of falling, Figure 17 below provides a breakdown of the projected increases in the number of people predicted to have a fall amongst those aged 65 years and over by both 5-year age group and by gender.

Figure 17: Projected increase in falls amongst Derbyshire older population 2020 to 2040, by gender

MALES	2020	2021	2022	2023	2024	2025	2030	2035	2040	FEMALES	2020	2021	2022	2023	2024	2025	2030	2035	2040
65-69 yrs	4,230	4,248	4,320	4,392	4,500	4,626	5,310	5,490	4,968	65-69 yrs	5,520	5,543	5,589	5,704	5,819	5,980	7,038	7,429	6,693
70-74 yrs	4,760	4,800	4,540	4,460	4,420	4,360	4,800	5,520	5,720	70-74 yrs	6,912	6,885	6,561	6,345	6,264	6,210	6,750	7,938	8,397
75-79 yrs	3,211	3,382	3,724	3,895	3,933	3,971	3,667	4,066	4,712	75-79 yrs	5,049	5,346	5,832	6,129	6,210	6,291	5,697	6,237	7,371
80-84 yrs	3,224	3,286	3,410	3,596	3,844	4,061	5,084	4,774	5,363	80-84 yrs	4,454	4,454	4,556	4,760	5,100	5,338	6,664	6,086	6,766
85 yrs & over	3,397	3,483	3,569	3,741	3,870	3,999	5,074	6,536	6,966	85 yrs & over	5,891	5,977	6,106	6,192	6,321	6,407	7,525	9,417	9,933
Age 65 yrs & over	18822	19199	19563	20084	20567	21017	23935	26386	27729	Aged 65 yrs & over	27826	28205	28644	29130	29714	30226	33674	37107	39160

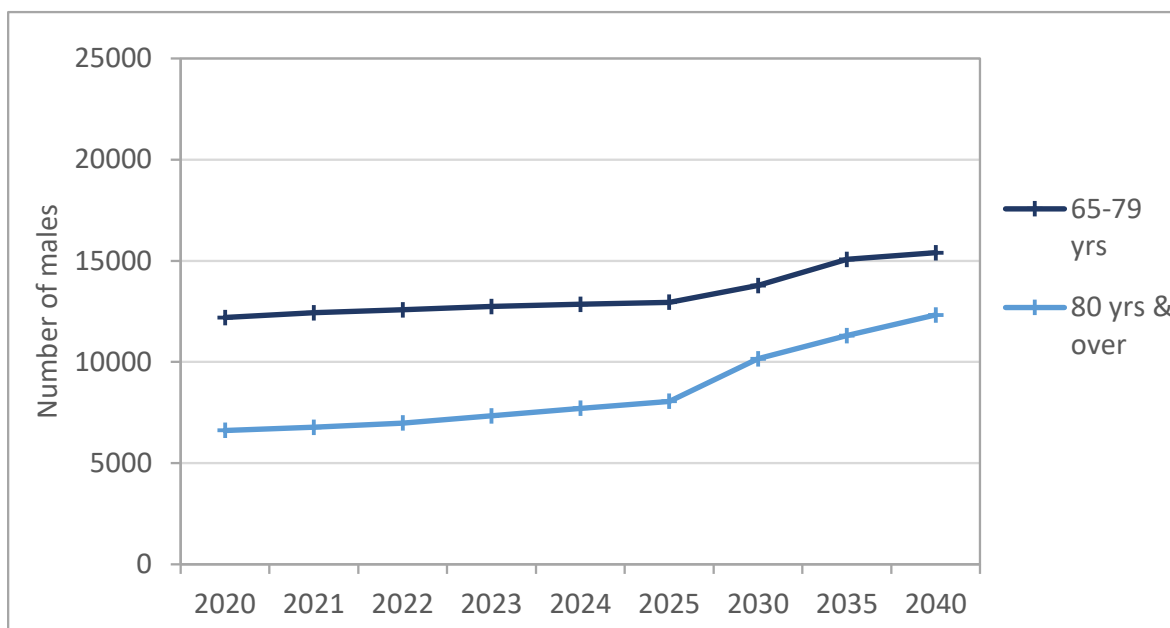


SOURCE: Projecting Older People Population Information System

Figures 18 and 19 below illustrate respectively, the projected increases in the number of males and females predicted to have a fall in the two age groups most frequently referenced in discussions about falls and their prevention,, those aged 65-79 years and those aged 80 years and over.

Figure 18: Males aged 65 and over predicted to have a fall, by age group, projected to 2040

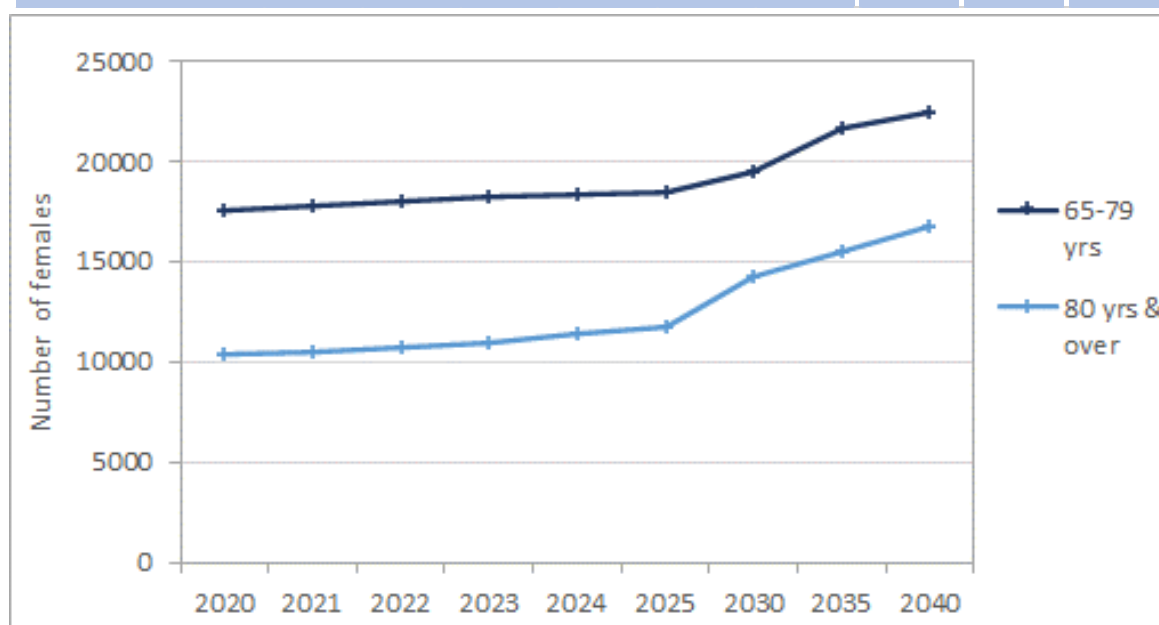
MALES	2020	2021	2022	2023	2024	2025	2030	2035	2040
Age 65-79 yrs	12201	12430	12584	12747	12853	12957	13777	15076	15400
Age 80 yrs & over	6621	6769	6979	7337	7714	8060	10158	11310	12329



SOURCE: Projecting Older People Population Information System

Figure 19: Females aged 65 and over predicted to have a fall, by age group, projected to 2040

FEMALES	2020	2021	2022	2023	2024	2025	2030	2035	2040
Age 65-79 yrs	17481	17774	17982	18178	18293	18481	19485	21604	22461
Age 80 yrs & over	10345	10431	10662	10952	11421	11745	14189	15503	16699



SOURCE: Projecting Older People Population Information System

For Derbyshire, this means that by 2040, without intervention, there will be an estimated 66,890 people aged 65 and over who will have experienced a fall in the previous 12 months (27,730 men and 39,160

women), with all the concomitant risks of illness, injury and premature mortality. It is predicted that the number of these individuals that will require admission to hospital as a result of their fall will increase from 5,450 in 2020 to 8,510 by 2040⁸¹.

These figures show the scale of need for falls prevention interventions over the coming years within Derbyshire. Given the impact that falls have on the individual and on their family and carers, and the significant associated costs for health and social care services, it is imperative that action is taken to prevent falls in the community and that this is deemed a priority for population health management in Derbyshire.

2.3 Prevalence of injurious falls

Whilst most falls do not lead to major physical injury, 31% of falls result in an injury requiring medical attention or restriction of activities for at least one day⁷⁸. The majority are minor soft tissue injuries, but 10-15% of falls result in fractures; 5% of falls result in serious injuries such as head trauma⁷⁰. Women are 50% more likely to report a fall-related injury compared to men⁷⁸. Falls are therefore a leading cause of emergency hospital admissions for older people⁷⁹.

In many cases, falls have a significant impact on long-term outcomes for the individual and a frequent cause of a precipitate move from home into long-term care for many⁵⁴. Falls are also the most common cause of injury-related deaths in people aged 65 and over⁸⁰.

Unlike the challenges around understanding the total number of unintentional falls that occur annually in the community, there are established data collections for hospital admissions that provide information on the number of people injured by falling annually. These provide an opportunity to quantify the scale of the problem that injurious falls present, both to individuals and to health and social care services.

Estimated rates for admissions to hospital as a result of unintentional falls have been calculated from Hospital Episode Statistics for England⁸¹ and are given in Figure 20 below. These figures are taken from the Admitted Patient Care statistics, 2016-17 (2017 Table External cause provided by NHS Digital, and are based on ICD-10 codes W01, W05-W10, W18 and W19). Note that these estimated rates are for numbers of admissions, and not numbers of individual people.

The prevalence rates have been applied to ONS population projections⁷⁷ for the Derbyshire population aged 65 and over to give estimated numbers predicted to be admitted to hospital as a result of falls to 2040.

Figure 20: Estimated rates for admissions to hospital following an unintentional fall

Age range	%
65-69 yrs	0.822
70-74 yrs	1.356
75-79 yrs	2.467
80 yrs and over	7.79

SOURCE: Projecting Older People Population Information System

There are also two national indicators that reflect the scale of the problem posed by injurious falls:

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

Breakdowns are available for both at county, district and borough level; these are presented in sections 2.3.1 and 2.3.2 respectively below.

Both indicators include data on people resident in care homes, and so do not relate solely to people living in the community. However, both can be used to gain an understanding of the scale of the problem that injurious falls present to people in Derbyshire.

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

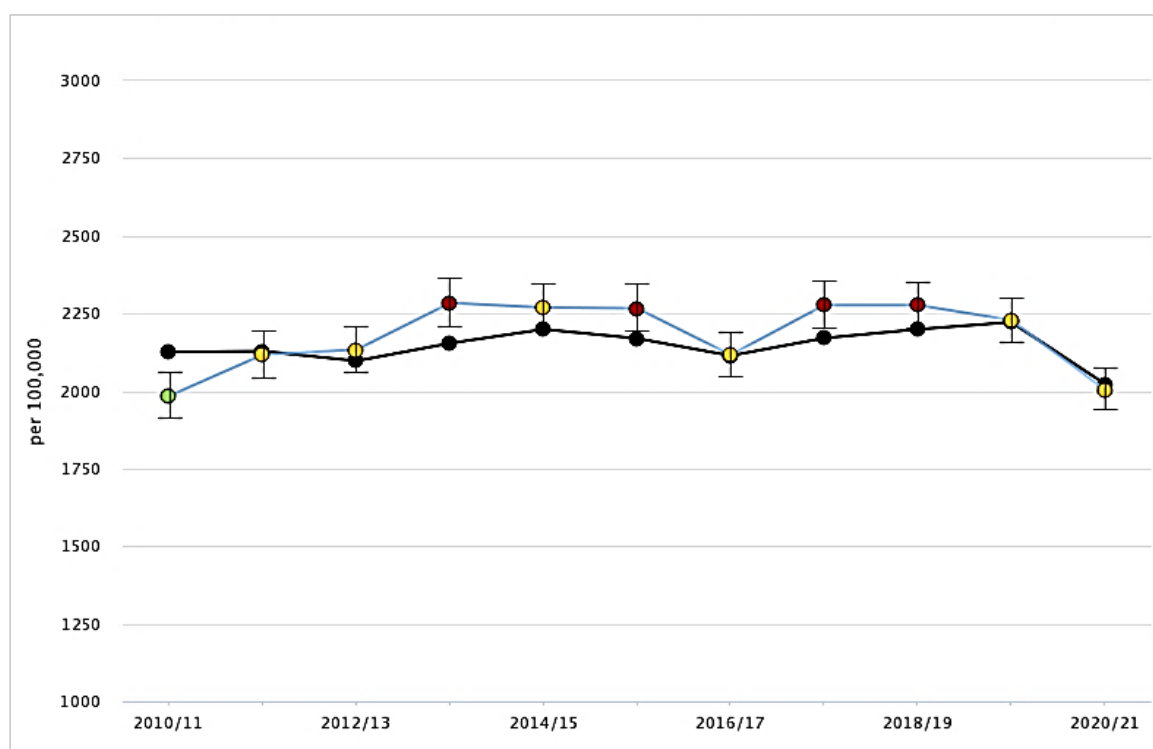
The Public Health Outcomes Framework provides data on hospital admissions due to falls for three groups of people, an overarching dataset for those aged 65 years and over, plus two breakdowns, one for those aged 65-79 years and those aged 80 years and over, the latter being the group at highest risk of falling.

The data for emergency admissions due to falls amongst Derbyshire residents over the last decade are summarised below. Note that all of the rates given below are directly age standardised rates per 100,000 population.

In 2020/21, there were 3,450 admissions due to falls amongst Derbyshire residents aged 65 and over, giving a rate of 2,004 per 100,000 (95% confidence interval (CI) 1,938, 2,073). This compares with a rate of 1,927 (95% CI 1,899, 1,955) for the East Midlands region and 2,023 (95% CI 2,014, 2,032) for England.

Figure 21: Emergency hospital admissions due to falls in people aged 65 and over 2010/11 to 2020/21, number and rate per 100,000 population

Year	Derbyshire				England
	Number	Rate	Lower CI 95%	Upper CI 95%	Rate
2010/11	2,772	1,984	1,911	2,060	2,126
2011/12	3,031	2,117	2,042	2,195	2,128
2012/13	3,152	2,133	2,059	2,209	2,097
2013/14	3,430	2,284	2,208	2,362	2,154
2014/15	3,492	2,269	2,194	2,346	2,199
2015/16	3,531	2,266	2,192	2,343	2,169
2016/17	3,364	2,116	2,045	2,189	2,114
2017/18	3,688	2,277	2,204	2,352	2,170
2018/19	3,760	2,277	2,204	2,351	2199*
2019/20	3,790	2,228	2,158	2,301	2,222
2020/21	3,450	2,004	1,938	2,073	2,023



SOURCE: Public Health Outcomes Framework, Office for Health Improvement & Disparities

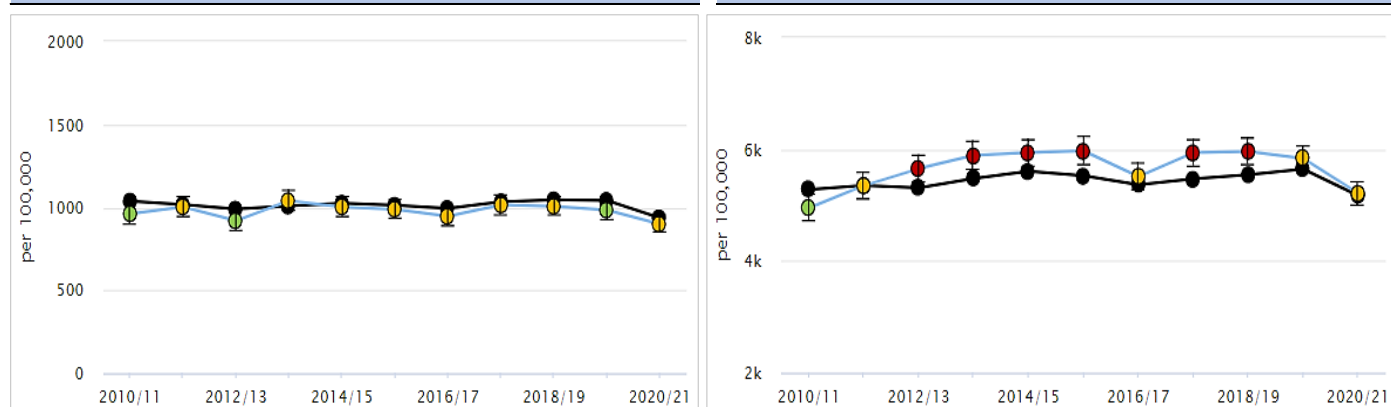
Key: ● England ● Better 95% ● Similar ● Worse 95%

* Treat value with caution

Figure 22: Emergency hospital admissions due to falls, number and rate per 100,000 population
People aged 65-79 years **People aged 80 years and over**

Year	Derbyshire				England
	Number	Rate	Lower CI 95%	Upper CI 95%	
2010/11	965	961	902	1,024	1,038
2011/12	1,022	1,003	942	1,066	1,017
2012/13	975	919	862	979	989
2013/14	1,133	1,040	980	1,103	1,007
2014/15	1,133	1,003	945	1,064	1,024
2015/16	1,143	988	932	1,048	1,012
2016/17	1,123	945	891	1,003	993
2017/18	1,236	1,014	958	1,072	1,033
2018/19	1,265	1,006	951	1,063	1,045*
2019/20	1,275	984	930	1,039	1,042
2020/21	1,190	898	848	951	937

Year	Derbyshire				England
	Number	Rate	Lower CI 95%	Upper CI 95%	
2010/11	1,807	4,951	4,723	5,187	5,282
2011/12	2,009	5,350	5,117	5,590	5,352
2012/13	2,177	5,654	5,418	5,897	5,310
2013/14	2,297	5,891	5,652	6,138	5,479
2014/15	2,359	5,941	5,703	6,186	5,604
2015/16	2,388	5,973	5,735	6,218	5,526
2016/17	2,241	5,512	5,286	5,746	5,363
2017/18	2,452	5,939	5,706	6,179	5,469
2018/19	2,495	5,963	5,730	6,202	5,545*
2019/20	2,510	5,838	5,611	6,071	5,644
2020/21	2,260	5,211	4,998	5,432	5,174

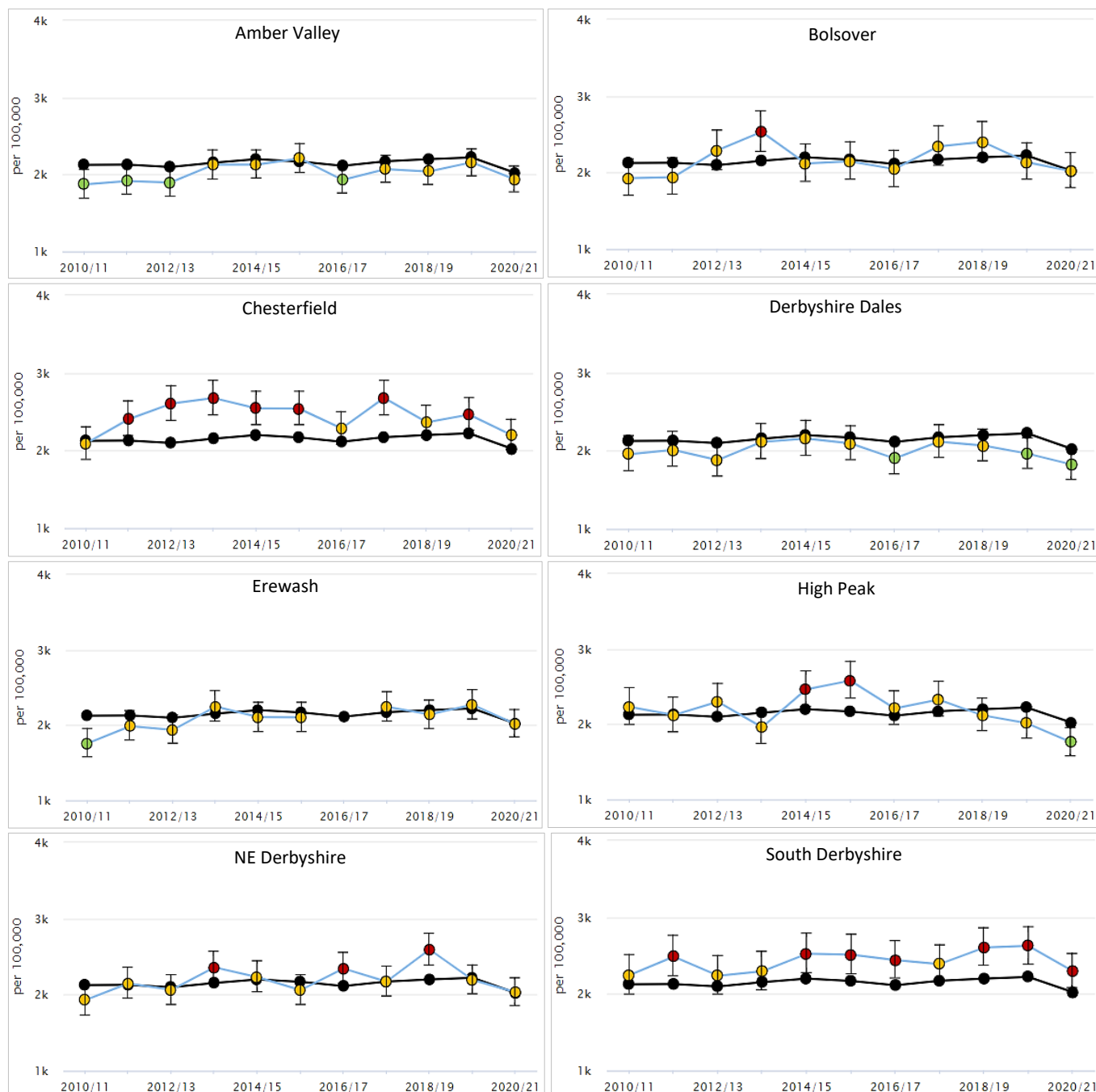


SOURCE: Public Health Outcomes Framework, Office for Health Improvement & Disparities

Breaking the data for those aged 65 years and over down to look at the difference between emergency admissions for the oldest old separately is helpful for this indicator. Examination of the rates shown above for emergency admissions for falls in those aged 65-79 years and those aged 80 and over shows that the rate of admission is far higher amongst those aged 80 years and over, and in many years had been higher than the England average. In Derbyshire, this group of older adults experienced an emergency admission at a rate of 5,211 per 100,000 population in 2020/2021, compared to a rate of just 898 per 100,000 in the group aged 65-79 years; these rates are not significantly different to those for England.

The Public Health Outcomes Framework also provides data for emergency admissions for falls at district level; trend data for the districts and boroughs of Derbyshire are shown in Figure 23 below.

Figure 23: Trends in emergency hospital admissions due to falls amongst people aged 65 years and over, by district*



SOURCE: Public Health Profiles, Office for Health Improvement & Disparities

*Directly standardised rates per 100,000.

Key: ● England ● Better 95% ● Similar ● Worse 95%

Emergency hospital admissions due to a fall amongst people aged 65 and over vary over time across Derbyshire, with some districts consistently experiencing higher falls admissions rates when compared with England; Chesterfield and South Derbyshire are two such examples. Both districts have higher falls rates in their over 80-year-old population than the England or Derbyshire averages which likely accounts for the higher rates in emergency admissions for falls seen for all people aged 65 and over in these districts. Other districts, such as Amber Valley and Derbyshire Dales, broadly track the England rate, improving on it in some years. Trends in emergency admissions due to falls over time for the boroughs and districts, broken down by age group for those aged 65 to 79 and those aged 80 years and over are provided in Appendices 6.1 and 6.1 respectively. Performance across the districts and boroughs in 2020/2021 is benchmarked against the data for England in Figure 24 below.

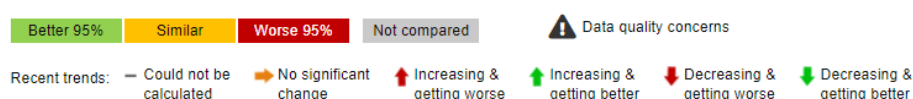
Note that Derbyshire's performance cannot be compared for this year. The source for this dataset is Hospital Episode Statistics; data quality issues have been reported for this indicator and, as a result, robust data for this period are not yet available.

Figure 24: Emergency hospital admissions due to falls compared for the districts of Derbyshire, people aged 65 years and over

Area	Recent Trend	Count	Value		95% Lower CI	95% Upper CI
England	→	216,075	2,023		2,014	2,032
Derbyshire	—	-	-		-	-
South Derbyshire	→	430	2,296		2,083	2,525
Chesterfield	→	495	2,199		2,009	2,402
North East Derbyshire	→	480	2,033		1,852	2,226
Bolsover	→	315	2,019		1,800	2,257
Erewash	—	500	2,015		1,842	2,201
Amber Valley	→	540	1,937		1,776	2,107
Derbyshire Dales	→	360	1,824		1,639	2,023
High Peak	↓	330	1,761		1,576	1,962

SOURCE: Public Health Outcomes Framework, Office for Health Improvement & Disparities

Key:



Trends for this indicator could not be calculated for Derbyshire as a whole, or for Erewash.

The data indicate that, for all areas other than the High Peak, the trend in emergency admissions for falls in people aged 65 and over is not showing any significant change over time. Only the High Peak showed improvement and had a rate significantly lower than that for England; only South Derbyshire had a rate significantly higher than that for England. Comparisons for emergency admissions for falls amongst those aged 65-79 years and 80 years and over are shown in Figure 25 below; these suggest that the biggest challenges lie in reducing falls amongst those 80 years and over.

Figure 25: Emergency hospital admissions due to falls compared for the districts of Derbyshire:
a) People aged 65-79 years

Area ▲▼	Recent Trend	Count ▲▼	Value ▲▼		95% Lower CI	95% Upper CI
England	➡	70,927	937		930	944
Derbyshire	—	-	-		-	-
South Derbyshire	➡	155	1,024		870	1,199
Chesterfield	➡	160	974		829	1,137
Erewash	—	165	966		825	1,125
Bolsover	➡	115	926		765	1,110
Amber Valley	➡	190	862		743	995
High Peak	➡	125	846		705	1,008
North East Derbyshire	➡	155	811		689	949
Derbyshire Dales	➡	120	799		661	957

b) People aged 80 years and over

Area ▲▼	Recent Trend	Count ▲▼	Value ▲▼		95% Lower CI	95% Upper CI
England	➡	145,148	5,174		5,147	5,200
Derbyshire	—	-	-		-	-
South Derbyshire	➡	275	5,984		5,294	6,739
Chesterfield	➡	335	5,749		5,147	6,403
North East Derbyshire	➡	320	5,574		4,971	6,229
Bolsover	➡	195	5,189		4,485	5,971
Erewash	—	330	5,057		4,527	5,633
Amber Valley	➡	355	5,052		4,538	5,607
Derbyshire Dales	➡	240	4,795		4,207	5,442
High Peak	⬇	205	4,414		3,829	5,062

SOURCE: Public Health Outcomes Framework, Office for Health Improvement & Disparities

2.3.2 Hip fractures in people aged 65 years and over

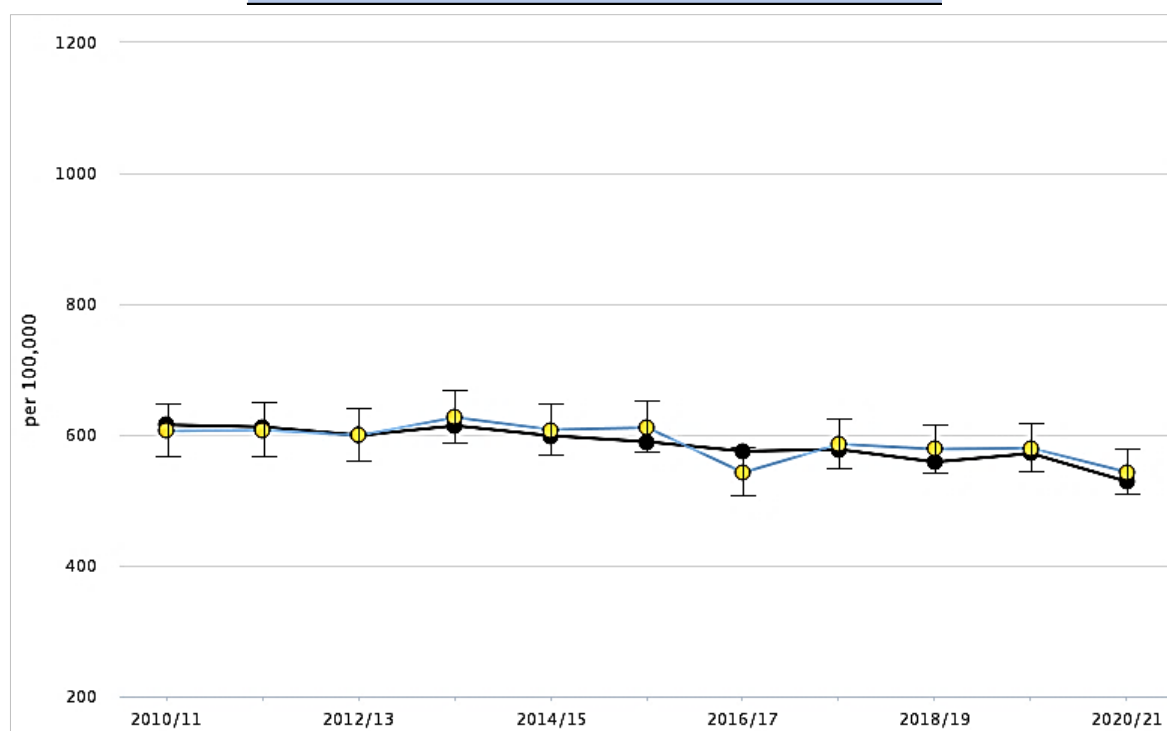
The Public Health Outcomes Framework also provides data on hospital admissions due to hip fractures in people aged 65 and over. As for emergency admissions due to falls, the data are presented as an overarching dataset for those aged 65 years and over, plus two breakdowns, one for those aged 65-79 years and one for those aged 80 years and over.

The data for hip fractures amongst Derbyshire residents aged 65 years and over are provided below. Note that all of the rates given below are directly age standardised rates per 100,000 population.

In 2020/21, there were 935 hip fractures amongst Derbyshire residents aged 65 and over, giving a rate of 543 per 100,000 (95% confidence interval (CI) 509, 579). This compares with a rate of 565 (95% CI 550, 580) for the East Midlands region and 529 (95% CI 524, 533) for England.

Figure 26: Hospital admissions for hip fractures in people aged 65 and over, number and rate per 100,000, 2010/11 to 2020/21

Year	Derbyshire				England
	Number	Rate	Lower CI 95%	Upper CI 95%	Rate
2010/11	851	606	566	648	615
2011/12	868	607	567	649	612
2012/13	888	599	560	640	599
2013/14	939	627	587	668	614
2014/15	938	608	569	648	599
2015/16	950	611	573	651	589
2016/17	865	542	507	580	575
2017/18	950	586	549	624	578
2018/19	950	578	542	616	559*
2019/20	985	580	544	617	572
2020/21	935	543	509	579	529

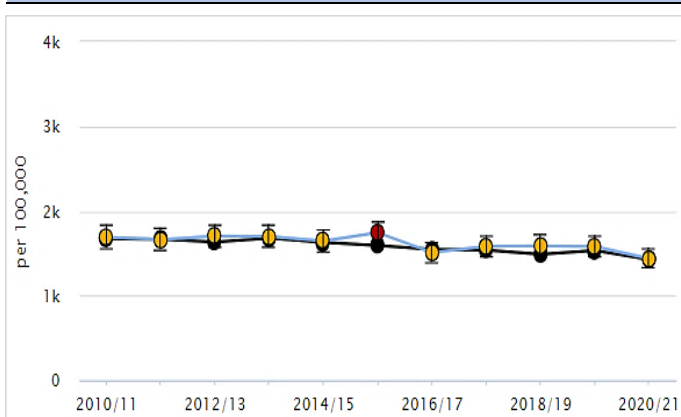
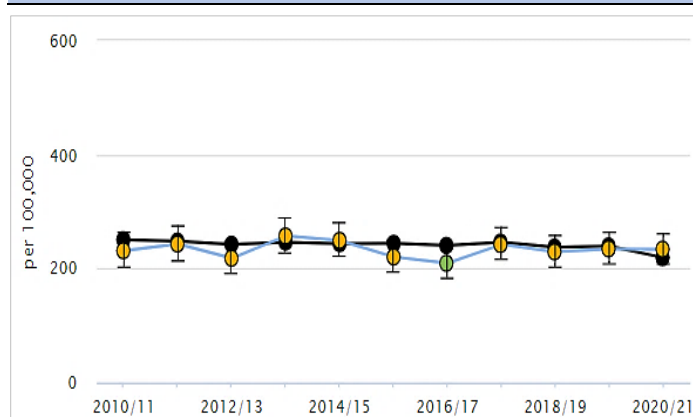


SOURCE: Public Health Outcomes Framework, Office for Health Improvement & Disparities

Key: ● England ● Better 95% ● Similar ● Worse 95%

Figure 27: Hospital admissions for hip fractures, number & rate per 100,000, 2010/11 to 2020/21
People aged 65-79 years **People aged 80 years and over**

Year	Derbyshire				England	Year	Derbyshire				England
	Number	Rate	Lower CI 95%	Upper CI 95%	Rate		Number	Rate	Lower CI 95%	Upper CI 95%	Rate
2010/11	231	231	202	263	251	2010/11	620	1,692	1,561	1,832	1673
2011/12	245	243	213	276	248	2011/12	623	1,663	1,534	1,799	1668
2012/13	229	218	191	248	243	2012/13	659	1,705	1,577	1,841	1634
2013/14	276	257	228	290	247	2013/14	663	1,698	1,571	1,832	1680
2014/15	282	249	221	280	244	2014/15	656	1,647	1,523	1,779	1627
2015/16	253	220	194	250	244	2015/16	697	1,744	1,616	1,878	1591
2016/17	249	209	184	237	241	2016/17	616	1,508	1,391	1,632	1545
2017/18	293	242	215	272	246	2017/18	657	1,582	1,463	1,708	1539
2018/19	285	229	203	258	238*	2018/19	665	1,590	1,471	1,716	1489*
2019/20	305	235	209	263	240	2019/20	680	1,580	1,463	1,704	1534
2020/21	310	234	209	262	219	2020/21	625	1,440	1,328	1,558	1426



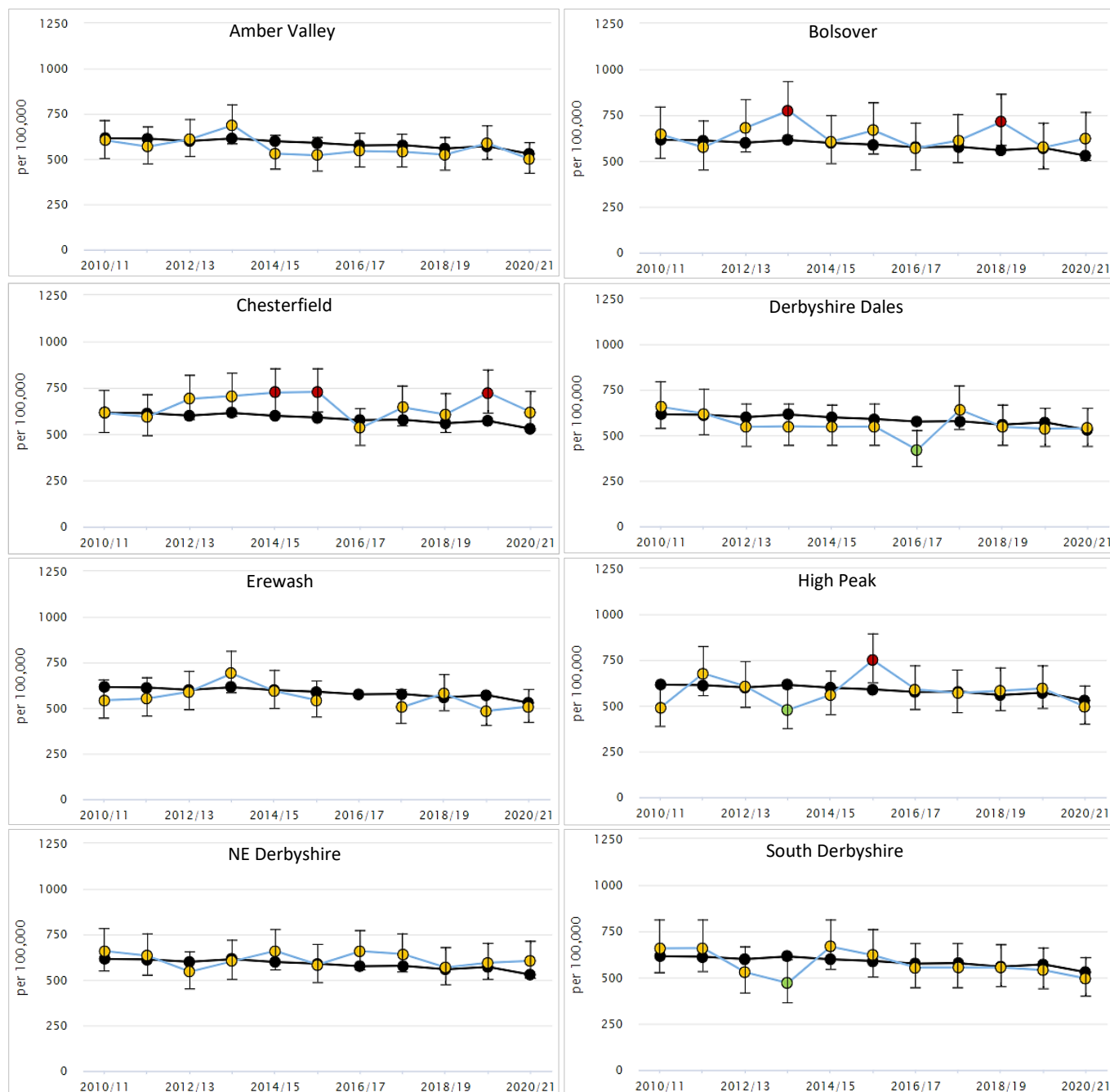
SOURCE: Public Health Outcomes Framework, Office for Health Improvement & Disparities

Examination of the rates for hip fractures amongst those aged 65-79 years and amongst those aged 80 and over (shown in Figure 27 above) confirms that, as was seen in the data for emergency admissions due to falls, the rate of hip fracture is far higher in those aged 80 years and over than in the younger group. The rate amongst those aged 80 years and over was 1,440 per 100,000 population in 2020/21, compared to a rate of just 234 per 100,000 in the group aged 65-79 years.

Figure 28 below breaks down the data for hip fractures in people aged 65 and over to district and borough level.

In 2020/21, all eight of the districts and boroughs reported rates closely similar to the England rate. Given that this was a pandemic year, when the activities of many people in this age group would have been severely curtailed by the restrictions placed on them at the time, a noticeable reduction in hip fractures might reasonably have been expected. The fact that this has not been observed is likely because the majority of injurious falls, including those leading to fractures of the hip, occur in the home⁸².

Figure 28: Trends in hospital admissions for hip fractures amongst people aged 65 years and over, by district*



SOURCE: Public Health Outcomes Framework, Office for Health Improvement & Disparities

*Directly standardised rates per 100,000.

Key ● England ● Better 95% ● Similar ● Worse 95%

The trend data indicate hip fracture rates across Derbyshire rarely differ significantly from the England rate. Across the ten years to 2019/20, only Chesterfield, Bolsover and High Peak had rates that were significantly worse than those for England, with Chesterfield being the area with the highest rates.

Trend data for hospital admissions for hip fractures for the boroughs and districts, broken down by age group for those aged 65 to 79 and those aged 80 years and over, are provided in Appendices 6.3 and 6.4 respectively.

3. FALLS PREVENTION IN DERBYSHIRE

A Cochrane Collaboration systematic review⁸ of falls interventions found that group-based falls prevention exercise reduced the number of falls over time by 23% and can reduce the number of people experiencing one or more falls by around 15%. The review also concluded that exercise may reduce the number of people experiencing fractures by 27%⁸.

It is recommended that, to be effective, programmes should provide a minimum of 50 hours exercise or more, provided over a minimum of two hours per week. The exercise should include highly challenging balance training and progressive strength training⁸³.

3.1 The Strictly No Falling Programme

The Strictly No Falling programme (SNF) is commissioned by Derbyshire Public Health and co-ordinated by Age UK Derby and Derbyshire. It is an evidence-based falls prevention exercise programme designed to support the needs of community dwelling older adults with an increased risk of falls; the programme can accommodate older adults with varying degrees of frailty. As of December 2021, there were 23,305 attendances at SNF classes for the financial year 2021/22, across approximately 130 classes.

The community-based service is delivered by self-employed instructors who are recruited, trained and supported by Age UK. The instructors draw their income through charging for the classes they deliver; these include Chair Based Exercise, Postural Stability, Otago and Tai Chi. Typically, instructors deliver a blended model of these exercises which allows for a greater depth of delivery and differentiation to account for the varying needs of group participants; this approach also facilitates appropriately individualised progression for the participants. Across the eight districts and boroughs of Derbyshire there are currently around 130 sessions being delivered weekly, including arm's length sessions over Zoom and telephone, the latter being designed to ensure the programme is accessible to anyone who is unable to attend in person.

Prospective group participants can self-refer to the programme or can be referred to the programme by any agency. Referral is achieved either via a dedicated nhs.net email address or through the Age UK website. The only referral criterion in place is that prospective group participants are identified as being at risk of falling; this can be via self-identification or via a clinical assessment, such as some form of multi-factorial risk assessment.

When a new group participant enters the programme, they are given a welcome pack which includes a [support booklet](#), homework diary, exercise bands and an exercise CD. This ensures that the participant is equipped with the key information to keep themselves safe and independent in their own home, and also has the resources required to actively participate in the community-based programme.

Typically, group participants attend one session per week, although there is no limit on the number of classes that a person can attend. Group participants are encouraged to undertake exercises at home each week to ensure they maintain the gains made during attendance at any classes throughout the week; this is guided by the support booklet and exercise CD they receive at their first session. The aim of promoting home exercises is to support and encourage attendees to achieve the recommended 2 hours of strength and balance activity each week.

Contractually, the programme is funded through a core contract between Derbyshire Public Health and Age UK Derby and Derbyshire. This pays for the management and staffing costs associated with the day-to-day running of the programme.

In addition to the core contract, there are three grant funded components of the community-based programme aimed at supporting the establishment of new groups, supporting the longevity of established groups and ensuring accessibility for people with additional needs. Grant funding also supports instructor training. The three grant funded components are:

1. **Maintenance grant:** This is a discretionary grant that Age UK provide to instructors who establish a new group or require support due to high room hire charges or low uptake rates.
2. **Transport grant:** Where an older person has difficulty accessing a group for any reason, this grant enables Age UK to fund up to 6 trips utilising either community transport or, where necessary, local taxi. This is a door-to-door service to ensure people with increased mobility needs can attend the classes.
3. **Training grant:** This grant funds the training of new instructors and the CPD of current instructors. This enables current instructors to undertake additional training after they have taken part in the initial chair-based exercise training.

When SNF was initially commissioned in 2013, it was exclusively focussed on two of Derbyshire's eight districts and boroughs, South Derbyshire and Erewash. At that time falls prevention services in the northern parts of the county were provided by Derbyshire Community Health Services. In 2016, the programme was brought under a single contract with the key strategic aim of increasing the scope and scale of falls prevention exercise classes and thus improving access to falls prevention exercise classes to the whole of the county. Age UK were successful in acquiring the contract to deliver the SNF programme.

3.1.1 Strictly No Falling programme – response to COVID-19

When the first UK lockdown was announced all SNF groups were instructed to close immediately. This put the health and wellbeing of the group participants at risk and jeopardised the financial wellbeing of SNF instructors.

The programme therefore reverted to a direct payment mechanism for instructors, meaning all sessions for group participants were free. The funding covered all programme costs between March 2020 and March 2021. This funding also provided support during the transition back to face-to-face delivery when it was safe to do so, whilst also ensuring sufficient financial capacity was maintained to allow classes to revert to exclusively remote delivery should there be a need to do so.

Instructors engaged with group members on a group-by-group, person-by-person basis to understand their individual needs and to tailor response to meet these needs. Where group participants were unable to access a particular engagement mechanism, for example, remote classes delivered via Zoom, instructors were expected to maintain engagement with the participants through other means, such as weekly telephone support.

The engagement mechanisms utilised through the lockdown period included:

- Zoom / online exercise classes
- Telephone classes
- WhatsApp groups

-
- Telephone support
 - E-mail support
 - Instructional CDs and booklets
 - Radio chair-based exercise sessions (BBC Radio Derby and Erewash Sound)
 - YouTube channel videos

All group participants were sent a support pack at the start of lockdown which included an exercise band, an instructional booklet, a homework diary and Age UK magazine. For participants who were unable to access online options, group and 1-to-1 telephone sessions were established to ensure that participants were able to receive weekly motivational support, in addition to the instructional CDs and printed materials already provided.

In a follow-up survey, over 80% of the SNF participants who responded said that they had been more active during the pandemic as a result of contact with their instructor. Roughly 40% of group participants were engaged in a weekly Zoom class, with the remainder maintaining physical activity levels through telephone, SMS text message or e-mail contact. These findings demonstrate the value of the ongoing supportive relationship between instructors and group participants.

Feedback from group participants highlighted the mental and physical impact of the programme:

“These sessions help me to navigate the week, feel like I’m doing something positive for both myself and you and make me feel connected to you so this isolation doesn’t feel quite as tough. Thank you for being there”.

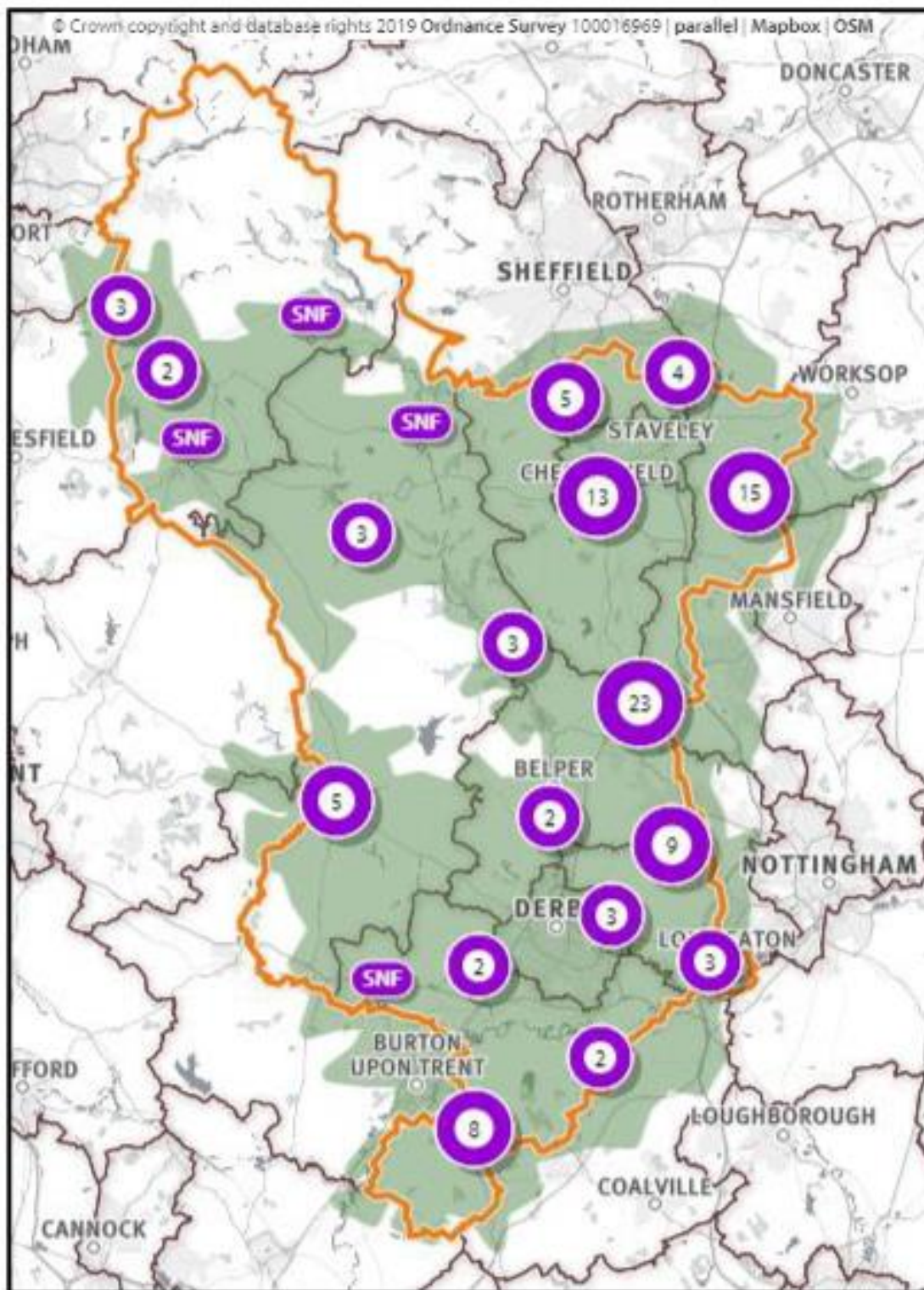
“Thank you. I feel that I’m doing the dvd with a group of friends you list the names and because we know them it’s still like the class as I said when you first sent the dvd I didn’t feel I was doing them on my own”.

A full evaluation of the Strictly No Falling programme and its response to the COVID-19 pandemic has been commissioned by Age UK Derby and Derbyshire and is scheduled for publication in January 2022.

3.2 Distribution of Strictly No Falling classes across Derbyshire

An analysis carried out in 2019 demonstrated that 97% of people aged 65 years and over lived within a 10-minute car journey of a SNF class⁸⁴. Figure 29 below shows the location of SNF classes in Derbyshire; the green area depicts 10-minute travel time by car.

Figure 29: Location of Strictly No Falling classes in Derbyshire and Derby, 2014/2015



SOURCE: 'Strictly No Falling' (SNF) Class Mapping: 2014/15 & 2018/19 classes, Derbyshire County Council.

3.3 Take up of Strictly No Falling classes

Details about SNF attendees were obtained from the service provider, Age UK Derby and Derbyshire, for the period 01/01/2021 to 18/11/2021. A total of 1233 records were obtained; of these, 883 had a Derbyshire postcode and 17 had a Derby postcode. Of the 883 with a Derbyshire postcode, 546 were aged 65 and over and had a known age group; of these 546:

- 524 had a known gender.
- 128 had an ethnicity recorded.
- 91 had the presence / absence of a disability recorded.

The analyses provided below concern only those participants resident within Derbyshire who were recorded as being aged 65 years and over.

Note that these data were captured over a period of approximately 10.5 months, during which both service provision and service uptake will have been impacted by the consequences of managing the pandemic. The rates given below cannot therefore, be interpreted as annual rates and should not be interpreted as indicative of uptake in times preceding or following the exceptional circumstances brought about by the pandemic.

3.3.1 Data quality limitations

Collecting data on attendance is challenging for instructors, all the more so when classes are run remotely. Age UK, as providers of the SNF programme, are not contractually required to routinely collect data related to falls risks, such as home condition or living status, from attendees. They are also not contractually required to collect data on any pre-existing health conditions from participants, where these do not inhibit attendance at an SNF class. The dataset therefore contains a number of missing values; this should be born in mind when interpreting the findings of the following analyses.

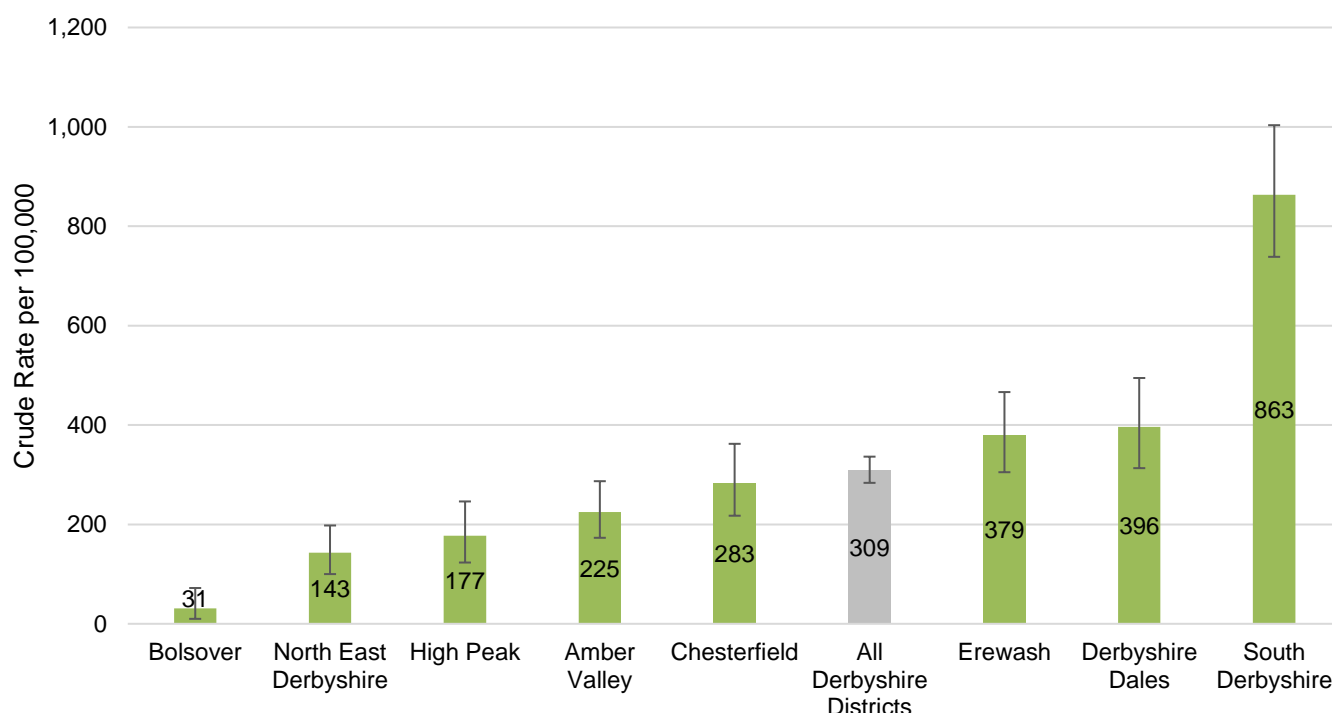
Rates calculated from the SNF data could not be directly age standardised due to the relatively small number of SNF users for whom data was available on age and geography. An alternative when dealing with small numbers is to use indirect standardisation to calculate standardised admission ratios (SAR). However, both the direct and indirect standardisation methods require age to be provided for all data, and this was missing from a large proportion (62%) of the SNF records available for analysis. The decision was made therefore, to use crude rates which enabled the data from participants for whom information on age was missing to be included and also allowed crude rates to be calculated by district.

It should be noted however, that it is highly likely that a significant proportion of the SNF programme's usual attendees would have been amongst those classed as "clinically extremely vulnerable" and would therefore have been amongst those required / advised to shield through this period. This will have had an impact on attendance rates that cannot, unfortunately, be quantified.

3.3.2 Take up of Strictly No Falling classes by district

Postcode data was available for 883 SNF attendees who were resident within Derbyshire, allowing these to be categorised by district.

Figure 30: Derbyshire SNF users aged 65 years and over, (rate per 100,000), by district



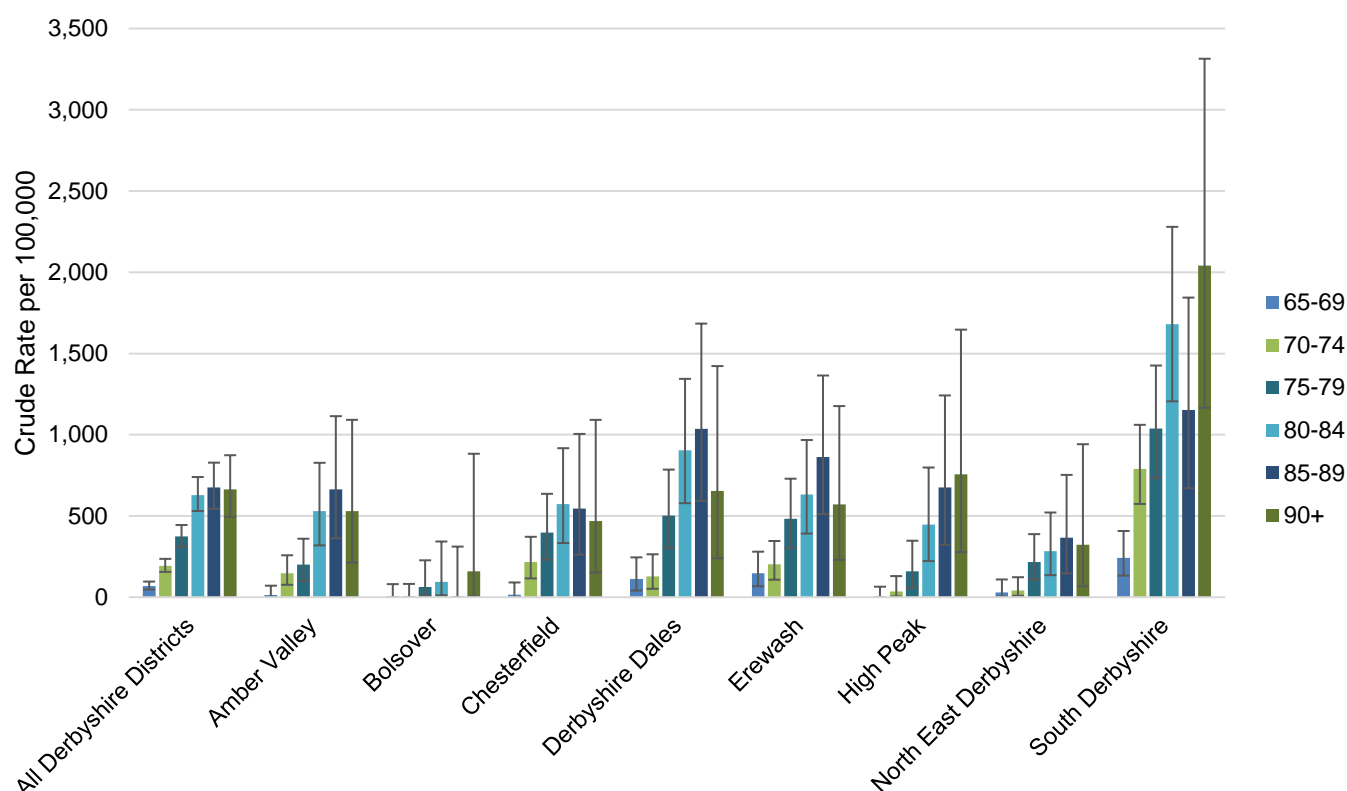
Key findings:

- South Derbyshire was the only district with a significantly higher crude rate of SNF attendance (863 users per 100,000) than the Derbyshire average (309 per 100,000). The South Derbyshire crude rate was also significantly higher than that of all other districts and boroughs, indicating that SNF attendance was significantly higher in South Derbyshire than in the rest the county through this period.
- Bolsover had a significantly lower rate of attendance (31 per 100,000) than any of the other districts and boroughs, or the county as a whole. This indicates that SNF attendance was significantly lower in Bolsover than in the rest the county through this period.
- North East Derbyshire (143 per 100,000) and High Peak (177 per 100,000) also had significantly lower rates of SNF attendance than were seen in Derbyshire as a whole. This indicates that, although higher than the very low attendance rate seen in Bolsover, SNF attendance was significantly lower in both of these districts than in the rest the county through this period.
- Rates of SNF attendance in Erewash (379 per 100,000) and Derbyshire Dales (396 per 100,000) were higher than those for Derbyshire (309 per 100,000), whilst those for Amber Valley (225 per 100,000) and Chesterfield (283 per 100,000) were lower than those for Derbyshire. However, none of these differences achieved statistical significance. This indicates that SNF attendance in these areas was similar to that for Derbyshire as a whole.

3.3.3 Take up of Strictly No Falling classes by age

Of the total 883 SNF attendees who were resident in Derbyshire, information on age was available for 587. Of these, 546 were aged 65 years and over. These 546 were grouped into 5-year age groups for analysis shown below.

Figure 31: Derbyshire SNF users aged 65 years and over (rate per 100,000), by age group



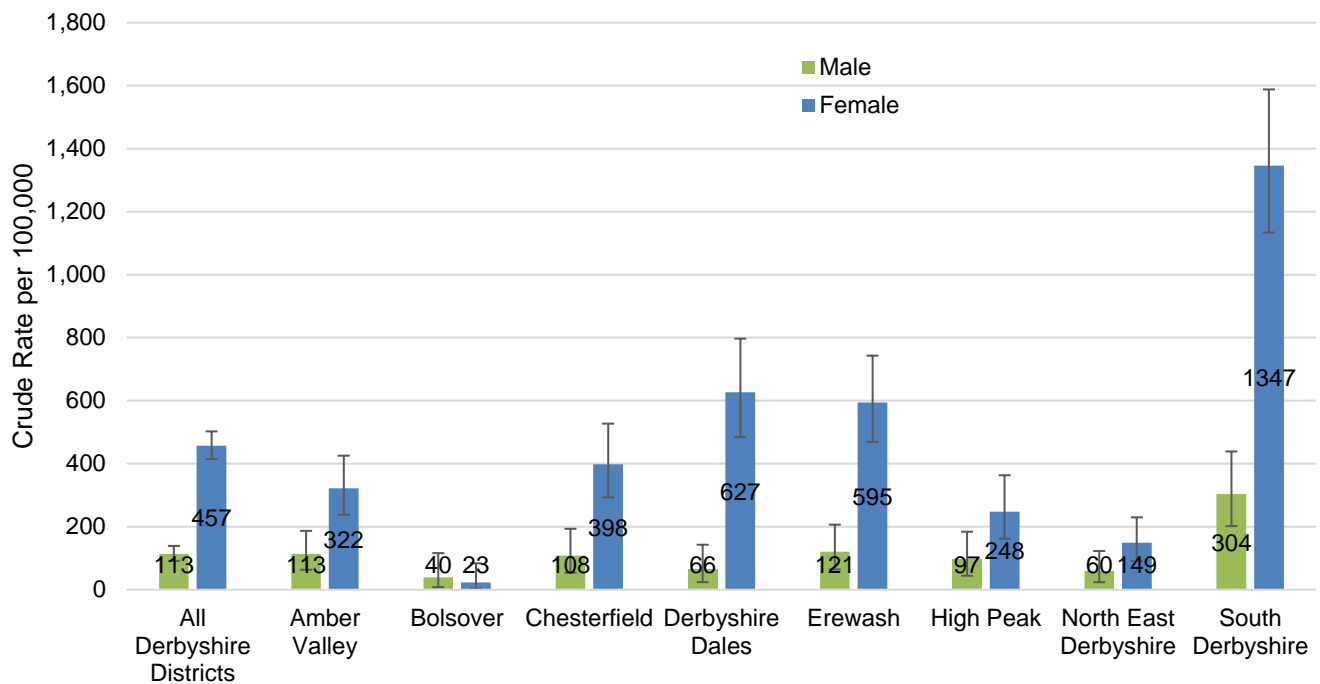
Key findings:

- Note that the data available for Bolsover was extremely limited; Bolsover was therefore excluded from this analysis.
- The crude rate of attendance at SNF classes increased significantly across the 5-year age groups up to age 89, although the increase in rate only achieved significance up to age 84. This suggests that increasing age significantly increases the uptake of SNF classes across Derbyshire as a whole.
- At district level, where data was available, an increase in the SNF attendance rate was seen across all districts for all age groups up to age 79, although that increase did not always achieve statistical significance. No significant differences in SNF attendance rates were seen amongst the groups aged 80 and over. This suggests that the need for SNF classes was similar across all age groups, and likely to be proportionate to the population numbers within each age group.

3.3.4 Take up of Strictly No Falling classes by gender

Of the 546 Derbyshire residents who were SNF attendees and aged 65 years and over, data on gender was also available for 524, allowing these to be broken down by gender and district.

Figure 32: Derbyshire SNF users aged 65 years and over (rate per 100,000), by gender



Key findings:

- The crude rate of SNF attendance was significantly higher in females (457 per 100,000) than in males (113 per 100,000). This suggests that uptake of SNF services was greater in females than in males in Derbyshire through this period.
- At district-level, the crude rate of SNF attendance was significantly higher in females than in males in 5 districts (Amber Valley, Chesterfield, Derbyshire Dales, Erewash and South Derbyshire). In 2 districts (High Peak and North East Derbyshire), the crude rate of SNF attendance was also higher in females than in males, although these differences did not achieve significance. In one district, Bolsover, the crude rate of SNF attendance was higher in males than in females; this difference also did not achieve significance. These findings indicate that SNF attendance was higher in females than males across 5 districts of the county (Amber Valley, Chesterfield, Derbyshire Dales, Erewash, and South Derbyshire), but not in the remaining 3 districts (Bolsover, High Peak, and North East Derbyshire), where attendance numbers were similar between males and females.
- In males, at district level, South Derbyshire had a crude rate of SNF users of 304 per 100,000, which was significantly higher than that of 6 districts. The exception was Erewash where, although the crude rate of SNF users was higher amongst males, the difference did not achieve statistical significance.

3.3.5 Take up of Strictly No Falling classes delivered remotely

In this dataset covering 10.5 months of 2021, 30 attendances were recorded as being at remotely delivered sessions. These sessions included Chair Based Exercises, Otago, Tai Chi or Qigong delivered via Zoom.

No records are available for support delivered via telephone, or for the use of any other media used for remote support through this period.

Feedback on the delivery of remote support obtained from service users through this period suggests that remote delivery was an acceptable option under the circumstances of the pandemic. Feedback also indicates that the ongoing contact and support was highly valued by those that participated.

It is anticipated that the findings of an evaluation of the Strictly No Falling programme, due to be published in January 2022, will provide valuable local intelligence that can be used to inform local decision making around the relative merits of continuing remote delivery of falls prevention exercise classes to enhance the value of face-to-face classes and to increase the reach of the programme, particularly in a rural county with limited public transport services in some of its more remote areas.

Consideration should be given to how meaningful data on the uptake of remote services can be captured in future.

4. SUMMARY

The SNF data reported in this Position Statement were collected during the second year of the SAR-CoV-2 pandemic, a period when both service delivery and service use were still being disrupted by the changing public health measures imposed to manage the spread of the virus.

The population group targeted by Strictly No Falling services is primarily the over 65-year-olds in Derbyshire. This group of people will have included amongst their number those deemed to be the most clinically vulnerable who, therefore, faced the most stringent of the pandemic social isolation regulations. The effects of this will have been two-fold. On the one hand, people will have been less able to attend

group classes, and possibly also less willing to risk exposure to the virus in order to attend. On the other hand, the task of keeping Strictly No Falling classes running by any means through the third national lockdown implemented on 6 January 2021, and then its stepwise removal through to the reopening of the economy in July 2021, will have presented significant challenges to its providers.

Great efforts were made to mitigate the effects of the pandemic, and for the first time Strictly No Falling classes were delivered remotely in Derbyshire. The service provider, Age UK, and the individual instructors who run the sessions, are to be commended for what they achieved in a short time scale and under challenging conditions.

To date, research into the relative benefits and dis-benefits of face-to-face versus remote delivery of interventions designed to increase physical activity has been inconclusive^{85,86}, therefore how effective the remote SNF sessions have been at achieving the primary outcomes of the service during the pandemic merits investigation. Consideration should be given to the evaluation of the Strictly No Falling programme and its findings, due to be published in January 2022. This will provide local intelligence that should be used to inform local decision making around future modes of delivery.

Face-to-face delivery of exercise interventions allows trainers to monitor participants as they exercise, enabling them to ensure that participants are carrying out the exercises safely and with fidelity, thus maximising the effectiveness of the exercise programme. Face-to-face delivery also allows the trainers to monitor the progress of participants and to provide individual adjustments and progressions as needed.

For participants, face-to-face classes offer the opportunity not only to participate in an effective, evidence-based exercise programme, but also to meet other people in the same position and thus benefit from peer support. Face-to-face classes likely also deliver wider benefits beyond those of simply improving physical function; benefits such as increased social connectedness, reduced loneliness and reduced social isolation have been suggested. It has also been suggested that attendance at face-to-face exercise classes can foster engagement with the exercise intervention and to increase compliance with the minimum exercise requirements⁸⁷.

Because both social isolation and loneliness have a bidirectional relationship to falling^{38,39}, consideration should be given to maximising the benefits of the social interaction that face-to-face classes facilitate as far as possible⁴⁰. Whether remote delivery also achieves these benefits is the subject of ongoing research^{88,89}.

There is evidence that the social elements of falls prevention exercise programmes enhance their effectiveness and may, alone, act to reduce the risk of falling⁹⁰. Whether this is achieved as a by-product of the physical activity required to achieve social interaction, via improvements in mental health and wellbeing or via some other yet unidentified mechanism remains to be determined. The inclusion of elements focused on social interaction in exercise programmes also acts to enhance adherence and attendance^{91,92}. Overall, the available evidence indicates that social contact is an important facilitator that supports engagement with falls prevention exercise programmes^{90,91,92}.

Experience with remote access to training, education and support has undergone a rapid and profound change through the pandemic period, leaving even the older members of the population more willing to accept and utilise remote resources than was the case pre-pandemic⁹³. It is likely therefore that maintaining a remote delivery option for access to Strictly No Falling classes as we all learn to live with SARS-CoV-2 will increase access in a rural county, increase the reach of the programme to a wider audience and provide increased opportunities for exercise, whilst also providing a degree of social support.

Consideration should be given to how social interaction can be achieved and maintained whenever Strictly No Falling classes are delivered remotely in Derbyshire.

The sector of the population served by the Strictly No Falling programme is very likely to have experienced a significant degree of physical deconditioning through the preceding year and much of 2021⁹⁴.

Deconditioning refers to the changes in the body that occur during a period of inactivity, being sedentary for a period of time or a period of intellectual and social under stimulation. Although the physical effects of deconditioning can be reversed over time, this becomes more challenging with increasing age.

Deconditioning therefore presents increased risks for people over the age of 65, including the loss of muscle mass and strength, increased balance and gait problems and decreased cardiovascular and respiratory capacity. Individually and in combination these factors make it more difficult for older people to maintain their normal activities of daily living or to participate in their usual sport or recreational activities. The result of deconditioning can therefore be a significantly increased risk of falls and fractures⁹⁵.

The impacts of the pandemic are not yet evident in the data, but active surveillance should be undertaken to ensure that these are detected as early as possible and to ensure that timely and appropriate actions are implemented to support the individuals affected.

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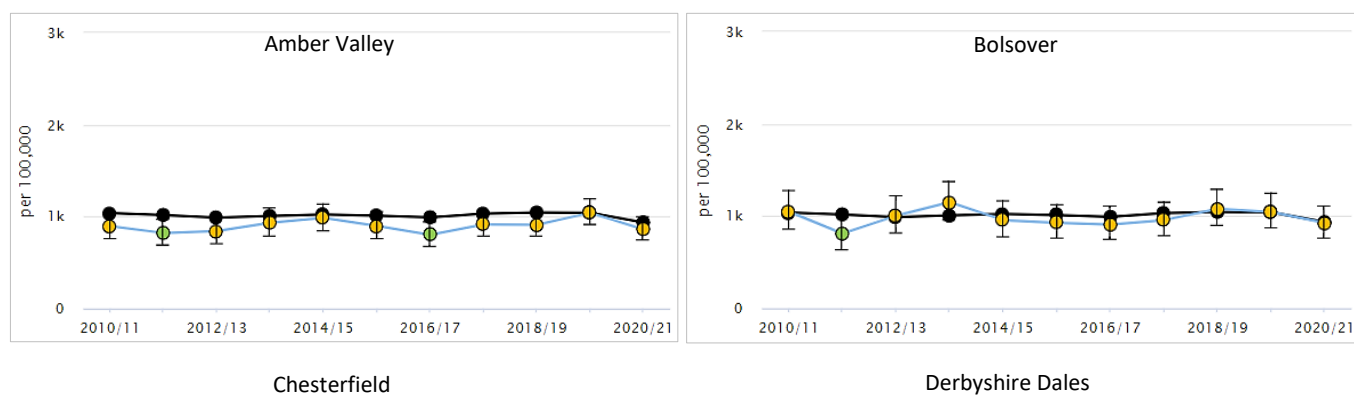
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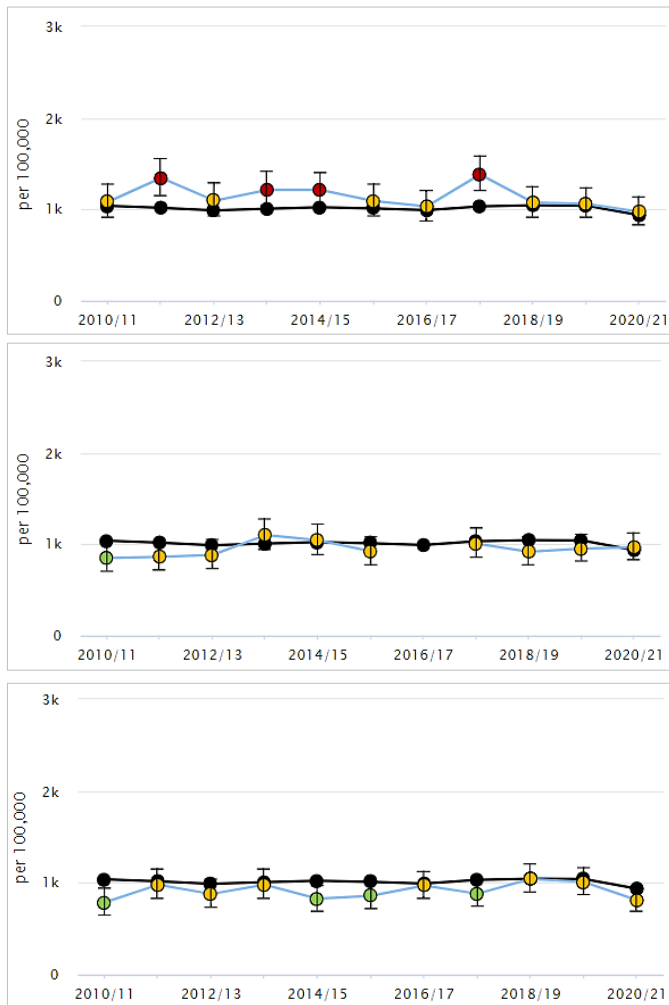
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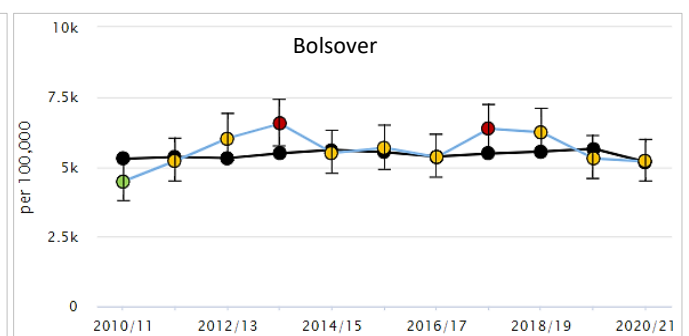
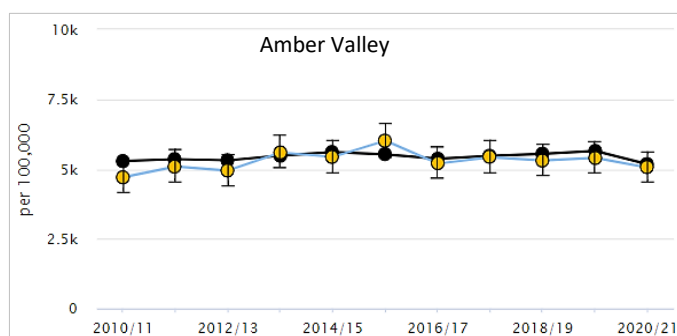
6. APPENDIX 1

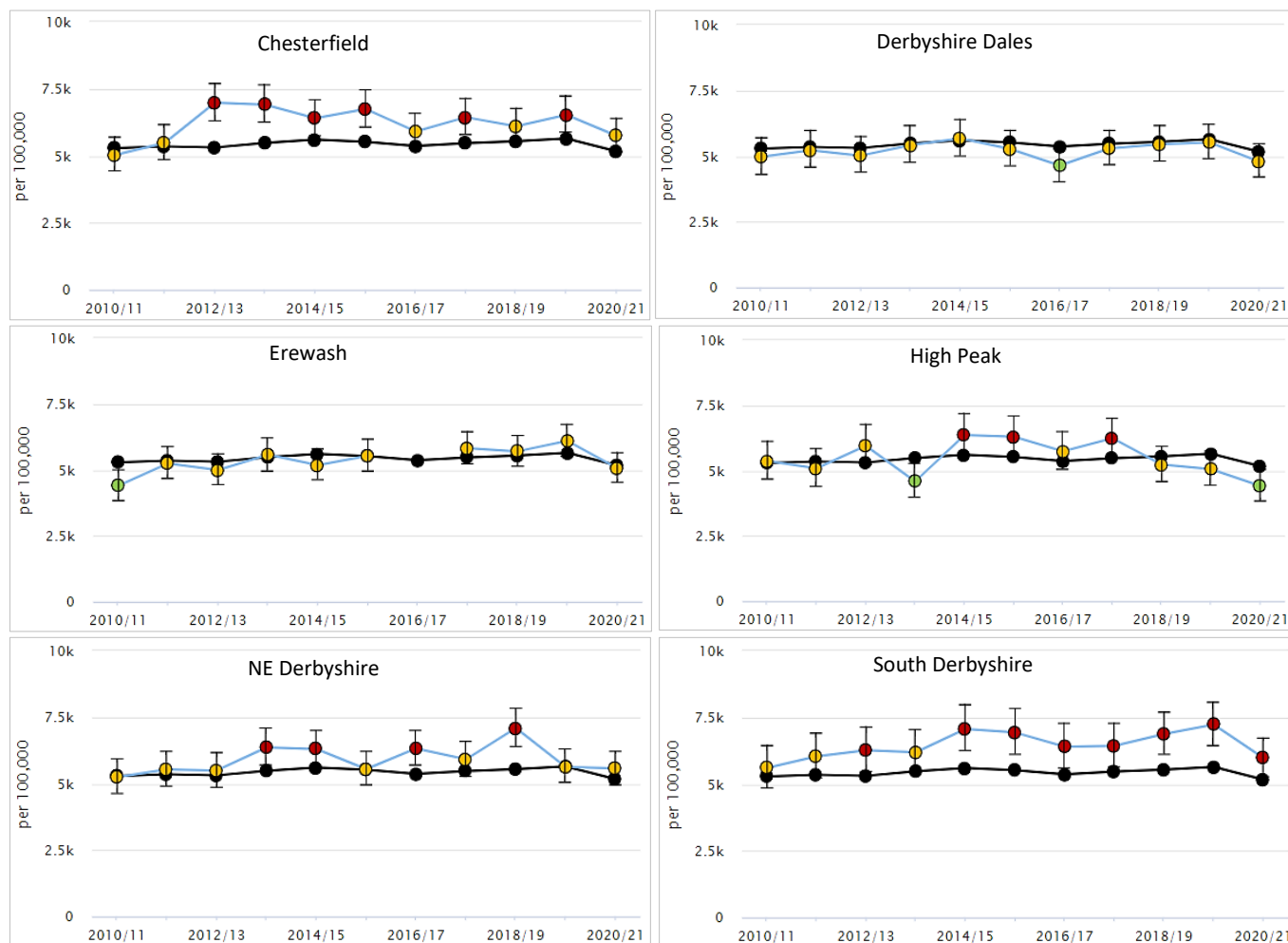
6.1 Emergency hospital admissions due to falls in people aged 65-79



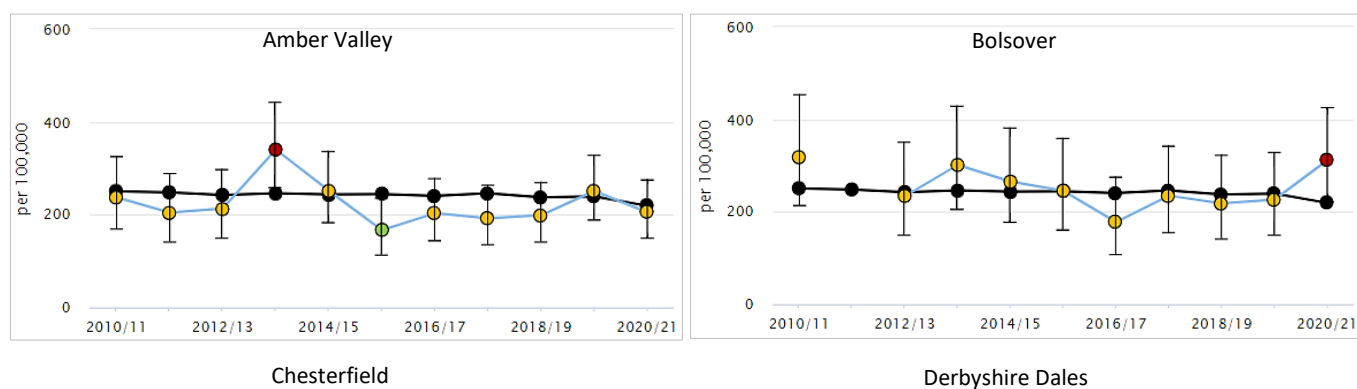


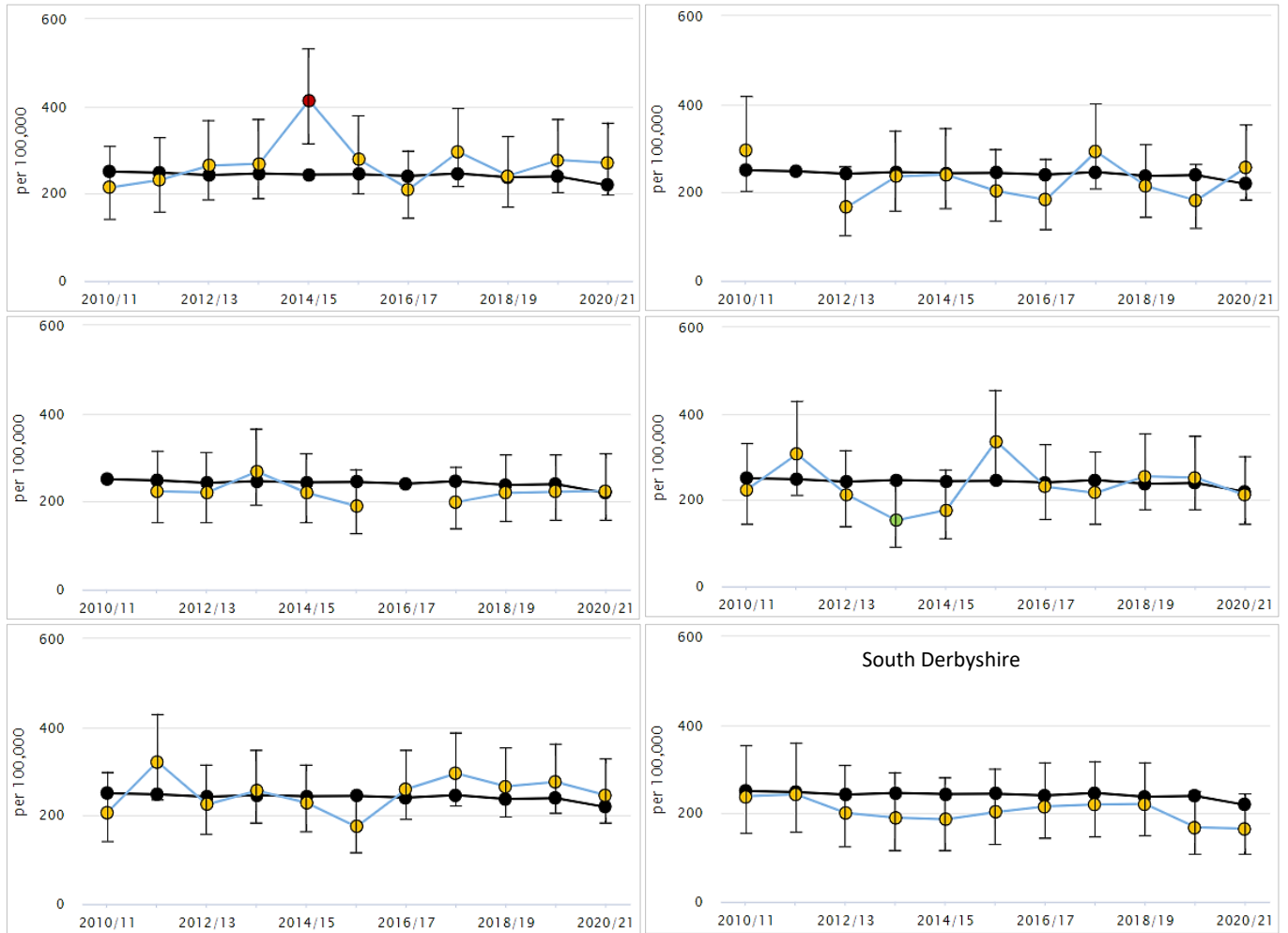
6.2 Emergency hospital admissions due to falls in people aged 80 and over





6.3 Hospital admissions due to hip fractures in people aged 65-70





6.4 Hospital admissions due to hip fractures in people aged 80 and over

